



National Assessment and Accreditation Council
Bangalore – 560 072

SELF-STUDY REPORT

(Cycle - I)

Submitted by



St. Xavier's Catholic College of Engineering
Chunkankada, Nagercoil – 629 003
March 2017

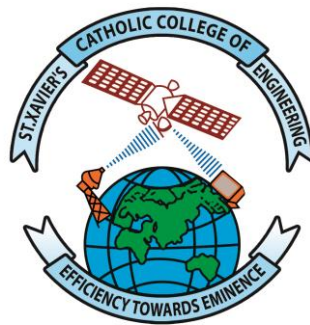


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Preface

The uplift of the rural youth is one of the major concerns of our country to ensure a sustainable development. To fulfil such a social responsibility and provide quality professional education at an affordable cost, the R.C. Diocese of Kottar started St. Xavier's Catholic College of Engineering in 1998. The College aims at providing high quality professional education towards developing technically empowered humane society. Presently, the college is managed by R.C Diocese of Kuzhithurai under the chairmanship of Bishop Most Rev. V. Jerome Dhas SDB. The college offers 6 UG, and 12 PG programmes, and PhD level research in five departments. All its courses are approved by the AICTE and are affiliated to Anna University, Chennai. The college is taking numerous steps to enhance quality in all the areas related to teaching, learning, research, infrastructure, students' welfare etc.

Further, to improve its quality and fine tune its activities on par with the needs of the stakeholders and demands of highest standards, accreditation from eminent body like the NAAC has been identified as a most important task, and we hereby submit the Self Study Report of our college for the last four academic years. The facts and figures given in this SSR will definitely showcase the quality laden work of the college, and we are sure that the appreciation we receive from the evaluation system of NAAC will bring new laurels to the institution.

Dr. S. Joseph Sekhar
Principal

**St. XAVIER'S CATHOLIC COLLEGE OF ENGINEERING**

(AN ISO 9001:2000 CERTIFIED INSTITUTION)

CHUNKANKADAI, NAGERCOIL - 629 003, KANYAKUMARI DISTRICT, TAMILNADU

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G.O.(M.S.) No. 408 Dated 11-08-1998)Approved by AICTE, New Delhi
F.No. 732-52-181 (NDEG) ET/97 Dated 22-07-1998Affiliated to Anna University, Chennai
G.O. MS. No. 25 Higher Education K2 Dept. Dated 23.01.2002

SXCCE/NAAC/2017-02

02.05.2017

To

The Director
National Accreditation and Assessment Council
P.O Box No.1075
Nagarbhavi
Bangalore – 560072

Sir,

Sub: NAAC Accreditation - Submission of SSR – Reg.
Ref: Your email dated 24-04-2017.
Track ID: TNCOGN27134

With reference to your email dated 24th April 2017, we hereby submit five hard bounded copies and a soft copy of the Self Study Report (SSR) of our college along with a Demand Draft (No: 898617438 dated 26-04-2017) for Rs.3,45,000/- (Rupees Three Lakhs Forty Five Thousand Only) drawn from Indian Overseas Bank in favour of 'The Director, NAAC' payable at Bangalore towards the Accreditation Fee. The report has been uploaded in the college website: www.sxcce.edu.in. Moreover documentary evidence for the data uploaded in MHRD website (<http://aishe.gov.in>) is also enclosed.

I request that the SSR and the relevant documents may please be considered for further process.

Thanking you,

Yours Truly,

PRINCIPAL**Dr. S. JOSEPH SEKCHAR, M.E., Ph.D.**
PRINCIPAL,
St. XAVIER'S CATHOLIC COLLEGE OF ENGINEERING
CHUNKANKADAI,
NAGERCOIL - 629 003**Enclosures:**

1. Demand Draft
2. Proof for the data submitted to AISHE
3. Five hard bounded copies of SSR
4. A soft copy of SSR



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List of Abbreviations

ACE	- Association of Computer Engineers
ACM	- Association for Computing Machinery
AE	- Applied Electronics
AICTE	- All India Council for Technical Education
AIDS	- Acquired Immune Deficiency Syndrome
AIMA	- All India Management Association
AMC	- Annual Maintenance Contract
ARM	- Advanced RISC Machine
API	- Academic Performance Indicator
ASTM	- American Society for Testing and Materials
ATE	- Aptitude Test in Engineering
BARC	- Bhabha Atomic Research Centre
BC(M)	- Backward Class Muslim
BIM	- Building Information Modeling
BRIGITZ	- Brigade of Information Technology
BSNL	- Bharat Sanchar Nigam Limited
CA	- Consortium Allotment
CAD	- Computer Aided Design
CAT	- Common Admission Test
CCNA	- Cisco Certified Network Associate
CD	- Compact Disc
CE	- Civil Engineering
CECRI	- Central Electro Chemical Research Institute
CEM	- Construction Engineering and Management
CET	- Common Entrance Test
CETA	- Centre of Excellence in Training and Applications
CFD	- Computational fluid Dynamics
CI	- Control and Instrumentation Engineering
CN	- Communication and Networking
CRPF	- Central Reserve Police Force
CRT	- Cathode-Ray Tube
CS	- Communication Systems
CSE	- Computer Science and Engineering
CSI	- Computer Society of India
CSIR	- Council for Scientific and Industrial Research
CSS	- Cascading Style Sheets
CTS	- Cognizant Technology Solutions
DELNET	- Developing Library Network
DIC	- District Industries Centre
DST	- Department of Science & Technology
DVD	- Digital Versatile Disc
ECE	- Electronics and Communication Engineering
EDI	- Entrepreneurship Development Institute
EDUSAT	- Educational Satellite
EE	- Energy Engineering
EEE	- Electrical and Electronics Engineering
ELECTROS	- Electronic Society
ESI	- Employee State Insurance

FACE	- Focus Academy for Carrier Enhancement
FDP	- Faculty Development Programme
FPGA	- Field Programmable Gate Array
FOSS	- Free and Open Source Software
FWF	- Austrian Science Fund
FYMC	- Faithfully Yours Management Consultants
GA	- Government Allotment
GATE	- Graduate Aptitude Test in Engineering
GMAT	- Graduate Management Admission Test
GRE	- Graduate Record Examinations
HiPC	- High Performing Computing
HIV	- Human Immunodeficiency Virus
HoD	- Head of the Department
HPCCloud	- High Performance Computing on Cloud
HR	- Human Resource
HRA	- House Rent Allowance
HTML	- Hyper Text Markup Language
IAS	- Indian Administrative Service
IBS	- International Business Skills
ICASME	- International Conference on Advances in Sustainability of Materials and environment
ICEETS	- International Conference on Energy Efficient Technologies for Sustainability
ICGHPC	- International Conference on Green High Performance Computing
ICT	- Information and Communication Technology
ICTACT	- ICT Academy of Tamil Nadu
IEEE	- Institute of Electrical and Electronics Engineers
IEEE WIE	- IEEE Women in Engineering
IE(I)	- Institution of Engineers (India)
IET	- Institution of Engineering and Technology
IGBT	- Insulated Gate Bipolar Transistor
IIT	- Indian Institute of Technology
IoT	- Internet of Things
IPDPS	- International Parallel and distributed processing Symposium
IPS	- Indian Police Service
ISHRAE	- Indian Society of Heating, Refrigerating and Air Conditioning Engineers
ISSN	- International Standard Serial Number
ISRO	- Indian Space Research Organization
ISTE	- Indian Society for Technical Education
IT	- Information Technology.
JCO	- Junior Commissioned Officer
JSP	- Java Server Pages
KKLN	- Kanyakumari Local Network
LCD	- Liquid Crystal Display
LED	- Light Emitting Diode
LIC	- Life Insurance Corporation
MAT	- Management Aptitude Test
MBA	- Master of Business Administration

MBC	- Most Backward Class
MCA	- Master of Computer Applications
ME	- Medical Electronics
MECH	- Mechanical Engineering
MEGX	- Mechanical Engineer's Guild of Xavier's
MHRD	- Ministry of Human Resource Development
MOOC	- Massive Open Online Course
MoU	- Memorandum of Understanding
MS	- Modernization and Sustainability
MSME	- Micro, Small and Medium Enterprises
MVP	- Minimum Viable Product
NAAC	- National Assessment and accreditation Council
NBA	- National Board of Accreditation
NCAIC	- National Conference on Advances in Image Processing and Communication
NCC	- National Cadet Corps
NCIESIT	- Innovative Electronics Systems and Information Technology
NCRICE	- National Conference on Recent Innovations in Communication and Electronics Systems
NCRTCT	- National Conference on Recent Trends in Computer Technology
NCSTC	- National Council for Science and Technology Communication
NDL	- National Digital Library
NET	- National Eligibility Test
NIWE	- National Institute of Wind Energy
NMEICT	- National Mission on Education through Information and Communication Technology
NPTEL	- National Programme on Technology Enhanced Learning
NRI	- Non Residence Indian
NSS	- National Service Scheme
NSTEDB	- National Science and Technology Entrepreneurship Development Board
OHP	- Overhead Projector
OOP	- Object Oriented Programming
OPAC	- Online Public Access Catalogue
OBC	- Other Backward Class
OC	- Open Competition
PCB	- Printed Circuit Boards
PCBA	- Printed Circuit Board Assembly
PED	- Power Electronics and Drives
PEO	- Programme Educational Objectives
PF	- Provident Fund
PG	- Post Graduate
PHP	- Personal Home Page
PID	- Proportional Integral Derivative
PLC	- Programmable Logic Controller
PMSS	- Prime Minister's Scholarship
PO	- Programme Outcomes
PPT	- Power Point
PSO	- Particle Swarm Optimization

PWM	- Pulse Width Modulation
RCC	- Regional Cancer Center
R&D	- Research and Development
REACH	- Resplendent Engineering Association for Civil Heritage
REIN	- Renderings for Energizing Indian Nation
RM	- Repeated Measures
RO	- Reverse Osmosis
RRC	- Red Ribbon Club
SAE	- Society of Automotive Engineers
SC/ST	- Scheduled Castes/Scheduled Tribes
SCADA	- Supervisory Control and Data Acquisition
SE	- Structural Engineering
SEE	- Society of Electrical Engineers
SERB	- Science and Engineering Research Board
SESI	- Solar Energy Society of India
SLET	- State Level Eligibility Test
SMS	- Short Message Service
SPMR	- Strategic Product Manager
SQL	- Structured Query Language
SXCCE	- St. Xavier's Catholic College of Engineering
TA/DA	- Travelling Allowance/Dearness Allowance
TANCET	- Tamil Nadu Common Entrance Test
TASM	- Turbo Assembler
TCS	- Tata Consultancy Service
TDS	- Total Dissolved Solids
TECH MERZ	- Technology Towards Mercy
TiE	- The Indus Entrepreneurs
TN	- Tamil Nadu
TNPSC	- Tamil Nadu Public Service Commission
TOC	- Total Organic Carbon
TOFEL	- Test of English as a Foreign Language
TQM	- Total Quality Management
UAE	- United Arab Emirates
UG	- Under Graduate
UGC	- University Grants Commission
UK	- United Kingdom
UPSC	- Union Public Service Commission
US	- United States
UTM	- Universal Testing Machine
UV	- Ultra Violet
VLSI	- Very Large Scale Integration
VOC	- V O Chidambaranar
Wi-Fi	- Wireless Fidelity
WoS	- Web of Science
XACA	- Xavier's Association of Computer Applications
XMA	- Xavier's Management Student Association
YEC	- Youth Entrepreneurship Challenge
YES	- Youth Entrepreneurship Summit
YRC	- Youth Red Cross

Executive Summary

The need for professional education at affordable cost has been identified as the major area to be concentrated in rural areas for uplifting the young generation towards developing our country as a powerful nation. To fulfil this need and develop a technically empowered humane society the Roman Catholic Diocese of Kottar in Kanyakumari District started St. Xavier's Catholic College of Engineering with the committed involvement of Clergy and Laity under the guidance of then bishop Most Rev. Leon A. Tharmaraj. Presently with the same spirit, this Christian minority institution is being owned and managed by the R.C diocese of Kuzhithurai under the chairmanship of bishop, Most Rev. Dr. V. Jerome Dhas.

Affiliated to Anna University and approved by AICTE, St. Xavier's Catholic College of Engineering began with 120 students in 1998 to pursue 4 Under Graduate courses and now standing tall and robust with a yearly intake of 870 in 6 permanently affiliated Under Graduate courses, 12 Post Graduate courses and 5 University recognized research departments. The total strength of college has crossed 2500 students in which female participation is 53 percentage. In order to cope with the rapid advances in engineering and technology and the increasing requirement of quality in teaching and learning process, the college has taken several steps. To further reinforce its quality in service, it is tuning all its processes towards getting accreditation from NAAC. Therefore, the college has prepared the Self-Study Report, which echoes its commitment in imparting higher education in excellence, and summarizes the same as follows.

Curricular Aspect:

The vision, mission, objectives, values and quality policy of the college have been well-defined and everyone involved in this noble task are guided to reflect the same in all their activities. Even though the curriculum is formulated by the concerned university, the college has taken several measures to fulfil its quality requirements. It has mechanisms to interact with industries, research organizations and affiliating university to enrich the curriculum. In this regard, 22 MoUs with various organizations were signed and few of our faculty members have become the members of the board of studies of the affiliating university. To further identify the components of curriculum enhancement and deliver the same accordingly, our faculty members attended 1460 faculty development courses, workshops and seminars.

The faculty members and students are provided with video lectures of eminent professors through the college automation system, and the videos are available for view and download from any system inside the campus. Similarly, all the E-journals can be seen and downloaded from any laptop or PC which can access the college server through the high-end network facility in the campus. This also supports to fine-tune the curriculum according to the feedback from stakeholders. Apart from the above facilities, to ensure the freedom in the use of horizontal mobility, the students were given with 31 skill-oriented programmes relevant to regional and global employability skills, 43 certificate courses and 146 enrichment programs. The professional associations have organized more than 100 industrial visits and 103 special events to strengthen the curriculum. With the help of various bodies, the feedback from the stakeholders on the curriculum is being obtained and suitable measures are taken to improve the same with appropriate analysis.

Teaching, Learning and Evaluation:

The students in the UG and the PG programmes are admitted through the single window counselling of Government of Tamil Nadu and Consortium of Self-financing Colleges, as per the norms applicable to Christian minority institution. The admission

committee is taking numerous steps for the wide publicity of the strengths of the college by keeping transparency in projecting the same and creating a demand in the public through its well defined admission system. The committee also closely monitors the entry level quality of the admitted students and gives suggestions for the appropriate bridge courses and the admission strategies on par with changing trends in engineering admission. Accordingly, the freshers are exposed to different refresher and skill development programmes. The transformation of all the categories of students in to the main stream is also ensured by a suitable feedback system.

The teaching-learning process is fine-tuned with various strategies to fulfil the vision of the college. The academic schedule has been planned in accordance to the guidelines of the affiliating university, and with appropriate inclusion of co-curricular and extracurricular programmes. The mentor system, having one mentor for each 20 students, is practiced to give personal care and counselling to all the UG students. Based on the suggestions from the mentors and the course-in-charges, special classes have been regularly organized to uplift the slow learners. Regular tests and other continuous assessment mechanisms are also used in the above process. The subject contents are effectively delivered to the students through systematic course file, well planned time table, ICT enabled lectures etc. besides the traditional teaching methods. To ensure this, each faculty member maintains a comprehensive course file which consists of course mapping, extra syllabus, teaching materials, assignments etc. Moreover, the effectiveness of the delivery is cross checked by class committee meetings, course file audit and feedback systems. The co-curricular and extracurricular talents of the students are developed by value added courses, guest lectures, seminars, workshops, conferences etc. In this regard, 15 conferences, 90 workshops and many guest lectures have been conducted, and more than 190 eminent persons from various industries and universities were called to share their expertise during those programmes. To further enhance the knowledge of the students, apart from the regular teaching, special facilities such as NMEICT remote classes, videos of NPTEL, EduSat-Anna University and NDL, MOODLE courses and e-journals of popular publishers are also provided through the college automation system.

Since the quality of the teachers plays a major role for quality education, consistent efforts are being taken to update the knowledge of the faculty and enhance their quality in teaching and learning process. The college has organized more than 150 programmes in this aspect. Moreover, the faculty members are permitted to attend similar programmes in popular institutions and industries. An effective feedback mechanism is used to measure and improve the quality of the faculty members.

The performance of students is evaluated through the centralized Exam Cell, staff feedback, mentor report and feedback of trainers. To have a transparent academic evaluation, the exam cell obtains question papers along with answer keys from concerned faculty members and the scores of the students are displayed through the examination-portal of the college automation software. A suitable mechanism is also available to redress the grievances of students related to the evaluation system. The outcome of this system is the appreciable performance of students in the university examinations. For instance, during the last four years 84% of UG and 94% of PG students have completed their degrees within the minimum stipulated period, besides obtaining 75 and 113 university ranks in UG and PG courses respectively. All the departments are implementing appropriate methods to ensure the attainment of PEO and POs, and the strategies are continuously followed for a sustainable growth. The above aspects are also monitored and fine-tuned with suitable feedbacks from all the stake holders.

Research, Consultancy and Extension:

The college gives adequate concentration on the sphere of research and development. Suitable provisions are made to allocate 15% of the institution's budget for the enhancement of research potential. Moreover, many instruments in the laboratories are procured to meet the research standards. The research cell which has members from all the departments, keeps strengthening the research activities of the college 2010 onwards. With the consistent effort of the cell five departments are currently approved by Anna University as research centres and in which 90 research scholars are pursuing their Ph.D. in full-time and part-time modes. Moreover, 36 faculty members with Ph.D. from leading institutions are involved in uplifting the research potential of the college. The research cell plans and coordinates research oriented programmes, funded research projects and consultancy to improve the involvement of students and staff in research. The research culture is also encouraged by 8 collaborative research projects, visit of 132 research experts and more than 15 conferences. In addition, the members of faculty were deputed to 320 conferences, 193 seminars and 1016 workshops. The faculty members of the college are currently doing three funded research projects and 15 such project proposals have been submitted to Government funding agencies. During the last four years more than Rs. 100 lakhs have been obtained from AICTE, DST, MHRD, NMEICT etc. The DST-Inspire fellowship is also sourced by 6 of our research scholars.

The outcome of our research has yielded more than 320 research articles, having 1475 citations, in leading journals which are indexed in Web of Science, Scopus, Google Scholar etc. with a highest impact factor of 7.896. With this, the publication per faculty has reached to 5.23. The staff and students are allowed to use Urkund and iThenticate software packages to avoid plagiarism in their research publications. Even though the college was able to admit candidates for doctoral research only from 2011, eleven candidates have already completed their Ph.D. with good number of publications. Faculty members with expertise in different areas are involved in consultancy works in association with research institutes, Government organizations and the nearby industries. The profit of the consultancy work is shared between the staff and management in 40:60 ratio.

The college is involved in various social activities through its numerous bodies such as NSS, NCC, YRC, Eco-club, Girl Rising and professional associations. The Outreach Programme Committee of the college is constantly involved in developing the three socially and economically backward villages the college has twinned and is deploying all the supporting systems, available in the college, to uplift the overall status of those villages. The students of the college are also encouraged to take part in any one of the social service organizations to be exposed to exercise their social responsibility.

Infrastructure and Learning Resources:

Development of infrastructure and learning resources are the two major factors to be concentrated for the growth of any technical institution. In order to fulfil the increasing needs of the above, the college is consistently taking serious efforts on par with the current expectations of the stakeholders. The modernized class rooms, seminar halls, discussion rooms and central facilities are the few salient features of the college. The 1020 high-end computers available in the campus are connected to six blade servers and 50 Mbps internet connectivity. To maintain good connectivity fibre optic cables are used. Moreover, the 100% Wi-Fi enabled campus allows the students to access the college automation and e-learning facilities through their lap tops or tabs.

The college library is equipped with various e-resources including 1500 e-journals of popular publishers to support the teaching-learning process as mentioned before. The usage of the library is also monitored with appropriate ICT tools and the necessary updating of

learning materials is undertaken based on the needs of the syllabus, faculty members, research scholars and students. The quality of the library is updated and maintained by the scholarly guidelines of the Library Advisory Board. Further, to provide additional references, the library has been networked with other libraries with appropriate MoUs.

The college is connected with HT power supply and to ensure uninterrupted power, generators of total capacity 570 kVA are installed and all the computers are connected with UPSs of sufficient capacities. The college supports preventive maintenance and the systems for the same are established with appropriate procedures and practices in academic departments and other establishments.

Student Support and Progression:

Since the major portion of the student population belongs to rural and economically backward regions, the college gives utmost importance to draw financial support from various agencies. The poor-but-meritorious Christian minority students are provided with scholarship to an extent of 100 lakh rupees per year. Every year the college is taking all possible initiatives to get more than 180 lakh Rupees as scholarship from various Government and non-government agencies like Minority Welfare Board, SC/ST, BC/MBC, first-graduate financial support schemes of Tamil Nadu. A special cell has also been formed to oversee the financial supports given to SC/ST students. The Placement Cell and Entrepreneurial Cell of the college consistently are working to cater to the needs of the aspirants for job, higher studies and entrepreneurship. In association with the Entrepreneurship Development Institute of India the college has organized 15 events with the financial support of the Government of India. Every year 20 to 40% students get placement through Placement Cell and around 20% students enter into higher studies and research based on their performance in GATE, CAT, TANCET etc. Necessary guidance and support are also given to the students who are at the risk of dropout.

Governance, Leadership and Management:

The college aims at providing excellent professional education with a well-defined vision, mission, objectives and values. And it has also suitable mechanisms to refine and update the above on par with the changes in the national and international scenarios. The roles and responsibilities of everyone in the system have been defined appropriately and the same has been communicated to all in the form of College Manual.

The developmental activities in every level are proposed regularly from the departments and sections, and the same are scrutinized with the help of experts and appropriate proposals are implemented through a proper channel. However, based on the advice from the experts, proposals are also implemented directly from the top level management after proper discussion with the people concerned. The empowerment programmes for the staff and strategies for enrichment are planned based on the analyses of the feedback obtained from all the stakeholders. Every year experts are identified as per the need, and on campus and off campus programmes are being arranged in this regard. Staff welfare schemes and awards have been introduced then and there based on the appraisal systems and grievance-redressal mechanism.

Apart from the regular income, the college works towards obtaining endowments to meet the specific requirements like student awards, research promotions, research facilities, social development etc. To meet the future challenges in the financial constraints, the institution maintains reserve funds and proper strategies are also formulated to find new avenues to improve the financial soundness.

The enhancement of quality in professional education is the immediate need of the college, to overcome the current crisis in the higher education sector. To meet this challenge

the academic audit system has been introduced in association with the IQAC, and all the academic activities are fine-tuned to be in compliance with guidelines of the quality standards. Moreover to give special impetus to raise quality in important areas more than 20 cells have been formed, and objectives and outcomes of the cells have been also formulated. The external experts are highly utilized to train the faculty and staff for the implementation of the quality standards on par with the accrediting agencies.

Innovations and Best Practices:

Eco-friendly and energy-efficient campus is the prime need to meet the stipulations of environment agencies of national and international interest. In this regard, the college has organized green audit in association with HEAL, Nagercoil, and incorporated many energy conservation measures based on the recommendations of the energy audit conducted by the in-house experts. A small solar power plant has been installed, and students and faculty members are doing different researches in renewable energy sources like solar, biomass and biogas. Appropriate strategies are also used to manage the e-waste. To educate the students in current technologies and link the same to the rural population, many innovative steps like exposure programmes, social awareness camps and more than 30 value added courses have been conducted. Moreover, the college organizes a mega event called Tech-Fest every year to display the inventions, research efforts and innovative ideas of the students. The college has many innovative practices to maintain and uphold its quality in the perspective of the local scenario. The important ones are the well-established course file system for effective implementation of curriculum and the value education systems in the campus.

The deployment of various strategies on quality enhancement bring forth the positive response of stake holders and the enthusiastic involvement of the students, staff and parents towards achieving quality standards of the college which encourage the management to proceed this process further. We are very much confident that the enthusiasm and commitment shown by all the members towards this noble cause will sustain our strategies in the long run and make this institution internationally renowned.

SWOC Analysis of the Institution

Strengths:

- This institution is run by a Catholic Christian Diocese, which keeps the reputation and assurance of standard, in reality and in the perception of the public.
- The management is assisted by a well-experienced and committed Governing Council and its sub-committees.
- The management follows systemic approach with roles and responsibilities clearly defined and responsiveness to feedback.
- The practice of democratic processes in decision making, especially in planning and executing programmes and activities.
- Situated on the lap of a beautiful green hill, a healthy atmosphere of eco-friendliness and serenity helps learning and research.
- Good infrastructures and standard laboratories.
- Good library and access to e-journals and other electronic study materials.
- Policy of regular updating.
- Many committed and enthusiastic staff interested in the academic development of the students and their career development.
- Able and well experienced staff, a good number of them having long experience in this institution itself.

- Well qualified staff, a good number of them are Ph.D. holders and a greater number are pursuing Ph.D.
- Ranked high for providing holistic education.
- Five departments are the recognized research centres.
- All the computers in the institution have Internet connectivity and the whole campus is Wi-Fi enabled
- Enthusiastic research ambience among students and staff.
- ICT tools and facilities like NPTEL, NMEICT and EduSat are used in teaching-learning process
- Mentor system to guide and counsel the academic and psychological problems of students.
- Attractive placement records and effective and well-planned placement training.
- College buses ply all over the district to make the journey of the students easy.

Weaknesses:

- A rural college, having few developed industries nearby.
- General lack of motivation among the students due to the current socio-cultural realities
- The number of hostel students is less, as most of the students are from within the district.
- Hardly any staff member of the college stays in the campus.

Opportunities:

- Willingness of the diocese and its people to support and contribute to the growth of the college.
- Stable management with consistent management policies
- MoUs with foreign universities for academic and cultural interchange.
- Enthusiastic alumni placed in good positions around the world
- Cooperative parents.
- Increased demand for quality engineering professionals and opportunities abroad.
- Connected with reputed companies for projects and in-plant training.
- New IT companies sprouting in the district.
- Readiness of many experts to help the college in training and research
- Admission has not gone down compared to other colleges in the district.
- Affiliated to a prestigious university, namely Anna University Chennai.

Challenges:

- Land development for playgrounds and other wider facilities, which need breaking and leveling.
- Competition from nearby colleges.
- General idea that value of engineering studies is diminishing among some people.
- Erratic change of schedules due to unexpected circumstances.
- Developing self-confidence and communication skills of the students.
- Attracting renowned companies to rural colleges for placement drives.
- Ill affordability of the rural parents.
- Decreasing standard of the new students and the study style of mugging up due to the prevailing school education system.

Profile of the College

1. Name and Address of the College:

Name :	St. Xavier's Catholic College of Engineering	
Address :	Chunkankadai, Nagercoil, Kanniyakumari District	
City :	Pin : 629003	State : Tamil Nadu
Website :	www.sxcce.edu.in	

2. For Communication:

Designation	Name	Telephone with STD code	Mobile	Fax	Email
Principal	Dr. S. Joseph Sekhar	O: 04652-232560	9952001816	04652-259664	josephsekhar@sxcce.edu.in
Steering Committee Coordinator	Dr. A. Milton	O: 04652-232560	9442602309	--	milton@sxcce.edu.in

3. Status of the Institution:

Affiliated College



4. Type of Institution:

a. By Gender:

Co-education



b. By Shift:

Regular



5. It is a recognized minority institution?

Yes



If yes, specify the minority status (Religious/linguistic/ any other) and provide documentary evidence.

Religious Minority (Christian)

6. Sources of funding:

Self-financing



7. a. Date of establishment of the college: 22/07/1998

b. University to which the college is affiliated /or which governs the college (If it is a constituent college):

Anna University Chennai

c. Details of UGC recognition:

Under Section	Date, Month & Year (dd-mm-yyyy)	Remarks (If any)
i. 2 (f)	--	--
ii. 12 (B)	--	--

d. Details of recognition/approval by statutory/regulatory bodies other than UGC (AICTE, NCTE, MCI, DCI, PCI, RCI etc.):

Under Section/ clause	Recognition/Approval details Institution/Department Programme	Day, Month and Year (dd-mm-yyyy)	Validity	Remarks
i. AICTE, New Delhi	Ref. No.: Southern/1-2811157348/2016. AICTE F. No.: 730-52-322(E)/ET/98. All UG and PG Programmes.	05-04-2016	2016-2017 One Year	Renewed every year
ii. Anna University, Chennai	467/CAI/Permanent Affln./2014-15. All UG Programmes.	10-11-2014	2014-2015 to 2016-2017 Three Years	Renewed every three years
	02/Affln./CAI//TVL/AU/2016-17/9622. All PG Programmes.	12-05-2016	2016-2017 One Year	Renewed every year

8. Does the affiliating university Act provide for conferment of autonomy (as recognized by the UGC), on its affiliated colleges?

Yes ☒

No ☐

If yes, has the College applied for availing the autonomous status?

Yes ☐

No ☒

9. Is the college recognized

a. by UGC as a College with Potential for Excellence (CPE)?

Yes ☐

No ☒

b. for its performance by any other governmental agency?

Yes ☐

No ☒

10. Location of the campus and area in sq.mts:

Location *	Rural
Campus area in sq. mts.	1,37,587.8
Built up area in sq. mts.	49,450.58

(* Urban, Semi-urban, Rural, Tribal, Hilly Area, Any others specify)

11. Facilities available on the campus (Tick the available facility and provide numbers or other details at appropriate places) or in case the institute has an agreement with other agencies in using any of the listed facilities provide information on the facilities covered under the agreement.

- ☒ **Auditorium/seminar complex with infrastructural facilities:**
 Rock Auditorium with a capacity of 450, AC and AV facility.
 Seminar hall in Nikola Tesla block with a capacity of 150, AC & AV facility.
 Under construction: Auditorium with a capacity of 2300, AC and AV facility. Conference hall with a capacity of 800, AC and AV facility.
 Auditorium. AV hall in library with a capacity of 50.

Sports facilities:

- ☒ Play ground
 Outdoor: Athletic ground, Cricket ground, Football ground, Volleyball ground, Shuttle court-2 and Kabadi ground,
 Indoor: Table tennis, Chess and Gymnasium. All the three are under construction.
 Others: College also uses district stadium for athletic practice, District club facilities for Tennis practice, Officers club for Shuttle practice and Scott Christian College ground for Football, Cricket and Basketball practice.

- ☒ Swimming pool

- ☒ Gymnasium: Under construction.

Hostel

- ☒ Boys' hostel
 i. Number of hostels: 01
 ii. Number of inmates: 101
 iii. Facilities (mention available facilities): Hostel office, Guest rooms with AC, Television and Newspaper reading room, Study lawn, Purified water cooler, Bio Gas and LPG cooking, Dining hall with a seating capacity of 140, Mini gym, Shuttle court and Volley ball ground.

- ☒ Girls' hostel
 i. Number of hostels: 01
 ii. Number of inmates: 116
 iii. Facilities (mention available facilities): Hostel office, Television and Newspaper reading room, Study lawn, Purified chilled water, Bio Gas and LPG cooking, Dining hall with a seating capacity of 140, Shuttle court and Volley ball ground.

- ☒ Working women's hostel

- ☒ Residential facilities for teaching and non-teaching staff
 As all staff members are within 30 Km radius the need for staff quarters does not arise. However, on demand, residential facility to staff is arranged in gents or ladies hostel.

- ☒ Cafeteria

- ☒ Health centre

First aid and Shared ambulance.

- ☒ Health centre staff

Qualified Doctor	Full time	<input type="checkbox"/>	Part-time	<input checked="" type="checkbox"/>
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Qualified Nurse	Full time	<input type="checkbox"/>	Part-time	<input checked="" type="checkbox"/>
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- ☒ Facilities like banking, post office, book shops
College has a cash counter of its own for the benefit of staff and students.
College has a store to meet the day-to-day stationary needs of students.
Post office facility is not available inside the college but Chunkankadai post office is very near to the college. College is having an understanding with Professional courier to meet its paper communication needs.
- ☒ Transport facilities to cater to the needs of students and staff:
Bus: 23; Bolero: 02; Toyoto Innova: 01; Alto: 01; Two wheeler: 01.
- ☒ Animal house
- ☒ Biological waste disposal
- ☒ Generator or other facility for management/regulation of electricity and voltage:
310 KVA generator: 01; 125 KVA generator: 02; 5 KVA generator: 01.
Two high tension 500 KVA main and standby transformers available to manage the electricity needs.
- ☒ Solid waste management facility
- ☒ Waste water management
- ☒ Water harvesting

12. Details of programmes offered by the college (Give data for current academic year)

Sl. No.	Programme Level	Name of the Programme/ Course	Duration in Years	Entry Qualification	Medium of instruction	Sanctioned /approved Student strength	No. of students admitted
1	Under-Graduate	Electronics and Communication Engineering	4	HSc	English	120	98
		Mechanical Engineering	4	HSc	English	120	123
		Electrical and Electronics Engineering	4	HSc	English	60	42
		Computer Science and Engineering	4	HSc	English	120	111
		Civil Engineering	4	HSc	English	60	57
		Information Technology	4	HSc	English	60	40
2	Post-Graduate	Computer Science and Engineering	2	B.E./B.Tech	English	24	7
		Applied Electronics	2	B.E./B.Tech	English	24	15
		Communication Systems	2	B.E./B.Tech	English	24	20
		Medical Electronics	2	B.E./B.Tech	English	18	4
		Communication and Networking	2	B.E./B.Tech	English	24	6
		Control and Instrumentation	2	B.E./B.Tech	English	18	6

		Power Electronics and Drives	2	B.E./B.Tech	English	24	13
		Construction Engineering and Management	2	B.E./B.Tech	English	18	5
		Structural Engineering	2	B.E./B.Tech	English	18	17
		Energy Engineering	2	B.E./B.Tech	English	18	3
		Master of Business Administration	2	Any Degree	English	60	60
		Master of Computer Applications	2	Any Degree/ B.C.A, B.Sc. (Comp., IT)	English	60	52
3	Ph.D.	Electronics and Communication Engineering	As per Anna University Regulation	M.E./ M.Tech.	English	As per Anna University Regulation	
		Mechanical Engineering		M.E./ M.Tech.			
		Electrical and Electronics Engineering		M.E./ M.Tech.			
		Computer Science and Engineering		M.E./ M.Tech.			
		Master of Computer Applications		M.C.A			

13. Does the college offer self-financed Programmes?

Yes ☒

No ☐

If yes, how many?

18 (All)

14. New programmes introduced in the college during the last five years if any?

Yes ☒

No ☐

Number 04

15. List the departments:

Faculty	Departments (eg. Physics, Botany, History etc.)	UG	PG	Research
Engineering and Technology	Computer Science and Engineering	✓	✓	✓
	Electronics and Communication Engineering	✓	✓	✓
	Electrical and Electronics Engineering	✓	✓	✓
	Civil Engineering	✓	✓	--
	Information Technology	✓	--	--
	Mechanical Engineering	✓	✓	✓
Management	Master of Business Administration	--	✓	--
Master in Computer Applications	Master of Computer Applications	--	✓	✓

16. Number of Programmes offered under (Programme means a degree course like BA, BSc, MA, M.Com...)

- a. annual system
- b. semester system
- c. trimester system

17. Number of Programmes with

- a. Choice Based Credit System
- b. Inter/Multidisciplinary Approach
- c. Any other (Specify and provide details)

18. Does the college offer UG and/or PG programmes in Teacher Education?

Yes No ☒

19. Does the college offer UG or PG programme in Physical Education?

Yes No ☒

20. Number of teaching and non-teaching positions in the Institution:

Positions	Teaching faculty						Non-teaching staff		Technical staff	
	Professor		Associate Professor		Assistant Professor					
	*M	*F	*M	*F	*M	*F	*M	*F	*M	*F
Sanctioned by the Management/society or other authorized bodies <i>Recruited</i>	9	3	6	8	72	79	70	17	29	7
<i>Yet to recruit</i>	--	--	--	--	--	--	--	--	--	--

*M-Male *F-Female

21. Qualifications of the teaching staff:

Highest qualification	Professor		Associate Professor		Assistant Professor		Total
	Male	Female	Male	Female	Male	Female	
Permanent teachers							
P.D.F.	1	--	--	--	--	--	1
Ph.D.	8	3	4	5	7	7	34
M.Phil.	--	--	--	--	5	15	20
PG	--	--	--	--	65	55	120
Part-time teachers							
PG	2	--	--	--	--	--	2

22. Number of Visiting Faculty /Guest Faculty engaged with the College:

23. Furnish the number of the students admitted to the college during the last four academic years: (including lateral entry)

Categories	Year 1 2016-2017		Year 2 2015-2016		Year 3 2014-2015		Year 4 2013-2014		Year 5 2012-2013	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
SC	11	6	12	18	25	20	20	23	10	20
ST	--	--	1	--	--	--	1	--	1	0
OBC	298	331	294	355	276	380	267	382	261	408
General	50	33	52	49	76	59	65	74	67	69
Others	--	--	--	--	--	--	--	--	--	--

24. Details on students enrollment in the college during the current academic year (2016-2017 including lateral entry):

Type of students	UG	PG	M. Phil.	Ph.D.	Total
Students from the same state where the college is located	504	200	--	16	704
Students from other states of India	16	8	--	--	24
NRI students	--	--	--	--	--
Foreign students	--	--	--	--	--
Total	520	208	--	--	728

25. Dropout rate in UG and PG (average of the last two batches):

UG

PG

26. Unit Cost of Education:

(Unit cost = total annual recurring expenditure (actual) divided by total number of students enrolled)

(a) including the salary component

Rs. 52,042.27

(b) excluding the salary component

Rs. 17,897.38

27. Does the college offer any programme/s in distance education mode (DEP)?

Yes

No ☒

28. Provide Teacher-student ratio for each of the programme/course offered:

Sl. No.	Programme Level	Programme/Course	Student-Teacher Ratio
1	UG	Electronics and Communication Engineering	16:1
		Mechanical Engineering	15:1
2		Electrical and Electronics Engineering	16:1
3		Computer Science and Engineering	15:1
4		Civil Engineering	16:1
5		Information Technology	14:1

7	PG	Computer Science and Engineering	12:1
8		Applied Electronics	12:1
9		Communication Systems	12:1
10		Medical Electronics	12:1
11		Communication and Networking	12:1
12		Control and Instrumentation	12:1
13		Power Electronics and Drives	12:1
14		Construction Engineering and Management	12:1
15		Structural Engineering	12:1
16		Energy Engineering	12:1
17		Master of Business Administration	15:1
18		Master of Computer Applications	17:1

29. Is the college applying for:

Accreditation: Cycle 1 ☒ Cycle 2 ☐ Cycle 3 ☐ Cycle 4 ☐

30. Date of accreditation* (applicable for Cycle 2, Cycle 3, Cycle 4 and re-assessment only):

NA

31. Number of working days during the last academic year:

248

32. Number of teaching days during the last academic year:

(Teaching days means days on which lectures were engaged excluding the examination days)

188

33. Date of establishment of Internal Quality Assurance Cell (IQAC):

29/08/2016

34. Details regarding submission of Annual Quality Assurance Reports (AQAR) to NAAC.

NA

35. Any other relevant data (not covered above) the college would like to include. (Do not include explanatory/descriptive information)

Criterion I

Curricular Aspects

1.1 Curriculum Planning and Implementation

1.1.1 State the vision, mission and objectives of the institution, and describe how these are communicated to the students, teachers, staff and other stakeholders.

➤ **Vision of the Institution:**

To be an institution of eminence of optimal human development, excellent engineering education and pioneering research towards developing a technically-empowered humane society.

➤ **Mission of the Institution:**

To transform the youth majority of whom are from rural area into top class professionals and technocrats willing to serve local and global society with ethical integrity, by providing vibrant academic experience of learning, research and innovation and stimulating opportunities to develop personal maturity and professional skills, with inspiring and high caliber faculty in a quality and serene infrastructural environment.

➤ **Objectives:**

- To transform our students into fully-functioning human persons and empowering leaders with autonomy and passion for continuous self-learning.
- To equip them with contemporary scientific and technical knowledge with student centered teaching methods.
- To animate them into pioneering researchers and investors.
- To train them to excel with cutting edge technical, entrepreneurial and managerial skills for a successful career.
- To expose them to challenging opportunities of self-discovery and to commit themselves to lead a value-based life of humane service.
- To recruit faculty who inspire the students with their passion for knowledge and transmit knowledge to the students by student-centered creative and innovative teaching and learning methods, lead them by example in high-end researchers, and edify the students with their life of integrity and ethics.
- To provide standard infrastructure, serene and stimulating environment that is most conducive to learning.
- To develop avenues of continuous and responsive collaboration with stakeholders for the optimal development of the students and institution.

➤ **The Quality Policy:**

Attaining global eminence, by achieving excellence in all that we do, in life, education and service.

➤ **Slogan:**

Towards a technically-empowered humane society.

➤ **Values:**

- Excellence that leads to eminence
- Genuineness that leads to authenticity
- Transparency that leads to credibility
- Person-centeredness that leads to family-ness

- Appreciation that leads to high motivation
 - Altruism that leads to humane service
 - Critical thinking that leads to scientific approach
 - Fidelity that leads to responsibility
 - Knowledge that leads to wisdom
 - Innovative research that leads to inventions
 - Hard work that leads to achievements
 - Eco-friendliness that leads to protection of nature
 - Aesthetic campus that leads to serene environment
 - Fiscal discipline that leads to economic sustainability
 - Spirituality that leads to committed service.
 - Feedback that leads to responsiveness
- **Mode of Communication:**
- Academic calendar
 - Prospectus
 - College automation software
 - College website
 - Magazine and Newsletters
 - Freshers' Orientation programme
 - Display boards
 - Course file

1.1.2 How does the institution develop and deploy action plans for effective implementation of the curriculum? Give details of the process and substantiate through specific example(s).

- Academic calendar with annual plan is prepared by the Principal in consultation with all the HODs.
- Based on the expertise of the individual teachers the courses are assigned by the HODs in the department meetings.
- Every course in-charge prepares a course file which contains the following details:
- Course File Verification and Auditing
 - College Vision, Mission, Objectives, Slogan, Quality Policy and Values
 - Department Vision, Mission, Programme Educational Objectives and Outcomes
 - Course Description, Objectives and Outcomes
 - Mapping of Course Outcomes to Programme Outcomes
 - Mapping of Course Outcomes to Vision and Mission
 - Syllabus
 - Extra Syllabus
 - References
 - Concept Map
 - Scheme of Evaluation, Course Plan and Target
 - Course Delivery Plan
 - Class Timetable
 - Staff Workload
 - Past Four Years University Question Papers
 - Notes and Slides Prepared by the Staff
 - Question Papers and Answer Keys
 - Sample Feedbacks

- Sample Assignments
- Sample Class Test Answer Scripts
- Students Assignments Submitted for Participatory Learning
- Feedback on Teaching-Learning Process, Academic Performance Analysis and Adaptive Teaching
- Conducting special Examinations and Classes
- Use of students Seminar, Participatory Learning and Innovative Teaching Methods
- Feedback on the Syllabus and Challenges Faced

1.1.3 What type of support (procedural and practical) do the teachers receive (from the University and/or institution) for effectively translating the curriculum and improving teaching practices?

➤ Support from the University

- Course in-charges attend various Anna University-sponsored FDPs/Workshops to enrich their knowledge and for translating the curriculum effectively.
- Anna University conducts EduSat virtual classroom programmes to the students, which help them acquire additional knowledge about the concepts of the course.

➤ Support from the institution

- Software Cell in SXCCE plays a vital role in organizing FDP/workshops training programmes for the staff members for improving the teaching practice. It organized 23 FDPs programmes in areas related to Database Management, Cloud Computing, Linux, AutoCAD, Revit, Computer Networks and so on.
- Several orientation programmes are organized by Centre of Excellence in Training and Applications (CETA) of SXCCE, to improve the skills of students and faculty. Some of the courses organized by CETA are listed below:
 - Social surfing by center for social research Delhi on 20th January 2017.
 - Digital potential for teaching and learning by ED media, Bangalore on 26th January 2017.
- Institution has provided facility to download online e-journals from Science Direct, IEEE, IET, Springer link, Wiley online civil Engineering, ASTM, McGraw-Hill and J-Gate.
- Providing facilities for organizing ISTE workshops through NMEICT.
- Providing facilities for the conduct of Anna University's EduSat programmes.
- ICT facilities such as LCD projector, Laptops and Wi-Fi connections are available in all the departments.
- All the laboratories are upgraded with new equipment and software based on the revision of curriculum.
- On-duty leave is granted by the Institution for attending FDPs, workshops and seminars or to attend outside programmes as resource person.

Number of FDPs/workshops/seminars attended by faculty members:

Sl. No.	Department	Academic year				
		2016-2017	2015-2016	2014-2015	2013-2014	2012-2013
1	Electronics and Communication Engineering.	19	15	55	69	32
2	Mechanical Engineering	1	32	22	62	21
3	Electrical and Electronics Engineering	20	50	71	86	52

4	Computer Science and Engineering	44	49	22	65	15
5	Civil Engineering	15	23	3	52	3
6	Information Technology	28	33	70	80	30
7	Master of Business Administration	16	13	5	11	18
8	Master of Computer Applications	20	11	22	34	16
9	Humanities and Sciences	37	10	52	49	29

1.1.4 Specify the initiatives taken up or contribution made by the institution for effective curriculum delivery and transaction on the Curriculum provided by the affiliating University or other statutory agency.

- Curriculum and Syllabus are printed in handbook and distributed to all the first year students. It is also placed in our college automation software and available in the university website.
- Classroom teaching, student seminar, practical demonstration, NPTEL videos, animations, EduSat programmes and ICT tools are used for effective curriculum delivery.
- Course files and attendance & assessment records are verified by HoD every month to ensure effective transaction of curriculum.
- Class committee meetings are conducted to ensure the syllabus coverage of each assessment period and solve the problems experienced by students in classroom and in laboratories with the overall goal of improving teaching-learning process.

1.1.5 How does the institution network and interact with beneficiaries such as industry, research bodies and the university in effective operationalisation of the curriculum?

- The institution has signed more than 22 MoUs with research organizations, industries, foreign universities, international professional bodies and multinational companies for effective operationalisation of the curriculum.
- Extra syllabus is planned and conducted by the course in-charges in consultation with the experts to fill the gap in the curriculum and the industry needs.
- The main function of Placement and Training Cell is to promote industry-institution interaction for the benefit of the students to carry out in-plant training and to undertake project as part of their educational requirements.
- Students are encouraged and motivated to attend various internship/in-plant training programmes to gain practical knowledge and to make them aware of the opportunities and nature of work in the industries. More than 500 students have attended in-plant training in popular industries.
- Faculty and students of SXCCE are members of various professional bodies such as IEEE, ACM, IET, ISHRAE, CSI, ISTE, SAE, IE(I), SESI, Indian Mathematical Society, Ramanujan Mathematical Society, American Mathematical Society, Ultrasonic Society of India and AIMA, which help to enrich themselves by organizing many technical events.
- Faculty members who are holding international level key positions in professional bodies regularly invite experts as keynote speakers to share their knowledge on various aspects of curriculum with students and faculty.
- Students are taken to industrial visits to make them know more about their branch of study.
- The Consultancy and Testing work of our institution offers services to industries and the public for construction and maintenance of infrastructures with materials quality testing and development of software.

- Our faculty received grants from research bodies such as AICTE, DST, Anna University, etc., and enhanced curriculum-related research facilities within the institution.
- The Research Centre of SXCCE organized fully-funded workshops on the topics Fluid Mechanics, Analog Electronics, Control System, Computer Programming and Computer Networking in association with IITs, NMEICT and MHRD Government of India.
- Anna University EduSat facility is used to view live video lectures delivered by experienced professors of the University.

1.1.6 What are the contributions of the institution and/or its staff members to the development of the curriculum by the University? (number of staff members/departments represented on the Board of Studies, student feedback, teacher feedback, stakeholder feedback provided, specific suggestions etc.

- Four staff members have represented four departments on the Board of Studies/ Curriculum and Syllabi Committee/Academic Council and recommendations from stake-holders are communicated to the University for the development of the curriculum under Regulation 2013 and 2017.

Details of the faculty who are in the Revision of Curriculum and Syllabi Committee of Anna University:

Faculty Name and Department	Curriculum and Syllabus Designed	Feedback Stakeholder	Suggestions Communicated to the University	Month and Year
Dr. C. Helen Sulochana, Electronics and Communication Engineering	Courses Soft Computing. Pattern Recognition. Programme M.E. Applied Electronics	Teacher	The curriculum is changed by adding necessary core subject for the particular course instead of certain electives. One of the first semester electives of M.E Applied Electronics is replaced by the core subject Sensors.	November 2016
	Courses Communication Lab I. Communication Lab II. Digital Communication. Advanced Digital Image Processing. Programme M.E. Communication Systems	Teacher	In PG syllabus, instead of text books, only reference books are recommended. In the curriculum of M.E Communication Systems, Innovative System Laboratory is introduced to enhance the students ability to identify the socially relevant problems and think of creative solutions for the same.	December 2012
Dr. M. Marsaline Beno, Electrical and Electronics Engineering	Courses Fault Tolerant Control. Wireless Sensor Networks.	Teacher and Student	Subjects need to be placed in order. For example, Electrical Machines and Power Plant Engineering should be studied prior to	November 2016

	Control System Design for Power Electronic Converters. Programmes M.E. Control and Instrumentation Engineering. M.E. Electronics and Instrumentation Engineering.		Transmission and Distribution. But, in 2013 regulation, Transmission and Distribution comes before Electrical Machines and Power Plant Engineering. Lab and corresponding theory subjects shall be placed in the same semester. Few subjects which don't have much significance shall be removed and new subjects which are useful for developing electrical technologies shall be added. Final year project shall be split into two parts. Phase-1 in 7 th semester and phase-2 in 8 th semester.	
Prof. A. Subitha, Computer Science and Engineering	Programme Master of Computer Applications	Teacher and Student	Visual programming lab: No theory subject related to Visual Programming is available. Either the theory has to be introduced or this lab can be removed. Internet Programming: Concentrates more on Java than the Internet Technologies. Web languages like PHP, JSP can be introduced. Computer Networking Lab: Theory can be added with a tool like NS-2 for ½ unit. The same tool can also be included in lab. Data Warehousing & Data Mining and its Lab: May be added any tool like R-tool. Big Data Analytics: This course can be a core subject and also it is suggested to include a lab. Suggestion given to remove the course	November 2016

			Accounting and Financial Management from the curriculum.	
	Programmes M.E. Software Engineering. M.E. Multimedia Technology. M.Tech. Information Technology	Teacher	Setting PEO, PO, PEO/PO mapping. Setting semester course wise PEO mapping.	November 2016

Details of Faculty who are in the Board of Studies:

Faculty Name and Department	Represented for the Department/ Academic Council	Suggestions Communicated to the University	Year
Dr. S. Joseph Sekhar, Mechanical Engineering.	Mechanical Engineering	Revising the curriculum of B.E. Mechanical Engineering and gave suggestions for inclusion of special electives.	2014
	Academic Council	Introduction of Communication Skill Labs in the regular curriculum of all UG Engineering students.	2012
Dr. M. Marsaline Beno, Electrical and Electronics Engineering.	Electrical and Electronics Engineering	The courses Operating Systems and Computer Networks can be removed from core and added as elective subjects. Data Structures and OOPs subjects can be combined as single course.	2013

1.1.7 Does the institution develop curriculum for any of the courses offered (other than those under the purview of the affiliating university) by it? If 'yes', give details on the process ('Needs Assessment', design, development and planning) and the courses for which the curriculum has been developed.

- Value-added courses are designed and offered to the students in each department for fulfilling the gaps in the curriculum.
- Syllabus for the value-added courses are planned and prepared, based on the requirements and discussions with staff and students and implemented by our trained faculty and experts from outside.
- Mini project and online test are used as assessment techniques to evaluate the knowledge gained from the value added courses.

Details of Value-added courses conducted in the last four years:

Department	Course
Electronics and Communication Engineering	1. Project Based Learning 2. Embedded C Microcontroller and ARM 3. LED Lighting Products
Mechanical Engineering	1. AutoCAD 2016 and Auto Desk Inventor 2. Computational Fluid Dynamics
Electrical and Electronics	1. Electrical Professional Development Course

Engineering	2. Computing Techniques for Electrical Engineers
Computer Science and Engineering	1. Android Programming 2. ASP.Net Programming 3. C# and ADO.Net Programming 4. CCNA 5. Cloud Infrastructure Services 6. Data Science and Big Data Analytics 7. Dot Net Programming 8. Java Programming 9. Oracle PL/SQL 10. Oracle SQL 11. PHP with MYSQL 12. Web Designing and Scripting
Information Technology	
Civil Engineering	1. AutoCAD 2. Revit Architecture 3. Software Course for Project Guidance in Civil Engineering
Master of Business Administration	1. Career Development 2. Personality Development 3. Research Tools 4. Management Practices
Master of Computer Applications	1. PHP Program 2. Spoken English 3. IT Related Softwares

1.1.8 How does institution analyze/ensure that the stated objectives of curriculum are achieved in the course of implementation?

- Objectives of the curriculum are achieved by preparing course file and framing the teaching-learning plans, centralized internal assessment tests, conducting class committee meetings, using feedback system and verifying course files and assessment record.
- Each course in-charge prepares the course file before the semester starts and is verified and approved by the HoD.
- Every course in-charge discusses the curriculum, syllabus, their objectives, outcomes, text and reference books during the beginning of class hours of the course.
- After the class hour, the topic covered and the students' attendance is entered in the assessment record. This is verified by the HoD after each internal assessment test. If syllabus is not completed within the allotted period additional hours are allotted for the particular course.
- Class committee meetings are conducted three times in a semester to improve the teaching-learning process. This has provided to be a fruitful channel to solve the problems experienced by students in class and laboratory. Preventive and corrective measures are taken if necessary.
- Each outcome of the course is related to a unit in the syllabus. For attainment of these course outcomes, equal weightage is given to all the five units in setting the internal question paper.
- Four internal assessment tests are conducted using a centralized system by the Exam Cell. After the internal assessment test, results of the test are analyzed in department meeting. Slow learners are identified and coaching classes are arranged after the regular working hours. Advanced learners are given an opportunity to act as team

leader for special group study so that the slow learners as well as the advanced learner of the group are benefitted. Advanced learners are motivated to do socially relevant projects in the area of interest, present and publish technical papers in international conferences and journals.

- The quality of teaching-learning and evaluation process is improved by obtaining Mid-Semester Feedback from students by course in-charge and at the end of the semester by the institution, which are discussed in department meetings and corrections are made, if needed.
- Course file verification process and approval process are scrutinized by the academic audit member and Principal at the end of the each semester. The audit members are appointed by the Principal.
- Results of class test, internal assessment test, assignments, quiz, online test, university examinations, project reviews, outcomes of group discussions and feedbacks from various stakeholders are used to measure and ensure the attainment of objectives of the curriculum.

1.2 Academic Flexibility

1.2.1 Specifying the goals and objectives give details of the certificate/diploma/ skill development courses etc., offered by the institution.

- Each department conducts different levels of certification courses and skill development programmes. It provides add-on value to their degree.

Goals and Objectives of Certificate/ Skill development Courses:

Sl. No.	Course	Goals	Objectives
Department of Electronics and Communication Engineering			
1	Project Based Learning	To write, compile and debug innovative programs in C language. To understand the basics to use the technical computing software Matlab in any field of engineering.	To acquire knowledge of computer programming in C language for solving problems. To expose the students to the various tools and application of Matlab like mathematical operations, signal processing, image processing and interfacing hardware.
2	Embedded C Microcontroller and ARM	To provide hands on guide to use Microcontroller and Embedded C to analyze, design and solve engineering problems in their UG and PG Engineering studies, researches or industrial jobs also to enhance technical competence of ECE students to succeed in interview of software companies.	To expose the students to various instructions of microcontroller, various command on Embedded C and interfacing hardware with microcontroller and computer.
3	LED Lighting Products	To make students aware of the evolving development	To expose the students to various types of LEDs, parts of LED bulb and

		of LED lighting, to understand where it can be used, the reduction in energy bills and carbon footprint.	tube, assembling concepts and LED light testing.
Department of Mechanical Engineering			
4	AutoCAD 2016 and Auto Desk Inventor	Plot any kind of 2D and 3D drawings.	Using basic drawing, editing, and viewing tools. Preparing a layout to be plotted. Creating local and global blocks. Using advanced plotting and publishing options.
5	Computational Fluid Dynamics	Analyze problems that involve fluid flows. Simulate the interaction of liquids and gases.	Understanding simulation of fluid flows with heat and mass transfer in various engineering and natural objects. To cover the essentials of CFD with software application and case studies.
Department of Electrical and Electronics Engineering			
6	Electrical Professional Development Course	To use electrical software and to realize soft computing techniques.	To familiarize with Matlab programming. To introduce basics of Artificial Intelligence techniques. To introduce the tools and techniques of electronics software.
7	Computing Techniques for Electrical Engineers	To develop employability skills and entrepreneurial skills. To function with social awareness and responsibility and contribute to the economic growth of the country.	To develop scientific temper, create awareness to bridge the gap between science and society, achieve better appreciation of Science, Technology Engineering and Mathematics.
Department of Computer Science and Engineering / Information Technology			
8	Android Programming	Enables students to develop mobile applications.	Train the students to know the Android basics and train them to develop projects.
9	ASP.Net Programming	Enables students to develop ASP.net applications.	Train the students to know the ASP.Net basics and make them to do ASP.Net related projects.
10	C# & ADO.Net Programming	Enables students to develop dot net applications.	Train the students to know the C# & ADO. Net basics and make them to do Dot Net related projects.
11	CCNA	Enables students to develop networking applications.	Train the students to understand the network basics and train them to do network related projects.
12	Cloud Infrastructure Services	Enables students to develop applications with cloud.	Train the students to know the cloud basics and make them to do cloud related projects
13	Data Science and Big Data Analytics	Enables students to develop applications in Big Data	Train the students to know about Data Analysis and train them to develop projects in Big Data
14	Dot Net	Enables students to develop	Train the students to know the basics

	Programming	applications using Dot Net.	and train them to do projects using Dot Net programming.
15	Java Programming	Enables students to develop applications using JAVA.	To train the students to know how to do projects using JAVA.
16	Oracle PL / SQL	Enables students to develop applications with database using Oracle PL/SQL.	Train the students to do develop databases using Oracle PL/SQL
17	Oracle SQL	Enables students to develop applications with database using Oracle SQL.	Train the students to know the database basics and train them to do develop databases.
18	PHP with MYSQL	Enables students to develop web applications	Train the students to know the PHP basics and make them to do projects using PHP with MYSQL
19	Web Designing and Scripting	Enables students to develop web applications.	Train the students to know how to write scripts for web designing and train them to develop website related projects.
Department of Civil Engineering			
20	AutoCAD	To develop the knowledge of the students in building drawings	To know about the concepts of building drawings.
21	Revit Architecture	To develop the knowledge of the students in 3D drawings.	To know about BIM.
22	Software Course for Project Guidance in Civil Engineering	To develop the knowledge of the students in matrix manipulation, land covers classification and mapping to do effective projects.	To know about the mathematical models, numerical computations.
Department of Master of Business Administration			
23	Career Development	Imparting professional knowledge on career development.	Awareness about career and market opportunities.
24	Personality Development	Acquire the insights of education and become concrete decision makers.	Making the students to understand the real value of their life and education.
25	Research Tools	Imparting the strategic approaches in research methodology.	Making the students to understand the different strategic approaches
26	Management Practices	Imparting different types of management practices. Making the students to become concrete decision makers.	Acquiring managerial skills
Department of Master of Computer Applications			
27	Spoken English	Developing communication skill through spoken English training programme	To improve communication skill.

		in language laboratories.	
28	PHP Program	To design and develop interactive, client-side, server-side executable web applications.	To acquire knowledge of the usage of recent platforms in developing web applications.
29	IT Related Softwares	Students will be able to access, retrieve, analyze and report socially relevant applications. To know the current techniques and software tools and design interactive websites.	To prepare students for jobs in industry

1.2.2 Does the institution offer programmes that facilitate twinning/dual degree? If 'yes', give details.

- Our institution does not offer any twinning /dual degree. The institution being an affiliated college, it does not have the autonomy to offer twinning / dual degree programs.

1.2.3 Give details on the various institutional provisions with reference to academic flexibility and how it has been helpful to students in terms of skills development, academic mobility, progression to higher studies and improved potential for employability. Issues may cover the following and beyond:

Range of Core / Elective options offered by the University and those opted by the college

- Other than core subjects supported by the university curriculum, it also offers elective courses. Our institution has given autonomy for the student to opt their own electives to obtain interdisciplinary knowledge.

Details of Programmes offered by the institution and its number of core and elective courses available and offered:

Sl. No.	Programme Name	No. of Core Courses Available and Offered	No. of Elective Courses Available	No. of Electives Opted
1	B.E. Electronics and Communication Engineering	58	32	8
2	B.E. Mechanical Engineering	61	28	5
3	B.E. Electrical and Electronics Engineering	59	24	5
4	B.E. Computer Science and Engineering	59	26	5
5	B.E. Civil Engineering	58	29	5
6	B. Tech. Information Technology	61	25	5
7	M.E. Control and Instrumentation	12	18	6
8	M.E. Applied Electronics	13	35	6
9	M.E. Construction Engineering and Management	14	11	6
10	M.E. Computer Science and Engineering	15	42	7

11	M.E. Energy Engineering	13	20	7
12	M.E. Communication and Networking	13	27	6
13	M.E. Communication Systems	13	28	6
14	M.E. Power Electronics and Drives	13	15	5
15	M.E. Medical Electronics	13	25	6
16	M.E. Structural Engineering	13	19	7
17	Master of Business Administration	24	24	12
18	Master of Computer Applications	38	18	8

Choice Based Credit System and range of subject options

- Not applicable in the curriculum

Courses offered in modular form

- All the courses are provided with five units and hence in modular form.

Credit transfer and accumulation facility

- Not applicable in the curriculum

Lateral and vertical mobility within and across programmes and courses

- Anna University has given provision for admitting students through lateral and vertical mobility.
 - **Lateral Mobility**
 - The candidates who possess the Diploma in appropriate branches of Engineering/Technology or Bachelor Degree in Science with Mathematics as one of the subjects at B.Sc. Level are eligible to apply for Lateral entry admission to the third semester of B.E./B.Tech. Such candidates shall undergo two additional Engineering subjects in the third and fourth semesters as prescribed by the University.
 - Students who have completed Bachelor's degree in BCA, B.Sc. (Computer Science/Information Technology) with Mathematics as a course at 10+2 level or at Graduate level shall be eligible for admission to the second year MCA as lateral entry.
 - **Vertical Mobility**
 - Students can move into PG programmes offered by the college with the appropriate Under-Graduate degree/equivalent qualification as per the Tamil Nadu Common Admission Criteria.
 - Students qualified in M.E./M.Tech./M.S. are eligible to be admitted for Ph.D. programmes in Engineering and students qualified in M.Sc./MCA in their respective disciplines are eligible for Ph.D. programmes in science stream.
 - Students are given autonomy to choose inter-disciplinary projects and/or project guide from any one of the departments of the college and can also use laboratory equipment from any one of the departments for the project work.

Enrichment courses

- The Placement and Training Cell of SXCCE:
 - Provides training to students on career development and guidance to the students who are aspiring to go for higher studies.

- Provides the latest information to the students to update their knowledge to face competitive examinations and interviews.
 - Keeps constant touch with major industries all over India in order to provide job opportunities to the students who are in their final year.
- Training, orientation and motivation programmes are organized by various departments to enrich the regular academic programmes prescribed in the curriculum.

Enrichment programmes organized by each department in the last four years:

Department	Major Area of the Programme	Number of Programmes
Electronics and Communication Engineering	Software Programming and Development	9
	Embedded Systems	2
	Hardware and Networking	1
Mechanical Engineering	Refrigeration and Air Conditioning	2
	Self-Assessment on Technical Proficiency	1
	Advances in Automotive Technology	1
Electrical and Electronics Engineering	Electrical Software Training	4
	Applied Electronics Training	6
	Power System Training	8
	Research Development Training	2
Computer Science and Engineering	Recent Technologies and Computer Applications	15
	Enhancement Applications of Curriculum based Courses	3
Information Technology	Information Technology	4
	Image Processing	5
	Mining	3
	Operating Systems	1
	Robotics	2
	Signal Processing	1
	Web Programming	5
Civil Engineering	3D printing	1
	Interior Architectural Design	1
	Special Programme on STAAD Pro Software	1
Master of Business Administration	Organisational Behaviour	3
	Entrepreneurship Development	3
	International Business Management	2
	Business Ethics and Corporate Social Responsibility and Governance	1
	Business Research Methods	1
Master of Computer Applications	Service Oriented Architecture	1
	Soft Computing Techniques	1
	Big Data Analytics	1
	Web Application Development	2
	Image Processing and its	2

	Applications	
Humanities and Sciences	Recent Developments in Advanced Materials for Engineering Applications	1
	Conversation Analysis and Dialogic Perspectives	1
	Science is Not Myth	1
	Metal Corrosion	4
	Graph Theory	3
	Graphical Models in Various Fields	8

1.2.4 Does the institution offer self-financed programmes? If 'yes', list them and indicate how they differ from other programmes, with reference to admission, curriculum, fee structure, teacher qualification, salary etc.

- The institution is a purely self- financing private institution. The college is affiliated to Anna University, Chennai and recognized by AICTE, New Delhi.
- All the 6 UG and 12 PG programmes are self-financed programmes.
- Admission, curriculum, fee structure, teacher qualification, salary etc., are based on the guidelines provided by the Anna University and AICTE.

1.2.5 Does the college provide additional skill oriented programmes, relevant to regional and global employment markets? If 'yes' provide details of such programme and the beneficiaries.

- Yes. Students are trained with additional skill development programmes to meet the regional and global employment markets.
- The Placement and Training Cell conducts various need-based and result-oriented training programmes for students.

Details of training given to meet the needs of job market:

Name of the Programme	Students Benefited	Department
Aptitude and Communication	Final Year	CSE, IT, ECE, EEE and MCA
Communication and Employability Skills	Final Year	CSE, IT, ECE, EEE and MCA
Aptitude Training	Final Year	CSE, IT, ECE, EEE and MCA
Tech Mahindra Company Specific Training	Final Year	CSE, IT, ECE, EEE and MECH
ICTACT Power seminar on Employability Skills	Second and Third Year	EEE, CSE and IT
Placement Orientation Program	All First Year	All B.E/B.Tech.
C, C++, JAVA and Web Technologies	Final Year	CSE, IT, ECE and EEE
Internet of Things and Employability Skills	Second Year and Final Year	CSE and IT
Employability Skills	Final Year	CSE and IT
C, C++ and JAVA	Final Year	CSE, IT, ECE, EEE and MCA
Aptitude Training	Third Year	CSE
Aptitude and Soft Skills Training	Final Year	MECH and CE
Winning Edge	First Year	MBA

Mind Games and Communicate to Win	Second Year	MBA
Aptitude and Communication	Third Year and Final Year	CSE, ECE, IT, CE
IVTL Infoview Company Specific Training	Final Year	CSE, IT, ECE and EEE
UST Global Company Specific Training	Final Year	CSE, IT, ECE and EEE
PHP/MySQL	Final Year	CSE and IT
Opportunity in Banking Sector	Final Year	MBA
Aptitude and Soft Skills Training	Final Year	MECH
TCS Company Specific Training	Final Year	CSE, IT, ECE and EEE
Quantitative Aptitude and Communication	Third Year and Final Year	CSE and IT
Communication to Win	First Year	MBA
Aptitude Training, ,C++, Java, Software Development Life Cycle	Final Year	MCA
Communication Skills	Second and Third Year	EEE, CSE and IT
Quantitative Aptitude	Third Year and Final Year	CSE
HR Skills for Managerial Excellence	Final Year	MBA
Infosys Company Specific Training	Final Year	CSE, IT, ECE and EEE
Logical Reasoning Skills	Third Year	CSE and IT
Placement Motivational Talk	Second Year and Final Year	CSE and IT
Behavioral Enhancement in Corporate World	Final Year	MBA

➤ The Entrepreneurship Development Cell was initiated with a vision to promote Entrepreneurship skills among the students of our institution and to build an exhaustive resource pool to aid potential student entrepreneurs. The training programmes given by this cell are shown below:

- Industrial Interaction Program and Inaugural Function of Young Entrepreneurs Challenge 2016
- Entrepreneurship Awareness Program
- Business Plan Competition
 - Young Entrepreneurs Challenge 2016
- Youth Entrepreneurship Summit 2015
- Entrepreneurship Awareness Camp
 - This program is sponsored by National Science and Technology Entrepreneurship Development Board, Department of Science and Technology, Government of India and Supported by Entrepreneurship Development Institute of India, Ahmadabad.
 - Funded with Rs. 13,500.

1.2.6 Does the University provide for the flexibility of combining the conventional face-to-face and Distance Mode of Education for students to choose the courses/combination of their choice? If 'yes', how does the institution take advantage of such provision for the benefit of students?

- Academic flexibility of combining conventional face-to-face and Distance Mode of Education can't be availed of by students as there is no provision for distance mode education in the curriculum provided by the University.

1.3 Curriculum Enrichment

1.3.1 Describe the efforts made by the institution to supplement the University's Curriculum to ensure that the academic programmes and Institution's goals and objectives are integrated?

- To integrate academic programmes with the goals and objectives of the Institution, the university curriculum is supplemented with the following:
 - Extra syllabus is planned and conducted by course in-charge to align the course with goals and objectives of the institution. Extra syllabus is framed with
 - Review of basics needed for the subject.
 - Topics found missing in the university syllabus.
 - Topics to connect the theory with real life applications.
 - Topics identified by interaction with people from industry.
 - Assignments are given to students of all courses to gather extra information beyond what was taught in the class and to improve reading, problem-solving and writing skills of the students.
 - Regular guest lectures, seminars, workshops, conferences and industrial visits are arranged for the holistic development of students.
 - To acquire proficiency in English, a world-class language lab is constructed.
 - To improve the soft skills and to acquire knowledge in current affairs, all the students of MBA department are provided with "The Indian Express" newspaper and asked to present the important headlines persisting to prevailing scenario in the class every day for 10 minutes during the first hour.
 - Students are motivated to undergo in-plant and internship trainings for gaining knowledge for enhancing employability skills.
 - The Research Centre has conducted a number of orientation programmes to PG students of our institution to create awareness among the students to do projects effectively and to improve the quality of projects.
 - Technical festival is arranged by the Research Cell every year to conduct academic competitions such as Oral presentation, Software and Hardware Project Presentation, Quiz, Turn-coat and Poster Presentation for all round development of students.
 - Dynamic Training and Placement Cell impart industry-oriented skill development programmes aiming at jobs in Multi-National Companies.
 - Central Library of SXCCE, equipped with digital section containing books, journals, periodicals and e-learning materials help the students in the following ways:
 - More than 30,000 volumes of books under 8,728 titles are available.
 - The e-journal facilities of the Library provide unparalleled full text access to more than 2000 publications from Science Direct, IEEE, IET, Springer link, Wiley online civil Engineering, ASTM, McGraw-Hill and J-Gate.
 - A library hour is included in the class timetable and the working time of library is extended even after the working hours.

1.3.2 What are the efforts made by the institution to enrich and organize the curriculum to enhance the experiences of the students so as to cope with the needs of the dynamic employment market?

- The institution follows the curriculum designed by Anna University and the faculty has taken a lot of measures to enrich it by their own experience and expertise to enhance the experiences of the students to compete with the dynamic employment market.
- To make fullness in education, special programmes are arranged on Saturdays. A few of the programmes planned and conducted are listed below:
 - Seminar on the latest topics of interest by resource persons
 - Personality development
 - Training to promote self confidence
 - Group discussion
 - Mock interviews
 - Quiz to promote general knowledge
 - Debates
 - Motivational talks
 - Communication skill development
- Placement and Training cell
 - Promotes industry–institution interaction for the benefit of the students to carry out in-plant training and to undertake project as part of their educational requirements.
 - Provides the latest information to students to update their knowledge to face competitive examinations and interviews.
 - Keeps constant touch with major industries all over India in order to provide job opportunities to the students who are in their final year.
- International technical chapters of our college organize many technical events to enhance the students' experience and to cater to the needs of industries. The details are shown below:
 - The IEEE student branch organizes many National and International workshops and conferences and the students develop leadership, interpersonal relationship and team-building skills.
 - Being a member of the IET student chapter, it helps the students learn a lot of innovations and creativity and opens up a global services and contacts for the students to develop the necessary skills for success.
 - The aim of ISTE student chapter is to bring out the hidden talents of the students and make them shine in their career.
 - The Society of Automotive Engineers of SXCCE arranges residential programme SAE COLT regularly.
 - The ISHRAE chapter of our college is closely associated with industries and arranges many technical talks and industrial visits to students.
- Research Centres and Department Associations organize various events in areas of interest and encourage students to present papers in conferences, seminars and symposia conducted at International, National and State levels.
- Each department associations organize industrial visit to enrich the students' practical experience in the field of study.

Summary of the industrial visits:

Department	Industry Visited	Number of Visits
Electronics and Communication Engineering	ISRO, Thermal Power Plant, Mighty Electronics, SPP Metal Casters, BSNL, Doordharshan, Airport Authority of India, Thoothukudi Harbour, Science Center, American University	30
Mechanical Engineering	Kanya Spin, Hindustan Machine Tools, Madras Hard Tool Pvt. Ltd., Beissel Needles, Water World India Pvt. Ltd., Madras Atomic Power Station, Automotive Research, Association of India	7
Electrical and Electronics Engineering	Hydropower Station, Thermal Power Station, ABB Global Industries and Services Ltd., IIT Chennai, Voltech Chennai, Kanam Latex Factory, Nuclear Power Plant, Hydro Power Plant, ISRO, Shankar Cements, Hindustan Aeronautical Ltd., SIBC Industry, Andrew Yule Ltd., Windmill, Kanya Spin	30
Computer Science and Engineering	Nuclear Power Plant, Thermal Power Plant, The India Cements Ltd., ISRO, Anna Aluminum Company Pvt. Ltd., Cognizant Technology Solutions India Pvt. Ltd., UST Global, Technopark, Trivandrum, Ambadi Estate Rubber Factory, American University, Kerala Science and Technology Museum, Kerala State Electronics Development Corporation Ltd., Dharangadara Chemical Works, Airport, Hindustan Aeronautical Ltd., Salzer Electronics Ltd.	27
Civil Engineering	Thoothukudi Port, Filter House L&T, IIT Chennai, Precast Post Manufacturing Company, Mathur Aqueduct, Pechiparai Dam, ACC Cement Factory	17
Information Technology	ISRO, Shankar Cements, Science Center, Air Port, Harbour, RJZ Infotech Chennai, Planetarium, Hydro Electric Power House, American University	11
Master of Business Administration	VOC Port, Kanam Latex Industries Pvt. Ltd., Manna Foods Pvt. Ltd., India Cements Ltd., South Indian Bottling Units, The Hindu, Kannan Devan Hills Plantations Pvt. Ltd, Cape Flour Mills	12
Master of Computer Applications	ISRO, Planetarium	3

1.3.3 Enumerate the efforts made by the institution to integrate the cross cutting issues such as Gender, Climate Change, Environmental Education, Human Rights, ICT etc., into the curriculum?

➤ **Gender:**

- SXCCE is a co-educational institution. The institution has given equal opportunity to both the genders to involve in all the curricular, co-curricular and extracurricular activities.
- Women's cell organizes many women empowerment programmes and carries out awareness programmes for all women students and faculty.
 - Cancer Awareness seminar cum workshop was organized by this cell for all

women Staff and students.

- Women empowerment programme “Taichi” has been arranged for the girl students and staff of SXCCE. It functions on every Monday and Tuesday from 3.30 p.m. to 5.00 p.m., nearly 72 students and 3 staff members have enrolled their names for the programme.
- Rally of brutality against women campaign was organized by state government, in which 14 students and 10 staff members attended the programme.
- Two staff and two students participated in a seminar on M-Diabetes Management organized by Annammal College of Nursing, Kuzhithurai.
- The IEEE-WIE student branch members participate in programmes like “Grass Hopper Celebration of Women in Computing India” at Bangalore and receive scholarships and gifts from the sponsoring companies.
- Girl Rising Movement encourages women empowerment by women through various activities in and around the campus.
 - A training session on “Civil services as the tool for good governance” has been organized for 300 students by retired IAS officer Mr. Devasahayam.
- **Climate Change:**
 - Environmental Science and Engineering course available in the curriculum creates awareness of climate change to the students.
 - Special awareness drives are organized from time to time in the college campus to address the issue of climate change.
- **Environmental Education:**
 - Environmental Science and Engineering course in the curriculum deals with environmental issues to educate the students with a view to saving the universe.
 - The NSS unit of the college organizes clean and green programs in nearby villages to create awareness among public.
 - “Save Western Ghats”, an awareness run over the Ponmalai Hills has been organized by the Girl Rising movement of the institution. The program was presided by Ms. Sara Rosa, Women International, Italy.
 - Awareness programs are organized on diseases like Dengu and Cancer by NSS, NCC, YRC and Women’s Cell of our institution.
 - The college has 1 kVA solar power energy powered by sunlight.
 - Different coloured and duly-labelled dust bins for biodegradable and non-biodegradable waste are placed appropriately in the campus.
 - The college maintains a tobacco free, plastic free and no smoking zones within the campus.
 - The institution has arranged special drives like “Save Electricity” with the help of students to switch off the lights during bright day time which contributes to the reduction of global warming.
 - The Eco Club of SXCCE organizes numerous activities that deal with environmental issues in a feasible manner.
 - Campus cleaning was done on 6th February 2017 near Mechanical Engineering block and around the canteen by the members of Eco Club.
- **Human Rights:**
 - The course, Professional Ethics in Engineering is offered as an elective in the university curriculum which creates awareness of human rights and builds up moral and ethical values among the student community.
- **ICT:**

- All the programmes offered in the institution have basic and advanced computer courses as the integral part of curriculum.
- The institution provides the following ICT technologies to assist the teaching-learning process:
 - NPTEL videos
 - EduSat virtual class room
 - NMEICT remote centre
 - e-journals
 - College automation
 - Library automation
 - Localized LAN
 - Full-time Internet facility with Wi-Fi.
 - LCD projectors with lap tops
- CETA has conducted a training programme on “Harnessing digital potentials for teaching and learning” and trained 50 faculty members.

1.3.4 What are the various value-added courses/enrichment programmes offered to ensure holistic development of students?

Moral and ethical values, employable and life skills, better career options, community orientation.

- The institution, in addition to the curriculum provided by the university, conducts various value-added and enrichment courses for the holistic development of students
- **Moral and Ethical Values:**
 - The institution has arranged 23 orientation programmes to improve the moral and ethical values of students.
 - Professional Ethics is available as a course in the curriculum to create awareness on Engineering Ethics and Human Values, to instill Moral Values, Social Values and Loyalty and to appreciate the rights of others.
 - ISHRAE chapter of our college organizes workshops like Ethical Hacking, FOSS and others.
 - To inculcate the spirit of self-discipline among students, SXCCE encourages Karathe/Thalchi sessions and many times invite the prominent personality development trainers to teach art of living and participate in discussions with students.
- **Employable and Life Skills:**
 - Placement Cell of SXCCE has conducted 35 need-based and result-oriented training programmes to assist students to get jobs in Multi-National Companies.
 - It also arranges many on campus and off campus placement drives for our current students and alumni.
 - To keep up with the present scenario of society and the prospects of the corporate world the Placement Cell is regularly organizing many value-added programmes with our faculty and external professional trainers.
- **Better career options:**
 - Principal addresses first year students on the inaugural day about the various facilities available in the college and career options.
 - The institution has arranged 38 programmes towards better career options.
 - First year students are given career guidance by the respective heads of departments every year.

- Department associations conduct awareness and training programs for better job and higher studies.
- Placement Cell organizes placement and career guidance programmes.
- **Community orientation:**
 - The following are the programmes of the institution for community orientation
 - NSS Camp
 - Village energy auditing by department of EEE
 - Orphanage visits
 - Schools visits by IEEE and ACM
 - Computer literacy training for school teachers, self-help group women and parish priests.
 - Tamil Mantram and Fine Arts Club celebrate Pongal festival in Ambedkar Colony.
 - Twinning villages and schools

1.3.5 Citing a few examples enumerate on the extent of use of the feedback from stakeholders in enriching the curriculum?

- SXCCE has both formal and informal feedback systems. At the formal level, it has a student feedback system where students give their feedback on course curriculum and teaching practices.
- In ECE department, based on oral feedback from students, the syllabus for the enrichment programmes like Competitive Exam Training has been updated.

1.3.6 How does the institution monitor and evaluate the quality of its enrichment programmes?

- Feedbacks obtained from the beneficiaries of each enrichment programme is analysed to ensure the quality.
- The quality of some enrichment programs is assessed by conducting examinations and mini projects.

1.4 Feedback System

1.4.1 What are the contributions of the institution in the design and development of the curriculum prepared by the University?

- The college is an affiliated institution and follows the curriculum designed by the Anna University. But faculty members who are members of Boards of Studies of various disciplines communicate the recommendations of the modifications in the syllabus, which have been found necessary through various feedback mechanisms.
- Four staff member of the college represented three departments in the board of studies and involved in design and development of curriculum.

1.4.2 Is there a formal mechanism to obtain feedback from students and stakeholders on Curriculum? If 'yes', how is it communicated to the University and made use internally for curriculum enrichment and introducing changes/new programmes?

- Feedback is received from the stakeholders both manually and online.
- All the feedback regarding the curriculum is internally analyzed in the department level meetings and the suggestions for introducing changes are forwarded to the university through the Principal or through the members of the Board of Studies.

- Student and Teacher feedback about the syllabus is obtained by the course-in charge and is analyzed in department meetings and communicated to the university through Board of Studies members.
- Feedback is taken from alumni on curriculum planning, development, curriculum enrichment and university curriculum. The feedbacks are analyzed and communicated to the university by the members of Board of Studies.

1.4.3 How many new programmes/courses were introduced by the institution during the last four years? What was the rationale for introducing new courses/programmes?)

The programmes introduced by the institution in the last four years:

Sl. No.	Programme Name	Year of Introduction	Rationale for Introducing the Programme
1	M.E. Medical Electronics	2012	This programme combines the design and problem solving skills of engineering with medical and biological science to improve health care diagnosis, monitoring and therapy. To motivate the students to promote R&D activities in the field of medical electronics.
2	M.E. Power Electronics and Drives	2012	It deals with the efficient and intelligent energy conversion, utilizing power electronic technology and electric machines. The demand of a power electronics and drives engineer is persistent in research and design and implementation.
3	M.E. Structural Engineering	2013	This course was started due to high demand of structural engineer in construction industry, limited availability of course in Kanniyakumari district and based on opinion from alumni.
4	Ph.D. Computer Applications	2016	To prepare the students to pursue higher studies in computing or related disciplines and to work in the fields of teaching and research

Criterion II

Teaching, Learning and Evaluation

2.1 Student Enrollment and Profile

2.1.1 How does the college ensure publicity and transparency in the admission process?

- The college ensures the publicity in the admission process through
 - College website
 - Prospectus
 - Paper advertisements
 - Education fair
 - College participated in education fairs organized by leading media in cities like Trivandrum, Cochin, Kottayam, Tirunelveli, Madurai and Kollam.
- The transparency in the admission process is ensured by the admission process of Anna University and Self-Financing Consortium
 - 50% of seats are filled by the single-window system conducted by Anna University on behalf of the Government of Tamil Nadu.
 - Everyday vacancy position of the college is made known to the candidates through Anna University website.
 - 50% of seats are filled through the Self-Financing Consortium single window system.
 - The self-financing consortium provides ranking of the applied students.

2.1.2 Explain in detail the criteria adopted and process of admission (Ex. (i) merit (ii) common admission test conducted by state agencies and national agencies (iii) combination of merit and entrance test or merit, entrance test and interview (iv) any other) to various programmes of the Institution.

- Criteria for admission
 - UG admission
 - In the Government single window system, the criteria are a pass in the qualifying examination and admission is made using cut-off marks obtained by the applicants. Cut-off mark out of 200 is calculated from the marks secured in Mathematics, Physics and Chemistry in the ratio of 2:1:1.
 - The minimum average percentage in Mathematics, Physics and Chemistry is for SC/ST/MBC-40, BC/BC(M)-45, OC-50.
 - The above said same criteria are followed in the Self-Financing Consortium single window system.
 - PG admission
 - In the Government single-window system, a pass in the appropriate undergraduate program and marks scored in the Tamil Nadu Common Entrance Test (TANCET) are the mandatory criteria for admission. Admission is based on the marks scored in the TANCET.
 - In the management quota, a pass in the appropriate undergraduate program and marks scored in the Common Entrance Test (CET) conducted by the Self-Financing Consortium are the mandatory criteria for admission. Admission is based on the marks scored in the CET.
- Process of admission

- UG Government Quota
 - The eligible students send their applications to Anna University, Chennai.
 - Random number as well as rank are generated and published by the university. A random number is generated for solving students who have the same cut-off marks.
 - Single-window counselling is conducted by the Anna University.
 - Applicants select the college of their choice based on the vacancy position.
- UG Management Quota
 - The eligible students send their applications to the Self-Financing Consortium.
 - Single-window counselling is conducted by the Self-Financing Consortium.
- PG Government Quota
 - Mark scored in TANCET is used to rank the applicants.
 - Single-window counselling is conducted by Anna University.
 - Applicants select the college of their choice based on the vacancy position.
- PG Management Quota
 - Mark scored in CET is used to rank the applicants.
 - Single-window counselling is conducted by the Self-Financing Consortium.

2.1.3 Give the minimum and maximum percentage of marks for admission at entry level for each of the programmes offered by the college and provide a comparison with other colleges of the affiliating university within the city/district.

- The minimum and maximum percentage of marks for admission in the last four years for the government and management quota are given below.

Minimum and maximum percentage of marks for admission through Government Quota for UG programmes:

Sl. No.	Programe	Academic Year									
		2016-2017		2015-2016		2014-2015		2013-2014		2012-2013	
		Min. %	Max. %	Min. %	Max. %	Min. %	Max. %	Min. %	Max. %	Min. %	Max. %
1	B.E. ECE	59.65	93.67	50.67	98.00	59.17	97.83	63.33	96.67	68.83	98.17
2	B.E. Mech	42.50	98.00	54.17	93.17	65.83	98.33	75.33	97.00	45.67	94.63
3	B.E. EEE	68.67	92.33	60.17	94.50	75.83	92.33	53.00	90.50	56.50	90.00
4	B.E. CSE	47.50	86.67	58.33	91.67	55.83	97.00	52.83	92.83	45.67	95.33
5	B.E. CE	42.50	98.00	54.17	93.17	65.83	98.38	75.33	97.00	76.67	96.33
6	B.Tech. IT	44.33	75.17	43.00	94.33	69.17	88.00	60.00	84.50	50.17	81.67
7	MBA	49.18	82.14	52.32	82.90	54.10	83.76	54.77	80.60	50.00	79.38
8	MCA	60.40	84.85	80.00	83.56	66.33	84.18	71.82	80.84	57.83	80.74
9	M.E. CSE	69.06	69.06	63.54	79.60	61.46	81.41	64.60	83.90	--	--
10	M.E. AE	69.26	85.10	64.91	82.83	66.96	85.09	64.00	87.60	--	--
11	M.E. CS	75.96	79.79	83.53	86.14	68.80	86.30	62.80	89.80	--	--
12	M.E. ME	--	--	60.70	68.24	70.44	87.94	60.92	82.60	--	--

13	M.E. CN	--	--	61.94	62.69	76.11	81.40	72.00	88.50	--	--
14	M.E. CI	73.34	73.34	65.56	77.11	68.35	83.64	60.00	91.60	--	--
15	M.E. PED	82.35	82.35	71.26	87.21	62.23	90.11	65.20	80.70	--	--
16	M.E. CEM	78.36	84.31	66.74	84.49	62.06	86.68	63.20	81.60	--	--
17	M.E. SE	67.85	79.08	71.08	77.77	73.86	88.00	66.30	89.70	--	--
18	M.E. EE	--	--	67.70	71.66	63.52	78.79	64.00	78.90	--	--

Minimum and maximum percentage of marks for admission through Management Quota for UG programmes:

Sl. No.	Programme	Academic Year									
		2016 – 2017		2015 - 2016		2014 - 2015		2013 - 2014		2012 – 2013	
		Min. %	Max. %	Min. %	Max. %	Min. %	Max. %	Min. %	Max. %	Min. %	Max. %
1	B.E. ECE	48.17	87.33	47.83	93.00	48.00	90.67	52.17	92.67	67.17	91.33
2	B.E. Mech.	48.50	93.50	48.67	93.83	49.83	99.83	53.33	91.00	52.67	94.00
3	B.E. EEE	43.33	79.00	47.17	87.50	50.33	86.68	45.00	85.00	51.83	88.33
4	B.E. CSE	45.17	87.67	44.17	95.00	47.83	81.50	47.00	83.17	49.00	82.00
5	B.E. CE	45.50	82.10	47.11	94.33	57.83	92.32	51.50	88.50	51.00	86.33
6	B.Tech. IT	47.67	96.17	42.33	92.17	46.00	82.00	48.17	90.88	50.17	78.83

Minimum and maximum percentage of marks for admission through Management Quota for PG programmes:

Sl. No.	Programme	Academic Year									
		2016-2017		2015-2016		2014-2015		2013-2014		2012-2013	
		Min. %	Max. %	Min. %	Max. %	Min. %	Max. %	Min. %	Max. %	Min. %	Max. %
1	M.E. CSE	65.61	81.11	62.43	79.95	61.12	83.18	64.30	88.00	59.00	83.00
2	M.E. AE	64.43	87.38	66.91	84.75	61.74	87.51	64.00	85.00	71.10	87.10
3	M.E. CS	63.65	87.45	67.00	82.11	59.76	86.43	61.65	92.30	73.00	89.50
4	M.E. ME	70.99	85.26	68.88	79.53	63.76	83.63	74.70	81.30	70.74	85.00
5	M.E. CN	67.09	80.57	67.05	84.96	67.21	67.21	64.00	85.80	60.00	83.00
6	M.E. CI	62.50	86.43	69.70	72.93	59.90	80.45	59.90	81.60	61.00	78.00
7	M.E. PED	67.59	83.30	64.21	84.34	56.64	86.96	67.70	77.50	63.77	85.5
8	M.E.	71.68	78.86	68.03	83.19	57.71	89.63	57.42	85.63	69.00	84.00

	CEM										
9	M.E. SE	59.03	82.23	64.98	85.99	59.83	89.90	60.50	88.00	--	--
10	M.E. EE	62.40	80.98	66.24	74.99	62.02	81.95	65.60	84.80	58.20	83.00
11	MBA	49.88	75.14	52.72	78.44	50.20	-	47.88	84.11	47.59	80.20
12	MCA	54.17	83.53	56.87	86.15	56.22	83.33	57.68	80.47	58.17	83.17

- The affiliating university has not published any authentic report regarding the percentage of marks obtained by the students during the admission for other colleges and hence comparison with other colleges cannot be done within the city/district.

2.1.4 Is there a mechanism in the institution to review the admission process and student profiles annually? If 'yes' what is the outcome of such an effort and how has it contributed to the improvement of the process?

- Yes. An Admission Committee is functioning in the institution which reviews the admission process, entry-level marks of the admitted students other categories in the admission.
- It also monitors the current admission trend and quality of admitted students and submit report to the management for further improvement.
- Outcome and Improvement
- Based upon the report, the management has modified the fee structure for the UG programme of Computer Science and Engineering under management quota for the current academic year 2016-2017.
 - Hence, there is a tremendous improvement in the admission to B.E- Computer Science and Engineering.
 - Previously, the management modified the fee structure for the UG programme of Information Technology under management quota for the academic year 2015-2016.
 - Hence there is improvement in the admission to B.Tech- Information Technology.
 - The improvement in the admission to the programmes of B.E- Computer Science and Engineering and B.Tech-Information Technology in the last two academic years is shown below.

Programmes	% of Seats Filled				
	2016-2017	2015-2016	2014-2015	2013-2014	2012-2013
B.E. CSE	92.50	70.00	90.00	87.50	93.33
B.Tech. IT	66.66	80.00	56.66	65.00	83.33

2.1.5 Reflecting on the strategies adopted to increase/improve access for following categories of students, enumerate on how the admission policy of the institution and its student profiles demonstrate/reflect the National commitment to diversity and inclusion

SC/ST, OBC, Women, Differently abled, Economically weaker sections, Minority community, Any other

- Our institutional admission policy values diversity and inclusion, and is committed to the principles of equal opportunity to the students. It develops talent and skills of the students, provides equal access to growth and advancement, and treats each other with respect.
- The reflection of this can be seen through the categories of students admitted.

Number of students admitted in different categories for UG programmes:

Sl. No.	Category	2016-2017		2015-2016		2014-2015		2013-2014		2012-2013	
		Students Admitted :472		Students Admitted :484		Students Admitted :479		Students Admitted :502		Students Admitted : 521	
		Filled	% Filled	Filled	% Filled	Filled	% Filled	Filled	% Filled	Filled	% Filled
1	SC/ST	11	2	23	5	25	8	27	5	35	7
2	OBC [BC & MBC]	405	86	405	84	385	80	398	79	419	80
3	General	56	12	56	12	69	14	77	15	67	13

Number of students admitted in different categories for UG Lateral programmes

Sl. No.	Category	2016-2017		2015-2016		2014-2015		2013-2014		2012-2013	
		Students Admitted : 49		Students Admitted : 64		Students Admitted : 80		Students Admitted : 95		Students Admitted : 77	
		Filled	% Filled	Filled	% Filled	Filled	% Filled	Filled	% Filled	Filled	% Filled
1	SC/ST	1	2	2	3	8	10	6	6	4	5
2	OBC [BC & MBC]	38	78	58	91	61	76	74	78	62	81
3	General	10	20	4	6	11	14	15	16	11	14

Number of students admitted in different categories for PG programmes:

Sl. No.	Category	2016-2017		2015-2016		2014-2015		2013-2014		2012-2013	
		Students Admitted : 208		Students Admitted : 233		Students Admitted :277		Students Admitted :235		Students Admitted :248	
		Filled	% Filled	Filled	% Filled	Filled	% Filled	Filled	% Filled	Filled	% Filled
1	SC/ST	5	2	6	3	12	4	11	5	2	1
2	OBC [BC & MBC]	186	89	186	80	210	76	177	75	188	76
3	General	17	8	41	18	55	20	47	20	58	23

- The information given above clearly shows that about 80% of the students admitted in the institution belong to backward classes.

Number of economically weaker students admitted for UG programmes:

Sl. No.	Category	2016-2017		2015-2016		2014-2015		2013-2014		2012-2013	
		Students Admitted :472		Students Admitted :484		Students Admitted :479		Students Admitted :502		Students Admitted :521	
		Filled	% Filled	Filled	% Filled	Filled	% Filled	Filled	% Filled	Filled	% Filled
1	Economically Weaker	16	3.39	26	5.37	29	6.05	31	6.17	37	7.10

Number and percentage of students admitted in women, differently-abled and minority community categories for UG and PG programmes:

Sl. No.	Category	2016-2017		2015-2016		2014-2015		2013-2014		2012-2013	
		Students Admitted :729		Students Admitted :781		Students Admitted :836		Students Admitted :832		Students Admitted :846	
		Filled	% Filled	Filled	% Filled	Filled	% Filled	Filled	% Filled	Filled	% Filled
1	Women	325	44.58	373	47.76	390	46.65	439	52.76	496	58.63

2	Differentially Abled	1	0.14	2	0.26	-	0	-	0	2	0.24
3	Minority Community	338	46.36	348	44.56	332	39.71	347	41.70	541	63.95
4	Linguistic Minority (Other State)	16	2.19	26	03.33	29	3.47	67	08.05	69	8.16

- The information given above clearly shows that about 50% of the students admitted in the institution are women and the institution educates to meet the social needs of the women.

2.1.6 Provide the following details for various programmes offered by the institution during the last four years and comment on the trends. i.e. reasons for increase / decrease and actions initiated for improvement.

- Applications are not received directly by the institution. Hence, the number of applications received is considered to be the total allotted seats by the Government (GA) and Self-Financing Consortium (CA) single window system.

Department of Electronics and Communication Engineering:

Name of the Course/Programme	Academic Year	Seats Allotted	Applications Received		Admitted	Demand Ratio
			GA	CA		
B.E. Electronics and Communication Engineering	2016-2017	120	40	58	98	1 : 0.81
	2015-2016	120	48	64	112	1 : 0.93
	2014-2015	120	50	61	111	1 : 0.92
	2013-2014	120	52	67	119	1 : 0.99
	2012-2013	120	57	63	120	1 : 1
M.E. Applied Electronics	2016-2017	24	3	12	15	1 : 0.62
	2015-2016	24	3	17	20	1 : 0.83
	2014-2015	24	10	11	21	1 : 0.87
	2013-2014	24	8	15	23	1 : 0.95
	2012-2013	18	-	18	18	1 : 1
M.E. Communications	2016-2017	24	4	16	20	1 : 0.83
	2015-2016	24	9	14	23	1 : 0.95
	2014-2015	24	8	10	18	1 : 0.75
	2013-2014	24	9	15	24	1 : 1
	2012-2013	18	-	18	18	1 : 1
M.E. Medical Electronics	2016-2017	18	-	4	4	1 : 0.22
	2015-2016	18	2	4	6	1 : 0.33
	2014-2015	18	8	7	15	1 : 0.83
	2013-2014	18	7	2	9	1 : 0.50
	2012-2013	11	-	11	11	1 : 1
M.E. Communication and Networking	2016-2017	24	-	6	6	1 : 0.25
	2015-2016	24	2	3	5	1 : 0.20
	2014-2015	24	5	1	6	1 : 0.25
	2013-2014	18	6	8	14	1 : 0.77
	2012-2013	18	-	18	18	1 : 1

Department of Mechanical Engineering:

Name of the Course/Programme	Academic Year	Seats Allotted	Applications Received		Admitted	Demand Ratio
			GA	CA		
B.E. Mechanical Engineering	2016-2017	120	51	73	124	1 : 1.03
	2015-2016	120	52	73	125	1 : 1.04
	2014-2015	120	54	66	120	1 : 1
	2013-2014	120	58	68	126	1 : 1.05
	2012-2013	120	60	65	125	1 : 1.04
M.E. Energy Engineering	2016-2017	18	-	3	3	1 : 0.16
	2015-2016	18	2	3	5	1 : 0.27
	2014-2015	18	6	4	10	1 : 0.55
	2013-2014	18	5	9	14	1 : 0.77
	2012-2013	18	-	15	15	1 : 0.83

Department of Electrical and Electronics Engineering:

Name of the Course/Programme	Academic Year	Seats Allotted	Applications Received		Admitted	Demand Ratio
			GA	CA		
B.E. Electrical and Electronics Engineering	2016-2017	60	18	24	42	1 : 0.70
	2015-2016	60	26	29	55	1 : 0.91
	2014-2015	60	26	20	46	1 : 0.76
	2013-2014	60	27	29	56	1 : 0.93
	2012-2013	60	29	26	55	1 : 0.91
M.E. Control and Instrumentation	2016-2017	18	1	5	6	1 : 0.33
	2015-2016	18	3	2	5	1 : 0.27
	2014-2015	18	7	4	11	1 : 0.61
	2013-2014	18	5	10	15	1 : 0.83
	2012-2013	18	-	17	17	1 : 0.94
M.E. Power Electronics and Drives	2016-2017	24	1	11	12	1 : 0.50
	2015-2016	24	4	9	13	1 : 0.54
	2014-2015	24	5	7	12	1 : 0.50
	2013-2014	18	7	8	15	1 : 0.83
	2012-2013	18	-	18	18	1 : 1

Department of Computer Science and Engineering:

Name of the Course/Programme	Academic Year	Seats Allotted	Applications Received		Admitted	Demand Ratio
			GA	CA		
B.E. Computer Science and Engineering	2016-2017	120	42	69	111	1 : 0.92
	2015-2016	120	48	36	84	1 : 0.70
	2014-2015	120	55	53	108	1 : 0.90
	2013-2014	120	49	56	105	1 : 0.87
	2012-2013	120	54	58	112	1 : 0.93
M.E. Computer Science and Engineering	2016-2017	24	1	6	7	1 : 0.29
	2015-2016	24	8	8	16	1 : 0.66
	2014-2015	24	5	16	21	1 : 0.87
	2013-2014	24	10	13	23	1 : 0.95
	2012-2013	18	-	18	18	1 : 1

Department of Civil Engineering:

Name of the Course/Programme	Academic Year	Seats Allotted	Applications Received		Admitted	Demand Ratio
			GA	CA		
B.E. Civil Engineering	2016-2017	60	24	33	57	1 : 0.95
	2015-2016	60	27	33	60	1 : 1
	2014-2015	60	26	34	60	1 : 1
	2013-2014	60	26	32	58	1 : 0.96
	2012-2013	60	27	32	59	1 : 0.98
M.E. Construction Engineering and Management	2016-2017	18	3	2	5	1 : 0.27
	2015-2016	18	4	13	17	1 : 0.94
	2014-2015	18	6	12	18	1 : 1
	2013-2014	18	8	10	18	1 : 1
	2012-2013	18	-	18	18	1 : 1
M.E. Structural Engineering	2016-2017	18	5	12	17	1 : 0.94
	2015-2016	18	4	14	18	1 : 1
	2014-2015	18	6	12	18	1 : 1
	2013-2014	18	6	10	16	1 : 0.88

Department of Information Technology:

Name of the Course/Programme	Academic Year	Seats Allotted	Applications Received		Admitted	Demand Ratio
			GA	CA		
B.Tech. Information Technology	2016-2017	60	19	21	40	1 : 0.66
	2015-2016	60	20	28	48	1 : 0.80
	2014-2015	60	17	17	34	1 : 0.56
	2013-2014	60	24	15	39	1 : 0.65
	2012-2013	60	22	28	50	1 : 0.83

Department of Management Studies (Master of Business Administration):

Name of the Course/Programme	Academic Year	Seats Allotted	Applications Received		Admitted	Demand Ratio
			GA	CA		
Master of Business Administration	2016-2017	60	14	46	60	1 : 1
	2015-2016	60	15	45	60	1 : 1
	2014-2015	60	14	45	59	1 : 0.98
	2013-2014	60	13	27	40	1 : 0.66
	2012-2013	60	15	45	60	1 : 1

Department of Computer Applications (Master of Computer Applications):

Name of the Course/Programme	Academic Year	Seats Allotted	Applications Received		Admitted	Demand Ratio
			GA	CA		
Master of Computer Applications	2016-2017	60	6	46	52	1 : 0.86
	2015-2016	60	3	42	45	1 : 0.75
	2014-2015	60	3	65	68	1 : 1.13
	2013-2014	60	2	1	3	1 : 0.05
	2012-2013	60	14	23	37	1 : 0.61

➤ From the above information, the demand for the UG programmes Mechanical

Engineering and Civil Engineering is very high since more job opportunities are available in the job market.

- Also there is a decrease in demand for the UG programmes like Computer Science and Engineering and Information Technology, since there is a change in the job opportunities in the IT sector of the job market.
- The selection committee of our institution, changed the admission policies for each and every year based on the demand. There has been tremendous improvement in the admission to programmes B.E- Computer Science and Engineering and B.Tech- Information Technology for the last two academic years.

2.2 Catering to Student Diversity

2.2.1 How does the institution cater to the needs of differently-abled students and ensure adherence to government policies in this regard?

- The institution facilitates all the needs of differently-abled students. Our institution has the following facilities and support for the differently-abled students.
 - The Government policy of reservation for such students is followed.
 - The college campus is accessible and movement-friendly for the differently-abled with lift, ramp and wheelchair facilities.
 - Priorities of seats are allotted in college buses with a boarding facility for the differently-abled students. Special boarding wooden steps are provided to the students while boarding and alighting the bus. They are assisted by bus managers.
 - The government is providing concession for train travel for the differently-abled student along with an escort. While going on educational tour the college does take necessary action to obtain concession during travel and the same is provided.
 - Provisions are available for extra time and a scribe facility in university examinations to the students who are differently-abled as per the affiliating university rules.
 - Also government's scholarships are provided through the institution for the disability students every year.

2.2.2 Does the institution assess the students' needs in terms of knowledge and skills before the commencement of the programme? If 'yes', give details on the process.

- Yes.
- Assessing the knowledge
 - The entry level behaviour of the students is assessed based on the marks of the qualifying examination and categorized as gifted, mediocre and slow learners.
 - Also, an entry-level test containing 50 objective type questions (Physics-10, Chemistry-10, Mathematics-10, English-10, Basics of Computer-10) is conducted to assess the entry level knowledge of students.
- Assessment of skill
 - In order to develop and showcase the hidden skills of the students, the institution has several clubs like, Fine Arts Club, Tamil Mantram, Jothys, Konverz, Radio club, NSS, NCC, Women's Cell etc.. Each club is coordinated by a faculty advisor. At the beginning of every academic year circulars are sent to invite students to join the clubs.

- Interested students join their desired club. Thus, the skills of the students are assessed and identified.

2.2.3 What are the strategies adopted by the institution to bridge the knowledge gap of the enrolled students (Bridge/Remedial/Add-on/Enrichment Courses, etc.) to enable them to cope with the programme of their choice?

- Bridge course in basic science and engineering subjects is conducted as per the Anna university syllabus before the commencement of the programme for the enrolled students.

Details of bridge courses conducted during the last four years:

Academic Year	Subjects	From Date	To Date	Number of Students Attended
2016-2017	English, Mathematics, Physics, Chemistry, Computer Programming	11-07-2016	22-07-2016	474
2015-2016	English, Mathematics, Physics, Chemistry, Computer Programming, Engineering Graphics	13-07-2015	23-07-2015	339
2014-2015		19-07-2014	28-07-2014	331
2013-2014		23-07-2013	31-07-2013	320

- After the process of admission is over, inauguration function is conducted. The Chief guest, the Correspondent, the Principal, the Bursar, Governing Council Member and Heads of the Department use the inauguration function as a platform to guide and motivate the students.
- The Correspondent and the Principal elaborate the vision, mission, rules and regulations and the expected outcomes of the college.
- In the first week of commencement of the classes, the heads of various departments and the Principal visit first year classes. They address the students to create awareness of the chosen course, objectives, outcomes, higher study options, job opportunities and different competitive examinations.
- Seminars on selected topics are given as orientation programme to freshers by experienced faculty and subject experts.

The list of motivational programmes conducted for students enrolled in the academic year 2016-2017:

Class	Topic
ECE	To Become an Engineer
	General Motivation
MECH	Career Motivation
	Importance on Mechanical Engineering in Daily Life
EEE	Importance on Electrical Engineering in Daily Life
	Applications of Electrical Engineering in the Field of Civil Engineering
	Time Management
	Team Work
CSE	Responsibility
	To Become an Engineer
CE	Time Management
	Team Work

IT	Introduction to Engineering
	Importance of Information Technology in Engineering

- The institution has conducted 34 seminars and training programmes to fill the knowledge gap of enrolled students by subject and industrial experts from various institutions and industries.
- Expert resource persons from various industries and institutions are invited to share their experience.
- Many enrichment, value-added and skill development courses are conducted by each department every year to bridge the knowledge gap of the enrolled students.

List of enrichment, value added and skill development programmes conducted:

Department	Courses	No. of Courses
Electronics and Communication Engineering	Embedded C Microcontroller and ARM, Embedded Systems, Hardware and Networking, LED Lighting Products, Project Based Learning, Software Programming and Development	6
Mechanical Engineering	Advances in Automotive Technology, AutoCAD 2016 and Auto Desk Inventor, Computational Fluid Dynamics, Refrigeration and Air Conditioning, Self-Assessment on Technical Proficiency	5
Electrical and Electronics Engineering	Applied Electronics Training, Computing Techniques for Electrical Engineers, Electrical Professional Development Course, Electrical Software Training, Power System Training, Research Development Training	6
Computer Science and Engineering and Information Technology	Android Programming, ASP.Net Programming, C# and ADO.Net Programming, CCNA, Cloud Infrastructure Services, Data Science and Big Data Analytics, Dot Net Programming, Java Programming, Oracle PL/SQL, Oracle SQL, PHP with MYSQL, Web Designing and Scripting, Recent Technologies and Computer Applications, Enhancement Applications of Curriculum based Courses	14
Civil Engineering	AutoCAD, Revit Architecture, Software Course for Project Guidance in Civil Engineering, 3D printing, Interior Architectural Design, Special Programme on STAAD Pro Software	6
Master of Business Administration	Career Development, Personality Development, Research Tools, Management Practices, Organisational Behaviour, Entrepreneurship Development, International Business Management, Business Ethics and Corporate Social Responsibility and Governance, Soft Computing Techniques	9
Master of Computer Applications	PHP Program, Spoken English, IT Related Softwares	3

2.2.4 How does the college sensitize its staff and students on issues such as gender, inclusion, environment etc.?

- The college sensitizes its staff and students with the following activities.
- **Gender**
 - Awareness programs on gender equality are conducted with the help of non-professional bodies so that people are not discriminated based on their gender.
 - Women Cell conducted programmes such as Gender Equality Debate, Cancer Awareness Programme for women, Self Confidence Programme for women, Health Awareness Programme and Cleanliness for women.
 - Grievance Cell is constituted in the college to consider complaints related to any gender-based issues of women in the college.
 - SXCCE is a co-educational institution that has given equal opportunity to both the genders to involve in all the curricular, co-curricular and extracurricular activities.
 - Equal weightages are given to both men and women in all professional and non-professional bodies.
- **Inclusion**
 - SC/ST Cell takes special care for the welfare of the students.
 - Tamil Mantram is motivating the students to develop their cultural awareness through many activities.
 - Most of the Indian art and culture are incorporated in all the institutional celebrations.
 - Onam is being celebrated by the Malayalam Literary Association.
 - To enhance the equality among students, common dress code is being practiced.
 - The college organizes many medical camps, blood donation camps through YRC, NCC, RRC and NSS for the public to fulfill its social responsibility.
 - Common meditation centre is available for all the students of different religions.
- **Environment**
 - Environmental Science and Engineering course is included in the Anna University syllabus. This helps the student become aware of eco-friendly environment.
 - Final year students joined their hands in the Swatch Bharath human chain.
 - The college has declared its campus tobacco and the pollution free. Display boards such as “Tobacco Free Campus”, “Plastic Free” and guidelines on making the college campus eco-friendly are exhibited at prominent locations on the college campus.
 - Flower pot-girl rising has been organized in our campus by our students.
 - The Eco club in our institution sensitizes and takes care of the environment of our campus and makes it eco-friendly.
 - The institution ensures the importance of the flora, water harvesting, and intensive research on bio-waste management.

2.2.5 How does the institution identify and respond to special educational/learning needs of advanced learners?

- Identifying Advanced Learners
 - The end-semester marks of the students are used to identify the advanced learners of each class.
 - Subject-wise class topper's list is maintained to find advanced learners.

- For the class toppers the department HOD and the faculty members discuss additional training to be adopted.
- Getting willingness from the students about their interest in additional training.
- Satisfying Advanced Learners Need
 - Saturday special programs are arranged by the department faculty members to provide additional training to advanced learners.
 - Assignments and seminars are used to kindle the creativity of advanced learners.
 - Students are encouraged and supported for attending special workshop, inplant training, seminars, symposia and conferences, conducted in reputed institutions.
 - Several value-added courses, training programs, conferences and GATE coaching classes are conducted by the departments.
 - Seminars by industrial experts are arranged by each department for the students to benefit.

2.2.6 How does the institute collect, analyze and use the data and information on the academic performance (through the programme duration) of the students at risk of drop out (students from the disadvantaged sections of society, physically challenged, slow learners, economically weaker sections etc. who may discontinue their studies if some sort of support is not provided)?

- Mentor System
 - Around 20 to 25 students are assigned to a mentor.
 - The mentor keeps track of the student's attendance, academic performance, behaviour and personal problems.
 - The mentors contact parents if any student is on long leave without proper information.
 - They keenly monitor the Internal Assessment Test marks and end-semester examination marks and guide them to score good marks in the end-semester examinations.
 - Mentors meet the students periodically, they identify their problems and help the students to solve the problems.
 - Students who are at the risk of dropout are counselled by the mentors by one to one meeting.
 - Parents/Gaurdian of such students are consulted and together with the faculty, the problems of such students are analysed.
 - If the problem is not solved, then it is brought to the Department Head and to the Head of the Institution.

Number of students who were at the risk of dropout, saved by providing suppot, in the last four years:

Department	Academic Year				
	2016-2017	2015-2016	2014-2015	2013-2014	2012-2013
Electronics and Communication Engineering	-	3	-	-	-
Mechanical Engineering	3	2	1	2	3
Electrical and Electronics Engineering	8	11	12	10	12
Computer Science and Engineering	2	1	-	2	-

Information Technology	-	-	2	1	-
Management Studies	-	1	-	-	1
Computer Applications	2	2	1	1	2
Humanities and Sciences	2	2	1	1	-

2.3 Teaching-Learning Process

2.3.1 How does the college plan and organize the teaching, learning and evaluation schedules? (Academic calendar, teaching plan, evaluation blue print, etc.)

➤ Academic Calendar

In every academic year, a committee under the guidance of the Principal is formed to frame the academic calendar. It carries schedule of internal assessment tests, university practical examinations, university theory examinations, activities of departmental associations and other bodies, college day, sports day, fine arts day and details about holidays.

➤ Teaching Plan

- Before the commencement of every semester, based on the subject expertise and willingness subjects are allotted to staff members by Head of the Department.
- Timetable is prepared by the department and approved by the Principal.
- Teaching hours for subjects are allotted based upon the credits of the subject.
- Staff members prepare Course File consisting of comprehensive course plan, study materials and additional teaching materials.
- In every academic year, a faculty advisor is selected for departmental association. The faculty advisor with student office bearers plans and arranges various co-curricular activities.
- Industrial visits and field visits are organized for the enrichment of the courses.
- Students are well-informed about the activities which are conducted in the college through notices, posters and announcements in the class. Notices are also circulated in each classroom.
- The faculty-in-charges of exam cell, placement cell, professional and non-professional bodies of the college have regular meetings with the Principal and Correspondent to finalize their schedules and activities.
- Head of the Department and Class Committee Chair Persons plan and conduct three class committee meetings, attended by student representatives and course-in-charges in a semester.
- Project coordinator appointed by HoD plan and execute the activities of project work.
- Lab manuals are prepared jointly by the course-in-charges and lab-in-charges prior to the commencement of semester.
- Lab-in-charges meetings are conducted frequently to discuss and plan purchase and updation of lab equipment.
- Students attendance and performance are recorded and monitored with the help of Attendance and Assessment Record which is maintained by the course-in-charges and verified by HoD.

➤ Evaluation

- The syllabus and question paper pattern is communicated to the students in the beginning of the academic year by the course instructor.

- Three internal assessment tests are conducted to evaluate students in every semester.
 - The internal marks are awarded as per the university regulation to students based on the marks scored in the internal assessment tests.
 - The marks are entered into the affiliating university website and the students can view the marks by using their user name and password provided by the university.
 - Internal test question paper is prepared by course instructor. The Exam Cell representatives of each department and Exam Cell scrutinize the question papers.
 - HoD randomly verifies the evaluated answer scripts and the marks entered in the college automation software.
- Mid-semester and end-semester feedbacks taken from students are analysed to review the teaching learning and evaluation process.

2.3.2 How does IQAC contribute to improve the teaching-learning process?

- IQAC provides the benchmarks to improve the teaching-learning process.
- It does course file audit and academic audit to ensure effective implementation of teaching-learning strategies.
- It organises quality initiative seminars by inviting eminent resource persons from reputed institutions.
- It suggests, plans and monitors the usage of automation software for the effective implementation of different teaching-learning processes.

2.3.3 How is learning made more student-centric? Give details on the support structures and systems available for teachers to develop skills like interactive learning, collaborative learning and independent learning among the students?

- Student-Centric Learning
- As the students are center of attention in every educational institution and one of the most important stakeholders, all the programs are designed to fulfill their requirements.
 - Academic activities are reviewed based on the Mid- and End-semester feedbacks of students.
 - Students are given representation in all the institutional activities and they are prepared to develop the leadership qualities.
 - In every institutional activity, students are selected to represent the students' community, equally from male and female groups. All the programmes of the professional and non-professional bodies are organized with the help of these student representatives.
 - Tutorial classes, assignments, seminars, special classes and other participatory learning methods are conducted in such a way that it suits the skills of the students.
- Support Structures and Systems
- Campus is enabled with Internet facility and Wi-Fi connection with speed of 50 Mbps.
 - College library working hours is extended beyond the regular college timing.
 - Computer laboratory is functioning beyond the college regular working time for the students to complete their mini projects, assignments and lab work
 - Final year students are provided with all the required facilities for in-house project.
 - Seminar halls, and Conference halls with air conditioning facility and capacity of

more than 200 students, equipped with LCD Projectors, Laptops and Audio facility are available to arrange seminars, workshops and various other programmes.

➤ Support Structure for Learning

- Interactive Learning
 - Students are involved in doing mini projects which help them improve their innovative power, practical knowledge and enhance the team spirit.
 - Students are motivated to ask questions to the faculty and clarify their doubts inside the campus.
 - Students are encouraged to use quiz facility available in the college automation software.
- Collaborative Learning
 - Group seminar, group discussion and group assignment are some of the strategies used for collaborative learning.
 - Special classes are conducted for slow learners in the evening and holidays. The strategy of group learning is used to coach slow learners in the special class.
 - The institution promotes collaboration in student projects.
 - Students are motivated to do research in their areas of interest by the subject experts
- Self Learning
 - Assignments and design exercises make the students creative and curious.
 - Student seminars are used to make students learn by teaching.
 - Facilities like NPTEL videos of capacity around 2 TB and other e-materials are used for self learning.
 - Subscription of online journals by the institution and the literature review done by students for the implementation of project work ignite self learning.

2.3.4 How does the institution nurture critical thinking, creativity and scientific temper among the students to transform them into life-long learners and innovators?

- The institution is encouraging the students to improve critical and creative thinking and inculcate scientific temper in the following ways:
- The institution organizes conferences, symposia, seminar and workshops.
 - Prepares students for national and international level technical events.
 - Students participate in robotics competition conducted by Caterpillar Systems.
 - Students are fortified to do innovative and real time projects with literature review.
 - Assignments on advanced level topics are used to develop their innovative thinking.
 - Seminars on cutting-edge topics kindle the scientific temper of the students.
 - Tech-Fest is organized in the institution every year. Project modeling, paper presentation, poster presentation and quiz are conducted.
 - Industrial visits are arranged for students to improve their practical knowledge.
 - College magazine provides a platform for students to showcase their creative and innovative excellence by contributing their own articles, stories, poems, etc.
 - The institution is encouraging students to carryout mini projects to enhance their creativity and scientific temper in the area of their choice.
 - The institution trains the students in answering objective type questions to develop quick and allied thinking.

2.3.5 What are the technologies and facilities available and used by the faculty for effective teaching? Eg: Virtual laboratories, e-learning - resources from National Programme on Technology Enhanced Learning (NPTEL) and National Mission on Education through Information and Communication Technology (NME-ICT), open educational resources, mobile education, etc.

The institution aims at providing effective teaching using the following technologies and facilities:

- 2TB size of NPTEL video materials are available and used by faculty members and students.
- EduSat facility is available, through which online courses are delivered to students and faculty members to update their subject knowledge.
- The institution has the remote center facility to interact with IITs through NMEICT and conducts ISTE workshops.

The list of workshops conducted through NMEICT:

Sl. No.	Date	Title
1	08-10-2015 to 05-12-2015	Technical Communication
2	05-01-2015 to 07-01-2015 19-01-2015 to 21-01-2015	Pedagogy for Effective Use of ICT in Engineering Education
3	02-12-2014 to 12-12-2014	Control Systems
4	21-07-2014	Workshop on Google Apps for Education
5	10-07-2014 to 20-07-2014	Cyber Security
6	20-05-2014 to 30-05-2014	Fluid Mechanics
7	16-06-2014 to 21-06-2014	Computer Programming
8	04-06-2013 to 14-06-2013	Analog Electronics
9	21-05-2013 to 31-05-2013	Database Management Systems
10	02-02-2013, 09-02-2013	Research Methods in Educational Technology
11	10-11-2012 to 11-11-2012	Aakash for Education

- Aakash tablets and the training help staff members use Akash tablet for effective teaching.
- Through MOOCs, faculty members have completed many online courses to improve their teaching quality.
- The institution subscribes to IEEE, Elsevier, Springer, IET, ASTM and J.Gate online journals and McGraw Hill e-books. Faculty members utilize these resources to augment their knowledge.
- Membership in DELNET and NDL facility provides access to rare books.
- All the classrooms are equipped with LCD projector. Faculty members use power point presentation, simulations and video clips to teach the subjects.
- Portable over head projectors are also available in all the departments.
- All the computers in the institution are provided with Internet connectivity of capacity 50 Mbps.
- Also, all the departments have their own powerpoint presentation bank and video bank to educate the students through ICT tools.
- Android-based mobile applications are developed for subjects and used in teaching by the faculty.

2.3.6 How are the students and faculty exposed to advanced level of knowledge and skills (blended learning, expert lectures, seminars, workshops etc.)?

- Blended Learning
 - The classrooms are fully Wi-Fi enabled and equipped with LCD projector.
 - Online materials are downloaded and demonstrated inside the class room to students.
 - Students interact with the faculty, and with the ICT content through thoughtful integration of online and face-to-face environments.
 - Demonstrations using PPTs, simulations, audio and video materials are used to make students get enhanced learning of the subject.
- Eminent persons from industry and other institutes are invited as resource persons to deliver expert lectures, present seminars and conduct workshops.

Number of eminent persons who have visited the college in the last four years:

Department	Number of Eminent Persons
Electronics and Communication Engineering	20
Mechanical Engineering	13
Electrical and Electronics Engineering	35
Computer Science and Engineering	9
Civil Engineering	7
Information Technology	31
Management Studies	30
Computer Applications	18
Humanities and Sciences	34

- The institution has made more than 20 MoUs with reputed institutions, universities and industries across the world for advanced level of skills and knowledge.
- Skill tests are conducted on AutoCAD, Revit, Oracle, PHP, Inventer and Cloud computing and infrastructure by certified software providers. The department of Computer Science and Engineering coordinates the program and students are encouraged to acquire many skills during their course in the college.
- Chapters of professional bodies like IEEE, CSI, ISTE, IET, SAE, ISHRAE and ACM, paves the way for organizing technical events.
- The institution has established institutional membership with IET, CSI and ISTE.
- Industrial visits are arranged to the students every semester.
- Conferences and symposia are conducted every year by the department associations that expose students and staff to the latest research.

List of conferences conducted in the institution in the last four years:

Sl. No.	Date	Title of the Conference
1	26-02-2016 & 27-02-2016	IEEE International Conference on Green High Performance Computing (ICGHPC'16)
2	07-04-2016 & 08-04-2016	International Conference on Energy Efficient Technologies for Sustainability (ICEETS'16)
3	29-03-2016	Electros conference on Researches in Electronics and Communication Technologies

4	10-03-2016 & 11-03-2016	National conference on Green Initiatives and Smart Grid GISCON'16
5	19-03-2015	National Conference in Recent Trends in Information and Computer Technology (ARETE-2KXV)
6	05-03-2015	National Conference on Recent Innovations in Communication and Electronics Systems NCRICE-15
7	10-04-2014 & 11-04-2014	International Conference on Advances in Sustainability of Materials and Environment
8	26-03-2014	National Conference on Recent Trends in Computer Technology (NCRTCT-14)
9	21-03-2014 & 22-03-2014	National Conference on Advances in Image Processing and Communication NCAIC'14
10	07-03-2014	National Conference on Management Practices in Contemporary Era
11	05-04-2013	National Conference on Construction CONSTRUCT 2013
12	14.03.2013 & 15.03.2013	IEEE International Conference on Green High Performance Computing (ICGHPC'13)
13	10-04-13 to 12-04-13	International Conference on Energy Efficient Technologies for Sustainability (ICEETS'13)
14	06-03-2013 & 07-03-2013	National Conference on Innovative Electronics Systems and Information Technology NCIESIT'13
15	08-08-2012	National Conference on Recent Trends in Civil Engineering

- Workshops, training programmes and sensitization programmes are conducted to enrich the knowledge of faculty and students.

Number of workshops and training programmes conducted by the institution:

Sl.No.	Academic Year	Workshops	Training/Sensitization Programmes
1	2016-2017	13	3
2	2015-2016	16	13
3	2014-2015	17	9
4	2013-2014	24	15
5	2012-2013	20	21

2.3.7 Detail (process and the number of students \benefitted) on the academic, personal and psycho-social support and guidance services (professional counseling/ mentoring/ academic advise) provided to students?

- Mentoring
- To guide and counsel the students mentor system is followed in the institution.
 - Around 20 students are assigned under the guidance of a mentor.
 - The mentors keep track of the attendance, academic performance and behaviour of the students.
 - They identify personal issues of the mentee if any, that might interfere with the academic life of the student and try to solve the problem.
 - Students meet mentor for guidance when they face any problem.

- Course in-charges monitor the behavioral change of the student and inform the mentor. The mentors in turn counsel the students to solve the problems. If needed they are brought to the attention of the higher authority.

Number of students benefitted through mentoring system in the last four years:

Department	Academic Year				
	2016-2017	2015-2016	2014-2015	2013-2014	2012-2013
Electronics and Communication Engineering	188	107	176	153	67
Mechanical Engineering	12	11	13	10	8
Electrical and Electronics Engineering	14	30	32	28	26
Computer Science and Engineering	11	62	20	24	10
Civil Engineering	2	3	2	3	3
Information Technology	24	42	56	46	36
Management Studies	60	56	56	37	56
Computer Applications	4	3	3	2	4
Humanities and Science	14	20	5	8	6

- Professional Counseling:
 - The institution has established Counseling Cell, containing professional trainers and experienced faculty for providing counseling services to the students
 - Mentor system, Counseling Cell and Trained external counselors are to support the students in their academic growth, personal life and other social problems.
- Academic Advice:
 - Course instructors monitor the academic performance of the students and guide them.
 - Mentors provide guidance related to behavior, academic performance, attendance and in all aspects.
 - Placement Cell guides the students in developing their knowledge and skills to meet the industry standards.
 - The institution has a training cell called CETA (Centre of Excellence for Training and Application) which provides seven dimensional training programmes and guidance to the students.

2.3.8 Provide details of innovative teaching approaches/methods adopted by the faculty during the last four years? What are the efforts made by the institution to encourage the faculty to adopt new and innovative approaches and the impact of such innovative practices on student learning?

- Innovative Teaching Methods adopted by faculty
 - Multimedia teaching methods such as demonstrations using PPTs, simulations and video clips are adopted by the faculty members to teach the course content.
 - Mind-map method is adopted by faculty members to make students easily understand and remember complex topics.
 - Case study method and role play approach are followed by the faculty in teaching and learning process.
 - Android-based mobile applications are developed and used in teaching to enhance students' learning.
 - Aakash tablets are used in teaching and learning process by faculty members.

- Student seminars make students participate in teaching.
- Cooperative learning strategy is used to teach slow learners.
- An innovative method of online-based teaching through MOODLE is followed.
- Efforts made by the institution
 - The institution provides NMEICT teaching in collaboration with IIT Bombay. The institution is a recognized remote centre to interact with IITs through NMEICT.
 - NPTEL videos are made available to all the staff and students by providing appropriate dedicated server in the institution.
 - EduSat facility is available to link with the live interactive video lectures of Anna University.
 - All the class rooms are equipped with LCD projectors.
 - Internet facility is provided throughout the campus to access online materials.
 - Computer laboratories with built-in audio-video facilities are used to enhance the teaching.
 - The institution has subscription to online materials worth Rs.19,31,529/- for the academic year 2016-2017.
- Impact on Students
 - Teaching innovation has a positive, direct and significant effect on students' learning effectiveness.
 - The institution is producing considerable number of university rank holders every year.
 - Students are exposed to higher level of knowledge in different technical fields.
 - A good number of students are placed in reputed companies.
 - Students are encouraged to do higher studies in their area of interest.

2.3.9 How are library resources used to augment the teaching-learning process?

- NPTEL video facility exposes students and staff to expert lectures.
- DELNET facility makes students and staff accessible to rare books.
- Subscription to and use of online journals enhance the quality of project works and research.
- EduSat facility augments the teaching-learning process through its virtual class room teaching by university professors.
- Digital library and membership in NDL assists in fast search and access of information.
- The institutional library combines technology and information resources to allow remote access, breaking down the physical barriers between resources.
- Library automation software provides keyword search facility to search for book availability.
- Library hours are included in the regular class timetable to promote library usage.
- Library is made accessible before and after the regular college timing by students and staff members.
- Staff members and students can lend/refer to learning resources such as books, journals, CD/DVD, UG project reports, PG theses, Ph.D. theses from the library.
- Allows teachers and learners to meet outside the structure of the classroom, thus allowing people with different perspectives to interact in a knowledge space.

Number of journals and e-books subscribed from various publishers to augment teaching-learning process in the last four years:

Year	IEEE	Elsevier	Springer	ASTM (e-Books)	Wiley	McGraw-Hill (e-books)	J gate	IET	Epsco management
2016	145	275	49	1700	18	e-book database	Management database	18	-
2015	145	275	198	1700	18	e-book database	Management database	-	-
2014	145	275	49	1700	18	e-book database	-	-	1800
2013	145	275	49	1700	-	e-book database	-	-	-

2.3.10 Does the institution face any challenges in completing the curriculum within the planned time frame and calendar? If 'yes', elaborate on the challenges encountered and the institutional approaches to overcome these.

- Yes
- Due to some social issues and natural calamities a number of planned working hours get affected. In such cases, the days lost are compensated by working with extended time and working on Saturdays.

2.3.11 How does the institute monitor and evaluate the quality of teaching learning?

- Teaching learning and evaluation schedule is decided in the Principal and HODs meeting to give a clear-cut direction to departments.
- Faculty members prepare Course File for their allotted subjects, which is verified by Head of Departments four times in a semester and audited by the IQAC audit team constituted by the Principal.
- Faculty members maintain attendance and assessment record which are verified by Department Heads three times in a semester and approved by the Principal.
- Class Committee meetings are held three times in a semester.
 - In the meeting, class committee chair person makes students, faculty members and Department Head discuss and evaluate the teaching learning process.
 - Syllabus coverage, nature of subject, learning capability of students and excellence of staff in handling subjects are discussed and evaluated.
 - Department head ensures that the syllabus is completed effectively and timely as per the course plan prepared by faculty members in the beginning of the semester.
- Mid-semester feedback is used to evaluate the teaching-learning process.
- Comprehensive End-semester feedback is obtained from the students.
- Class test, internal assessment test, assignment and seminar are used to evaluate the quality of learning.
- Every semester, department-wise result analysis meeting is conducted to evaluate the teaching-learning process

2.4 Teacher Quality

2.4.1 Provide the following details and elaborate on the strategies adopted by the college in planning and management (recruitment and retention) of its human resource (qualified and competent teachers) to meet the changing requirements of the curriculum.

- The recruitment is based on merit in terms of qualification and experience in their respective field of specialization.
- HR Committee of the Management constitutes the selection committee which consists of the Correspondent, the management representatives, the Principal and external subject expert.
- **Faculty Recruitment Process:**
 - Faculty recruitment requisition is given to the Principal by Heads of Departments.
 - The Principal, requests the management for the recruitment.
 - The HR committee gets approval from the management and publishes recruitment notification in newspapers and all parishes of the diocese.
 - The applications are collected and scrutinized by the HR committee.
 - Shortlisted candidates are called for interview.
 - The selection committee conducts written test and interview.
 - The applicants are ranked based on the marks obtained in the selection process.
 - The management appoints staff from the rank list based on the requirement.

➤ **Faculty Retention:**

The following measures are adopted by the college to ensure that the faculty is motivated to continue their services:

- HRA, PF and medical allowance are provided to the faculty.
- Financial incentives are provided to the professors with Ph.D.
- Faculty members pursuing Ph.D. and other higher studies are encouraged.
- 5% of increment for 5 years and 10 % of increment for 10 years of continuous service in the institution are provided.
- A cash award of Rs.1000/- is given to the faculty who produce centum and near to centum results in the end-semester university examinations.
- Staff members who avail of no or less leave are rewarded.
- Festival advance of Rs.4000/- is provided to interested staff members every year.
- Faculty members are encouraged to attend orientation programs to develop their skills.
- Faculty members are provided with freedom in the discharge of their duties.
- The management organizes picnic to all the staff members once in a year.

The following table shows the station experience of faculty in the institution:

Station Experience	Number of Faculty
15 years and above	16
10 to 15 years	23
5 to 10 years	88
Less than 5 years	48
Total	175

2.4.2 How does the institution cope with the growing demand/ scarcity of qualified senior faculty to teach new programmes/ modern areas (emerging areas) of study being introduced (Biotechnology, IT, Bioinformatics etc.)? Provide details on the efforts made by the institution in this direction and the outcome during the last three years.

- For the new programmes introduced, the institution did not face any shortage of qualified faculty.
- The College organizes seminars, guest lectures, faculty development programs, workshops and seminars to update the knowledge of the faculty members in the emerging areas.
- For the new programmes, the heads of departments and faculty members suggest necessary books and online materials, for purchase by the library, to update the knowledge of the faculty.
- The outcome of this entire exercise results in:
 - Faculty knowledge enrichment in the emerging area that directly benefits students.
 - Students are updated with the emerging trends in their chosen field.
 - Research ambience in the institution increases.
 - More staff members apply for research projects.
 - Industry-institution interaction increases and results in MoUs.
 - Employability skills of the students are enriched in line with the growing demand of the industry and hence, there is an increase in the percentage of placed students.

2.4.3 Providing details on staff development programmes during the last four years elaborate on the strategies adopted by the institution in enhancing the teacher quality.

Number of nominations to staff development programmes in the last four years:

Academic Staff Development Programmes	Number of Faculty Nominated
Refresher courses	14
HRD programmes	12
Orientation programmes	21
Staff training conducted by the university	18
Staff training conducted by other institutions	34
Summer/winter schools, workshops, etc.	52

b) Faculty Training programmes organized by the institution to empower and enable the use of various tools and technology for improved teaching-learning Teaching learning methods/approaches, Handling new curriculum, Content/knowledge management, Selection, development and use of enrichment materials, Assessment, Cross cutting issues, Audio Visual Aids/multimedia, OER's, Teaching learning material development, selection and use

- The institution organizes various faculty development programmes in order to enhance the teachers' knowledge in handling subjects in new regulations.
- Faculty members attend several faculty development programs and seminars, which are being held outside the college to update their knowledge for the new curriculum.
- The staff members and students are trained in various cross-cutting issues through the activities of Women Cell, Eco Club, NSS, NCC, YRC, RRC, Tamil Mantram, Jyothis Grievance Cell and Fine Arts Club.
- Akash tablet training was conducted for the faculty members by the institution in incollaboration with IIT-Bombay.
- The institution conducted various training programmes on using open source

- softwares such as Ubuntu, LaTeX, Weka and Code blocks.
- The faculty members are aware of and use MOOCS by attending IIT-Bombay training programmes.
 - The institution has conducted training programmes for the Course File development, updation and maintenance.
 - To empower the teaching-learning process, the institution organizes several faculty training programmes, seminars and orientation programmes.

Faculty training programmes organized by the institution in the last four years:

Sl. No.	Date	Title of the Programme	Resource Person/Agency
1	21-12-2016	Quality Enhancement through Industry -Institute Collaboration	Er. C. Nagarajan, Manager (HRDTD), ISRO, Mahendragiri.
2	20-12-2016	Quality initiative seminar on Academic Performance Indicator	Dr. S. L. Rayar, Professor, Department of Physics, Thoothoor.
3	19-12-2016	Quality initiative seminar on NBA and NAAC Accreditations	Dr. V. Sadasivam, Former Professor and Head, Department of CSE, MS University, Tirunelveli.
4	21-08-2015	Learning through Management Games	Dr. M. Rangarajan, Professor, PSG College of Arts and Science, Coimbatore.
5	18-08-2016	How to Prepare a Research Project Proposal	Dr. R. Saravanan, Professor, CEG, Anna University, Chennai.
6	21-08-2015	Learning through Management Games	Dr. M. Rangarajan, Professor, PSG College of Arts and Science, Coimbatore.
7	25-07-2015	Academic Publishing	Mr. Sujan Shekar, Head, IET India Publishing.
8	30-06-2015 to 03-07-2015	Great Teacher	Dr. Fr. Francis P. Xavier S.J., Director, Loyola Engineering College, Chennai.
9	04-07-2015	Great Teacher	Dr. Fr. T. Sahayaraj SJ, Vice Principal, St.Xavier's, College, Palayamkottai.
10	21-05-2015	Innovative Leadership	Mr. Satheesh Jacob, Ramboll UK Ltd.
11	05-01-2015 to 21-01-2015	Pedagogy for Effective use of ICT in Engineering Education	IIT Bombay
12	23-08-2014	Great Teacher	Fr. Antony M. Muthu, Priest, Diocese of Kuzhithurai.
13	28-07-2014 to 31-07-2014	Great Teacher	Fr. Wilson, OFM Cap, Bangalore
14	21-07-2014	Workshop on Google Apps for Education	IIT Bombay
15	10-07-2014 to	Cyber Security	IIT Bombay

	20-07-2014		
16	16-06-2014 to 21-06-2014	Computer Programming	IIT Bombay
17	20-05-2014 to 30-05-2014	Fluid Mechanics	IIT Bombay
18	15-05-2014	Advanced Linux Training Programme	Cube n Square Technology Solutions, Chennai.
19	05-05-2014 to 08-05-2014	Linux based Operating System	Cube n Square Technology Solutions, Chennai.
20	13-07-2013	Role Play	Dr. R. Francis Xavier, Palayamkottai.
21	05-07-2013 to 09-07-2013	Role Play	Fr. Tony Thampi, Bangalore.
22	04-06-2013 to 14-06-2013	Analog Electronics	IIT Kharagpur
23	21-05-2013 to 31-05-2013	Database Management Systems	IIT Bombay
24	02-02-2013 to 09-02-2013	Research Methods in Educational Technology	IIT Bombay
25	10-11-2012 to 11-11-2012	Aakash for Education	IIT Bombay
26	10-08-2012 to 14-08-2012	Personal Enrichment Through Self Awareness	Fr. Gordon Daniells, S.J. Xavier Institute of Communications, Mumbai.
27	01-08-2012	Induction Programme to New Staff	Prof. M. Sebastian, Prof. C. Ganapthy Chettiar, SXCCE.

c) Percentage of faculty

Invited as resource persons in Workshops / Seminars / Conferences organized by external professional agencies

Academic Year	Number of Faculty	Percentage of Faculty
2016-2017	21	12.00
2015-2016	20	11.42
2014-2015	23	13.14
2013-2014	12	6.85
2012-2013	11	6.28

Participated in external Workshops / Seminars / Conferences recognized by national/ international professional bodies

Academic Year	Number of Faculty	Percentage of Faculty
2016-2017	59	33.71
2015-2016	98	56.00
2014-2015	110	62.85

2013-2014	110	62.85
2012-2013	119	68.00

Presented papers in Workshops / Seminars / Conferences conducted or recognized by professional agencies

Academic Year	Number of Faculty	Percentage of Faculty
2016-2017	12	6.85
2015-2016	38	21.71
2014-2015	54	30.85
2013-2014	55	31.42
2012-2013	32	18.28

2.4.4 What policies/systems are in place to recharge teachers? (eg: providing research grants, study leave, support for research and academic publications teaching experience in other national institutions and specialized programmes industrial engagement etc.)

- The institution provides all the support needed for pursuing research. On-duty leaves are provided to faculty members pursuing part-time research.
- On-duty leave is provided to faculty members for presenting papers in workshops, seminars and conferences.
- 'Research Methodologies', 'Technical Writing' and 'How to do Academic Publishing' are a few examples of workshops conducted to develop faculty members' ability in writing research papers and thesis.
- Recently on 18-08-2016, a workshop on "How to Apply for Research Grants" is conducted for motivating faculty members to apply for research grants.
- Study leaves are given to the faculty who desire for higher studies in IITs, NITs and in various Central and State Government Organizations.

2.4.5 Give the number of faculty who received awards / recognition at the state, national and international level for excellence in teaching during the last four years. Enunciate how the institutional culture and environment contributed to such performance/achievement of the faculty.

- Faculty members have received many cash awards and recognitions for their excellence in teaching.

Number of faculty members awarded centum or close to centum results:

Sl. No.	Department	Faculty Awarded for Centum/Close to Centum Result	Number of Awards received for Excellence in Teaching
1	Electronics and Communication Engineering	23	31
2	Mechanical Engineering	18	37
3	Electrical and Electronics Engineering	11	12
4	Computer Science and Engineering	21	55
5	Civil Engineering	12	27
6	Information Technology	4	13

7	Management Studies	5	06
8	Computer Applications	7	15
9	Humanities and Sciences	21	62

➤ Institutional Culture

- The institution conducts orientation programs and seminars for faculty to become a great teacher.
- On-duty leave is granted to faculty members to participate in national and international level activities.
- The institution encourages faculty members to act as resource person in workshops and seminars and also provides on-duty leave for the same.
- The institution motivates faculty members to work in other institute for short duration to learn the emerging technology and to create tie-up with them.
- The institution provided financial assistances to the faculty members to join the professional bodies such as IEEE, IET, CSI, SAE, ISHRAE, and ACM.
- The institution is the best institute partner of ICT Academy.

2.4.6 Has the institution introduced evaluation of teachers by the students and external Peers? If yes, how is the evaluation used for improving the quality of the teaching-learning process?

- Yes,
- Regular class committee meetings and collecting feedback from the students are the method used for evaluation.
- The class committee meeting is scheduled and conducted for each class three times in a semester.
- Teaching quality, syllabus coverage, subject knowledge gathered, additional hours for tough and problematic subjects, performance of students in class test and internal assessment test and suggestion for improvement are discussed in the class committee meeting.
- Based on the feedback obtained in the class committee meeting, special seminars by expert lectures are arranged for the students.
- Mid-semester and end-semester feedbacks are collected from students.
- Suggestion boxes are used to collect suggestions from students.
- The HOD and the course in-charge analyse the feedback submitted by students and take necessary actions to improve the teaching-learning process.
- Feedbacks from the alumni are collected in annual alumni meetings for evaluation.

2.5 Evaluation Process and Reforms

2.5.1 How does the institution ensure that the stakeholders of the institution especially students and faculty are aware of the evaluation processes?

- The institution follows the evaluation process that is prescribed by the affiliating Anna University.
- The ratio of formative internal assessment to the summative assessment is 20:80.
- Three sets of internal assessment marks are uploaded into the Anna University web portal at regular intervals throughout the semester, which can be viewed by the students.
- The college ensures that all the students are aware of the evaluation processes through the following means:

- The evaluation process is clearly mentioned in the handbook which is provided to all the students.
- The evaluation process is communicated to the parents and students clearly during the inauguration day at the beginning of the first year.
- During the beginning of the course an introductory class is conducted and the details about the evaluation process are instructed by the course-in-charge.
- The evaluation process is also communicated to and discussed with student representatives during class committee meetings.
- The format of question papers and duration of the test are clearly communicated to the students and instructors through circulars.
- The evaluated answer script along with the scheme of valuation is informed to the student to ensure transparency.
- The college ensures that all the faculty are aware of the evaluation processes through the following means:
 - A complete Course File containing scheme of evaluation process is maintained by the faculty.
 - The newly recruited faculty members are made aware of the evaluation process by HODs, senior faculty members and other subject experts.

2.5.2 What are the major evaluation reforms of the university that the institution has adopted and what are the reforms initiated by the institution on its own?

- University Reforms
 - The affiliating university has revised the revaluation process, by providing photo copy of the answer script for the review of the valuation by a subject expert.
 - The university has added a special question in the question paper to test students' ability in concept understanding through comprehensive, case study and creative questions.
 - At regular intervals the internal marks and attendance are updated on the university web-portal, which can be viewed by the students.
- Institutional Reforms
 - Two sets of question papers with answer key are obtained from the course instructors and one is selected by the Exam Cell and used for internal assessment test.
 - Answer keys are made available in the college automation software for students to access and know the evaluation scheme.
 - Students are educated to attend the comprehensive, case study and creative questions introduced by the affiliating university in the new question pattern by providing assignments, creative projects and practical classes.
 - The internal marks obtained by the students are displayed on the notice-board to ensure transparency.

2.5.3 How does the institution ensure effective implementation of the evaluation reforms of the university and those initiated by the institution on its own?

- The college has formed an Exam Cell which takes care of the formative assessment tests and summative assessment tests.
- The reforms that are introduced in the valuation process are conveyed to the course instructors, students and parents and ensured that they are implemented properly.

- The internal assessment examinations are centrally conducted by the Exam Cell according to the schedule which is informed to the students and the instructors well in advance.
- The Exam Cell coordinators ensure that the instructors set the question papers in the prescribed format.
- The answer scripts are evaluated by the instructors based on the scheme of valuation.
- The evaluated answerscripts are randomly verified by HoD.
- The instructors are given provision to enter the marks obtained by the students in the automation software with-in three days from the date of examination.
- For laboratory courses, end semester model practical examinations are conducted and the marks are submitted to the Exam Cell.
- The new intimations from affiliating university like revaluation process, introduction of new question pattern, etc., are informed to the students through circulars and display in notice boards.
- New systematic Course File, project verification cards and feedback system are introduced by the institution on its own to ensure the implementation of evaluation reforms intimated by the university.

2.5.4 Provide details on the formative and summative assessment approaches adapted to measure student achievement. Cite a few examples which have positively impacted the system.

- The formative and summative assessment approaches adopted to measure student achievement are:
 - The formative assessment comprises the internal assessment tests for the theory courses.
 - The formative assessment of the lab courses is done by assessing students' experiment completion, observation and record maintenance and performance in model practical examination.
 - The formative assessment of project work is done through reviews and demonstration.
 - The students are also assessed based on their performance in class test, assignments and seminars.
 - The summative assessment is carried out by the Anna University and the college follows all the approaches formulated by the university.
- The impact achieved by the above mentioned approaches is:
 - The formative assessment tests on a regular interval make continuous learning.
 - The regularity of the students is also improved because of these approaches.
 - The continuous assessment of the laboratory courses enriches observation maintenance, record writing and technical skills of the students and makes them industry ready with practical knowledge.
 - The continuous assessment of project work enhances the team work, review skill, presentation skill, report writing skill and practical knowledge of the students.
 - Due to the formative and summative approaches, students of the institution obtain better results and university ranks every year.

2.5.5 Detail on the significant improvements made in ensuring rigor and transparency in the internal assessment during the last four years and weightages assigned for the overall development of students (weightage for behavioral aspects, independent learning, communication skills etc.

- To ensure rigor and transparency in internal assessment the following procedures are adopted;
 - The students are given opportunity to view their internal assessment marks through college automation software.
 - Attendance and internal marks uploaded into the university web-portal can be viewed by students in their login.
 - Two sets of questions along with the scheme of valuation are set by each teacher for each test and the Exam Cell makes a random choice of one of these for the test.
 - The valuation of the answer script is completely based on the scheme of valuation.
 - The distribution of evaluated answer sheets gives a chance for the students to assess the evaluation process and to identify their mistakes and improve their performance.
 - Since the internal assessment marks are sent to parents through SMS, they motivate the students to study well apart from the institutional process.
 - For laboratory courses, the experiment completion, observation and record maintenance are recorded in the attendance and assessment record.
 - Project presentation and reviews act as platform for the students to improve communication, technical writing and independent learning skills.
 - To improve the independent learning ability of the students, assignments and seminars are provided and weightages are assigned to them.

2.5.6 What are the graduate attributes specified by the college/ affiliating university? How does the college ensure the attainment of these by the students?

- Graduate are expected to attain the following attributes
 - Engineering knowledge
 - Problem analysis
 - Design/development of solutions
 - Conduct investigations of complex problems
 - Modern tool usage
 - The engineer and society
 - Environment and sustainability
 - Ethics
 - Individual and team work
 - Communication
 - Project management and finance
 - Life-long learning
- The College ensures the attainment of graduate attributes through
 - Well-structured teaching-learning process.
 - Use of different ICT tools.
 - The college organizes various motivational and awareness programmes to enrich the students with the desired qualities.
 - Various trainings are organized by the Placement Cell to improve the soft skills.

- The students are trained with various value-added courses to improve their technical and professional skills.
- The MoU's with various organizations such as National Institute of Wind Energy (NIWE), R&D Institution under Ministry of New and Renewable Energy, The University of Udine Italy, Scott Christian College of Physical Education, Prolific Systems and Technologies Pvt. Ltd., Blueberry Industries Pvt. Ltd., AUTODESK, IET India, M/S CADD Centre, Ideal Constructions, Abinaya Constructions, Oracle University, Oracle Academy, ICTACT, VMWare, Dynamic Dreamers, Dhina Technologies, Metro College of Technology, EMC ² Palo Alto, Borotick India Woodtech (p) Limited, Scott Christian College, Holy Cross College and Networkz systems expose the students to various technical and professional aspects.

2.5.7 What are the mechanisms for redressal of grievances with reference to evaluation both at the college and University level?

- Grievance redressal mechanisms for summative assessment by the university are
 - The student, if having any grievance with the result; can apply for photocopy of the answer script.
 - The answer script will be evaluated by a faculty who has handled the subject. Students can apply for revaluation based on the recommendation of the faculty if they score more marks.
 - If students are not convinced even after the revaluation result, they can apply for review.
- Grievance Redressal mechanisms for formative assessment by the institution are
 - In case of any grievance in the evaluated answer script, the student can directly approach the instructor concerned for clarification.
 - Class committee meetings are conducted three times per semester to discuss and solve the grievances of the students. If they are still not convinced they can approach the mentor, Head of the Department concerned. For further they can approach the Head of the Institution.
 - Suggestion boxes are placed in various places around the campus and the collected grievances are analyzed by the constituted grievance cell of the institution.

2.6. Student Performance and Learning Outcomes

2.6.1 Does the college have clearly stated learning outcomes? If 'yes' give details on how the students and staff are made aware of these?

- Yes. The college has clearly defined learning outcomes.
- The college has formulated its own Vision, Mission, Objectives, Slogan, Values and Quality Policy.
- Each department has vision, mission, programme educational objectives and well-defined program outcomes.
- The syllabus book provided to the students clearly contains the objective of and the outcome for all the courses.
- The college handbook is provided to all the students at the beginning of every academic year, which clearly states the vision, mission, objectives, values and quality policy of the college.

- The college website carries this information in the home page.
- The vision and mission are also posted on the department pages on the college website.
- The course instructors have vision and mission of the institution, programmes, educational objectives and programme outcome details in their course files. Course-in-charge explains these details to students in the beginning of the semester.

2.6.2 Enumerate on how the institution monitors and communicates the progress and performance of students through the duration of the course/programme? Provide an analysis of the students results/achievements (Programme/course wise for last four years) and explain the differences if any and patterns of achievement across the programmes/courses offered.

- The progress and performance of students are monitored by the following mechanisms:
 - Class tests
 - Internal assessment tests
 - Assignments
 - Seminars
 - Quiz
 - Classroom discussions
 - Remedial classes
 - Project work presentation and demonstration
 - Experiment completion and observation & record maintenance
 - Lab model examination
 - University examinations
- The progress and performance of students are communicated through the following mechanisms:
 - The progress of the students is communicated to them first by distributing the evaluated answer scripts to them and then by displaying the marks in the notice boards and in the automation software.
 - The attendance and internal marks of students entered in the university web-portal can be viewed by students.
 - The progress is communicated to the parents through SMS.
 - The mentor keeps a record of the academic performance of each of his/her students and periodically discusses the performance with students.
 - The Parent-Teacher Interaction Cell is constituted by the institution which provides a platform to link parents and faculty.
- Due to the monitoring mechanisms followed in the institution, Students perform well in the university examinations and secure many university ranks including Gold medals.
 - In the last four academic years, students have secured 188 university ranks and 6 Gold medals.

UG students' performance in university examinations in the last four years:

Batch	UG Programme	Total Students	No. of All Clear Students	% of Pass	No. of First Class	No of Distinction	No. of Rank Holders
2012-2016	ECE	140	119	85.00	105	7	1

Batch	UG Programme	Total Students	No. of All Clear Students	% of Pass	No. of First Class	No of Distinction	No. of Rank Holders
2011-2015		132	121	91.66	113	1	-
2010-2014		152	132	86.84	122	5	7
2009-2013		136	121	89.00	108	11	8
2012-2016	MECH	133	107	80.45	79	5	-
2011-2015		70	59	84.28	47	-	-
2010-2014		49	47	95.19	39	8	9
2009-2013		45	40	89.00	34	6	6
2012-2016	EEE	68	57	83.82	38	3	1
2011-2015		44	39	88.63	31	2	-
2010-2014		48	40	83.33	39	-	1
2009-2013		43	38	88.00	32	3	5
2012-2016	CSE	120	97	80.80	84	1	-
2011-2015		124	100	80.64	83	2	2
2010-2014		142	123	86.61	113	2	3
2009-2013		126	94	75.00	78	4	7
2012-2016	CE	67	50	74.62	39	2	2
2011-2015		70	61	87.14	57	2	2
2010-2014		52	43	82.69	37	4	5
2009-2013		48	42	88.00	29	12	16
2012-2016	IT	52	42	80.00	-	-	-
2011-2015		54	51	94.64	45	-	-
2010-2014		64	48	75.00	43	1	-
2009-2013		52	38	73.00	37	-	-

PG students' performance in university examinations in the last four years:

Batch	PG Programme	Total Students	No. of All Clear Students	% of Pass	No. of First Class	No. of Distinction	No. of Rank Holders
2014-2016	AE	19	19	100	13	6	7
2013-2015		23	23	100	17	5	7
2012-2014		18	18	100	17	1	3
2011-2013		18	18	100	14	4	7
2014-2016	CS	18	18	100	11	7	9
2013-2015		22	22	100	19	3	7
2012-2014		17	17	100	16	1	3
2011-2013		18	17	94.00	13	4	3
2014-2016	ME	15	15	100	9	6	1
2013-2015		9	9	100	6	3	1
2012-2014		10	10	100	9	1	1
2014-2016	CN	5	5	100	5	-	-
2013-2015		14	14	100	9	4	1
2014-2016	EE	8	8	100	7	1	1
2013-2015		13	13	100	11	2	2

2012-2014		16	15	93.70	13	1	1
2011-2013		18	17	94.00	14	2	2
2014-2016	PED	10	10	100	7	3	3
2013-2015		14	14	100	12	2	3
2012-2014		18	18	100	14	4	5
2014-2016	CI	11	11	100	10	1	-
2013-2015		15	15	100	11	3	1
2012-2014		16	16	100	14	2	1
2011-2013		17	16	94.00	12	4	-
2014-2016	CSE	21	21	100	21	-	2
2013-2015		22	22	100	21	1	1
2012-2014		18	17	94.44	16	1	1
2011-2013		18	18	100	12	6	7
2014-2016	CEM	18	16	94.11	10	6	1
2013-2015		18	18	100	12	6	1
2012-2014		18	18	100	9	9	2
2011-2013		19	17	83.00	10	6	3
2014-2016	SE	17	17	100	12	5	8
2013-2015		16	13	81.25	10	3	4
2014-2016	MBA	55	35	63.64	21	-	-
2013-2015		37	23	62.16	19	-	2
2012-2014		56	39	69.64	38	-	-
2011-2013		52	32	62.00	30	-	-
2014-2016	MCA	67	60	91.04	54	3	4
2013-2015		53	52	98.11	47	4	2
2012-2014		50	38	76.00	32	6	5
2011-2013		56	49	88.00	48	1	1

2.6.3 How are the teaching, learning and assessment strategies of the institution structured to facilitate the achievement of the intended learning outcomes?

- The teaching strategies comprise the following activities:
 - Before the beginning of every academic year, HoDs meeting and staff meeting are held to discuss and decide strategies regarding teaching, learning and assessment.
 - Subject allocation is made for each staff member well in advance.
 - The instructor prepares detailed Course File and lab manuals which are verified by HoDs.
 - Timetable for lectures and tutorials are prepared in advance and given to students on the first day of a semester.
 - Various classroom teaching methods such as lectures, audio video presentation, demonstration, virtual classroom, discussion, seminars, interaction and role play are followed.
 - Class committee meetings are organized at regular intervals in which the teaching-learning process are discussed and necessary suggestions for improvement are obtained from students and staff.
 - Based on the staff and student feedback, necessary arrangements are made to improve the teaching-learning process.
- The learning strategies comprise the following activities:
 - Student seminars help students learn by teaching.

- Assignments to suit the learning skills of advanced and slow learners are given.
- The institution provides opportunities to the students for industrial visit to interact with industry.
- Training on soft skills, interview skills and personality development are organized through the Training and Placement Cell.
- Value added courses such as Big Data Analytics, Cloud Infrastructure and Services, Oracle and AutoCAD are organized by signing MoUs with EMC², VMware, Autodesk and ICT academy.
- Faculty and students are encouraged to publish articles, present papers in national and international conferences and seminars.
- The assessment strategies comprise the following activities:
 - Class tests and three internal assessment tests are conducted to continuously assess the performance of students in theory classes.
 - Individual or group assignments and mini projects are also used to assess students' attainment of learning outcomes.
 - Project review presentations and demonstrations are used to assess the performance of students in project works.
 - Laboratory experiment completion, observation & record maintenance and performance in laboratory model test are used to assess students' performance in practical classes.
 - The course instructor maintains an assessment record for each subject to keep track of the performance and regularity of the students.
 - Based on the performance of the students in the internal assessment tests remedial classes are organized for the slow learners.
 - The end semester examination is conducted by the Anna university which in association with the continuous internal assessment evaluates the overall performance of the students. The overall performance is assessed by giving 80% weightage to end semester examination and 20% weightage to continuous internal assessment.

2.6.4 What are the measures/initiatives taken up by the institution to enhance the social and economic relevance (student placements, entrepreneurship, innovation and research aptitude developed among students etc.) of the courses offered?

- The institution has taken necessary steps to improve the placement
 - The institution has a Placement Cell to take all the necessary steps to improve students' placement.
 - The institutional Placement Cell has a placement officer, a faculty from each department and student representatives from each class.
 - Placement Cell collects career aspiration of the students such as job or higher study and arranges training programmes based on the career choice of the students.
 - Various placement and training programs are conducted specific to different departments.
 - The college also organizes various motivational programs to improve the confidence level of the students while appearing for the placement drive.
 - Placement Cell arranges on-campus placement drive.
 - Placement Cell coordinate off-campus placement drive.
 - Placement Cell organizes company specific training programmes.

Placement training programmes arranged by the institution through the Placement Cell:

Sl. No.	Training Category	No. of Programs organized	Beneficiary
1	Soft Skills	25	CSE, IT, ECE, MECH, CE, MCA, MBA and EEE
2	Aptitude and Reasoning Training	20	CSE, IT, ECE, MECH, CE, MCA, MBA and EEE
3	Technical skill	4	CSE, IT, ECE, MCA and EEE
4	Placement Orientation and Motivational Program	3	All First Year B.E/B. Tech Students
5	Company specific Training(Tech Mahindra, IVTL Infoview, UST Global, Infosys, TCS)	6	CSE, IT, ECE, EEE and MECH

- The college also works to develop young Entrepreneurs
- The institution has formed an Entrepreneurship Development Cell.
 - Entrepreneurship Development Cell has a coordinator, a faculty from each department and student representatives from each class.
 - The cell organizes various trainings, workshops and seminars to motivate the students towards entrepreneurship.

Programmes organized by Entrepreneurship Development Cell:

Sl. No.	Programme Name	Date	Number of Students Benefited
1	Finals- Business Plan Competition - Young Entrepreneurs Challenge -2016 Sponsored by Oliver g Foundation.	01-10-2016	13
2	Entrepreneurship Awareness Program	17-08-2016	75
3	Industrial Interaction Program and Inaugural Function of Young Entrepreneurs Challenge 2016.	13-08-2016	28
4	Entrepreneurship Awareness Camp funded Rs.20,000 by National Science and Technology Entrepreneurship Development Board and Supported by Entrepreneurship Development Institute of India, Ahmadabad.	11-02-2016 to 13-02-2016	75
5	Youth Entrepreneurship Summit 2015.	29-07-2015	15
6	Finals - Business Plan Competition- Young Entrepreneurs Challenge 2015 Sponsored by Oliver g Foundation.	01-04-2015	19
7	Industrial Interaction Program	24-01-2015	45
8	The Young Entrepreneurs Challenge 2015	24-01-2015	45
9	Entrepreneurship Awareness Camp-2 funded Rs.20,000 by NSTEDB and Supported by EDI, Ahmadabad.	22-01-2015 to 24-01-2015	75
10	Entrepreneurship Awareness Camp-1 Rs.20,000 funded by NSTEDB and Supported by EDI, Ahmadabad.	18-09-2014 to 20-09-2014	75
11	Industrial Interaction Program	18-09-2014	75

12	Entrepreneurship Awareness Camp-2 Rs.13,500 funded by NSTEDB and Supported by EDI, Ahmadabad.	06-02-2014 to 08-02-2014	75
13	Entrepreneurship Awareness Camp-1 Rs.13,500 Funded by NSTEDB and Supported by EDI, Ahmadabad.	03-10-2013 to 05-10-2013	76
14	Quiz Competition	30-09-2013	74
15	Tech Expo 2013	22-02-2013	165

- The institution provides opportunities to make food-stalls during the Sports Day, Fine Arts Day, Tech Fest and College Day, which are completely managed by the students. This help students learn and improve their entrepreneurial skills.
- Students are motivated to start a company or a business through awareness programmes.

Students who have started their own business and become entrepreneurs:

Year	Name of Student	Company Name
2014-2015	Simon Raj S.	Jai Trader, Tirunelveli.
2013-2014	Janaki Raman I.	Dynamic Solutions Pvt. Ltd., Kanyakumari.
2012-2013	Prawin Nesh J.	Genius Software Pvt. Ltd., Marthandam.

- The college has taken various steps for Innovation and Research Aptitude
 - The institution has a research committee with staff members from all the departments, to maintain a research ambience inside and outside the campus.
 - The students are motivated to do their own projects inside the campus.
 - The Research Committee of the institution works for instilling innovation and research aptitude.
 - The institution develops research aptitude among the students by providing real time project-based seminars, surveys and industrial visits. Also, it provides online subscription to important journals for the students to develop their research level.
 - MoUs are signed with various universities, institutions and industries for training the students in their research level.
 - Students are encouraged to publish their technical articles in college magazine, department magazine, symposium magazine, conference proceeding and journals.
 - Students are involved to prepare wall-magazine to train the school students under the INSPIRE scheme.
- Other initiatives taken by the college to enhance Social and Economic Relevance are
 - The NSS students organize various camps in villages around the district every year. The NSS students visit various orphanages.
 - The students of the Department of Electrical and Electronics Engineering have done an Energy Audit in Nullivilai, a village in Kanyakumari district.
 - The Tamil Mantram, Fine Arts Club, NCC and NSS jointly organized Pongal-2016 and Pongal-2017 Celebrations in Ambedkar Nagar, a nearby village.
 - Members of the IEEE and IET student chapters regularly visit orphanages every year.
 - The Youth Red Cross, NCC and NSS organize Blood Donation Camps every year. Institution encourages blood donation through YRC by providing On Duty leave to students.
 - Institutional programmes are conducted to educate students in higher educations like science and engineering.

- Facilities available in the college are used by government bodies to conduct their examinations and by external bodies to conduct socially relevant programmes.

2.6.5 How does the institution collect and analyze data on student performance and learning outcomes and use it for planning and overcoming barriers of learning?

- The institution makes use of internal assessment tests, assignments, review presentations and end semester examinations as a mechanism for assessing students' performance as regards attaining the learning outcome.
 - The institution has a centralized automation software to collect all the details about students' personal and academic details.
 - Also, the institution has a centralized Exam Cell which collects all the information about summative and formative assessing information.
- The performance of the students is analyzed through various mechanisms
 - Class committee meeting is organized three times in a semester to analyse and discuss the performance of students.
 - After every internal assessment test, internal test analysis meetings are organized and students' attainment of learning outcomes and necessary solutions are discussed.
 - The mentor keeps track of all the details of a student, analyzes and gives report to higher authorities.
 - Result analysis meetings are conducted department-wise twice in a year to analyze the performance and the learning outcomes of a student.
- The planning that is made by the institution in overcoming the learning barriers
 - Evening remedial classes are conducted for the slow learners.
 - Intensive special classes are held before the end semester examinations.
 - The institution increases the working hours of the college for a month to help students and staff to achieve the learning outcomes.

2.6.6 How does the institution monitor and ensure the achievement of learning outcomes?

- The mechanisms followed by the institution in monitoring and ensuring the achievement of learning outcomes are
 - Class tests and internal assessment tests are conducted at regular intervals.
 - Assignments for advanced learners and slow learners are used to measure the learning outcomes.
 - Project reviews help to monitor the students' activity at research level. The institution implements project report card system to monitor the research ability of the student.
 - Class committee meetings are organized thrice in a semester to monitor and ensure the progress in achieving the learning outcomes.
 - Feedbacks are collected from the students and are analyzed by the authorities.
 - Staff meetings are held in regular intervals department-wise and college-wise, to discuss the difficulties in achieving the learning outcomes and formulate necessary solutions.
 - An Internal Assessment Test analysis is made to keep track of the progress towards achieving the learning outcomes.

2.6.7 Does the institution and individual teachers use assessment/ evaluation outcomes as an indicator for evaluating student performance, achievement of learning objectives and planning? If 'yes' provide details on the process and cite a few examples.

- Yes. The institution uses the evaluation outcomes as an indicator of a student's classroom interaction, collaborative learning, problem-solving skills, occupational awareness and in academic performance.
- Students are evaluated based on their practice of engineering ethics, their knowledge, their perception and response.
- The instructors keep track of the progress of the students in their course through the attendance and assessment record.
- The performance of the students in the end-semester examination reflects the success of the teaching-learning process.

Any other relevant information regarding Teaching-Learning and Evaluation which the college would like to include.

- A notice board is exclusively available for displaying information like Know English, General Knowledge, Job Market, Inspirational Quote, Health Tips, Fun, Discover India, Days to Remember and Art of Living.
- There are 52 co-curricular, extracurricular and service bodies acting in the institution to form the holistic nature of students and enhance the learning experience.
- The access to NPTEL, EDUSAT, NMEICT and various ICT tools and facilities enables quality enhancement in the teaching-learning process.
- The institution provides Wi-Fi access and also facilitates access to online peer reviewed journals which in turn encourages innovative learning and research.
- The mentor system allows close monitoring of the performance of students and it provides an opportunity to guide the students in the right way towards attaining their outcomes.
- Well-qualified, competent, experienced faculty members are recruited and they are given enough freedom in attending seminars, workshops, conferences, and other programmes.
- The history of the university ranks, placement records, and the achievements of the students in various competitions, clearly reflects the achievement in the teaching-learning process.

Criterion III Research, Consultancy and Extension

3.1 Promotion of Research

3.1.1 Does the institution have recognized research center/s of the affiliating University or any other agency/organization?

- Yes. Five departments of our college are the approved research center of Anna University, Chennai.

Recognized research centers of the institution:

Sl. No.	Department	Date of First Approval	Validity	Recognition Number
1	Electronics and Communication Engineering	08-06-2011	June 2017	4497107
2	Mechanical Engineering	08-06-2011	June 2017	4497117
3	Electrical and Electronics Engineering	08-06-2011	June 2017	4497108
4	Computer Science and Engineering	08-06-2011	January 2020	4497106
5	Master of Computer Applications	06-10-2016	December 2019	4497116

3.1.2 Does the Institution have a research committee to monitor and address the issues of research? If so, what is its composition? Mention a few recommendations made by the committee for implementation and their impact.

- Yes, A Research Cell was formed in the year 2010 and the same has been revamped as Research Committee with the following composition
 - Patron:
 - Correspondent
 - Chairman:
 - Principal
 - Members:
 - Ten members consist of senior research faculty from each department along with a research dean.
- A few recommendations of the research committee are:
 - Each department was asked to write at least one project proposal for funding from Government agencies.
 - Faculty members are advised to publish their research findings in peer-reviewed journals indexed in databases like Web of Science, Scopus, etc.
 - Organize international conference and workshops for imbibing research culture among staff and students.
 - All faculty members who have completed their Ph.D. degree are encouraged to apply for research supervisor recognition with Anna University.
 - Invite eminent scientists and researchers from reputed institutions, to create awareness and to develop the scientific temper and research culture among the staff and students.
- Impact of the recommendations:
 - The number and the quality of publications by the faculty members have steadily increased.

- Participation of faculty members and students in international and national conferences has improved.
- Every department has upgraded their labs towards research standards.

The research involvement of the faculty members during the last four years:

Department	Conference Attended	Seminars Attended	Workshops Attended	FDPs Attended	Publications	Pursuing Ph.D.
Electronics and Communication Engineering	23	24	141	13	104	11
Mechanical Engineering	37	20	99	--	38	17
Electrical and Electronics Engineering	54	51	146	10	43	9
Computer Science and Engineering	63	10	210	77	90	5
Civil Engineering	20	--	83	7	14	2
Information Technology	44	8	136	60	50	4
Master of Business Administration	16	24	63	8	4	2
Master of Computer Applications	8	3	73	14	19	1
Humanities and Sciences	55	53	65	9	27	11

Project proposals sent to various funding agencies:

Sl. No.	Title of Proposal Sent	Funding Agencies	Project Cost in Rs.	Date of Application
1.	HPCCloud Project: II	DST-Intel	11,00,00,000	23-02-2017
2.	Lab Migration Project on Power Electronics and Drives Laboratory	MHRD,	7,800/-	19-01-2017
3.	FDP on Soft Computing Applications in Smart Grid	AICTE	5,00,000/-	11-01-2017
4.	Power Electronics and Drives Lab MODROBS	AICTE	3,00,000/-	10-01-2017
5.	Emerging Trends in Energy Management Seminar grant	AICTE	20,34,500/-	10-01-2017
6.	Faculty Development Programme on Advanced VLSI Design Techniques and Applications	AICTE-FDP	7,00,000/-	10-01-2017
7.	Recent Trends in Microwave and Wireless Communication	AICTE-SG	--	09-01-2017
8.	Classification of Cervical Cancer using ultrasound imaging techniques	AICTE	15,00,000	07-01-2017

9.	A Non-linear Controller for Energy Maximization of Wind Turbines	AICTE	20,15,000/-	07-01-2017
10.	MW scale grid interactive renewable electrical system	AICTE	21,60,000/-	07-01-2017
11.	Efficient Decoder Design for WIMAX Applications	AICTE-RPS	11,15,000/-	06-01-2017
12.	Lab Migration Project on Digital Control and Instrumentation Laboratory	MHRD	9,000/-	05-01-2017
13.	HPCCloud Project: 1	DST	23,11,600	13-11-2016
14.	Segmentation and Prediction of Cancer stages	Tamil Nadu Science & Technology	15,00,000	10-10-2016
15.	FPGA based Denoising Methods using Multi Resolution Analysis	DRDO	18,76,775/-	09-05-2016
16.	Lab Migration Project on Control and Instrumentation Laboratory	MHRD	7,000/-	01-09-2015
17.	Lab Migration Project on Power System Simulation Laboratory	MHRD	10,000/-	20-08-2015
18.	Lossless Signal Compression and Reliable Communication under Distributed Circumstances using Wavelet in Smart Grid	DST	17,11,200/-	10-06-2012
19.	Algae Oil-Biodiesel-Identification of Best Microalgae, Optimization of Harvesting, Extraction and Conversion Process to Biodiesel for Marine Engine Application	NRB	35,00,000/-	25-05-2012

3.1.3 What are the measures taken by the institution to facilitate smooth progress and implementation of research schemes/ projects?

- Faculty members are motivated and assisted by professionals to fetch research grants from various funding agencies.
- Full autonomy is available to the principal investigator to carry out the project as per the requirements of the funding agencies.
- Administrative supports are provided for project proposal submission and report submission for the on-going projects.
- Faculty members involved in intense research projects are given flexible/reduced teaching load.
- The institution ensures the purchase of quality equipment and other accessories for research by providing additional funds.
- Research resources like equipment, software, test facilities, and human resources are shared for quality and interdisciplinary research.
- On-duty leave is granted for attending conferences, seminars, and to carry out research registration formalities of the Universities.
- Partial financial supports are provided to the faculty members for presenting papers in international conferences in India and abroad.
- Consultation workshops by renowned academicians are organized to facilitate research progress.

- To facilitate research ambiance, our institution encourages its faculty members who are being invited as a resource person by other institution/industries by giving on duty leave.

3.1.4 What are the efforts made by the institution in developing scientific temper and research culture and aptitude among students?

- Research facilities of the institution are being improved by the procurement of quality equipment, updated library facilities and subscription to most of the research journals.
- Selected projects are partly funded by the management. For example,
 - Thermal conductivity apparatus, fabricated as per ASTM standards by Ms. Reshma Jareen Jayamohan and Ms. Evangeline S. Farida of M.E. Structural Engineering, Mr. Riggin James of M.E. Energy Engineering and Ms. Preethy Sunny of M.E. Construction Engineering in the year 2014 was fully funded by the management with a sum of Rs. 93,324.
 - Heat infiltration studies in buildings were carried by Mr. Paul F. Vijay and Titu George of M.E. Energy Engineering students in the year 2014 and they were partly funded by the management in building four test building blocks of size 1m×1m×1m with data acquisition system.
- Organizing International and National conferences, Symposia and workshops helps the students develop the scientific temper by interacting with the invited speakers and young researchers during the conference.
- In order to guide students to do their projects effectively, an orientation programme on “How to do Projects Effectively?” is organized every year.
- The progress of students’ project work is monitored and evaluated by the team of expert during project review and the suggestions and recommendations are recorded in the project report card.
- Students are guided and motivated to do quality projects in a systemic manner. It is mandatory for them to collect and present the content of at least 20 referred journal papers in their literature review.
- Tech Fest is conducted every year to showcase the technical knowledge of the students through paper presentation, project demonstration and poster presentation. Cash awards are provided to encourage students.

3.1.5 Give details of the faculty involvement in active research (Guiding student research, leading Research Projects, engaged in individual/collaborative research activity, etc.)

Guiding student leading to Ph.D. Degree:

Sl. No.	Name of the Supervisor	Number of Research Scholars	
		Guiding	Awarded
1	Dr. S. Joseph Sekhar	12	1
2	Dr. R. Edwin Raj	9	4
3	Dr. S. Julyes Jaisingh	9	--
4	Dr. V. Christus Jeya Singh	1	--
5	Dr. G. Antony Miraculas	1	--
6	Dr. C. Seldev Christopher	8	1

7	Dr. C. Helen Sulochana	7	--
8	Dr. D. Jeraldin Auxillia	4	--
9	Dr. Shajulin Benedict	6	--
10	Dr. T. Latha	8	--
11	Dr. A. Milton	7	--
12	Dr. M. Marsaline Beno	12	1
13	Dr. M. Caroline Mabel	6	1*

* M.S. (by research)

Research projects:

Sl. No.	Name of Principal Investigator	Funding Agency	Title of the Project	Amount Received (in Rs.)
1	Dr. S. Joseph Sekhar	AICTE	Biomass-An Alternative Fuel for Brick/Pottery Manufacturing kiln in Rural Area	16,00,000
2	Dr. Shajulin Benedict	DST	Energy Aware Auto Tuning for Scientific Applications	17,05,680
3	Dr. Shajulin Benedict	DST	Online Based Energy Consumption Analysis for Scientific Applications	15,12,000
4	Mr. Jain B. Marshal	ACT MHRD	Scilab - Lab Migration Project	10,000
5	Mr. A. George Ansfer	ACT MHRD	Scilab - Lab Migration Project	10,000

➤ Collaborative research activity:

- Faculty members of the institution are involved in interdepartmental collaborative research and the outcome has evolved as combined research publications in reputed journals.

Details of faculty members with interdepartmental collaborative research:

Sl. No.	Name of the Faculty	Department	Number of Publication
1	Dr. R. Edwin Raj	Mechanical Engineering	13
2	Mr. Ajith J. Kings	Mechanical Engineering	2
3	Ms. C. Helen Sulochana	Electronics and Communication Engineering	3
4	Mr. D. Jeraldin Auxillia	Electronics and Communication Engineering	1
5	Ms. S. Carolin	Electronics and Communication Engineering	1
6	Dr. M. Marsalin Beno	Electrical and Electronics Engineering	5
7	Dr. M. Carolin Mabel	Electrical and Electronics Engineering	2
8	Dr. J. Merry Geisa	Electrical and Electronics Engineering	1

3.1.6 Give details of workshops/ training programmes/ sensitization programmes conducted/organized by the institution with focus on capacity building in terms of research and imbining research culture among the staff and students.

- Conferences, workshops, training programmes and awareness programmes are conducted for staff and students with a view to exposure and knowledge building in new potential research areas.

List of conferences conducted in the institution in the last four years:

Sl. No.	Title of the Conference	Date
1	International Conference on Green High Performance Computing (IEEE)	26-02-2016 & 27-02-2016
2	International Conference on Energy Efficient Technologies for Sustainability	07-04-2016 & 08-04-2016
3	Electros conference on Researches in Electronics and Communication Technologies	29-03-2016
4	National conference on Green Initiatives and Smart Grid GISCON'16	10-03-2016 & 11-03-2016
5	National Conference in Recent Trends in Information and Computer Technology	19-03-2015
6	National Conference on Recent Innovations in Communication and Electronics Systems	05-03-2015
7	International Conference on Advances in Sustainability of Materials and Environment	10-04-2014 & 11-04-2014
8	National Conference on Recent Trends in Computer Technology	26-03-2014
9	National Conference on Advances in Image Processing and Communication	21-03-2014 & 22-03-2014
10	National Conference on Management Practices in Contemporary Era	07-03-2014
11	National Conference on Construction CONSTRUCT 2013	05-04-2013
12	International Conference on Green High Performance Computing (IEEE)	14-03-2013 & 15-03-2013
13	International Conference on Energy Efficient Technologies for Sustainability	10-04-13 to 12-04-13
14	National conference on Innovative Electronics Systems and Information Technology	06-03-2013 & 07-03-2013
15	National Conference on Recent Trends in Civil Engineering	08-08-2012

Number of workshops, training programmes and sensitization programmes conducted in the last four years:

Academic Year	Workshops	Training/Sensitization Programmes
2016-2017	13	3
2015-2016	16	13
2014-2015	17	9
2013-2014	24	15
2012-2013	20	21

3.1.7 Provide details of prioritized research areas and the expertise available with the institution.

- Prioritized research areas and the expertise available in different departments of the institution are listed below

Department of Electronics and Communication Engineering:

Sl. No.	Name of the Faculty	Specialization
1	Dr. C. Helen Sulochana	Remote Sensing, Machine Vision
2	Dr. D. Jeraldin Auxillia	Biomedical Systems
3	Dr. Shajulin Benedict	Cloud Computing, HPC
4	Dr. T. Latha	VLSI Design, Digital System Design
5	Dr. A. Milton	Speech Signal Processing
6	Dr. M. Mary Helta Daisy	Image Processing
7	Dr. D. Judson	Wireless Communication

Department of Mechanical Engineering:

Sl. No.	Name of the Faculty	Specialization
8	Dr. S. Joseph Sekhar	Refrigeration & Air-Conditioning, Bio-Energy
9	Dr. R. Edwin Raj	Bio-fuels, Renewable Energy, Composite Materials
10	Dr. V. Christus Jeyasingh	Bio-Energy
11	Dr. S. Julyes Jaisingh	Composite Materials
12	Dr. G. Antony Miraculas	Bio-Energy
13	Dr. M. Felix Xavier Muthu	Friction Stir Welding

Department of Electrical and Electronics Engineering:

Sl. No.	Name of the Faculty	Specialization
14	Dr. M. Marsaline Beno	Power Electronics and Drives
15	Dr. M. Carolin Mabel	Wind Energy, Solar Energy, Power System Analysis
16	Dr. J. Merry Geisa	Power Electronics and Drives

Departments of Computer Science and Engineering and Information Technology:

Sl. No.	Name of the Faculty	Specialization
17	Dr. C. Seldev Christopher	Digital Image Processing, Speech Processing
18	Dr. P. Anto Kumar	Biometrics
19	Dr. D. Hevin Rajesh	Wireless Sensor Networks
20	Dr. R. Jemila Rose	Image Processing

Department of Civil Engineering:

Sl. No.	Name of the Faculty	Specialization
21	Dr. S. Carmel Jawahar	Corrosion Prevention in Concrete
22	Dr. J. Jerlin Regin	Light Weight Concrete
23	Dr. M. John Robert Prince	Recycled Aggregate Concrete

Master of Business Administration:

Sl. No.	Name of the Faculty	Specialization
24	Dr. P. Lovelin Auguskani	Banking

Master of Computer Applications:

Sl. No.	Name of the Faculty	Specialization
25	Dr. F. Ramesh Dhanaseelan	Soft Computing
26	Dr. M.M. Janeela Theresa	Soft Computing

27	Dr. R. Reena Rose	Image Processing
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Department of Humanities and Sciences:

Sl. No.	Name of the Faculty	Specialization
28	Dr. J. Xavier Pragasam	Jordan Algebra
29	Dr. L. Mary Florida	Graph Theory
30	Dr. D. Mary Mettalin	Graph Theory
31	Dr. S. Edwin Gladson	Ultrasonic & Liquid State Physics
32	Dr. S.M.R. Joseph Ramesh	Crystal Growth & Characterization
33	Dr. R. Inigo	Corrosion Chemistry
34	Dr. V. Sreeja	Environmental Chemistry
35	Dr. M. Maenu	English
36	Dr. M. Vijaya Kumar	Library

3.1.8 Enumerate the efforts of the institution in attracting researchers of eminence to visit the campus and interact with teachers and students?

- Conferences, seminars, workshops and guest lectures are organized periodically to bring renowned scientists and industrialists to the institution in order to
 - Motivate faculty and students towards research
 - Expose faculty and students to the latest developments in the research world.
- Eminent scientists from the following reputed institutions (abroad and India) had interactions with our faculties and students.
 - Rovira i Virgili University, Spain
 - Greenhouse Ltd., United Kingdom
 - Aston University, United Kingdom
 - University of Ontario, Canada
 - Westminster University, London.
 - Multimedia University, Malaysia
 - Shams University, Egypt
 - Kings University, United Kingdom
 - Malaysian University, Malaysia
 - Ball State University, USA
 - ISRO Propulsion Complex, Mahendragiri
 - IBS Software Services Pvt. Ltd., Technopark, Trivandrum
 - BSNL, Nagercoil
 - BITS Pilani, KK Birla Goa Campus
 - Regional Cancer Centre, Thiruvananthapuram
 - Robert Bosch, Bangalore
 - Anna University, Chennai
 - NIT, Calicut
 - IGCAR, Kalpakkam
 - Tuticorin Thermal Power Plant, Tuticorin
 - Amirtha School of Engineering, Coimbatore
 - Gandhi Gram University, Dindigul
 - Central Electrochemical Research Institute, Karaikudi
 - Caterpillar Ltd, Chennai
 - Dhofar University, Salala, Oman
 - Thiagarajar College of Engineering, Madurai

- MGR University, Chennai
- IIT, Chennai
- Noorul Islam University, Kumaracoil
- St. Xavier's College, Palayamkotai
- National Institute for Interdisciplinary Science and Technology, Thiruvananthapuram
- University of Hyderabad, Hyderabad
- Bharathiar University, Coimbatore
- University of Madras, Chennai
- BARC, Chennai
- University of Kerala, Thiruvananthapuram
- Rajiv Gandhi Centre for Biotechnology, Trivandrum
- Motilal Nehru National Institute of Technology, Allahabad
- Hindustan University, Chennai
- Annamalai University, Chidmbaram

Number of eminent scientists and renowned academicians who visited the institution:

Department	No. of Eminent person
Electronics and Communication Engineering	13
Mechanical Engineering	21
Electrical and Electronics Engineering	20
Computer Science and Engineering	07
Civil Engineering	07
Information Technology	13
Master of Business Administration	15
Master of Computer Applications	03
Humanities and Science	36

3.1.9. What percentage of the faculty has utilized Sabbatical Leave for research activities? How has the provision contributed to improve the quality of research and imbibe research culture on the campus?

- The institution does not provide sabbatical leave, however around 2% of faculty members have availed leave for their career advancement.
- Dr. V. Christus Jeyasingh, Associate Professor and Dr. M. Felix Xavier Muthu, Asst. Professor of Mechanical Engineering, Mr. A. Darwin Jose Raju, Asst. Professor and Ms. W. Vinil Dani, Assistant Professor of Electrical and Electronics Engineering, Mr. D. Judson, Assistant Professor of Electronics and Communication Engineering have availed of leave for doing research.
- Dr. Shajulin Benedict, Professor of Electronics and Communication Engineering have availed of sabbatical leave for his Postdoctoral research in Germany. He has established the HPCCLoud Research Laboratory in SXCCE, which is involved in carrying out many funded projects. He is also a Guest Scientist in TUM, Germany.

3.1.10 Provide details of the initiatives taken up by the institution in creating awareness/advocating/transfer of relative findings of research of the institution and elsewhere to students and community (lab to land)

- More than 90 scholars have registered for their Ph.D. degree through our research center. Periodic seminars are given by them on their area of research to our students

and share their challenges, which motivate students to choose research as their career.

- Awareness of energy conservation and efficient use of available sources was educated to the nearby village, Nullivilai through energy audit.
- Refurbishing of coastal building at Pallam was done with polymer covering to prevent corrosion after testing and analysis of the structure.
- Renovation and strengthening of heritage buildings in Catherine Booth Hospital, Nagercoil was done after analysis and design.
- For meeting the energy demand in remote villages, a social survey on various energy sources available in selected villages was identified to meet the cooling demand for the stored milk of a particular area. An alternative cooling system was proposed by integrating the available renewable energy sources of biomass, biogas, gobar gas and solar energy with vapour absorption cooling system to solve the high energy demand and high emissions issues associated with conventional cooling systems.
- Research findings are being transferred to the research community through publications in peer-reviewed journals of reputed publishers with impact factor.
- Opportunities are provided to students to demonstrate their technical skills in “Tech-Fest”, an exclusive students program organized every year to share, exhibit and transfer their knowledge towards research.
- Nearby rural post matric school students who are eager to know the current technological innovation are invited to the research labs every year for acquiring hands-on knowledge.

3.2 Resource Mobilization for Research

3.2.1 What percentage of the total budget is earmarked for research? Give details of major heads of expenditure, financial allocation and actual utilization

- About 15% of the total budget excluding the salary component is earmarked for research

Allotted budget and amount utilized in lakhs for research in the last four years:

Heads of Expenditure	2016-2017		2015-2016		2014-2015		2013-2014		2012-2013	
	Allotted	Utilized	Allotted	Utilized	Allotted	Utilized	Allotted	Utilized	Allotted	Utilized
Lab Equipment /Upgradation	60	57.39	35	33.6	53	53.16	35	33.92	25	25.62
Infrastructure	10	9.26	40	41.5	--	--	--	--	--	--
Journals	20.5	19.32	20	19.57	18.5	20.06	18.5	18.05	14.5	15.81
Books	11	0.45	12	1.25	12	7.94	12	4.36	12	2.49
Conferences, Workshops, Industrial visit and Association activities	18	17.98	20	20.65	35	35.57	40	38.4	25	25.56
Total	108.61	104.4	127	116.57	118.5	116.73	105.5	94.73	76.5	69.48
% Utilized for Research	17	15	16	15	19.5	19	12.5	11	10.5	10

3.2.2 Is there a provision in the institution to provide seed money to the faculty for research? If so, specify the amount disbursed and the percentage of the faculty that has availed the facility in the last four years?

- No seed money is provided to newly appointed faculty. However, research allowance and additional funds are granted to faculty members doing intense research to procure research equipment for furtherance of research.

3.2.3 What are the financial provisions made available to support student research projects by students?

- Graduate and undergraduate students involved in quality research projects were partly/fully funded by the institution from Project Incentive Scheme (PIS) identified through research committee. For example
 - A thermal conductivity measuring apparatus fabricated as per ASTM standards by graduate students, in the year 2014 was granted with Rs. 93,324/-.
 - A heat infiltration study through building structures was done by two graduate students Mr. Paul F. Vijay and Mr. Titu George of Energy Engineering course (2014) along with some undergraduate students. This project was partly supported through PIS in constructing four test buildings of size 1m×1m×1m.
- Cash awards are provided to students for exhibiting the outstanding project works during the tech-fest every year.
- The institution supports student research projects by subscribing to research journals such as Science Direct, Springer link and IEEE.
- The institution provides Wi-Fi throughout the campus. 1020 computers with Internet facility are available in the campus.

3.2.4 How does the various departments/units/staff of the institute interact in undertaking inter-disciplinary research? Cite examples of successful endeavors and challenges faced in organizing interdisciplinary research.

- Research coordinator of each department meets periodically to identify and promote inter-disciplinary research.
- Some of the interdisciplinary researches are as follows.
 - Integration of renewable energy systems such as wind and solar with micro-grid and demand side management of energy system for efficient distribution is done with collaboration of Mechanical and Electrical Engineering department.
 - Similarly, adequacy evaluation and reliability evaluation of wind energy system for conventional grid is also being studied between the same departments.
 - Work on extraction and conversion of algae oil as a substitute for diesel fuel on IC engine and pollution studies are being done in collaboration with Department of Biotechnology.
 - Development of natural fiber-reinforced polymer composite is being carried out in association with Chemistry Departments of two institutions and Mechanical Engineering Department.

Some of the collaborative inter-disciplinary research publications:

Sl. No.	Author Name(s)	Departments Involved	Title of Publication	Journal & Publishers
1	J. S. Binoj, R. Edwin Raj,	Mechanical Engineering &	Comprehensive Characterization of	Journal of Cleaner

	B. S. S. Daniel.	Metallurgical and Materials Engineering	Industrially Discarded Fruit Fiber, Tamarindusindica L. as a Potential Eco-friendly Bio-reinforcement for Polymer Composite	Production, Elsevier
2	Ajith J. Kings R. Edwin Raj, L.R. Monisha Miriam, M. Adhi Visvanathan.	Mechanical Engineering & Bio-Technology	Cultivation, Extraction and Optimization of Biodiesel Production From Potential Microalgae Euglena Sanguinea Using Eco-friendly Natural Catalyst	Energy Conversion and Management, Elsevier
3	J.S. Binoj, R. Edwin Raj, V.S. Sreenivasan, G. Rexin Thusnavis.	Mechanical Engineering & Chemistry	Morphological, Physical, Mechanical, Chemical and Thermal Characterization of Sustainable Indian Areca Fruit Husk Fibers (Areca Catechu L.) as Potential Alternate for Hazardous Synthetic Fibers	Journal of Bionic Engineering, Elsevier
4	L.R. Monisha Miriam, R. Edwin Raj, Ajith J. Kings, M. Adhi Visvanathan.	Mechanical Engineering & Bio-Technology	Identification and Characterization of a Novel Biodiesel Producing Halophiles' Aphan othecehalophytica and its Growth and Lipid Optimization in Various Media.	Energy Conversion and Management, Elsevier
5	S. Sheeju Selva Roji, R. Edwin Raj, C. Justin Dhanaraj.	Mechanical Engineering & Chemistry	Multi Variant Approach to Optimize Biodiesel Extraction From Neem Oil Using Two-stage Esterification Process and its Quality Assessment	Energy Sources, Part A: Recovery, Utilization, and Environmental Effects, Taylor & Francis Group
6	S. Indran, R. Edwin Raj, B.S.S. Daniel, S.S. Saravana Kumar.	Metallurgical Engineering & Materials Engineering	Cellulose Powder Treatment on Cissusquadrangularis Stem Fiber-reinforcement in Unsaturated Polyester Matrix Composites	Journal of Reinforced Plastics and Composites, Sage Publications
7	J. S. Binoj, R. Edwin Raj, B. S. S. Daniel, S. Saravana Kumar.	Mechanical Engineering & Metallurgical and Materials Engineering	Optimization of Short Indian Areca Fruit Husk Fiber (Areca Catechu L.) Reinforced Polymer Composites for Maximizing the Mechanical Property	International Journal of Polymer Analysis and Characterization, Taylor & Francis Group
8	M. Carolin Mabel,	Mechanical	Analysis of Reliability	Renewable and

	R. Edwin Raj, E. Fernandez.	Engineering & Electrical and Electronics Engineering	Aspects of Wind Power	Sustainable Energy Reviews, Elsevier
9	M. Carolin Mabel, R. Edwin Raj, E. Fernandez.	Mechanical Engineering & Electrical and Electronics Engineering	Adequacy Evaluation of Wind Power Generation Systems	Energy, Elsevier
10	R. Edwin Raj, Venkitanarayana N. Parameswaran, B.S.S. Daniel.	Mechanical Engineering & Metallurgical and Materials Engineering	Comparison of Quasi-static and Dynamic Compression Behavior of Closed-cell Aluminum Foam	Material Science and Engineering A, Elsevier
11	R. Edwin Raj, B.S.S. Daniel.	Mechanical Engineering & Metallurgical and Materials Engineering	Customization of Closed- cell Aluminum Foam Properties Using Design of Experiments	Material Science and Engineering A, Elsevier
12	Ajith J. Kings, R. Edwin Raj, L.R. Monisha Miriam, M. Adhi Visvanathan.	Mechanical Engineering, Biotechnology & Microbiology	Cultivation, Extraction and Optimization of Biodiesel Production From Potential Microalgae Euglena sanguinea Using Eco- friendly Natural Catalyst	Energy Conversion and Management, ELSEVIER
13	L. R. Monisha Miriam, R. Edwin Raj, Ajith J. Kings M. Adhi Visvanathan	Mechanical Engineering, Biotechnology & Microbiology	Identification and Characterization of a Novel Biodiesel Producing Halophilic Aphanothece Halophytica and its Growth and Lipid Optimization in Various Media	Energy Conversion and Management, ELSEVIER
14	Sam Alaric, S. Caroline, Suresh Manic.	Electrical and Electronics Engineering & Electronics and Communication Engineering	Modeling of Photovoltaic Switched Inductor Z Source Multilevel Inverter Effective of Power Factor Control	International Journal of Applied Engineering Research, Research India Publications
15	D. Jeraldin Auxillia, A. Anitta.	Electronics and Communication Engineering & Electrical and Electronics Engineering	PSO tuned PID-based Model Reference Adaptive Controller for Coupled Tank System	Applied Mechanics and Materials Vol. 626 (2014) pp 167-171. (2014) Trans Tech Publications, Switzerland
16	Maheswaran C. P, Helen Sulochana	Computer Science and	Network Selection Mechanism for Feature	International Journal of

	C.	Engineering & Electronics and Communication Engineering	Generation Networks Using Game Theory Model	Applied Engineering Research, Research India Publications
17	Maheswaran C. P., Helen Sulochana C.	Computer Science and Engineering & Electronics and Communication Engineering	An Unifying Framework for Seamless Handover Across Mobile Telecom Network	International Journal of Enterprise Network Management
18	Maheswaran C. P., Helen Sulochana C.	Computer Science and Engineering & Electronics and Communication Engineering	An Efficient Approach To Allocating Service in Integrated Cellular Networks	International Journal of Applied Engineering Research, Research India Publications
19	Maheswaran C. P., Helen Sulochana C.	Computer Science and Engineering & Electronics and Communication Engineering	Utilizing EEM Approach to Tackle Bandwidth Allocation with Respect to Heterogeneous Wireless Networks	ICT Express, Elsevier publication

- Challenges faced by inter-disciplinary research are in understanding the basics of new areas in order to interpret finding and to analyse the results with correct perspective. Even though it was a time consuming task, it is a rewarding work for research community.

3.2.5 How does the institution ensure optimal use of various equipment and research facilities of the institution by its staff and students?

- Major equipment and research facilities of each department are booked in advance and utilized systematically with prior appointments.
- The available facilities are made known to the researchers through website and news bulletins.
- The institution extends its facilities for use by researchers and students from other institutions as well.
- The library remains open before and after the college regular working time; moreover most of the e-journals are accessible 24 hours a day to facilitate research.
- The computer labs are also kept open after the regular working hours for the benefit of students and staff members.

3.2.6 Has the institution received any special grants or finances from the industry or other beneficiary agency for developing research facility? If 'yes' give details.

- Yes, the institution has received special grants for developing research facility.
 - Ford India has sponsored a car to the Department of Mechanical Engineering, which enabled the students to learn the emerging technologies in the field of automobile.
 - Design and development of Biomass Gasifier for efficient combustion to ensure quality brick firing is sponsored by AICTE.

- Energy Analyzer Tool for HPC application is sponsored by DST, Govt. of India.
- Data Analytics for Solar Systems with NIWE-Chennai

3.2.7 Enumerate the support provided to the faculty in securing research funds from various funding agencies, industry and other organizations. Provide details of ongoing and completed projects and grants received during the last four years.

- The faculty members are encouraged to submit project proposals to governmental and non-governmental funding agencies.
 - Dr. R. Saravanan, Professor, Anna University, Chennai gave a seminar on “How to Write Project Proposal”.
- Project proposals are timely forwarded to the agencies concerned.
- The institution has well-equipped lab, infrastructure and library facilities, which in turn, facilitate the faculty in getting project proposals.

List of on-going funded projects:

Sl. No.	Title of the Ongoing Project	Principal Investigator	Funding Agency	Grant Received (Rs. in Lakhs)
1	Biomass-An Alternative Fuel for Brick/Pottery Manufacturing kiln In Rural Areas	Dr. S. Joseph Sekhar	AICTE	16
2	Energy Aware Auto Tuning for Scientific Applications	Dr. Shajulin Benedict	DST-FWF	17.06

3.3 Research Facilities

3.3.1 What are the research facilities available to the students and research scholars within the campus?

- Some of the major facilities and software available in the institution for research are:
 - Weather station for continuous recording of solar radiation, wind direction and velocity, atmospheric temperature, rain fall and humidity.
 - 1 kW solar PV with data acquisition system for research analysis.
 - Continuous energy monitoring for implementation of demand side management technique for effective utilization of renewable energy system.
 - Biomass gasifies with gas chromatograph for converting solid waste material into gaseous fuel for combustion.
 - Biogas test rigs with analyzer facility
 - Multi fuel engine test rig with data logger and emission analyzer for performance and emission analysis of liquid and gaseous fuel in IC engine, especially for renewable energy sources.
 - Universal Testing Machine (UTM) with double shear attachment for heavy capacity testing.
 - Loading frame facility with 1000 kN capacity for testing beams and columns.
 - Electrically-operated Compression Testing Machine of 3000 kN capacity.
 - Flexure Testing Machine with 100 kN Capacity
 - Permeability measuring setup with compression facility.
 - Water quality analyzer for testing pH, turbidity, DO, temperature, TDS, etc.
 - Thermal conductivity apparatus for testing thermal conductivity of unknown materials used for structural application.

- Water Bath 300×250×100 mm, 6 holes.
- Rota mantle with 5000 ml capacity for the extraction of biodiesel.
- HPC Cloud Laboratory for cloud computing research.
- ARM Processors
- FPGA Kit
- Digital Signal Processors
- Softwares
- MatLab R2012a
- Labview PDS 8.5
- Xilinx
- Tanner
- Modelsim
- Solidworks
- Ansys R14
- All the institutional computers (~1020 Nos.) are connected with high speed Internet service and the campus is Wi-Fi enable for personal laptops use.
- The institute subscribes to around 939 e-journals which enables the researchers to update with current research around the globe.

3.3.2 What are the institutional strategies for planning, upgrading and creating infrastructural facilities to meet the needs of researchers especially in the new and emerging areas of research?

- The institution research committee is headed by Dean (Research) and comprises one research coordinator from each department. They meet regularly twice in a semester to discuss the needs of the researchers in every department and to finalize the spending for upgrading and creating new infrastructure facilities in the emerging areas of research.
- Similarly, the research committee meeting is conducted by the department research coordinator in every department separately to monitor, motivate and mobilize funding for the furtherance of research in the department. They discuss the challenges and constraints in carrying out research, which will be presented to the management for consideration.

3.3.3 Has the institution received any special grants or finances from the industry or other beneficiary agency for developing research facilities? If 'yes', what are the instruments / facilities created during the last four years.

- Yes, the institution has received project grants for developing research facilities.

List of sponsored research projects:

Sponsored Research Projects							
Sl. No.	Financial Year	Principal Investigator	Funding Agency	Title of the Project	Sanctioned Order No.	Sanctioned Date	Amount Received (Rs.)
1	2015 - 2016	Mr. Jain B. Marshal	ACT MHRD	Scilab - Lab Migration Project	--	20-08-2015	10,000
		Mr. A. George Ansfer	ACT MHRD	Scilab - Lab Migration Project	--	01-09-2015	10,000
2	2014 - 2015	Dr. Shajulin Benedict	DST	Travel grant to IC3, Oman	SB/ITS-Y/04723/2013-14	29-09-2014	28,706

3	2013 - 2014	Dr. Shajulin Benedict	DST	Energy Aware Auto-tuning for Scientific Applications	INT/AUA/FWF/P2/2013	24-04-2014	17,05,680
		Dr. S. Joseph Sekhar	AICTE	Biomass-An Alternative Fuel for Brick/Pottery Manufacturing kiln in Rural Area	20/AICTE/RIFD/RPS(policy-1)17/2013-14	16-07-2013	16,00,000
4	2012 - 2013	Dr. Shajulin Benedict	DST	On-line based Energy Consumption Analysis for Scientific Applications	SR/FTP/ET A-93/2011	21-02-2012	15,12,000

3.3.4 What are the research facilities made available to the students and research scholars outside the campus/other research laboratories?

- Weather station for continuous recording of solar radiation, wind direction and velocity, atmospheric temperature, rain fall and humidity.
- 1 kW solar PV with data acquisition system for research analysis.
- Continuous energy monitoring for implementation of demand side management technique for effective utilization of renewable energy system.
- Biomass gasifier with gas chromatograph for converting solid waste material into gaseous fuel for combustion.
- Biogas test rigs with analyser facility
- Multi-fuel engine test rig with data logger and emission analyser for performance and emission analysis of liquid and gaseous fuel in IC engine, especially for renewable energy sources.
- UTM with double shear attachment for heavy capacity testing.
- Loading frame facility with 1000 kN capacity for testing beams and columns.
- Electrically operated Compression Testing Machine of 3000 kN capacity.
- Flexure Testing Machine with 100 kN Capacity
- Permeability measuring setup with compression facility.
- Water quality analyser for testing pH, turbidity, DO, temperature, TDS, etc.
- Thermal conductivity apparatus for testing thermal conductivity of unknown materials used for structural application.
- Water Bath 300×250×100 mm, 6 holes.
- Rota mantle with 5000 ml capacity for the extraction of biodiesel.
- HPC Cloud Laboratory for cloud computing research.
- ARM Processors
- FPGA Kit
- Digital Signal Processors
- Other institute students are permitted to download research papers from the subscribed list of e-journals for doing quality literature survey.

3.3.5 Provide details on the library/ information resource center or any other facilities available specifically for the researchers?

Numbers of journals subscribed from various publishers:

Year	IEEE	Elsevier	Springer	ASTM (e-Books)	Wiley	McGraw-Hill (e-books)	J gate	IET	Epsco management
2016	145	275	49	1700	18	e-book database	Management Database	18	-
2015	145	275	198	1700	18	e-book	Management	-	-

						database	Database		
2014	145	275	49	1700	18	e-book database	-	-	1800
2013	145	275	49	1700	-	e-book database	-	-	-

- The institution is a remote centre for organizing faculty development programmes conducted by IIT, Bombay and IIT Kharagpur which are sponsored by NMEICT, MHRD, and Govt. of India. The college has organized 16 such programmes.
- Stay facilities are provided to research scholars on need basis.

3.3.6 What are the collaborative research facilities developed/created by the research institutes in the college. For ex. Laboratories, library, instruments, computers, new technology etc.

- The HPC CCloud Research Laboratory of our college has a collaborative-funded project with the University of Innsbruck, Austria in order to undergo research in the direction of Tuning of HPC Applications.
- Natural fiber derived from *Cissus quadrangularis* plant is used as reinforcement in place of harmful e-glass fiber in polymer composite material for boat industry applications.
- Discarded industrial waste fiber materials like Indian *Areca* fruit husk and *Tamarindus indica L.* are used as a substitute for synthetic fibers in polymer composite manufacturing for structural applications.
- MPPT algorithm with multi-fuzzy logic controller to determine the maximum efficient operating point in a PV system is designed and implemented to trap maximum energy from solar PV panels.
- Alternative cooling systems for dairy products by integrating the available renewable energy sources of biomass, biogas, gohar gas and solar energy with vapour absorption cooling system was proposed to solve the high energy demand and high emissions issues associated with conventional conventional cooling systems.
- The institution is a member of DELNET which has been established with the objective of promoting resource sharing among the libraries through a network of libraries.

3.4 Research Publications and Awards

3.4.1 Highlight the major research achievements of the staff and students in terms of Patents obtained and filed (process and product), Original research contributing to product improvement, Research studies or surveys benefiting the community or improving the services, Research inputs contributing to new initiatives and social development

Patent filed:

Sl. No.	Faculty Name	Title	Patent registration No.	National/ International
1	Dr. M. Marsaline Beno	Self-powered Communication Tower with Multiple Transmission System	201641041443	National

- Product Improvement
 - Research publication in journals may lead to product development.

- A field survey on the brick industry was conducted at Chenbhaga Ramanputhoor in Kanyakumari District, Tamil Nadu.
 - Based on the survey, it was observed that the brick industries are spending 50% of their total investment on the raw material required for firing.
 - Based on this survey Dr. S. Joseph Sekhar applied for a project from AICTE and the same was sanctioned on 16th of July 2013.
 - By adopting the biomass gasification technique, nearly 40% of the raw material has been saved. Moreover, the cost per product was also reduced. Deforestation will reduce as the fuels used in biomass gassifier are discarded wood, rice husk, coconut shell etc.
- Department of Electrical and Electronics Engineering and Energy Club of SXCCE conducted energy audit in Nullivilai village during the month of October 2015. Suggestions for energy conservation and recommendation such as benefits of star-rated equipment were explained to the villagers.

3.4.2 Does the Institute publish or partner in publication of research journal(s)? If 'yes', indicate the composition of the editorial board, publication policies and whether such publication is listed in any international database?

- Our institution does not publish research journals.
- However, we had an MoU with IEEE and Trans Tech Publications Ltd., Switzerland for publication of selected conference papers in their database.
- The papers presented in the international conferences such as International Conference on Energy Efficient Technologies for Sustainability (ICEETS'16 & ICEETS'13) and International Conference on Green High Performance Computing (ICGHPC'16 & ICGHPC'13) were published in IEEE digital library. Selected papers in the conference were also published in Applied Mechanics and Materials (ISSN print 1660-9336, ISSN Web 1662-7482) and Advanced Material Research (ISSN print 1022-6680, ISSN Web 1662-8985), Trans Tech Publications Ltd., Switzerland.
- The Editorial Board comprises
 - Patrons
 - Organizing Chair
 - Organizing Secretary
 - Joint Secretaries
 - Publication Chair
 - Finance Chair
 - Organizing Committee

3.4.3 Give details of publications by the faculty and students:

Publication per faculty, Number of papers published by faculty and students in peer reviewed journals (national / international), Number of publications listed in International Database (for Eg: Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.), Monographs, Chapter in Books, Books Edited, Books with ISBN/ISSN numbers with details of publishers, Citation Index, SNIP, SJR, Impact factor, h-index

Number of papers published and publication per faculty:

International Journal	National Journal	Web of Science	Scopus	Google Scholar	Publication Per Faculty Involved in Research
311	13	67	185	220	5.23

Salient features of the publications:

Total Citation	Maximum Impact Factor	Maximum SNIP	Maximum SJR	Maximum h-index
1475	7.896	3.769	3.120	10

Books published by faculty:

Sl. No.	Faculty and Book Publication Details	Publisher	ISBN/ISSN Number
1.	Dr. S. Julyes Jaisingh Engineering Graphics	SRM Publication	978-8-1910-7470-3
2.	Dr. S. Julyes Jaisingh Basic Engineering-Civil and Mechanical	SRM Publication	978-8-1910-7471-0
3.	Dr. S. Julyes Jaisingh Engineering Practices Lab Manual	SRM Publication	978-8-1910-7472-7
4.	Mr. R. P. Anto Kumar Computer Practice-UNIX-Basics and Advanced topics	Trisea Publications, Nagercoil	978-8-1909-2780-2
5.	Mr. R. P. Anto Kumar Computer Practice-MS Office and C	Trisea Publications, Nagercoil	978-8-1909-2784-0
6.	Mr. R. P. Anto Kumar Fundamentals of Computing and Computer Programming	Trisea Publications, Nagercoil	978-8-1909-2783-3
7.	Ms. L. Josephine Usha Design and Analysis of Algorithm	Rashene publications, Thalakudy	--
8.	Mr. G. Sahaya Stalin Jose Design and Analysis of Algorithm	Rashene Publications, Thalakudy	--
9.	Dr. R. Jemila Rose Design and Analysis of Algorithm	Rashene Publications, Thalakudy	--
10.	Mr. Marsaline Beno & Mr. Leon Bosco, Special Electrical Machines	NIMeric	--
11.	Mr. Marsaline Beno & Mr. Jesus Bovin , Electromagnetic Field Theory	Department of EEE, SXCCE	awaiting
12.	Mr. Suresh & Ms. Kayalvizhi. Digital Logic Circuits	Sri Krishna Hi-tech	978-93-85364-67-9
13.	Mr. Suresh & Ms. Kayalvizhi. Medical Electronics	Sri Krishna Hi-tech	978-93-85364-39-6
14.	Dr. C. Ganapathy Chettiar, Modern Construction Materials.	Eswar Press publications	81-7874-096-6
15.	Dr. C. Ganapathy Chettiar, Theory of Elasticity With Introduction	Eswar Press publications	--

	to Plasticity.		
16.	Dr. A. Milton, & Ms. S. Caroline Electric Circuits and Electron Devices.	Trisea Publications, Nagercoil.	978-81-909278-5-7
17.	Mr. A. Albert Raj & Ms. T. Latha, VLSI Circuit Design	Anuradha Publishers, Chennai	81-89638-03-31
18.	Mr. A. Albert Raj & Ms. T. Latha, VLSI Design	PHI, New Delhi	978-81-203343-1-1
19.	Dr. J. Xavier Pragasam Transforms and Partial Differential Equations	NiMeric Publications Nagercoil	978-81-923371-2-8
20.	Dr. L. Mary Florida Statistics for Management	Bonfring Coimbatore	978-93-86176-21-9
21.	Dr. L. Mary Florida, Mr. M. Felix Nes Mable, Ms. T. Bergin Magizha and Ms. S. Asha Alice. Engineering Mathematics-II	Bonfring Coimbatore	978-93-86176-41-7
22.	Dr. S. M.R. Joseph Ramesh & Mr. N. Sheen Kumar. Engineering Physics - I	Balaji	978-93-85126-09-3
23.	Dr. S. Edwin Gladson & Mr. C. Amala Prathiba Janet. Engineering Physics - II	SMR Publishers	--
24.	Dr. R. Inigo, Dr. V. Sreeja, Ms. A. Suhasini Ms. A. Maria Sheela, Ms. M. Vimala Joice, Ms. A.M. Alice Margret. Engineering Chemistry-I & II	Ganam Publishers	--
25.	Ms. J. Mary Vanaja , Dr. M. Maenu, Mr. J. Aloysius, Ms. M. Thasnavis Illavarasi Technical English - II	Seba Publishers	--

3.4.4 Provide details (if any) of research awards received by the faculty, recognition received by the faculty from reputed professional bodies and agencies, nationally and internationally, incentives given to faculty for receiving state, national and international recognitions for research contributions.

Faculty members of our institution have received various national and international awards and recognition from reputed professional bodies and agencies.

- Research award received by faculty: 1
- Recognition received: 22
 - National: 16
 - International: 6

3.5 Consultancy

3.5.1 Give details of the systems and strategies for establishing institute-industry interface?

- Industry Institute Interaction Cell was established in 2016 to provide links with industries and other professional bodies.
- It promotes sharing knowledge between industry and institute by signing MoUs.
- Students are motivated to take part in in-plant training during semester holidays
- Inviting eminent persons from industries for workshops and seminars are rationally scheduled to students for establishing institute-industry interface.
- Industrial visits are organized for students to provide an insight into the technology used in industries.

3.5.2 What is the stated policy of the institution to promote consultancy? How is the available expertise advocated and publicized?

- To provide ethical and accurate information at nominal cost is the policy of the institution towards consultancy.
- The institution promotes signing of MoUs with industries related to product development, and process technology.
- The available expertise in the institution is publicized through college website and news-letters.

3.5.3 How does the institution encourage the staff to utilize their expertise and available facilities for consultancy services?

- The institution permits the use of infrastructure facilities for consultancy.
- On duty leave is provided for faculty involved in consultancy.
- Honorarium is given to faculty members involved in consultancy.
- The institution gives weightage for consultancy work in assessing the faculty based on the Academic Performance Indicator.

3.5.4 List the broad areas and major consultancy services provided by the institution and the revenue generated during the last four years.

Consultancy and testing service details of the institution:

Year	Major Area of Consultancy	Revenue Generated in Rs.
2016- 2017	Soil Test	60,600
	Material Test	5,360
	Concrete Test	14,760
	Total	80,720
2015-2016	Soil Test	75,150
	Material Test	11,200
	Concrete Test	43,650
	Total	1,30,000
2014-2015	Soil Test	63,445
	Bitumen Test	1,000
	Material Test	41,600
	Concrete Test	24,260
	Total	1,30,305

2013-2014	Soil Test	66,750
	Material Test	22,180
	Concrete Test	11,530
	Total	1,00,460
2012-2013	Soil Test	84,400
	Bitumen Test	4,400
	Material Test	43,320
	Concrete Test	10,490
	Wood Test	600
	Total	1,43,210

3.5.5 What is the policy of the institution in sharing the income generated through consultancy (staff involved: Institution) and its use for institutional development?

- 40% of the revenue generated through consultancy is shared with the faculty members who are involved in consultancy. The remaining 60% is used by the institution for upgrading and calibrating the equipment.

3.6 Extension Activities and Institutional Social Responsibility (ISR)

3.6.1 How does the institution promote institution-neighbourhood-community network and student engagement, contributing to good citizenship, service orientation and holistic development of students?

- The College takes efforts to make students and faculty to be aware of their responsibilities towards the societal issues. The awareness is promoted through:
 - NSS
 - NCC
 - Youth Red Cross
 - Energy Club
 - Eco Club
 - Entrepreneurship Development Cell
 - Women Cell
 - Counseling Cell
 - Center of Excellence for Training and Application
- The College has National Service Scheme units with two Program officers and 200 student volunteers. The students experience and realize the social issues faced by the villagers through the annual NSS camp.
- Career guidance program for school students were organized by the college on 3rd to 5th & 8th to 10th February 2015.
- Department of EEE and Energy Club of SXCCE conducted energy audit in Nullivilai village during the month of October 2015. The audit was headed by Dr. M. Marsaline Beno and was coordinated by Mr. A. George Ansfer. Suggestions for energy conservation and recommendation such as benefits of star-rated equipment were explained to the villagers.
- Pongal-2016 and 2017 was celebrated in Ambedkar colony by the Fine Arts Club of the college. Students performed various social awareness programmes which were beneficial to the villagers.
- Our institution has a social movement called "Girl Rising Movement" to rise up our girls to educate underprivileged girls to stand up against any challenges of the world.

- Computer literacy and basic operational knowledge of computer is provided to rural people to empower 'Digital India'.
- Women's Cell conducted an awareness programme on "Health & Hygiene for Women" on 28.01.2017. All its members reaped the benefit of it.

3.6.2 What is the Institutional mechanism to track students' involvement in various social movements / activities which promote citizenship roles?

- While collecting the personal data of every student; their field of interest, talents, and their involvement in social activities were collected to motivate and nurture good habits.
- The information thus collected helps us to unearth his talents and to safeguard him from untoward activities outside the campus.
- A well-mannered individual can have a greater influence on the society. Keeping this in mind our institution ensures that every student is a member in at least one co-curricular and extracurricular association/club to develop wholesome personality.
- Students involved in social activities are regularly monitored by the respective coordinators and certificate of appreciation is issued for motivation.
- The Youth Red Cross encourages and motivates the students on the importance of donating blood, and many of them volunteer for blood donation.
- NSS Camps are conducted periodically in nearby villages and organizes various awareness programmes to educate the villagers on cleanliness, banking, energy saving, health awareness, insurances, government schemes, etc.
- Apart from on-campus involvements, students are actively involved in local welfare organizations to do social service for the downtrodden.

3.6.3 How does the institution solicit stakeholder perception on the overall performance and quality of the institution?

- The primary stakeholders of our institution are students, staff members, parents, recruiters, alumni, and the community.
- Feedbacks from the stakeholders are periodically received, reviewed and modifications are implemented to improve the quality of the institution.
- Class committee members comprising all course-in-charges, four student representatives, and Head of Department is conducted three times in a semester by the class committee chair person. The committee members express their grievances and shortcomings and solutions are suggested for immediate implementation. Major needs are presented to the Principal and Management for further action.
- Suggestion boxes are placed in every department to obtain anonymous or direct comments and suggestions from students for the welfare of education system.
- Exclusive exit feedback is collected from all outgoing students to suggest improvement schemes for quality enhancement.
- Department faculty members interact with parents during parents-teachers meet to understand their perception.
- Feedback about our students is obtained from the recruiters to know the difference between the company's expectation and available quality of the students in order to prepare the next batch of students' industry ready.
- Alumni feedback is collected during the alumni meeting on 26th of December every year and during the graduation day to know what facilities they lacked, which the institution would have provided.
- Feedback from faculty and staff about the management and administration is obtained every year through college automation software for continuous improvement.

- Staff members can also express their feedback and suggestions through suggestion box and also directly to the Principal or to the Management any time.

3.6.4 How does the institution plan and organize its extension and outreach programmes? Providing the budgetary details for last four years, list the major extension and outreach programmes and their impact on the overall development of students.

- Outreach cell plan and organize the institution outreach activities. The majority of the outreach activities are executed through NSS, NCC and YRC.
- The NSS Programme is funded by the Government of India and the State Government.

The deficit expenses are borne by the institution as shown below.

Sl. No.	Year	Finance Received from College in R.s.
1	2016-17	55,000
2	2015-16	50,000
3	2014-15	45,000
4	2013-14	45,000
5	2012-13	45,000

- Special NSS camp was held in a village, called Kappukaadu from 25-01-2016 to 03-02-2016. About 100 NSS volunteers actively participated and stayed in the village atmosphere. It gave them the unique opportunities to experience the rural setup by sharing and interacting with the community people.
- A one-day Dengue awareness campaign was organized by NSS volunteers on 10-12-2015 in Ambedkar Nagar, where the district Malaria officer, Mrs. Libi presented the facts and the precautions to be taken to eradicate dengue fever. 35 NSS volunteers attended the meeting.
- Around 50 NSS volunteers actively participated in Siva Marathon organized by Rotary Club of Nagercoil on 22-08-2015 to keep them physically fit.
- NSS volunteers attended a seminar on "Anti-Tobacco Awareness" on 26-06-2015 conducted at Little Flower Girls Higher Secondary School to spread the danger of using tobacco among student community.
- 83 NSS volunteers went to Annai Ashramam for Old aged people on 10-03-2015, to spend a day with them. They had a life-changing experience as it was filled with emotions and sentiments.
- A one-day Blood Donation camp was held in our college premises on 30-01-2015 with 100 volunteers donating their blood. The blood bank officer from Government Medical College, Nagercoil guided encouraged and motivated the donors to do so.
- Dengue awareness campaign was organized by NSS volunteers on 31-10-2014 at Ambedkar Nagar to educate the villagers about the precautions to prevent the spreading of dengue fever. 75 NSS volunteers actively participated in this campaign.
- NSS volunteers organized a First Aid Procedure Campaign on 24-10-2014 in a village. Around 87 NSS volunteers spread the message to the villagers and educated them to avoid mistakes in case of emergency.
- The institution conducted a Science Exhibition for school children in association with Puthiyathalaimurai TV channel on 04.08.2014 to inspire them to study science.
- Organ Donation Awareness Program was conducted in our college to realize the importance of organ donation. Number of NCC cadets pledged to donate their organs for the social cause.
- The Sangamam Project, a wing of IEEE Student Branch for community involvement

was inaugurated in our college on 15th August 2012. The members visited an orphanage called 'Sirumalar Kaapagam' near Kulasekaram, where they mingled with the children and had a variety of contests for them.

- Nine of our IEEE Women in Engineering affinity group members participated in 'Grace Hopper Celebration of Women in Computing India' held in Bangalore from 12th to 14th of December, 2012. Some of the members received scholarships. They were motivated to continue their efforts to encourage the retention and advancement of women in technical fields for humanitarian benefits.
- Our institution has a social movement called "Girl Rising Movement" to rise up our girls to educate underprivileged girls and to stand up against any challenges of the world.
- Health awareness program was conducted by Women's Cell on 17-10-2012 and 20-12-2012. About 400 students were benefited.
- To sensitize the voters about the importance of participation in an electoral process, voters awareness programmes were conducted in the nearby villages prior to the election.
- Students of SXCCE participated in the election duty and helped in the video monitoring of sensitive polling booths in the constituency.

3.6.5 How does the institution promote the participation of students and faculty in extension activities including participation in NSS, NCC, YRC and other National/International agencies?

- Introductory programmes on the objective, outcome and benefits of being a part of various extension activities available to the students are presented to the first year students. They can choose their active involvement for social cause during student days through agencies like NSS, NCC, YRC, Energy Club, Fine Arts Club, ECO Club, etc., and register their names with the respective faculty members-in-charge.
- On duty leave is provided to encourage students to participate in extension programs for community welfare and for their personality development.
- Involvement of faculty and staff members are also motivated in these extension programmes organized through these agencies for community development and community living.
- Whenever public awareness programs on social causes are organized by the district administration, NGOs or Government bodies, our students are encouraged to participate.
 - NSS volunteers actively participated in anti-tobacco rally organized by the Rotary Club of Nagercoil on 22-08-2015.
 - Students participated in Dengue awareness campaign on 31-10-2014.

3.6.6 Give details on social surveys, research or extension work (if any) undertaken by the college to ensure social justice and empower students from under-privileged and vulnerable sections of society?

- A field survey of the brick industry was conducted at Chenbhaga Ramanputhoor near Kanyakumari District. Based on the survey, it was observed that the brick industries are spending 50% of their total investment on the raw material required for firing. By adopting the biomass gasification technique, nearly 40% of the raw material has been saved. Moreover, the cost per product was also reduced. Suggestions were given to villagers to adopt technology for obtaining cost-effective quality bricks.
- Electrical and Electronics Engineering department in association with the Energy club of SXCCE conducted an energy audit in Nullivilai village during the month of

October 2015 and Kolvel village during the month of January 2017. Methods for energy conservation were explained to the villagers by the students.

- For meeting the energy demand in remote villages a social survey of the various energy sources available in selected villages was conducted to meet the cooling demand for the stored milk of a particular area. An alternative cooling system was proposed by integrating the available renewable energy sources of biomass, biogas, gobar gas and solar energy with vapour absorption cooling system to solve the high energy demand and high emissions issues associated with conventional cooling systems.
- About 20 volunteers of IEEE student branch of our institution visited Maruthamparai, a tribal village on 19-04-2016 and held awareness programme on women education.

3.6.7 Reflecting on objectives and expected outcomes of the extension activities organized by the institution, comment on how they complement students' academic learning experience and specify the values and skills inculcated.

- The objectives of the extension activities are:
 - To understand themselves in relation to the community in which they work.
 - Identify the needs and problems of the community and involve them in problem-solving.
 - Create opportunities for students and faculty to involve in community-based activities.
 - Develop in the students a sense of social and civic responsibility.
- The skills inculcated by the extension activities are:
 - Self-Leadership by communicating with the community effectively.
 - Development of ethical behavior by serving the community.
 - Students understand the importance of civic engagement and community activism.
 - Developing skills and creating social awareness among the students.

3.6.8 How does the institution ensure the involvement of the community in its reach out activities and contribute to the community development? Detail on the initiatives of the institution that encourage community participation in its activities?

- The institution makes sure that the community involvement is a vital part in its outreach programme
- Blood Donation camp was held in our college premises in association with Government Medical College.
- Programme for early attraction of talents towards for class 11 students is organized by our college periodically. This INSPIRE internship programme attracts top-ranked students from various schools.
- Pongal Day celebration was organized by NSS volunteers on 15-01-2016 at Ambedhkar Nagar. The NSS volunteers and the villagers actively participated in cultural and sports events.
- The institution welcomes the visit of parents to the departments. It also welcomes the parents during the Graduation Day and ensures community interaction.

3.6.9 Give details on the constructive relationships forged (if any) with other institutions of the locality for working on various outreach and extension activities.

- Our institution has a healthy tie-up with government hospital Nagercoil for its blood donation activities.

3.6.10 Give details of awards received by the institution for extension activities and/contributions to the social/community development during the last four years.

- Our college Youth Red Cross programme officer Dr. M. Vijayakumar received the Blood Donation Camp Appreciation Award from District Collector on 30.10.2014.
- Our NCC Cadet Senior under Officer B. Sharath got the "Best Cadet" award for best performance during Combined Annual Training Camp at Nesamony Memorial College, Marthandam in the academic year 2013-2014.
- Our NCC cadets were declared as the runners-up for the drill competition during Combined Annual Training Camp at Nesamony Memorial College, Marthandam during the academic year 2013-2014.
- During 2013-2014 our college NCC cadets showed their excellence in overall performance and won the "Best College" award as well the winner of "Drill Competition" during Annual Training Camp on 14-06-2014 at ST. Hindu College, Nagercoil.
- During 2013-2014 Our college won many awards in various cultural events during Annual Training Camp on 14-06-2014 at ST. Hindu College, Nagercoil.

3.7 Collaboration

3.7.1 How does the institution collaborate and interact with research laboratories, institutes and industry for research activities. Cite examples and benefits accrued of the initiatives - collaborative research, staff exchange, sharing facilities and equipment, research scholarships etc.

Institution creates adequate facilities for updating knowledge of researchers in order to meet the growing needs of the industry. Collaboration with research laboratories, institutions and industries resulted in collaborative research, sharing of research facilities and faculty.

- Dr. Shajulin Benedict attracted a returning expert's grant from GIZ-Germany for three years. During this tenure, he has initiated the process of establishing the HPCCLoud Research Laboratory. He has contributed to the development of HPC Cloud applications during this period.
- The HPCCLoud Research Laboratory of SXCCE has a collaborative-funded project with the University of Innsbruck, Austria in order to undertake research in the direction of Tuning of HPC Applications. The total cost of the collaborative project comes to R.s. 3.5 crore with a share of R.s. 17 lakhs from DST-India
- Our faculty members Mr. Jain B. Marshal and Mr. A. George Ansfer have been involved in lab migration project organized by Scilab which aims to migrate labs that use proprietary software to a free and open source software.
- Five full time research scholars availed of the DST Inspire fellowship for a maximum period of 5 years for doing research with an annual remuneration of 3.8 lakh per scholar.
- CETA has organized online certificate courses funded by IIT-Bombay to students in

order to improve their knowledge and skills.

- Our faculty doing research in other institution leads to collaborative research and their outcome is measured in the form of publications.

Faculty doing research in other institutions:

Sl. No.	Name of the Faculty	Department & Research Centre of Supervisor	University	Year of Registration	Status
1	Mr. C. John Moses	Electronics and Communication Engineering, Mepco Schlenk Engineering College	Anna University	2009	Thesis submitted
2	Ms. S. Maria Seraphin Sujitha	Electronics and Communication Engineering, Mepco Schlenk Engineering College.	Anna University	2009	Synopsis Submitted
3	Mr. T.M. Chenthil Jegan	Mechanical Engineering NEC Kovilpatti	Anna University	2009	Thesis submitted
4	Ms. A. Subitha	Dept. of IT, Mephco Schlenk Engineering College, Sivakasi.	Anna University Chennai	2009	Thesis Submitted
5	Ms. J. Mary Vanaja	English, M.K. University.	M. S. University	2009	Writing thesis
6	Mr. N. Sheen Kumar	Physics, NM Christian College, Marthandam	M.S. University	2010	Thesis Submitted
7	Mr. A. Darwin Jose Raju	EEE, SSN College of Engineering	Anna University, Chennai	2011	Registration Confirmed
8	Mr. T. Ajitha	EEE, CSI Institute of Technology, Thovalai.	Anna University Chennai	2011	Registration Confirmed
9	Ms. C. Amala Prathiba Janet	Physics, University College of Engineering, Konam	Anna University	2011	Registration Confirmed
10	Ms. A. Suhasini	Chemistry, University College of Engineering, Konam	Anna University	2011	Registration Confirmed
11	Ms. A. Maria Sheela	Chemistry, University College of Engineering, Konam	Anna University	2011	Registration Confirmed
12	Mr. Jain B. Marshal	EEE, TCE Madurai	Anna University	2012	Registration Confirmed
13	Dr. S. Carmel Jawahar	Civil Engineering Annamalai University.	Annamalai University	2012	Thesis submitted
14	Mr. I. Jessy	Civil Engineering,	Anna	2012	Registration

	Mol	Thiagarajar College of Engineering.	University		Confirmed
15	Ms. M. Jeya Sutha	Computer Science, Bharathiyar University, Coimbatore	Bharathiyar University	2012	Registered
16	Mr. M. Gerald Arul Selvan	Mechanical Engineering, Government College of Engineering, Bodinayakanur, Theni	Anna University	2013	Registration Confirmed
17	Mr. M. Felix Nes Mabel	Mathematics, NM Christian College, Marthandam.	Manonmaniam Sundaranar University	2014	Thesis Submitted
18	Ms. S. Mary Vasanthi	Electronics and Communication Engineering, Government College of Engineering Tirunelveli.	Anna University	2014	Registration Confirmed
19	Mr. P. Antony Vimal	Civil Engineering, Anna University Chennai.	Anna University	2014	Registered
20	Ms. A. Ludvin Felcy	Physics, Womens Christian College	M.S. University	2014	Registration Confirmed

- INSPIRE fellowship has been received by five of our research scholars for a period of 5 years. They receive a fellowship of Rs. 3.8 lakh/annum.
- ICT Academy has MoU with our institution for training its staff and students.

3.7.2 Provide details on the MoUs/collaborative arrangements (if any) with institutions of national importance/other universities/ industries/Corporate (Corporate entities) etc. and how they have contributed to the development of the institution.

- The HPCCLoud Research Laboratory of SXCCE has established the MoU with NIWE-Chennai to undertake research for 2 years on the topic "Data Analytics for Solar Systems". Period is from August 2016 to July 2018.
- MoU with University Sains, Malaysia contributed to exchange of students and faculties for the purpose of research and career advancement.
- Department of Electrical and Electronics Engineering has signed a MoU with Prolific Automation, Coimbatore to train students in PLC and SCADA.
- MoU with ICTACT helps faculty and students with software certification programmes. Students are also given training in soft skills and personality development, to make them role-ready for their jobs.
- Department of Mechanical Engineering has signed MoU with Japeva Engineering Pvt. Ltd., Chennai, for studying the heat infiltration pattern in insulation material.
- Mechanical Engineering has signed MoU with S. A. K. Bricks for supplying raw bricks.
- Department of Information Technology has MoUs with Oracle University, Oracle Academy, EMC2, VM Ware and Palo Alto for training students.

3.7.3 Give details (if any) on the industry-institution-community interactions that have contributed to the establishment/creation/up-gradation of academic facilities, student and staff support, infrastructure facilities of the institution viz. laboratories/library/new technology /placement services etc.

- Sivara Enterprises, a prominent manufacturer and supplier of process control systems has MoU with our institution to support the project entitled, “Effective Demand Side Management of Energy for a Technical Institute” for cost effective integration of renewable energy such as Solar and Wind, supported by Diesel Generator. The outcome of the project will be of immense help to energy planners of technical institute as well to maximize the benefits of renewable energy source in a cost-effective manner. In the process, the students of the Center will be the major beneficiaries in knowing the demand patterns, the challenges to supply electrical energy economically with the available energy source, technical issues related to integration of unreliable renewable energy in the grid, etc.
- Institution is a member of DELNET, which is a major Resource Sharing Library Network in "South Asia". It networks more than 900 libraries in India and six other Countries and offers access to about fifty lakh records of Books, Journals, Articles, and Other Documents.
- Institution is also a member of National Digital Library which extends its facilities (58, 00,000 electronic objects) of referring to e-books, e-journals, e-thesis, video, audio lecture, article, manuscript etc., to all the staff and students.
- Our institution has MoU with FACE, which provides skill development and placement training programme to students in order to help them in shaping their career.

3.7.4 Highlighting the names of eminent scientists/participants who contributed to the events, provide details of national and international conferences organized by the college during the last four years.

- The list of key-note speakers who addressed the participants and students are listed below:
 - Dr. Alberto Coronas, Professor, URV–Spain
 - Dr. Charlie Paton, Director of Seawater Greenhouse Ltd.–United Kingdom.
 - Dr. Philip Davies, Aston University– United Kingdom.
 - Dr. Abdul Hossain, Professor, Aston University– United Kingdom.
 - Dr. Bevita Mattu, Reader, Aston University– United Kingdom.
 - Dr. D. Mohan Lal, Professor, Department of Refrigeration and Air-Conditioning, Anna University, Chennai
 - Dr. S. Jayaraj, Professor, NIT, Calicut.
 - Mr. M. Rose Cyril Xavier, Sub Divisional Engineer. BSNL, Nagercoil.
 - Dr. A. Amalin Prince , Dept. of Electronics, Electrical Instrumentational Engineering, BITS Pilani, KK Birla Goa Campus
 - Dr. Thayal Singh Elias, Associate Professor, Division of Radiation Physics, RCC, Thiruvananthapuram.
 - Er. P. Murugan, Rtd. Senior Scientist, ISRO
 - Dr. AzhaguSundaram, Head of Structural Engineering Division , IIT, Chennai
 - Mr. A. BabalGeoffre, Senior Assistant Engineer, NTPC Ltd.

- Dr. Khaled F. Khaled, Associate Professor, Ain Shams University, Egypt.
- Dr. S. Muralidaran, Senior Scientist, CECRI, India.
- Dr. K.P. Jeya, Professor, Anna University, Chennai.
- Dr. Lowell W. Beineke, Schrey Chair of Mathematics, USA.
- Dr. Jay Bagga, Ball State University, USA.
- Dr. Shariefuddin Prizada, University of Kashmir.
- Dr. S. Ramachandran, Noorul Islam University, Kumarakoil.
- Dr. V. Vilfred, Central University, Kasercode.
- Dr. Monoj Kumar, Motilal Nehru National Institute of Technology, Allahabad.
- Dr. Nicholas Sabu, IIST, Trivandram.
- Dr. Khaled F. Khaled, Ain Shams University, Egypt.

International and National Conferences organized during the last four years:

Sl. No.	Title of the Conference	Date	Source of Funding
1.	National Conference on Trends in Energy Management	23-04-2017	Self-Supporting
2.	IEEE International Conference on Green High Performance Computing	26-02-2016 & 27-02-2016	Self-Supporting
3.	International conference on Energy Efficient Technologies for Sustainability	07-04-2016 & 08-04-2016	SERB(DST) ISRO,IET, Self-Supporting
4.	Electros conference on Researches in Electronics and Communication Technologies	29-03-2016	Self-Supporting
5.	National Conference on Green Initiatives and Smart Grid	10-03-2016 & 11-03-2016	IET& Self-Supporting
6.	National conference in Recent Trends in Information and Computer Technology	19-03-2015	Self-Supporting
7.	National conference on Recent Innovations in Communication and Electronics Systems	05-03-2015	Self-Supporting
8.	International Conference on Advances in Sustainability of Materials and Environment	10-04-2014 & 11-04-2014	Self-Supporting
9.	National conference on Recent Trends in Computer Technology	26-03-2014	Self-Supporting
10.	National conference on Advances in Image Processing and Communication	21-03-2014 & 22-03-2014	Self-Supporting
11.	National conference on Construction CONSTRUCT 2013	05-04-2013	Self-Supporting
12.	IEEE International Conference on Green High Performance Computing	14-03-2013 & 15-03-2013	Self-Supporting
13.	International Conference on Energy Efficient Technologies for Sustainability	10-04-2013 to 12-04-2013	Self-Supporting
14.	National conference on Innovative Electronics Systems and Information Technology	06-03-2013 & 07-03-2013	Self-Supporting
15.	National conference on Recent Trends in Civil Engineering	08-08-2012	Self- supporting

3.7.5 How many of the linkages/collaborations have actually resulted in formal MoUs and agreements ? List out the activities and beneficiaries and cite examples (if any) of the established linkages that enhanced and/or facilitated

- a) Curriculum development/enrichment
- b) Internship/ On-the-job training
- c) Summer placement
- d) Faculty exchange and professional development
- e) Research
- f) Consultancy
- g) Extension
- h) Publication
- i) Student Placement
- j) Twinning programmes
- k) Introduction of new courses
- l) Student exchange
- m) Any other

List of MoUs and its outcomes:

Sl. No.	Department	Organization	Outcome of Collaboration	Year of Agreement	Validity Period
1.	Computer Science & Engineering and Information Technology	Dhina Technologies	Knowledge Sharing, Research work	2017	up to 2022
2.	Humanities & Sciences	Nova Carbons India Private Limited	Research	2017	Three years
3.	Civil Engineering	Desiha Construction, Chennai	Training to Students & Faculty	2017	Five Years
4.	Civil Engineering	Abinaya Constructions	Training to Students & Faculty	2017	One Year
5.	Civil Engineering	Ideal Engineering Construction	Training to Students & Faculty	2017	Eight Years
6.	Master of Business Administration	Nanjil Catholic College of Arts & Science	Providing Training and Carrier Guidance	2017	Three Year
7.	Mechanical Engineering	Fluid power Engineering	Students Training and Research	2017	Three Years
8.	Mechanical Engineering	Novax pumping systems and solutions	Students Training and Research	2017	Three Years
9.	Computer science and Engineering	Metro College of Technology, Cannada	Students Training on Networking	2017	Up to 2022
10.	Computer Science and Engineering	Dynamic Dreamers	Students Training on Web Designing programs	2017	Up to 2022
11.	Library	Holy Cross	Library Usage	2017	Up to

		College, Nagercoil.			2025
12.	Electronics and Communication Engineering	Knowsys Technologies, Nagercoil	Students Training	2017	Three Years
13.	Electronics and Communication Engineering	Blueberry Industries Pvt. Ltd., Nagercoil	Students Training & Research	2017	Two Years
14.	Electronics and Communication Engineering	Prolific Systems and Technologies Pvt. Ltd., Chennai	Students Training & Research	2017	Two Years
15.	Electronics and Communication Engineering	Networkz Systems, Nagercoil	Students Training	2017	Two Years
16.	Mechanical Engineering	Japeva Engineering Pvt. Ltd., Chennai	Research	2017	Three Years
17.	Mechanical Engineering	Sivara Enterprises	Research	2017	Three Years
18.	Library	Scott Christian College, Nagercoil	Library Usage	2017	Five Years
19.	Electronics and Communication Engineering	National Institute of Wind Energy, Chennai	Research	2016	Two Years
20.	Electrical and Electronics Engineering	Prolific Automation Coimbatore	PLC & SCADA Training	2016	Two years
21.	Civil Engineering	AUTODESK	Training on AutoCAD and Revit Architecture	2016	Three Years
22.	Information Technology	Oracle Academy	Giving Training to Students	2016	up to 2019
23.		VMWare	Giving Training to Students	2016	up to 2019
24.		Palo Alto	Giving Training to Students	2016	up to 2019
25.	Placement Cell	CSS Corp, Chennai	Placed Students Training	2016	One Year
26.	Electrical and Electronics Engineering	IET India	Publication, Project Proposal Training	2015	Two years
27.	Mechanical Engineering	IEEE, Madras Section	Conference Paper Publication	2015	One Conferen ce
28.	Civil Engineering	M/S CADD Centre	Students Training	2013	Six Months

29.	Mechanical Engineering	Trans Tech Publication, Switerland	Conference Paper Publication	2013	One Conference
30.	Mechanical Engineering	IEEE, Madras Section	Conference Paper Publication	2012	One Conference
31.	Information Technology	ICTACT	Giving Training to Faculty and Students	2011	up to 2022
32.	Civil Engineering	T. Klitus, Soil Exploration Contractor.	Consultancy with Registered Students.	2016	Ten Years
33.	Information Technology	Oracle University	Giving Training to Students	2008	up to 2016

3.7.6 Detail on the systemic efforts of the institution in planning, establishing and implementing the initiatives of the linkages/collaborations.

- The institution extends its full support to the departments in establishing linkages with industries and research organizations.
- The eminent scientists and industrialists are fully utilized by the departments to enter into collaboration which will eventually benefit the students.
- Institution often insists on collaborative research.
- Faculty members are enthusiastic and willing to work along with new uses of technology that prevail in industries.

Criterion IV Infrastructure and Learning Resources

4.1 Physical Facilities

4.1.1 What is the policy of the Institution for creation and enhancement of infrastructure that facilitate effective teaching and learning?

The policy of the college is to provide and continue to enhance the infrastructure and other necessary facilities on par with the guidelines of the Government agencies like AICTE, Anna University etc., and for the holistic development of students towards creating a technically empowered society.

4.1.2 Detail the facilities available for

a) Curricular and co-curricular activities—classrooms, technology enabled learning spaces, seminar halls, tutorial spaces, laboratories, botanical garden, Animal house, specialized facilities and equipment for teaching, learning and research etc.

- Detailed facilities for curricular and co-curricular activities:

Class Rooms:

Sl. No.	Department Name	Number of Class Rooms	Size in sq. m.
1	Electronics and Communication Engineering	14	1190
2	Mechanical Engineering	8	596.97
3	Electrical and Electronics Engineering	7	473.25
4	Computer Science and Engineering	8	668
5	Civil Engineering	7	468
6	Information Technology	3	250.84
7	Mater of Business Administration	4	261
8	Mater of Computer Application	2	162
9	Humanities and Sciences	9	752.51

- Technology-Enabled Learning Spaces:
 - Common computer center with high configured Internet facilities is accessible to all the staff and students.
 - Well-equipped 24x7 Internet facilities are obtainable in the campus. The institution provides 32 Mbps Internet connections to all the systems in the campus.
 - 24x7 Wi-Fi facility is open to staff and students in the campus.
 - At present portable LCD projectors and laptops are used for teaching and learning process.
 - In future, it is planned to install LCD projectors in all the class rooms for effective teaching and learning.

Seminar Halls/Drawing Halls:

Sl. No.	Name of Halls	Number of Halls	Size in Sq. m.
1	Drawing Hall	1	364.5
2	Seminar Hall	2	284
3	Rock Auditorium	1	334.57
4.	Bishop Leon Memorial Hall	1	10,240

Tutorial Rooms:

Sl. No.	Department	Number of Shared Tutorial Rooms	Size in Sq. m.
1.	Electronics and Communication Engineering	2	166.52
2	Mechanical Engineering	2	166.52
3	Electrical and Electronics Engineering	1	83.26
4	Computer Science and Engineering	2	166.52
5	Civil Engineering	1	83.26
6	Information Technology	1	83.26
7	Mater of Business Administration	1	83.26
8	Mater of Computer Application	1	83.26
9	Humanities and Sciences	2	166.52

Laboratories:

Department	Name of the Laboratory		Area (Sq. m.)
ECE	i	Electronic Devices Lab	83.6125
	ii	Electronic Circuits Lab	83.6125
	iii	Linear-Integrated Circuits Lab / Digital Electronics Lab	64.196
	iv	Communication Systems Lab	64.196
	v	Computer Networks Lab	83.6125
	vi	Embedded System Lab	83.6125
	vii	Digital Signal Processing Lab	83.6125
	viii	VLSI Design Lab	83.6125
	ix	Microprocessor Lab	83.6125
	x	Optical & Microwave Lab	83.6125
	xi	Electronic System Design Lab / Data Acquisition and Processing Lab	83.6125
	xii	Innovative System Design Lab	72.4644
MECH	i	Engineering Practices Laboratory	72.46
		Welding Lab/ Fitting Lab	
		Carpentry Lab	98.47
		Smithy Lab /Sheet Metal Lab	72.46
		Foundry Lab	72.46
	ii	Manufacturing Technology Lab I/ Manufacturing Technology Lab II	376.25
	iii	Thermal Lab I /Thermal Lab II	250.83
	iv	Energy Lab/Research Lab	155
	v	Metrology Lab	83.61
	vi	Dynamics Lab	83.61
	vii	Mechatronics Lab	139.35
	viii	Fluid Mechanics Lab	223.08
	ix	Strength of Materials Lab	139.43
	x	CAD, CAM Lab	111.48
	xi	CAD Lab II	195.09

EEE	i	Electrical Machines Lab	362.13
	ii	Electrical Workshop Lab	111.483
	iii	Power Electronics Lab	153.29
	iv	Control and Instrumentation Lab	139.35
	v	Simulation Lab	195.096
	vi	P.G Research Lab	76.8
CSE	i	Computer Lab I	84
	ii	Computer Lab II	84
	iii	Computer Lab III	168
	iv	General Computing Lab	168
CIVIL	i	Strength of Materials Lab	123
	ii	Soil Mechanics Lab	108
	iii	Concrete and Highway Engineering Lab	135
	iv	Surveying Lab	81
	v	Fluid Machinery Lab	216
	vi	Structural Engineering Lab	284
	vii	Environmental Engineering Lab	108
	viii	Casting Lab	85
IT	i	IT Computer Lab	167.22
MBA	i	Computer Lab	135
MCA	i	Computer Lab	135
H&S	i	Physics Lab	195.13
	ii	Chemistry Lab	195.13

- Botanical Garden:
 - The institution has a 2760 square meter lawn in the college instead of botanical garden.
 - The institution is located at the lap of Western Ghats which provides peaceful surrounding.
- Specialized facilities and equipment for teaching, learning and research etc.:
 - Portable LCD projectors and OHP projectors are used for teaching and learning process.
 - NMEICT remote center facilities.
 - NPTEL course materials are offered for staff and students use.
 - E-learning facility with Wi-Fi.
 - Library equipped with e-learning facility
 - Facilities and subscription of Anna University's EduSat programme.
 - Subscription of on-line journals.
 - Biogas generation facilities are available in the campus.
 - Gas chromatography facility is used to measuring the composition of gaseous fuels.
 - Automatic wireless weather station also exists in the campus which supports to find the solar radiation, atmospheric temperature, wind speed and rain.
 - 50 kW Downdraft Gasifier, Infrared Thermometer, Multi-fuel IC Engine with Data Acquisition System, Muffle Furnace, Gas Flow Meter are the equipment used to support research.

Faculty Rooms:

Sl. No.	Department	Number of Faculty Rooms	Size in Sq. m.
1	Electronics and Communication Engineering	12	225
2	Mechanical Engineering	10	235.27
3	Electrical and Electronics Engineering	12	114.08
4	Computer Science and Engineering	5	252
5	Civil Engineering	6	186
6	Information Technology	3	138.85
7	Mater of Business Administration	2	63
8	Mater of Computer Application	1	45
9	Humanities and Sciences	6	143.99

Others:

Sl. No.	Particulars	Area in Sq. m
1	Administration Area (Principal room, Correspondent room, office, Bursar room)	571.02
2	Amenities	11525.61
3	Circulation and Common Area	5570
4	Board Room	55
5	Cafeteria x	195.16
6	Placement Office	40
7	First Aid-Cum-Sick Room	10
8	Counseling Cell	33.45
9	Library	1821.93
10	Stationery Store and Reprography	20
11	Exam Cell	40

b) Detail the facilities extra –curricular activities – sports, outdoor and indoor games, gymnasium, auditorium, NSS, NCC, cultural activities, Public speaking, communication skills development, yoga, health and hygiene etc.

➤ Extra-Curricular Infrastructure Details:

- Physical Director Office and Facilities:
 - The Institution is the Zone XIX Coordinating Center of Anna University Sports Board for the academic year 2016-17 and also coordinated in 2012-2013 and 2013-2014.

Infrastructure for sports:

Sl. No.	Particulars	Size in Sq. m.
1	Office	28.9
2	Indoor Sports Area	594.57
3	Outdoor Play Area	25000

Outdoor Games:

Sl. No.	Description	Size in Sq. m
1	Kabaddi Court	112.5
2	Volleyball Court	162
3	Badminton Court	81.74
4	Athletics Track/Foot Ball/Cricket	9900

5	Long Jump and Triple Jump Pit	36
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- Indoor Games:
 - The Institution has 594.57 sq.m size indoor play area for table tennis, chess and carom.
- Gymnasium:
 - Well-equipped Gymnasium with 27.87 square meter area is available in the institution.
- Auditorium (Bishop Leon Memorial Hall):
 - Multipurpose Bishop Leon Memorial Auditorium of 10,240 square meters is available in the institution.

NSS and NCC:

Sl. No.	Description	Size in Sq. m
1	NSS Room	19.42
2	NCC Room	19.42

- Cultural activities
 - Fine Arts Club, Tamizh Mantram and Jyothish (Malayalam Literary Association) of SXCCE provide a platform for the students to showcase their talents in various arts and cultural activities.
 - Fine Arts Club conducts intra-college cultural competitions every year in connection with the college Annual Day celebrations.
 - Calida Festa is the inter-college cultural competitions organized by the Fine Arts Club every year.
 - Tamizh Mantram and Jyothish are the clubs which encourage Tamil and Malayalam cultural events.
- Public Speaking and Communication Skills Development :
 - The institution has an auditorium, equipped with good audio and LCD projector systems for public speaking and language lab for communication skill development.

Sl. No.	Description	Size	Activities
1	Communication and Soft Skills Development Lab	195.09	Communication skills, learning skills, group discussion, interactive skills, report writing, effective presentation.
2	Seminar Hall	284	Speaking skills development.

- Radio Club and Konverz are the clubs in the Institution to enhance the communication skills of students and staff in English
- Yoga-cum-Prayer Hall:
 - Yoga Day has been celebrated in our college annually on 21 June since 2015.
 - Prayer and meditation hall of 81 square meters available in the college to nurture spiritual thoughts.
 - To nurture communal harmony, the prayer hall is made common to all the three major religions.
- Health and Hygiene:
 - The institution has a dispensary of 60.84 sq.m area; it is utilized by students and staff for their health needs.
 - During emergency, ambulance from our sister concern St. Xavier's Catholic College of Nursing is used to take the needy to Holy Cross Hospital.
 - Ten staff members of hygienic department keep the campus clean and neat.

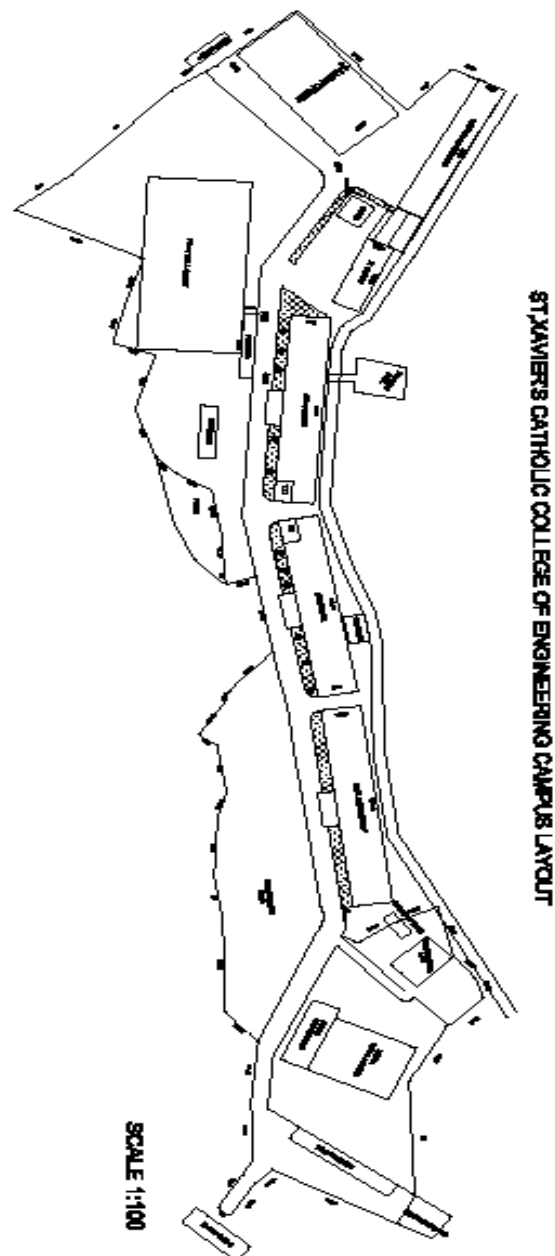
- Six rooms are maintained to store the hygienic maintenance equipment.
- Waste is disposed in the waste disposal yard.
- Bio wastes are used to generate bio-gas in the hostels.
- In order to destroy sanitary napkins, two destroyers are kept in the campus.
- Hygienic drinking water is provided with 17 numbers of UV facilities.

4.1.3 How does the institution plan and ensure that the available infrastructure is in line with its academic growth and is optimally utilized? Give specific examples of the facilities developed/augmented and the amount spent during the last four years (Enclose the Master Plan of the Institution/campus and indicate the existing physical infrastructure and the future planned expansions if any).

- As per the AICTE and the Anna University Chennai norms, the Institution fulfills the requirements of infrastructure facilities. Before the introduction of new programs, the management takes necessary actions for constructing required infrastructure facilities.
- The institution was started in the year 1998 with 3 UG programme, CSE, ECE & EEE in Albert Einstein Block and elevated to include the programme of Civil Engineering in 1999.
- In the year 2001, the first two floors of Nikola Testla Block were constructed for the departments of ECE and EEE, and the ground floor of John Smeaton Block was constructed for housing the Department of Civil Engineering. Information Technology was also introduced in the same year. A separate block named Charles Babbage Block was constructed for the department of IT in the year 2002.
- In 2003, the second and third floors in Nikola Testla Block were added to support PG programmes. The Mechanical Engineering programme was introduced in the same year.
- The James Watt Block was constructed for the department of Mechanical Engineering during the period of 2005-2006, and John Smeaton Block was extended with 3 floors to support MCA and MBA programmes in 2006.
- Bishop Leon Memorial Auditorium construction work was started in the year 2008 and now the work is in progress.
- To support new programmes and additional intakes, infrastructure facilities were extended accordingly. Almost all the infrastructure facilities in the campus were completed before 2012 to meet the requirements of all the degree programmes available in the institution.
- During the year 2013, second and third floor in Charles Babbage Block were constructed to enhance the facilities for PG courses.
- In the year 2016, structural engineering lab in a new building was constructed for the department of Civil Engineering.

Amount spent in lakhs during the last four years:

Head of Accounts	2016-2017	2015-2016	2014-2015	2013-2014	2012-2013
Land and New Building and Infrastructure	95.24	559.61	87.20	848.68	56.06
Library	22.97	23.18	25.50	23.16	24.95
Laboratory Equipment	65.43	16.17	83.61	113.61	96.56
Laboratory Consumables	1.90	3.49	12.01	5.28	6.78



Enhancement of infrastructure in the last four years:

Sl. No.	Year	Infrastructure Created/Updated	Reason for Creation/Updation
1	2016-2017	Embedded Lab for Department of ECE	New lab due to new curriculum
		Structural Engineering Lab for Department of Civil Engineering	Lab created in new place for M.E. Structural Engineering
		Casting Lab for Department of Civil Engineering	Lab created in new place
2	2015-2016	Class rooms for IV year Department of Mechanical Engineering students	Due to additional intake
3	2014-2015	Class rooms for III year Department of Mechanical Engineering students	Due to additional intake
4	2013-2014	Faculty Room for Department of IT	To support IT Programme
		Class rooms for II year Department of Mechanical Engineering students	Due to additional intake
		Faculty Room for Department of Mechanical Engineering	More staff rooms due to additional intake
		Structural Engineering Class Rooms and Laboratory	For the new PG Programme M.E. Structural Engineering
5	2012-2013	Department of IT office	To move IT Programme into a new block
		IT Lab	
		IT Class Rooms	
		Faculty Room for Department of IT	
		Class rooms for I year Department of Mechanical Engineering students	Due to additional intake
		Medical Electronics Class Rooms and Laboratory	For the new PG Programme M.E. Medical Electronics
		Power Electronics and Drives Class Rooms and Laboratory	For the new PG Programme M.E. Power Electronics and Drives

Optimal utilization of the infrastructure:

- CSS Corp Private Limited, Ambattur Industrial Estate, Chennai-58 has utilized the institution's Seminar Hall and Computer Lab for training their new employees from 25-07-2016 to 31-08-2016.
- District CEO conducted Head Masters' meeting on 15-09-2015, 16-09-2015 and 01-07-2016 in our Auditorium.
- The seminar hall was utilized by the Police personnel to enhance their software skills on "Online FIR Entry" on 11-04-2016.
- State Science Forum has conducted three day state Conference from 25-09-2015 to 27-09-2015 in our Auditorium

- Puthiya Thalaimurai TV channel conducted “Veetuku Oru Vingnani” for school students in our campus on 04-08-2014.
- Anna University Zone XIX chess tournament for men and women was held on 22-08-2012 and 23-08-2012 at the Drawing Hall of our institution.
- The laboratories of the Department of Civil Engineering are utilized for civil consultancy testing.
- The playground of the institution is being used by Morning Star polytechnic and St. Xavier's Catholic College of Nursing for their special sports activities.
- Institutional infrastructures have been used to conduct TNPSC, GATE, TANCET, Police Recruitment, Bank Examinations, TCS Ion, Sify and curriculum-based lab sessions by University College of Engineering Nagercoil.
- College infrastructures are utilized for value-added training and orientation programs to the public during vacation and holidays.

4.1.4 How does the institution ensure that the infrastructure facilities meet the requirements of students with physical disabilities?

- To meet requirements of the physically-challenged students, the following facilities are available in the institution.
 - Ramp and lift facilities.
 - Special disabled friendly restroom.
 - Ground floor accommodation is provided in the hostel.
 - Facilities to board college buses and seats are reserved for disabled.
 - Wheel chairs are provided to students, who need them.
 - Special seating in the class room is provided on demand.

4.1.5 Give details on the residential facility and various provisions available within them Hostel Facility – Accommodation available

Details of rooms in boy's hostel:

Sl. No.	Occupants per Room	Number of Rooms	Carpet Area of Each Room in Sq. m.	Total Carpet Area in Sq. m.
1	3	45	18.58	836.1
2	4	12	27.87	334.44
Total Carpet Area				1170.54

Details of rooms in girl's hostel:

Sl. No.	Occupants per Room	Number of Rooms	Carpet Area of Room in Sq. m.	Total Carpet Area in Sq. m.
1	4	46	16.2	745.2
Total Carpet Area				745.2

Facilities in the hostel:

Sl. No.	Description	Carpet Area in Sq. m.
Boys Hostel		
1	Kitchen and Dining Hall	288
2	Indoor Games-Cum-Common Hall	81.74
3	Outdoor Games	162
4	Warden Office	18.58
5	Guest Room	92.9
6	Circulation and Common Area	521.6

7	Prayer Hall	72	
8	Reading and TV room	72	
9	Car Parking	17.28	
Girls Hostel			
1	Kitchen, Dining Hall and TV Hall	288	
2	Outdoor Games	81.74	
3	Warden Office	16.2	
4	Guest Room	32.4	
5	Circulation and Common Area	286.42	
6	Prayer Hall	47.57	
7	Car Parking	17.84	
Toilet and Bathroom Facilities			
Boys Hostel			
Sl. No.	Description	Numbers	Carpet Area in Sq. m.
1	Restrooms	30	67.5
2	Bathrooms	18	40.5
3	Wash Basins	18	21
Girls Hostel			
Sl. No.	Description	Numbers	Carpet Area in Sq. m.
1	Restrooms	27	31.05
2	Bathrooms	21	24.15
3	Wash Basins	12	160.56

Recreational facilities, gymnasium, yoga center, etc.

- The college provides various recreational facilities for both boys and girls in their hostel
 - Boys Hostel
 - Mini gymnasium
 - Indoor games like caroms, chess, and table tennis
 - Outdoor games like basketball, volley ball, badminton, shuttle and cricket.
 - Common hall with television for news and entertainment.
 - Common prayer hall for mind recreation
 - Girls Hostel
 - Outdoor games like badminton and shuttle.
 - Common hall with television for news and entertainment.
 - Prayer hall for spiritual refreshment.

Computer facility including access to internet in hostel

- Computer center remains open three hours after the college regular working time.
- High speed 50 Mbps internet facility is available in the college.
- 24x7 Wi-Fi facility is available to cater to the computing needs of students.

Facilities for medical emergencies

- The ambulance facility available in the nearby St. Xavier's Catholic College of Nursing is used during emergency to take those who need medical help to Holy Cross Hospital.
- First aid facilities, wheel chairs and stretchers are available in the college to take care of the sick.

Library facility in the hostels

- Library remains open for 1 hour before and after the college working hours, so that students can utilize the college library fruitfully.
- Reading room with dailies and magazines is available in the hostel.

Internet and Wi-Fi facility

- The institution is connected with well-equipped 24x7 internet facilities.
- The institution provides 50 Mbps Internet connections to all the systems available in the campus.
- Secured Wi-Fi facility is available to all the students and staff throughout the campus.

Recreational facility-common room with audio-visual equipment's

- Reading and television room is provided in both the hostels.

Available residential facility for the staff and occupancy Constant supply of safe drinking water

- As all staff members are within 30 Km radius, the need for staff quarters does not arise. However, on demand, bachelor accommodation facility to staff is provided in gents or ladies hostel and special guest rooms are available for guests in the hostel as well as in the college.
- UV-purified normal and chilled drinking water is provided for staff and students in both the hostels.

Security

- There are 12 security personnel employed in our campus in 24x7 shift basis, they strictly monitor the visitors and provide security to the institute and hostels.
- College has appointed separate deputy wardens for both boys and girls hostels.

4.1.6 What are the provisions made available to students and staff in terms of health care on the campus and off the campus?

- All the students of the college are provided with health insurance scheme.
- Staff member have the benefit of insurances like, Employment State Insurance (ESI) which provide medical and cash benefits to them.
- The institution has linkage with St. Xavier's Catholic College of Nursing and Holy Cross Hospital to take care of the emergency medical needs of staff and students.
- First-aid facility is available in the college.

4.1.7 Give details of the Common Facilities available on the campus–spaces for special units like IQAC, Grievance Redressal unit, Women's Cell, Counseling and Career Guidance, Placement Unit, Health Centre, Canteen, recreational spaces for staff and students, safe drinking water facility, auditorium, etc.

Sl. No.	Common Facilities	Size Sq. m./Numbers
1	Internal Quality Assessment Cell	9.2
2	Grievance Cell	19.26
3	Women's Cell	9.63
4	Counseling Cell	33.45
5	Placement Cell	40
6	Health Centre	60.84
7	Canteen	195.16
8	Recreational spaces for staff and students	38.28
9	Safe drinking water facility	17
10	Auditorium	10240

11	Transport facility	24
12	Indian Society for Technical Education	9.63
13	Students Welfare Cell	18.63
14	Youth Red Cross and Red Ribbon Club	9.63
15	Photography Club	9.63
16	St. Xavier's choir	9.63
17	SAE and ISHRAE	13.63
18	Computer Society of India	9.63
19	Association for Computing Machinery	9.63
20	Robotics Club	9.63
21	Anti-Ragging Committee	9.63
22	SC/ST Welfare Cell	9.63
23	Radio Club and Konverz	9.63
24	Institution of Engineering and Technology	13.63
25	Fine Arts Club	18.58
26	Tamil Mantram and Jyothis	18.58
27	Alumni	18.58
28	Eco Club	9.29
29	Energy Club	9.29

4.2 Library as a Learning Resource

4.2.1 Does the library have an Advisory Committee? Specify the composition of such a committee. What significant initiatives have been implemented by the committee to render the library, student/user friendly?

- Yes. The institution has an advisory committee for library
 - Composition of Library Advisory Committee:
 - A senior faculty is the convener
 - One faculty from each department is the board comprises.
 - Librarian is the ex-officio member
- The library advisory committee ensures that the library books, journals and e-journals are updated every year and latest titles are added to the library.
- The committee recommends the subscription to print and e-journals.
- Barcode system is introduced for book lending.
- Availability of the library books can be viewed through OPAC by staff and students.
- E-resources can be accessed anywhere in the college campus.

4.2.2 Provide details of the following:

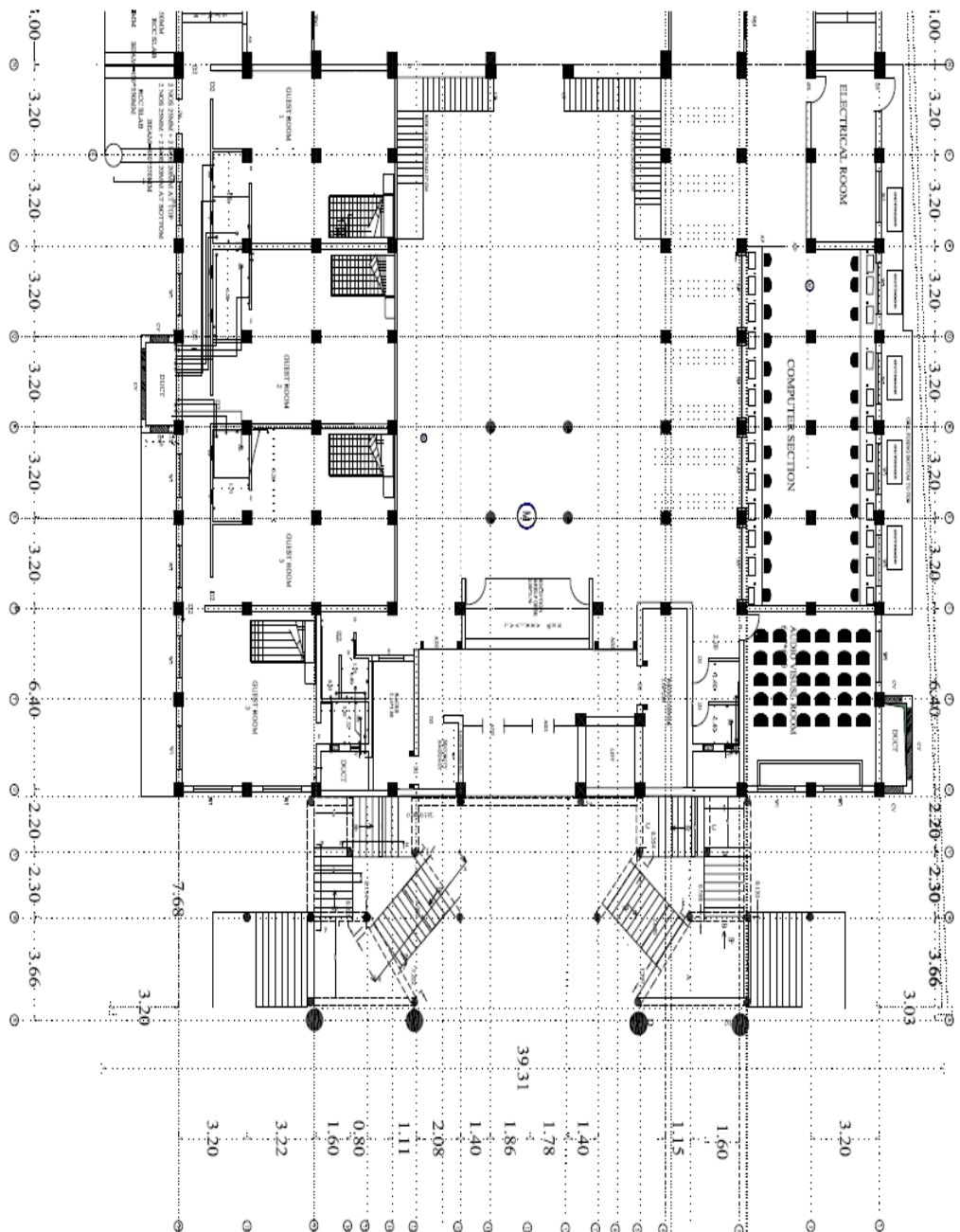
Total area of the library (in Sq. Mts.), Total seating capacity, Working hours, Layout of the library (individual reading carrels, lounge area for browsing and relaxed reading, IT zone for accessing e-resources)

Area, seating capacity and working hours of college library:

Total Area	1821.93 Square Meter	
Seating Capacity	250	
Working Hours	Working days	7.50 A.M to 5.10 P.M
	Holidays	10.00 A.M to 4.00 P.M
	Before examination days	7.50 A.M to 6.00 P.M
	During examination days	7.50 A.M to 6.00 P.M
	Vacation	7.50 A.M to 5.10 P.M

➤ College Library Layout

Layout of first floor of the Library:



Architectural floor plan of the second floor of a library building. The plan shows a large central 'OPEN ROOM' and a 'LIBRARY II' area. It includes various rooms like 'RECEPTION', 'STAIRS', and 'ELEVATOR'. The plan is detailed with dimensions, room numbers, and material specifications for windows and doors. A legend at the bottom lists the materials used.

LIBRARY II

OPEN ROOM

RECEPTION

STAIRS

ELEVATOR

LEGEND:

- D - 1.8X2.4 Two Folding
- D1 - 1.8X2.4 Double panel
- D2 - 1.2X2.4 Single panel
- D3 - 1.2X2.4 PVC Door
- D4 - 1.0X2.4 Single panel
- D5 - 0.75X2.4 PVC Door
- D6 - 1.2X2.4 Double panel
- D7 - 0.75X2.4 Double panel
- AD - 1.0X2.4 Aluminum
- AD1 - 3.0X2.4 Aluminum
- W1 - 1.8X1.35 Window 3 panel
- W0 - 1.5X1.35 Window 3 panel
- W2 - 1.2X1.35 Window 2 panel
- W3 - 1.8X1.35 Grill window
- W4 - 1.5X1.35 Grillwooden frame
- W5 - 1.8X1.35 MS & Glass
- O - 1.5X1.35 Open for free fresh air

Area specification of different sections of library:

Sl. No.	Section	Area in Sq. m.
1	Individual reading carrels	246
2	IT zone for accessing e-resources (Digital library)	73.7
3	Lounge area for browsing and relaxed reading (Reference Section)	194.7
4	Book Circulation Section	106.50
5	Book Stock Section	850
6	Photocopy Section	10.78
7	Audio Visual Area	38.25

4.2.3 How does the library ensure purchase and use of current titles, print and e-journals and other reading materials? Specify the amount spent on procuring new books, journals and e-resources during the last four years.

- At the beginning of every academic year, departments prepare and present library budget to the management for the procurement of text and reference books.
- Librarian prepares and submits the consolidated budget for the purchase of new books to the management through principal for approval.
- The staff members from each department also submit list of required text books, reference books and E-journals based as per the requirements of AICTE, Anna University and for research through Head of the Department and Principal to the Librarian.
- Librarian prepares the purchase requisition and forwards it to the purchase committee for the approval.
- After obtaining the approval, quotations are called for vendors.
- Purchase committee compares the quotations and finalizes the order and dealer to place purchase order without delay.
- The librarian continuously monitors the progress in purchasing and ensures rapid supply of required books and journals.
- The Library Advisory Committee monitors the smooth working of the library.

Amount spent on procuring new books, journals and e-resources during the last four years:

Sl. No	Library Holdings	Year-1 2016-2017		Year-2 2015-2016		Year-3 2014-2015		Year-4 2013-2014		Year-5 2012-2013	
		Number	Total Cost (R.s.)	Number	Total Cost (R.s.)	Number	Total Cost (R.s.)	Number	Total Cost (R.s.)	Number	Total Cost (R.s.)
1	Text Books & References	213	44,857	447	1,25,420	1666	7,93,854	626	4,36,224	667	2,49,153
2	Journals/Periodicals	23	34,505	12	28,403	22	41,098	22	40,146	22	14,062
3	e-resources	569	19,32,029	505	19,28,447	639	19,64,964	2289	17,64,614	636	15,66,623

4.2.4 Provide details on the ICT and other tools deployed to provide maximum access to the library collection?

OPAC, Electronic Resource Management package for e-*journals, Federated searching tools to search articles in multiple databases, Library Website, In-house/remote access to e-publications, Library automation, Total number of computers for public access, Total numbers of printers for public access, Internet band width/speed 2mbps 10mbps

1gb (GB), Institutional Repository, Content management system for e-learning, Participation in Resource sharing networks/consortia (like Infflibnet)

➤ OPAC

- Students and staff can access the book obtainability with the help of OPAC.
- Using OPAC, user can search the accessibility of books based on the title and author's name.

Electronic resource management package for e-journals:

Sl. No.	Name of the e-Journal Publisher	Total Number of Journals	Name of the Relevant Courses
1	IEEE	145	Computer Science and Engineering, Electrical and Electronics Engineering, Telecommunications and Master of Computer Applications and Related Disciplines.
2	Springer	49	Mechanical Engineering
3	IET	18	Computer Engineering, Computer Science, Electrical and Electronics Engineering, Telecommunications, MCA and Related Disciplines.
4	Elsevier	275	Computer Science, Electronics, Electrical Engineering and Mechanical Engineering.
5	ASTM		Online Dictionary of Engineering Science and Technology and Encyclopedia.
6	McGraw Hill		General Engineering, Digital Library and Reference
7	J. Gate	27,781	J-Gate provides seamless access to millions of journal articles available online offered by 9080 publishers in management courses.

➤ Federated-searching tools to search articles in multiple databases

- The institution has a member of National Digital Library (NDL) which provides federated searching tools to access the multiple data basis.
- DELNET tool is used for accessing books from various institutions across the country.

➤ Library Website

- <http://xaviers/staff/library/>
- <http://xaviers/student/library/>
- Library website can be accessed in the campus.
- It gets updated on regular basis.
- It contains information about library search tool details of borrowed and returned book.

➤ In-house/remote access to e-publications

- E- Publications can be accessed at the library and anywhere in the campus using Wi-Fi.

➤ Library automation

- The Library is fully automated using "XLA" (Xavier Library Automation) software.
- Issue, return and tracking of books are realized through the bar code printed in the book and identity card of Staff and students.

➤ Total numbers of computers for public access

- There are 12 computers inside the library for public access.

- Total numbers of printers for public access
 - One printer is being used for public access
- Internet bandwidth/speed: 50 Mbps
- Institutional Repository
 - Storing repository of size 3TB is available for staff and students in the institution.
 - 1.5TB NPTEL videos are included in the college repository for library.
- Content management system for e-learning
 - NPTEL courses are being freely accessed throughout the campus by students and staff.
 - EduSat programs are accessible in the institution.
- Participation in resource-sharing networks/consortia (like Infflibnet)
 - Infflibnet is accessed through National Digital Library membership.
 - The institution has membership with DELNET for library resource-sharing.

4.2.5 Provide details on the following items:

Average number of walk-ins, Average number of books issued/returned, Ratio of library books to students enrolled, Average number of books added during last three years, Average number of login to OPAC, Average number of login to e-resources, Average number of e-resources downloaded/printed, Number of information literacy trainings organized, Details of “weeding out” of books and other materials

Sl. No.	Details	Quantity
1	Average number of walk-ins	150 per day
2	Average number of books issued/returned	100 per day
3	Ratio of library books to students enrolled	10.44:1
4	Average number of books added during last three years	913
5	Average number of login to OPAC	200 per day
6	Average number of login to e-resources	35 per day
7	Average number of e-resources downloaded/printed	165 per day
8	Number of information literacy trainings organized	9 per year
9	Details of weeding out of books and other materials	Not Applicable

4.2.6 Give details of the specialized services provided by the library

Manuscripts, Reference, Reprography, ILL (Inter Library Loan Service), Information, deployment and notification, Download, Printing, Reading list/ Bibliography, compilation, In-house/remote access to e-resources, User Orientation and awareness, Assistance in searching Databases, INFLIBNET/IUC facilities.

- Manuscripts
 - UG project reports and PG theses are distinctly available in the library.
 - Our college Ph.D. holder's theses are available in the library.
 - Department of library manifestly preserves our college Ph.D. holders theses which open to all students for their reference.
- Reference
 - A reference section with a collection of latest editions, encyclopedia, rare copies of books, books for GATE, GRE, TOEFL, and other competitive examinations are made available to the users.

- Reprography
 - Reprography facility is available in the library for the benefit of users. If necessary, students and staff can take the books for photocopy and return them on the same day.
- ILL (Inter Library Loan Service)
 - This facility is available in the library through DELNET.
 - It promotes sharing of resources among the libraries of various institutions, by developing a network of libraries.
- Information deployment and notification
 - Information related to the library is notified to the staff and students through circulars in college automation software.
 - Provisions in the timetable are made to enhance students' library usage and reading habit.
 - The subject-wise name boards are located inside the library for identifying the specialized books easily.
 - The library has a notice-board to display the library statistics.
- Download
 - E-Journals subscribed to by the library can be downloaded based on IP address.
 - NPTEL course material can also be downloaded.
- Printing
 - Printing provision is available.
- Reading list/ Bibliography compilation
 - Reading list of the library can be accessed through OPAC.
- In-house/remote access to e-resources
 - A well-equipped Wi-Fi facility with Internet connectivity provides access to e-publications.
 - IP-based facility is availed of accessing the e-resources.
- User Orientation and awareness
 - User-orientation programs are conducted at the beginning of every academic year for the first year and lateral entry students.
 - Library information is also available in the college website and academic calendar.
- Assistance in searching Databases
 - The library staff members assist the users in searching for the desired information available in the library automation.
- INFLIBNET/IUC facilities
 - College has association with National Digital Library to access the infliplibnet
 - The institution has membership with DELNET to share the information.

4.2.7 Enumerate on the support provided by the library staff to the students and teachers of the college

- User orientation programs are conducted at the beginning of every academic year for the first year and lateral entry students
- The library staff assists the students and staff to identify the location of the books in specific subject area.
- They assist in failure-free downloading of course materials.
- Subject-wise name boards are placed on each rack for easy identification.
- Newly purchased books are kept in the arrival rack for easy access and university question banks are made available for reference.

4.2.8 What are the special facilities offered by the library to the visually/physically challenged persons? Give details.

- Student volunteers from each department help the physically challenged persons for library-related activities.

4.2.9 Does the library get the feedback from its users? If yes, how is it analyzed and used for improving the library services. (What strategies are deployed by the Library to collect feedback from users? How is the feedback analyzed and used for further improvement of the library services?)

- Yes. Anonymous feedback is collected through suggestion boxes and action has been taken to rectify the shortfalls by the Library Advisory Committee in consultation with Principal.
- Effort is on to bring the feedback system in the college automation software.

4.3. IT Infrastructure

4.3.1. Give details on the computing facility available (hardware and software) at the institution.

Number of computers with Configuration (provide actual number with exact configuration of each available system), Computer-student ratio, Standalone facility, LAN facility, Wi-Fi facility, Licensed software, Number of nodes/computers with Internet facility, Any other.

- Total number of computers: 1020

Numbers and configuration of available computer in the college:

Sl. No.	Item	System Configuration	Quantity
1	Servers	IBM Blade Center HS23, Intel Xeon 2.1G Hz x2. 32GB RAM, 300GB HDDx2	1
		IBM Blade Center HS23, Intel Xeon 2.4G Hz x2, 16GB RAM, 300 GB HDDx2	3
		IBM X3650, Intel Quad core 2.5G Hz, 4GB RAM, 300 GB HDDx2	1
		IBM X3550 M2, Intel Quad core 2.0G Hz, 4GB RAM, 146 GB HDDx2	1
2	Computers	Intel i5, 4 GB RAM, 500 GB HDD	440
		Intel i3, 4 GB RAM, 500 GB HDD	221
		Intel P-QC, 2 GB RAM, 160 GB HDD	87
		Intel P-C2D, 2 GB RAM, 160 GB HDD	202
		Intel P-DC, 2GB RAM, 80 GB HDD	70

- Computer-student ratio: 1:2.5
- Standalone facility
 - All the computers are connected with network. They can also be operated as standalone computers.
- LAN facility
 - SXCCE has 1020 computers and 6 servers.
 - All the computers are connected with LAN.
 - The backbone of the LAN is built with optical cables.
 - Inside room-cabling is done using cat-5/cat-6 UTP cable.
 - LAN speed is available with 100 and 1000 Mbps.

- 50 Mbps of Broadband connection are provided to all the computers through wired and Wi-Fi connections.
- A hardware firewall “Cyberoam” provides security to all computers in the campus.
- 1TB of storage is shared among staff and students of our college.
- Wi-Fi facility
 - Well-equipped 24x7 Wi-Fi facilities are available in the campus.
 - The institution provides 50 Mbps Internet connections to all the systems available in the campus.
 - There are 38 wireless routers and a Wi-Fi controller to provide Wi-Fi facility in the campus.
 - Secured Wi-Fi facility is provided to students and staff.

Licensed software available in the institute:

Sl. No.	Software	Number of Licenses
1	Lab VIEW	50
2	VisSim	1
3	Matlab 6.5	10
4	Matlab 12a	30
5	Advanced Design System 11.5	5
6	MathCAD	25
7	ETAP Power station Software	5
8	STAAD Pro 2003	5
9	EDGE CAM	10
10	ANSYS	25
11	SOLIDWORKS	20
12	HYDROSIM & PNEUMOSIM	1
13	SAP Business1 Professional	10
14	Tally ERP 9	Unlimited
15	IBM SPSS Statistics Base 21.0	10
16	IBM SPSS Advanced Statistics	10
17	IBM SPSS Forecasting	10
18	AutoCAD	5
19	SCO Open Server	10
20	SCO Open Server Enterprise System	5
21	Novell Netware	5
22	Office XP	35
23	Visual Studio .NET Pro 2002	35
24	Windows XP Professional	15
25	Windows Server STD 2003	1
26	Windows server CAL 2003	35
27	SQL Server 2000 STD Edition	1
28	SQL Server 2000 CAL	35
29	Adobe Premiere 6.5	5
30	Adobe Photoshop 7	5
31	Windows Server2008 CAL	5
32	Windows SQL Server2008 CAL	5
33	Rational Seed Package	30
34	IBM Rational Architect	30

Sl. No.	Software	Number of Licenses
35	IBM Rational suite Enterprise Studio	30
36	Oracle 9i	Unlimited
37	Windows 7	100
38	Microsoft Office 2000 Professional	1
39	Microsoft Windows NT Server with 5 clients	1
40	MS Dos 6.22	1
41	Turbo C++ Suite	1
42	TASM	1
43	Macromedia Dreamweaver MX2004	1
44	Macromedia Director MX2004	1
45	Microsoft office FrontPage2003	1
46	Symantec Endpoint Protection	1
47	Macromedia Flash 6	5
48	Adobe Premiere Pro CS3	1
49	Windows Vista	1
50	Norton Endpoint Protection	1
51	Windows Server 2008 Enterprise Academic + 5CAL	1
52	SQL Server 2008 STD Academic + 5CAL	1

- Number of nodes/computers with Internet facility: 1020
 - All the computers in the college are connected through LAN to the Internet.
- Other Details

List of Printers/Scanners/Photo Copier available in various departments:

Sl. No.	Department	Printers /Scanners/Photo Copier	Model	Quantity
1	Electronics and Communication Engineering	Printers	HP Laser Jet P2055 DN, HP Laser Jet P2015dn, HP Laser Jet P2015dn, Canon LBP 2900, Canon LBP 3300, HP LaserJet 1160	6
2	Mechanical Engineering	Printers	HP Laser Jet 1320n, HP Laser Jet P2055dn, HP Laser Jet P2015dn	3
		Scanners	HP Scanjet 4370	1
		Plotter	HP Design jet 110+	1
3	Electrical and Electronics Engineering	Printers	HP Laser Jet P2055dn, HP Laser Jet P2015 DN, HP Laser Jet P2055dn, HP LaserJet M401D	4
		Scanners	HP Scanjet 4370	1
4	Computer Science and Engineering	Printers	Canon IR 1024, HP Laser Jet P2055dn, HP Laser Jet Pro 400 M401dn, Canon LBP 3300	4
		Scanners	HP Scanjet 4370	1
5	Civil Engineering	Printers	HP Laser Jet P2055dn	1
6	Information Technology	Printers	HP Laser Jet P3015 DN HP Laser Jet M1005	3
		Scanners	HP Scanjet 5590	1

7	Master of Business Administration	Printers	HP Laser Jet P2015 DN, HP Laser Jet P2055dn	2
8	Master of Computer Application	Printers	HP Laser Jet P2055dn	2
9	Humanities and Sciences	Printers	HP Laser Jet P2055dn	1
10	Office	Printers	HP Laser Jet Pro 400m, Cm320 NF Color Laser Jet, HP Color Laser Jet cm2520nf, HP Laser Jet p3015dn, HP Laser Jet 500 Color m551, HP Laser Jet 2055dn, Canon mf 4370dn. HP Pro Color M375NW, HP LaserJet M401D, Canon LBP 3300, Canon LBP 3300, HP Laser Jet M1005	12
		Scanners	HP Scanjet G3110	1
		Photo Copier	Canon IR8070, RICOH Aficio mp2000L2, Canon IR 8070	3
11	IQAC	Printer	HP laser Jet Pro M403d	1
		scanner	HP Scanjet 200	1

List of UPS available in the college:

Sl. No.	UPS Capacity	Quantity	Department and Lab Name
1	10 KVA	1	CSE, Computer Lab I
2	10 KVA	1	CSE, Computer Lab II
3	25 KVA	1	CSE, Computer Lab III
4	25 KVA	1	CSE, General Computing Lab
5	25 KVA	1	IT, IT Computer Lab
6	10 KVA	1	IT, Computer Centre
7	25 KVA	1	MBA, MBA Lab
8	5 KVA	1	MBA, MBA Lab
9	10 KVA	1	MECH, CAD Lab
10	5 KVA	1	MECH, CAD Lab
11	25 KVA	1	MECH, CAM Lab
12	10 KVA	1	ECE, Network Lab
13	5 KVA	1	ECE, Network Lab
14	25 KVA	1	ECE, PG Lab
15	2 KVA	1	ECE, HPCC Lab
16	25 KVA	1	EEE, Language Lab
17	5 KVA	1	EEE, Language Lab
18	5 KVA	1	Research Centre
19	5 KVA	1	Library
20	15 KVA	1	Office
21	1 KVA	1	Auditorium
22	10 KVA	1	Correspondent Room

4.3.2 Detail on the computer and internet facility made available to the faculty and students on the campus and off-campus?

- Internet facility with 50 Mbps speed is made available to students and faculty.
- Well-equipped laboratories with the latest configuration computers with servers are provided in all departments.
- Staff rooms are provided with computers and Internet connectivity.
- Central Computing Facility is available in the campus for all the faculty and students.

4.3.3 What are the institutional plans and strategies for deploying and upgrading the IT infrastructure and associated facilities?

- The institution has constructive plans and strategies to promote and upgrade the IT infrastructure in the campus.
- The institution has planned to provide uninterrupted Internet connection and paperless transaction to all the staff and students within a campus and also each student should get an individual computer when he or she requires for their studies.
- When there is an additional IT infrastructure request comes from departments, it will enhance by technical committee of the college discusses with principal and department concerned and then it will forward to financial committee. If it is financially feasible, it is forwarded to purchase committee for purchase the IT components.
- The following up gradation has been made in the past few years.
 - In 2009, the institution had 617 computers with a speed of 8 Mbps Internet connections.
 - In 2013, it was upgraded to 889 computers with a speed of 16 Mbps Internet connections.
 - Further, in the same year, the institution replaced the existing CRT monitors with LCD display units, and 40 Wi-Fi routers were installed in the campus to create a Wi-Fi-enabled campus. In the same year, as per the direction from Anna University, CCTV cameras were installed at strategic points in the college.
 - In 2014, the number of computers was upgraded to 967 with 20 Mbps Internet connections and it was increased to 989 with 24 Mbps in 2015.
 - At present, we have 1020 computers with an upgraded speed of 50 Mbps Internet connections to satisfy the requirements of staff, students and research scholars.

4.3.4 Provide details on the provision made in the annual budget for procurement, up gradation, deployment and maintenance of the computers and their accessories in the institution (Year wise for last four years)

Sl. No.	Description	2016-2017	2015-2016	2014-2015	2013-2014	2012-2013	Total in R.s.
1	Procurement	1152000	956800	2795000	2170800	2300000	93,74,600
2	Up gradation	380000	423000	507000	239800	900000	24,49,800
3	Deployment and Maintenance	80000	29750	51450	50000	110000	3,21,200
Total							1,21,45,600

4.3.5 How does the institution facilitate extensive use of ICT resources including development and use of computer-aided teaching/ learning materials by its staff and students?

- The Institution has installed 50 Mbps internet connection with advanced server

configuration for rapid access of information.

- All the engineering departments of our college are facilitated with 6 servers which provide fast downloading of course materials from the Internet.
- NPTEL-learning materials and videos are used for class-room teaching and self-learning.
- All the departments are equipped with sufficient LCD projectors and laptops to facilitate ICT in teaching-learning.
- SMS service is used to send academic-related information to students and parents on time.
- An effective communication and skill development laboratory was established to facilitate language and communication skills of students.
- E-journals subscribed to by the college library can be downloaded and used by staff, students and research scholars.
- Our institution has a subject-wise Video and PPT banks available to the staff and students

4.3.6 Elaborate giving suitable examples on how the learning activities and technologies deployed (access to on-line teaching - learning resources, independent learning, ICT enabled classrooms/learning spaces etc.) by the institution place the student at the center of teaching-learning process and render the role of a facilitator for the teacher.

- Seminar hall is equipped with video conferencing facility to conduct workshops, FDPs to the staff and students by IIT professors under National Mission on Education through ICT by MHRD, Government of India.
- EDUSAT programs offered by Anna University are conducted to staff and students to enrich their subject knowledge.
- The communication and soft-skill development laboratory helps the students improve their language and communication skills.
- Many laboratories and conference halls are equipped with LCD projectors for effective teaching-learning process.
- Study materials and pre-class instructions are mailed to students for their prior preparation.
- Students are encouraged to prepare seminars and assignments from recent trends in technology
- Staff members are motivating the students to watch NPTEL videos for developing independent learning skills.
- Moodle software supports students in e-learning.

4.3.7 Does the Institution avail of the National Knowledge Network connectivity directly or through the affiliating university? If so, what are the services availed of?

- Yes, the Institution avails of National Knowledge Network connectivity through Anna University.
- NPTEL course materials and videos provided by IIT and IISc are made available to staff and students.
- Our institution has participated in National Mission on Education through Information and Communication Technology (NMEICT, MHRD) to provide quality educational content to staff and students.

4.4 Maintenance of Campus Facilities

4.4.1 How does the institution ensure optimal allocation and utilization of the available financial resources for maintenance and upkeep of the following facilities (substantiate your statements by providing details of budget allocated during last four years)?

- The institution management has a positive attitude towards the creation, maintenance and up-gradation of infrastructural facilities in the campus from time to time.
- At the beginning of every academic year, the maintenance requirements from each department are collected and accordingly the management takes necessary steps for the optimal allocation of financial resources.

Maintenance budget allocation during last four years in Lakhs:

Sl. No.	Items	2016-2017	2015-2016	2014-2015	2013-2014	2012-2013
1	Building	10.80	11.50	14.00	9.00	14.70
2	Furniture	5.00	4.00	3.00	0.50	0.50
3	Equipment's	10.06	1.15	10.19	2.16	13.33
4	Computers	0.80	0.30	0.52	0.50	1.10
5	Vehicles	12.00	12.80	17.00	7.00	5.70
6	Electrical and Generators	2.15	1.60	0.50	2.50	1.00
7	Water Supply	1.50	0.10	1.70	0.50	1.00
8	Land Development	20.00	3.00	5.80	6.50	18.50

4.4.2 What are the institutional mechanisms for maintenance and upkeep of the infrastructure, facilities and equipment of the college?

- An estate officer is appointed for the purpose of maintenance and up keeps of the infrastructure facilities in the college.
- Two electricians, one plumber and nine hygienic staff are working under the guidance of the estate officer.
- Electricians and plumber are maintaining the college with 24x7 power and water supply.
- Minor maintenance or repair requirement of departments is entered in the civil and electrical maintenance registers available in the principal's office. Maintenance department takes necessary steps to complete the maintenance or repair work and the details are entered in the register which is verified by the principal
- Lab technician in each department periodically monitors and maintains the equipment of laboratories in the college.
- Equipment within the warranty period, are serviced by the suppliers.
- Beyond the warranty period, AMC service personnel of the manufacturing company take care of the repair and maintenance of the equipment.
- The repair of lab equipment which needs specialized service person is done by submitting proposal to the management.
- Hygienic staff come to the college one hour before and leaves the campus one hour after the regular college time.
- One gardener and supporting people are maintaining the college lawn and trees.

4.4.3 How and with what frequency does the institute take up calibration and other precision measures for the equipment/ instruments?

- Whenever a requirement arises, the Institution carries out calibration of the equipment/instruments through the experts in this field.
- Our qualified lab technicians also involve in periodic maintenance of lab equipment/instruments.
- Multigas analyzer has been calibrated by Electronic system tech, New Delhi in the month of Nov.2016.
- Compressive testing machine, B.R testing Apparatus, Flexure Testing Machine, Compressive Testing Machine, Universal Testing Machine, Marshal Test Apparatus, Rockwell Hardness Testing Machine, Brinell Hardness Testing Machine, Impact Testing Machine, Spring Testing Machine, Wood Testing Machine, Brinell Microscope are calibrated in the civil department on August.2012.

4.4.4 What are the major steps taken for location, upkeep and maintenance of sensitive equipment (voltage fluctuations, constant supply of water etc.)?

- Two 500 kVA HT transformers have been installed to meet the electricity needs of the college.
- A separate power-house with one 320 KVA, two 120 KVA and one 5 KVA eco-friendly generators are available in the campus.
- To avoid power fluctuation, sufficient Uninterrupted Power Supply (UPS) facility is available in laboratories.
- Water supply requirement of our college is fulfilled through 6 bore wells which are located near our college. The drinking water facility to our college is obtained through 4 lakh litre water sump, which is filled from the bore wells.

Any other relevant information regarding Infrastructure and Learning Resources which the college would like to include.

- Transport Facility:
 - The facility started with three buses in the year 2002 and increased to a fleet of 22 deluxe buses in the year 2013. The students and staff travel from different destinations of the district to the college for which the College is operating buses from different important points of the city covering various routes.
- Library Facility:
 - SXCCE library has MoU with Scott Christian College, Nagercoil and Holy Cross College, Nagercoil to allow students and staff to use their library.
 - SXCCE library has MoU with DELNET, New Delhi to use their archives and services.

Criterion V

Student Support and Progression

5.1 Student Mentoring and Support

5.1.1 Does the institution publish its updated prospectus/handbook annually? If 'yes', what is the information provided to students through these documents and how does the institution ensure its commitment and accountability?

- Yes. The institution publishes prospectus and academic calendar annually.
- Prospectus covers the following information and it is distributed to every candidate who applies for admission.
 - About college
 - Courses offered
 - Vision and Mission
 - Greetings from management persons
 - Activities of various departments
 - Research and Development
 - Central library
 - Placement cell & Training Cell
 - Software Cell
 - Computing facility
 - Co-curricular activities
 - Technical associations
 - Physical education
 - Other facilities
 - Salient features
- College calendar comprises the following details which are distributed to all the students every year.
 - Courses offered
 - College profile
 - Vision and Mission
 - Administration
 - Members of the staff
 - Rules and regulations
 - Mentoring system
 - Students conduct and discipline
 - Disciplinary committee
 - Co-curricular activities
 - Facilities
 - Associations
 - Club activities
 - Scholarships
 - Academic schedule
 - Timetable

A team of academic council members, comprising of Principal and Heads of the Departments, plan the academic schedule as per the schedule given by the University. The

adherence to the schedule given in the prospectus and academic calendar is monitored by the HoD. Exam Cell coordinates the formative and summative exam schedules on time. The faculty in-charge for various department associations, clubs, co-curricular and extracurricular associations are committed to arrange student activity as per the schedule.

All the information about the institution is published in the college website for public access.

5.1.2 Specify the type, number and amount of institutional scholarships / freeships given to the students during the last four years and whether the financial aid was available and disbursed on time?

- Institute provides freeship to meritorious UG catholic minority students such as Freeship-Dalit Catholic Students and Freeship-Meritorious Catholic Students.
- In the last four years, institute has provided **R.s 3, 57, 50, 989/-** as tuition fee waiver to meritorious catholic UG students.

The Freeship details are as follows:

Academic Year	Type of Institutional Scholarship/Freeship	No of Students Benefited	Tuition Fee Waiver in Rs.
2016-2017	Freeship – Meritorious Catholic Students	93	48,00,000
	Freeship – Catholic Dalit Students	9	4,90,000
2015-2016	Freeship – Meritorious Catholic Students	113	55,45,000
	Freeship – Catholic Dalit Students	10	5,55,000
2014-2015	Freeship – Meritorious Catholic Students	127	62,14,000
	Freeship – Catholic Dalit Students	15	8,23,500
2013-2014	Freeship – Meritorious Catholic Students	140	70,44,000
	Freeship – Catholic Dalit Students	19	10,36,500
2012-2013	Freeship – Meritorious Catholic Students	151	81,58,999
	Freeship – Catholic Dalit Students	20	10,84,000
Total		697	3,57,50,989

- Also institution provides TA and DA for sports students.

The sports TA and DA paid in the last four years are shown below:

Academic Year	TA/DA Amount for Sports in Rs.
2016-2017	26,475
2015-2016	32,376
2014-2015	55,665
2013-2014	42,365
2012-2013	32,500

5.1.3 What percentage of students receives financial assistance from state government, central government and other national agencies?

- Financial Assistance from State /Central/Other National agencies
 - 40% to 50% of students are receiving financial assistance from state /central/ other national agencies.

Details of scholarships in the last four years are shown in the following table:

Sl. No.	Type of Scholarship	Name of the Authority	2015-2016		2014-2015		2013-2014		2012-2013	
			Nos.	%	Nos.	%	Nos.	%	Nos.	%
1.	Merit-Cum-Means Scholarship	Tamil Nadu Minorities Economic Development Corporation, Chennai	328	10	390	12	311	9.9	205	7.1
2.	SC/ST Scholarship	State Government	111	3.3	118	3.6	105	3.3	92	3.2
3.	BC/MBC Scholarship	State Government	426	13	445	13.7	421	13.50	355	12.3
4.	Teacher Welfare Scholarship	National Foundation for Teachers Welfare	1	-	-	-	-	-	1	-
5.	Tamil Nadu Educational Trust	State Government	2	-	2	-	4	-	2	-
6.	Inspire Fellowship	DST, Government of India	4	-	4	-	4	-	4	-
7.	First Graduate Tuition Fee Waiver	State Government	472	14.39	683	21.06	448	14.36	396	13.77
Total Benefited			1344	41.15	1642	50.63	1293	41.46	1055	36.69

Scholarship from other sources:

Sl. No.	Name of the Scholarship	2015-2016	2014-2015	2013-2014	2012-2013
		No. of Students Benefited	No. of Students Benefited	No. of Students Benefited	No. of Students Benefited
1.	North South Foundation Scholarship	1	-	2	3
2.	BSNL Scholarship	-	2	7	2
3.	Department Welfare Technical Scholarship	-	-	-	1
4.	Postal Department Scholarship	-	-	-	1
5.	Electricity Board Scholarship	-	-	-	1
6.	BSF Scholarship	-	1	1	1
7.	Vijayalakshmi Trust Scholarship	-	-	-	2
8.	Military Scholarship	2	2	-	1
9.	LIC Golden Jubilee Scholarship	1	1	1	2

10.	Higher Education Scholarship	2	2	3	1
11.	Continuance Scholarship	-	-	1	2
12.	TN Govt. Children of Police Scholarship	-	-	3	1
13.	Directorate of Sainik Welfare Scholarship	-	-	-	1
14.	National Teacher Welfare Scholarship	-	1	-	2
15.	Chellamal Nahamony Scholarship	-	-	1	-
16.	Trivandrum Titanium Products Ltd. Scholarship	-	-	1	-
17.	Prime Minister Scholarship	-	9	4	-
18.	Formers Scholarship	3	6	2	-
19.	Indian Oil Scholarship	-	-	1	-
20.	Thiruvathira Fund Scholarship	-	-	1	-
21.	TN Farmer Scholarship	-	-	1	-
22.	Pragathi Scheme	-	-	1	-
23.	Repco Bank Scholarship	-	1	1	-
24.	Kerala Scholarship	-	-	1	-
25.	CRPF Educational Fund Scholarship	2	-	1	-
26.	V.O.C Port Trust Scholarship	-	-	1	-
27.	Police Centenary Scholarship	-	2	5	-
28.	Rubber Board Scholarship	1	1	2	-
29.	Disabilities Scholarship	2	-	1	-
30.	Jindal Scholarship	1	1	-	-
31.	JCO Scholarship	-	2	-	-
32.	PMSS Scholarship	6	6	-	-
33.	Indian Bank Scholarship	-	1	-	-
34.	Sothorn Railway Scholarship	-	2	-	-
35.	Merit Scholarship	-	1	-	-
36.	Maulana Azad Education Foundation Scholarship	2	1	-	-
37.	Indian Rare Earth Ltd. Scholarship	1	-	-	--
38.	PutheriVellalar Trust Scholarship	1	-	-	-

39.	Ex-Service Man Scholarship	3	-	-	-
Total Number of Students Benefited		28	42	42	21
Percentage of Students Benefited		0.86%	1.2%	1.2%	0.67%

5.1.4 What are the specific support services/facilities available for

a) Students from SC/ST, OBC and economically weaker sections

- SC/ST students
 - SC/ST Cell in the institute works for the welfare of SC/ST students.
 - Institute supports the SC/ST students to get scholarship from the Government.
 - The management has provided Rs. 39,89,000/- as freeship to Dalit Catholic Students in the last four years.
 - Institute arranges additional remedial classes for SC/ST and other academically slow learners.
 - Mentors take special care of slow learners, identify their academic deficiencies and take suitable corrective measures.
- OBC students
 - The management has provided Rs. 3,17,61,999/- as freeship to Meritorious Catholic OBC Students in the last four years.
 - Scholarships from the government like BC/MBC Scholarship, Merit-Cum-Means Scholarship are made available to students.
- Economically weaker sections
 - The management supports the meritorious economically weaker catholic students by providing freeship.
 - The Institute is supporting economically weaker students to avail of the Scholarship announced by the government.

b) Students with physical disabilities

- Students with physical disabilities are getting disabled scholarship from Central government.
- The disabled are taken care of by provisions like ramp, wheel chair and disable-friendly toilets.
- Necessary provisions are made for disabled students to board and seat in college buses.

c) Overseas students

- There are no overseas students in the institute.

d) Students to participate in various competitions/national and international

- The brochure/pamphlet received regarding various competitions are displayed in the department noticeboard.
- Competitions organized by our institution are intimated to students through circular.
- On duty leave is provided to students to participate in various off campus competitions.
 - Winners are awarded with cash prize from the college.
- Special classes and exams are arranged to students those who participate in competitions.

- Transport facilities are provided.
- National and International level conferences, workshops and other competitions are organized by various department associations and other professional and non-professional bodies.
- Institute organizes zonal level tournaments for sports.
- Institute organizes Sports Day, Fine Arts Day, Tech Fest Day and College Day to showcase student's talents in sports, cultural and technical activities.
- Students are motivated to participate in various technical and scientific events such as conferences, symposia, workshops and seminars in other institutions.

e) Medical Assistance to Students: Health centre, health insurance etc.

- Health Centre
 - Health Centre with basic medical facilities is available in the college.
 - Health Care Cell plans, implements and monitors health care activities in the college.
 - Institution has linkage with Holy Cross Hospital and St. Xavier's Catholic College of Nursing to deal with student's health issues.
 - Emergency medical care is rendered at Holy Cross Hospital, about 5 km from the college.
- Health Insurance
 - College provides its own health insurance to all the students.
 - In the case of emergency and based on the need, financial assistance is provided by the management.
- Medical assistance to students
- Students, staff members, alumni and management of the institution extend their financial help to students from economically weaker students for their medical treatment.

Details of financial assistance given to students for medical treatment are given below:

Academic Year	Management	Staff Contribution	Student Contribution	Alumni Contribution	No. of Students Benefited
2015-2016	--	--	--	60,000	1
	25,000	2,32,400	--	72,000	1
2014-2015	--	1,00,000	--	--	1
2013-2014	--	74,175	80,825	--	1

f) Organizing coaching class for competitive Examinations

- The advanced learners are trained in preparing for competitive examinations like GATE, TANCET, CAT, MAT, UPSC, TNPSC and other competitive examinations.
- Department-wise special coaching for competitive examinations is conducted by allotting one period per week in the regular timetable.
- Training in answering aptitude questions is provided by departments by allotting one period per week in the regular timetable.
- Placement Cell trains students on quantitative aptitude, reasoning, verbal and mind game in association with Focus Academy for Career Enhancement (FACE), Coimbatore and Vantage, Nagercoil.
- Students are trained for bank exam by ECC Academy, Nagercoil.
- Reference books for competitive exams are made available in central library.

- College library and Internet lab remains open beyond college working time to help students in preparing for competitive examinations.
- As a token of appreciation, academic winners are awarded with books to prepare for competitive examinations.

g) Skill development (spoken English, computer literacy, etc.)

- Spoken English
 - English speaking is enforced in the campus to improve the spoken English of students.
 - Training cell CETA has a tie up with Don Bosco institute of excellence, Dindugal to improve the communication skill of rural students.
 - Institute has MOU with ICT academy for advanced technical and communication skill development
 - Language laboratory equipped with audio & video facility and special software Odel is used to improve communication skill of students.
 - As a part of curriculum, every III year student in all programmes is studying communication skills laboratory.
 - Beyond the curriculum, an additional communicative English course is conducted for all UG second year students to improve their communication skill. Two periods per week are allotted for the course.
 - Group discussion classes are conducted for higher semester students.
 - Special coaching classes are arranged regularly for first year students.
- Computer literacy
 - All the students are learning basic and advanced computer courses in their curriculum.
 - ICT academy trains the students in advanced computer technologies.
 - Training based on computer peripherals is given to students.
 - Faculty members train the students to use different software through Software Cell.
 - Software Cell organizes many software and hardware programmes like
 - Hardware and networking
 - PHP with MYSQL
 - Big data analytic
 - Web designing and scripting
 - Oracle for Computer Science and Engineering and Information Technology students
 - Autocad and Revit architecture for Civil Engineering students
 - Autocad and Inventor program for Mechanical Engineering students and
 - Hardware assembling and Networking course for Computer Science and Engineering and Information Technology students.
 - Department of Electronics and Communication Engineering organizes value-added computer courses like
 - C, C++
 - Embedded workshop
 - Android workshop and
 - Matlab workshop.
 - Department of Electrical and Electronics Engineering organizes the following computer courses
 - Matlab

- Multisim
- Labview
- PLC SCADA and
- PCB design.
- Computer laboratory is kept open up to 6.00 pm on all working days for the students to get practiced in computer programming skills.
- CETA, a special training cell of the institute, coordinates and organizes advanced computer training programmes.
- Leadership Training and Soft Skills Programme are conducted through various associations.

h) Performance enhancement for slow learners / students who are at risk of failure and dropouts

- Slowlearners
 - Mentors are taking care of about 20 students under their mentorship. Slow learners are identified based on their academic performance. Course-in-charges, mentors and higher authorities guide and counsel them.
 - Separate coaching classes are arranged for slow learners after regular class hours.
 - Intensive coaching is conducted for every subject at the end of each semester.
- Dropout
 - The students were continuously monitored by mentors based on their academic performance and behavior.
 - If a mentor identifies any student who is at the risk of dropping out, the reason for dropout is analyzed.
 - Then the mentors counsel the students and if needed their parents are informed.
 - After counseling a few students who were at the risk of dropping out continued their studies.
 - Students who are at the risk of dropping out due to psychological problem are given academic relaxation without violating university norms.

i) Exposure of students to other institutions of higher learning/corporates/business houses, etc.

- The students are connected with industry to get practical knowledge by in-plant training in the industry. For that Institute has MoU with many industries.
- Industrial people are invited by department association to address and interact with students.
- Also industrial visits help the students to get idea about the industries and their technologies. Placement cell organizes motivational seminars to students regarding the behavioral enhancement in corporate world.
- A Special Training cell named CETA organizes carrier guidance programmes.
 - CETA organized a programme on Understanding Futuristic Markets for Career Growth on 27-01-2017
- Entrepreneurial Development Cell arranges entrepreneurial awareness programme.
- Special training camps are arranged with industrial expert members.
- Motivational talk is given by department HODs to all First year students related to higher learning and job opportunities.
- In the main block, the notice board has a special provision for career guidance and job opportunities to attract the students in the first sight.

- Career information from other institutions/universities is displayed in the department notice board.

j) Publication of student magazines

- Students are motivated to publish materials like college magazine, department magazine, proceedings, department newsletter and catalogue
 - College magazine
 - College magazine is released every year.
 - Students act as members in the editorial board of college magazine.
 - Students publish their technical, nontechnical articles and arts in the college magazine.
 - Department magazine and proceedings
 - Department publishes magazine to record the activities of the department and writing of students and staff.
 - Department publishes proceeding during conferences.
 - The executive student members of department association design and publish the magazine or proceedings.
 - Students are encouraged to publish their technical articles in the department magazine.
 - Department newsletter and catalogue
 - Every year students of Computer Science and Engineering and Information Technology design and release the department newsletter under the guidance of a faculty.
 - Master of Business Administration students publishes e-newsletter once in a semester.
 - Students also design brochure for conferences, symposia and other programmes.
 - Students prepared wall magazines and trained the school students under the INSPIRE scheme.

5.1.5 Describe the efforts made by the institution to facilitate entrepreneurial skills, among the students and the impact of the efforts.

- Efforts made by institution to facilitate entrepreneurial skills
 - Entrepreneurship Development Cell (EDC) of the institution organizes
 - Six awareness camps have been organized.
 - Three Industrial interaction programmes have been conducted.
 - Six competitions have been conducted.

Programmes organized by EDC:

Sl. No.	Programme	Date	Details of Experts	No. of Students Participated
1.	Entrepreneurship Awareness Program	23-03-2017	Mr. M. Galesh Mr. J. Arul King SXCCE	57
2.	Entrepreneurship Awareness Program	22-03-2017	Mrs. A. Arthi Jannie SXCCE	55
3.	Entrepreneurship Awareness Program	25-02-2017	Mr. M. Starwin Mr. J. Arul King	55

			SXCCE	
4.	Entrepreneurship Awareness Program	17-02-2017	Mr. M.M. Anwar Rajesh Mr. J. Arul king SXCCE	67
5.	Business Plan Competition - Young Entrepreneurs Challenge-2016	01-10-2016	Mr. Gaugarin Oliver, CEO, Capestart Pvt. Ltd. & President of The Indus Entrepreneurs, Boston.	13
6.	Entrepreneurship Awareness Program	17-08-2016	Mr. Yeshaswi Nag, Project Manager, Entrepreneurship Development Institute, India.	75
			Dr. R. Vel Murugan, Chairman, Wales Academy and National Project Guidance Centre for EDI, India.	
			Dr. S. Retnam, Former General Manager, District Industries Centre.	
7.	Industrial Interaction Program & Inaugural Function of Young Entrepreneurs Challenge 2016.	13-08-2016	Mrs. Geetha Ramamurthy, CEO, Ignite Career Confidence Pvt. Ltd.	28
			Mr. Rajesh Babu, CEO & Managing Director, Mirox Cyber Security and Technology Pvt. Ltd.	
8.	Entrepreneurship Awareness Camp. Rs.20, 000 funded by National Science and Technology Entrepreneurship Development Board and Supported by Entrepreneurship Development Institute of India, Ahmadabad.	11-02-2016 to 13-02-2016	Dr. Joseph Raj, Professor HOD, Economics ST Hindu College	75
			Mr. Kavin Xavier Technology Chief Capestart Pvt. Ltd.	
9.	Youth Entrepreneurship Summit 2015 (YES 2015).	29-07-2015	Mr. K. Swaminathan, Founder and CEO, Aspire Ventures.	15
			Mr. C.K. Kumaravel, CEO and Co-founder, Naturals Ma Foi.	
			Mr. K. Pandiarajan Founder, Ma Foi Group.	
			Mr. Muki Regunathan, Founder and CEO, Pepper Square.	
			Mr. Muki Regunathan,	

			<p>Founder and CEO, Pepper Square.</p> <p>Mr. Rangaraj Pandey, Chief News Editor, Thanthi TV.</p> <p>Ms. Bharathy Baskar, Vice President, Citi Bank & Orator.</p> <p>Mr. Raj Prabakar, Faithfully Yours, Management Consultants.</p>	
10.	Business Plan Competition-Young Entrepreneurs Challenge 2015	01-04-2015	Ms. Gaugarin Oliver, CEO Capestart Pvt. Ltd. & President of The Indus Entrepreneurs Boston.	19
11.	Entrepreneurship Awareness Camp-2. Rs.20, 000 funded by NSTEDB and Supported by EDI, Ahmadabad.	22-01-2015 to 24-01-2015	<p>Dr. S. Retnam, Former General Manager, District Industries Centre.</p> <p>Mr. R. Bright Reginold Raja, HOD MBA, SXCCE.</p>	75
12.	Industrial Interaction Program	24-01-2015	Mr. Edward Simith Managing Director, Capestart Pvt. Ltd.	45
13.	The Young Entrepreneurs Challenge 2015	24-01-2015	<p>Mr. Kavin Xavier Technology Chief Capestart Pvt. Ltd.</p> <p>Mrs. Geetha Ramamurthy, Co-Founder and CEO Ignite Career Confidence Pvt. Ltd.</p>	
14.	Entrepreneurship Awareness Camp-1 Rs. 20,000 funded by NSTEDB and Supported by EDI, Ahmadabad.	18-09-2014 to 20-09-2014	Dr. Joseph Raj, Professor & HOD Economics, ST Hindu College.	75
15.	Industrial Interaction Program	18-09-2014	Mr. Kutti Raja, Director, Micro, Small and Medium Enterprises (MSME), Government of India.	75
16.	Entrepreneurship Awareness Camp-2. Rs.13, 500 funded by NSTEDB and Supported by EDI, Ahmadabad.	06-02-2014 to 08-02-2014	<p>Mr. Arun Rasith Director, Micro, Small and Medium Enterprises, Government of India.</p> <p>Dr. S. Retnam, Former General Manager District Industries Centre.</p>	75
17.	Entrepreneurship	03-10-2013	Mr. Arun Rasith	76

	Awareness Camp-1 Funded Rs.13, 500 by NSTEDB and Supported by EDI, Ahmadabad.	to 05-10-2013	Director, MSME, Govt. of India. Mr. P. Anand Babu CEO, JASS Career Consultant.	
18.	Quiz Competition	30-09-2013	Mr. G. Rexin Thusnavis Professor & HOD Pioneer Kumaraswamy College, Nagercoil.	74
19.	Tech Expo 2013	22-02-2013	Mr. G. Sahaya Stalin Jose Assistant Professor, SXCCE.	165

EDC awards received:

Sl. No.	Year	Award Name	Level
1.	2016-2017	Winner -Youth Entrepreneur Challenge-16 (Rs. 65,000 Cash Award)	State
2.		Runners-Youth Entrepreneur Challenge-16 (Rs. 35,000/- Cash Award)	State
3.	2014-2015	Runners-Youth Entrepreneur Challenge-15 (Rs. 35,000 Cash Award)	State

- Students are motivated to start a company or a business because of the awareness programmes.

A few EDC members who have started their business as given below:

Year	Name of Student	Company Name
2014-2015	Simon Raj S.	Jai Trader, Tirunelveli.
2013-2014	Janaki Raman I.	Dynamic Solutions Pvt. Ltd., Kanyakumari.
2012-2013	Prawin Nesh J.	Genius Software Pvt. Ltd., Marthandam.

5.1.6 Enumerate the policies and strategies of the institution which promote participation of students in extracurricular and co- curricular activities such as sports, games, Quiz competitions, debate and discussions, cultural activities etc.

Additional academic support, flexibility in examinations, special dietary requirements, sports uniform and materials, any other

➤ Policies

- Institute has a policy to promote participation of students to involve in extra and co-curricular activities through various cells such as IEEE, IET, ACM, CSI, ISTE, SAE, ISHRAE, Department Associations, Placement Cell, Sports Council, Fine Arts Club, Tamil Mantram, Malayalam Literary Association, Entrepreneurship Development Cell, National Cadet Corps, Radio Club, St. Xavier's Choir, Women Cell, Youth Red Cross, Robotics Club, National Service Scheme, CETA, Eco Club, Konverz, Photography Club, Institute Industry Collaboration Cell and Outreach Programme Committee.
- Students are encouraged to get a membership from at least any one of the cells or clubs based on their voluntary enrollment.
- Department-wise best outgoing student is selected based on their academic and non-academic talents.

➤ Strategies

- Institute has a linkage with Anna Stadium, Officers Club and District Club, Nagercoil to train the physical talents of students.
- Institute has MoU with Christian College of Physical Education, Nagercoil.
- Placement Cell collects student's career interest in higher studies, job and business in the first year itself.
- Every year Pongal is being celebrated by Tamil Mantram.
- Onam festival is celebrated by Malayalam Literary Association Jyothis.
- Every year the Fine Arts Club organizes a two-day Fest called Calida Festa to showcase the talents of students in nearby colleges in all aspects.
- NSS organizes a ten-day camp in any one of the rural areas of our district which helps the students get involved in social activities.
- NCC conducts parades in all important national and college events taking place in our college.
- YRC organizes blood donation camps every year.
- Institute organizes Sports Day, Fine Arts Day, Tech Fest Day and College Day to develop the holistic nature of students.
- On duty leave is provided for the students to participate in events.
- TA & DA are provided for sports students.
- Academic support, flexibility in examinations
 - Special classes are arranged for the students who missed the regular classes.
 - Special examination is conducted for students who availed of on duty leave to participate in extracurricular and co-curricular activities.
- Special dietary requirements, sports uniform and materials
 - Sports uniform and other sports materials are provided to all the sports students.
- Others
 - Transport facility is arranged for students to participate in cultural events in other colleges.

5.1.7 Enumerating on the support and guidance provided to the students in preparing for the competitive exams, give details on the number of students appeared and qualified in various competitive exams such as UGC-CSIR- NET, UGC-NET, SLET, ATE / CAT / GRE / TOFEL / GMAT / Central /State services, Defense, Civil Services, etc.

- Institute provides support and guidance to students in preparing for competitive examinations through its different departments, Placement Cell and Training Cell.
 - Motivational programmes are conducted to increase the winning edge nature of students.
 - Department-wise coaching and guidance are provided for competitive examinations like GATE.
 - Students are motivated to participate in other examinations like UPSC, IES, TNPSC, CAT, MAT, IBS, GRE and TOFEL.
 - Training on aptitude is provided by Placement Cell that helps students to face competitive examinations with ease.
 - Students are motivated to use language lab for GRE and TOEFL examinations.
 - Reference books for competitive examinations are made available in the library.

Number of students in different competitive examinations in the last four years is given below:

Name of the Competitive Examination	Number of Students Appeared	Number of Students Qualified
GATE	189	9
CAT	3	1
MAT	1	1
GMAT	3	1
TNPSC	16	-
TANCET	157	130
Defense	2	2
IBPS	71	58

5.1.8 What type of counseling services are made available to the students (academic, personal, career, psycho-social etc.)

- The college has Counseling Cell headed by a senior professor-cum-trained counsellor and one faculty from each department acts as a member. Institute also has a MoU with an external counselor.
 - To coordinate the counseling activities of the college
 - To help students identify and solve academic and personal problems.
- The college follows mentor system
 - Around 20 students are assigned to a mentor.
 - The mentor looks after the students' academic and personal development in the college.
- Academic and personal problems of students are solved through counseling by
 - Course-in-charges and mentors counsel the students in the first level
 - HOD at the second level
 - Principal at the third level and
 - Management and external trained counselors at the last level.
- Principal, Heads of Departments and Placement Cell guide students for better career options.
 - Principal provides guidance to students during his address in the first year inauguration and in other department programmes.
 - Heads of departments and other faculty members frequently discuss with the first year students regarding the options available for the higher studies and job opportunities.
 - Placement Cell arranges awareness programmes for job opportunities.
 - Course-in-charges and mentors also play vital role in guiding the students for better career options.
- Psycho-social problems are handled by trained counselors.

5.1.9 Does the institution have a structured mechanism for career guidance and placement of its students? If 'yes', detail on the services provided to help students identify job opportunities and prepare themselves for interview and the percentage of students selected during campus interviews by different employers (list the employers and the programmes).

- Yes. The institute has the following mechanisms for career guidance and placement of students
 - Placement training is provided by Placement Cell, training cell CETA and the department.
 - The training and placement activities are assisted by placement coordinators and one or two faculty from each discipline.
 - On campus placement interviews are arranged by the Placement Cell.
 - Students' participation in off campus placement interviews is coordinated by the Placement Cell.
 - Career guidance is provided by principal, heads of departments, course-in-charges, mentors and Placement Cell.
- Students are helped to identify job opportunities and prepare for interviews
 - Awareness and motivational programmes are conducted by Placement Cell and departments.
 - Aptitude, reasoning, verbal and group discussion trainings are arranged by Placement Cell in association with external training institutes.
 - Aptitude, reasoning, verbal and group discussion classes are conducted by department faculty with regular time table.
 - Mock tests and mock interviews are conducted by Placement Cell.
 - Company specific trainings are provided to students by Placement Cell.

Placement training programmes arranged by Placement Cell:

Sl. No.	Training Category	No. of Programs organized	Beneficiary
1	Soft Skills	25	CSE, IT, ECE, MECH, CE, MCA, MBA and EEE
2	Aptitude and Reasoning Training	20	CSE, IT, ECE, MECH, CE, MCA, MBA and EEE
3	Technical Skill	4	CSE, IT, ECE, MCA and EEE
4	Placement Orientation and Motivational Program	3	All First Year B.E/B. Tech Students
5	Company Specific Training (Tech Mahindra, IVTL Infoview, UST Global, Infosys, TCS)	6	CSE, IT, ECE, EEE and MECH

Details of placed students through on campus placement drives:

Sl. No.	Name of the Company Visited	On Campus	
		Number of Students Attended	Number of Students Selected
1.	Data Patterns, Chennai.	102	Results Awaiting
2.	LGB, Coimbatore.	98	21
3.	DEC Infrastructure and Projects India Pvt. Ltd., Chennai.	5	Results Awaiting
4.	Gestamp Automotive Pvt. Ltd., Chennai.	35	12
5.	WEG Industries, Chennai.	46	Results Awaiting
6.	Placement Season, Coimbatore.	49	01

7.	IVTL Infoview, Chennai.	235	24
8.	Soft Square, Chennai.	386	13
9.	SPI Global Pvt. Ltd., Chennai.	70	01
10.	Sutherland and Global Solutions Pvt. Ltd., Chennai.	463	54
11.	CSS Corporation, Chennai.	121	17
12.	Poornam Info Vision, Cochin.	187	08
13.	Schneider Electric Pvt. Ltd., Chennai.	79	37
14.	Excenta, Trivandrum.	65	11
15.	Face, Coimbatore.	43	11
16.	Vdart, Chennai.	84	15
17.	Blue Fox, Trivandrum.	76	14
18.	Mafiree Business Development, Bangalore.	187	09
19.	Inforays, Chennai.	107	31
20.	Raj InfoTech Biz, Nagercoil.	43	02
21.	White Lake Technologies, Nagercoil.	77	07
22.	South Indian Bank, Ernakulum.	37	02
23.	Naethra Technologies, Chennai.	44	06

Details of placed student through off campus placement drives:

Sl. No.	Name of the Company Visited	Number of Students Placed in Off Campus
1.	Microsoft, Bangalore.	01
2.	IBS Software Solutions, Trivandrum.	06
3.	Tech Mahindra, Chennai.	07
4.	Smart DV Technologies.	01
5.	Acube Tech, Bangalore.	04
6.	HCL Technologies, Chennai.	09
7.	Allsec Technologies, Chennai.	24
8.	Mectron, UAE.	03
9.	Syntel, Chennai.	01
10.	Wipro Technologies, Chennai.	09
11.	OFS, Chennai.	01
12.	Puruvankara Pvt. Ltd., Chennai & Bangalore.	01
13.	Mafiree, Bangalore.	02
14.	Mobius Technologies, Chennai.	01
15.	Zoho Corporation, Chennai.	02
16.	CTS, Chennai.	15
17.	Infosys, Chennai.	12
18.	Vernalis Solutions, Chennai.	04
19.	UST Global, Cochin.	04
20.	Accel IT, Trivandrum.	03
21.	Thai Research Info Tech, Chennai.	05
22.	Fenna Constructions, Chennai.	01
23.	Accenture, Chennai	05
24.	Teamware Solutions, Bangalore.	04

25.	Capgemini Business Service (Ind.) Ltd., Bangalore.	03
26.	Webzler Solutions, Chennai.	02
27.	Shriram Transport Finance, Chennai.	09
28.	Cogzidel Technologies Ltd., Madurai.	03
29.	Siam Computing, Chennai.	01
30.	Kompos Media Pvt. Ltd., Kangaikondan	12
31.	Techtronics, Chennai.	02
32.	Design Esthetics, Bangalore.	01
33.	SakRobotix, Chennai.	03
34.	V-Tech Power, Chennai.	03
35.	Samudra Institute of Maritime Studies, Pune.	01
36.	American Mega Trends, Chennai.	01
37.	The Central Bank of India Ltd., Chennai.	01
38.	The Federal Bank of India Ltd., Chennai.	01

Total placed students through on and off campus placement drives:

Sl. No.	Year	Number of Students Placed		Total students Placed	Percentage of Students Placed
		Off Campus	On Campus		
1.	2016-2017	19	57	76	10.07-till dated
2.	2015-2016	61	103	164	19.24
3.	2014-2015	34	81	115	15.21
4.	2013-2014	42	40	82	11.45
5.	2012-2013	12	15	27	3.44

5.1.10 Does the institution have a student grievance redressal cell? If yes, list (if any) the grievances reported and redressed during the last four years.

- Grievance Cell is functioning to take care of students' grievances.
- A grievance cell is constituted in the institute and is headed by senior professor and one faculty from each department.
 - Suggestion boxes are kept in all the blocks to receive the suggestions and grievances from the students.
 - The suggestions and grievances are collected, consolidated and reviewed by the cell in consultation with principal and correspondent.

Details of grievances reported and redressed during the last four years:

Sl. No.	Grievances Reported	Grievances Redressed
1.	Students suggested changing the college timing.	College time has been revised to 8 a. m to 3.30 p.m.
2.	Students requested to arrange more practical- oriented training in their respective discipline.	Training programs and industrial visit are arranged.
3.	Students requested to change the bus route.	Bus route has been changed.
4.	Girl students suggested for toilet facility in waiting hall.	Toilet facility in waiting hall has been provided.
5.	The students suggested for more drinking water facilities.	The problems have been rectified by providing additional drinking water facilities in each floor.

5.1.11 What are the institutional provisions for resolving issues pertaining to sexual harassment?

- No sexual harassment has taken place in our institution.
- Anti-Eve Teasing Cell is functioning and it conducts gender sensational awareness programme in-tie up with Women Cell.
- “Girl Rising-SXCCE” is functioning for girl's education and empowerment which is associated with Girl Rising International.

5.1.12 Is there an anti-ragging committee? How many instances (if any) have been reported during the last four years and what action has been taken on these?

- Yes, to maintain ragging free campus the college has Anti-Ragging Committee as per the guidelines of AICTE and affiliating University.
- The institute sensitizes its staff and students to have ragging-free campus.
- Anti-ragging posters from police department are displayed in the campus.
- Dos and Don'ts regarding anti-ragging are displayed in the department notice-board and both hostels.
- Faculty members monitor the students during break.
- Because of the precautionary measures taken by the institution, no ragging has been reported in the last four years.

5.1.13 Enumerate the welfare schemes made available to students by the institution.

- Student Welfare Cell is functioning to cater to the welfare of students.
- Institute provides medical insurance to all students.
- Institute offers freeship to Christian minority students.
- Institution gives financial support for needy, economically weaker students.
- Facilitate to avail of various scholarships.
- Institution provides TA and DA for sports students.
- Financial assistance to project and research.
- Awards by management for academic performance.
- SC/ST cells for the benefit of SC/ST students.
- Facilitate scholarship for physically-disabled students.
- Free emergency medical care.
- Medical support for poor, needy students.

5.1.14 Does the institution have a registered Alumni Association? If ‘yes’, what are its activities and major contributions for institutional, academic and infrastructure development?

- Institute has an alumni association. But it is not registered. All the graduates from this college are life members of this association.
- Alumni association is headed by a senior professor and 53 alumni working as faculty members in this institute.
- Every year, on 26th December alumni meet is arranged.
- After the Graduation Day program, all the graduates meet in their respective department and share their views about the college.
- Contributions of alumni to the college:
 - Alumni working in companies and other institutions are invited to share their experiences with students and staff in association programmes.
 - Alumni provide placement guidance and software training to students.
 - Alumni feedback is collected to plan developmental activities.

- Alumni provide their financial helps for medical treatment of economically weaker students.
- Alumni extend their financial help in the name of sponsorship for conferences and alumni association.
- Senior alumni recommend our students for getting jobs abroad.
- Vantage, a training centre run by an alumnus of ECE gives communication and aptitude training to students at subsidized rate.
- Knowsys, a training centre run by alumnus of EEE provides computer hardware and software training to students at subsidized rate.
- Alumnus of CSE provided training free of cost.

Details of Alumni Association meet are as follows:

Sl. No.	Date of Alumni Meet	Name of the Guest	No. of Alumni Attended
1.	26-12-2016	Rev. Fr. S. Servatius, First Correspondent of St. Xavier's Catholic College of Engineering.	80
2.	26-12-2015	Rev. Fr. Dominic M. Kadatcha Dhas, First Bursar of St. Xavier's Catholic College of Engineering and First Correspondent St. Xavier's Catholic College of Nursing.	67
3.	26-12-2014	Rev. Fr. M. Joseph Justus Former Bursar, St. Xavier's Catholic College Engineering.	179
4.	26-12-2013	Rev. Fr. E. John Kulanthai, Former President of Governing Council of SXCCE.	86
5.	26-12-2012	Rev. Fr. S. Servatius, First Correspondent of St. Xavier's Catholic College of Engineering.	51

- Seventy members of the alumni working in gulf countries also had the 4th SXCCE-UAE reunion at UAE during March 2016 in the presence of Dr. M. Marsalin Beno, Head of the Department of EEE, SXCCE.

5.2 Student Progression

5.2.1 Providing the percentage of students progressing to higher education or employment (for the last four batches) highlights the observed trends.

Details of Student progressed to higher education and employment in the last four batches:

Student Progression	2015 - 2016		2014 - 2015		2013 - 2014		2012 - 2013	
	Nos.	%	Nos.	%	Nos.	%	Nos.	%
UG to PG	103	18	92	18	105	21	115	28
PG to Ph.D.	1	1	2	1	4	2	4	3
PG to M. Phil	3	2	5	6	5	5	9	8
Employed-Campus selection	164	19	115	15.21	82	11.45	27	5
Other than campus recruitment	245	30	267	35	271	36	283	41

➤ Highlights on the observed trends:

- The trend observed from the table is that the student progressing from UG to PG is gradually decreasing due to the decreasing employment opportunities and low salary for post graduates.
- The students progressing from PG to Ph.D. is constant over these years.
- The on-campus and off campus placement are gradually increasing, giving positive approach to the college.

5.2.2 Provide details of programme-wise success rate of the College for the last four years (Cohort wise/batch wise as stipulated by the university)? Furnish programme-wise details in comparison with that of the previous performance of the same institution and that of the college of the affiliating university with in the city

Pass percentage of UG batches:

Batch	Programme	Total Students	No. of All Clear Students	% of Pass	No. of First Class	No. of Distinction	No. of Rank Holders
2012-2016	ECE	140	119	85	105	7	1
2011-2015		132	121	91.66	113	1	-
2010-2014		152	132	86.84	122	5	7
2009-2013		136	121	89	108	11	8
2012-2016	MECH	133	107	80.45	79	5	-
2011-2015		70	59	84.28	47	-	-
2010-2014		49	47	95.19	39	8	9
2009-2013		45	40	89	34	6	6
2012-2016	EEE	68	57	83.82	38	3	1
2011-2015		44	39	88.63	31	2	-
2010-2014		48	40	83.33	39	-	1
2009-2013		43	38	88	32	3	5
2012-2016	CSE	120	97	80.8	84	1	-
2011-2015		124	100	80.64	83	2	2
2010-2014		142	123	86.61	113	2	3
2009-2013		126	94	75	78	4	7
2012-2016	CE	67	50	74.62	39	2	2
2011-2015		70	61	87.14	57	2	2
2010-2014		52	43	82.69	37	4	5
2009-2013		48	42	88	29	12	16
2012-2016	IT	52	42	80	-	-	-
2011-2015		54	51	94.64	45	-	-
2010-2014		64	48	75	43	1	-
2009-2013		52	38	73	37	-	-

Pass percentage of PG batches:

Batch	Programme	Total Students	No. of All Clear Students	% of Pass	No. of First Class	No. of Distinction	No. of Rank Holders
2014-2016	AE	19	19	100	13	6	7

2013-2015		23	23	100	17	5	7
2012-2014		18	18	100	17	1	3
2011-2013		18	18	100	14	4	7
2014-2016	CS	18	18	100	11	7	9
2013-2015		22	22	100	19	3	7
2012-2014		17	17	100	16	1	3
2011-2013		18	17	94	13	4	3
2014-2016	ME	15	15	100	9	6	1
2013-2015		9	9	100	6	3	1
2012-2014		10	10	100	9	1	1
2014-2016	CN	5	5	100	5	-	-
2013-2015		14	14	100	9	4	1
2014-2016	EE	8	8	100	7	1	1
2013-2015		13	13	100	11	2	2
2012-2014		16	15	93.7	13	1	1
2011-2013		18	17	94	14	2	2
2014-2016	PED	10	10	100	7	3	3
2013-2015		14	14	100	12	2	3
2012-2014		18	18	100	14	4	5
2014-2016	CI	11	11	100	10	1	-
2013-2015		15	15	100	11	3	1
2012-2014		16	16	100	14	2	1
2011-2013		17	16	94	12	4	-
2014-2016	CSE	21	21	100	21	-	2
2013-2015		22	22	100	21	1	1
2012-2014		18	17	94.44	16	1	1
2011-2013		18	18	100	12	6	7
2014-2016	CEM	18	16	94.11	10	6	1
2013-2015		18	18	100	12	6	1
2012-2014		18	18	100	9	9	2
2011-2013		19	17	83	10	6	3
2014-2016	SE	17	17	100	12	5	8
2013-2015		16	13	81.25	10	3	4
2014-2016	MBA	55	35	63.64	21	-	-
2013-2015		37	23	62.16	19	-	2
2012-2014		56	39	69.64	38	-	-
2011-2013		52	32	62	30	-	-
2014-2016	MCA	67	60	91.04	54	3	4
2013-2015		53	52	98.11	47	4	2
2012-2014		50	38	76	32	6	5
2011-2013		56	49	88	48	1	1

- 6 Gold Medals and 188 University Ranks have been secured by the Institution in the last four years.
- A PG student from the Department of Electronics and Communication Engineering secured Gold Medal in the year 2016.
- Two PG students from the Department of Electronics and Communication Engineering secured gold medals in the year 2015.

- A UG student from the Department of Civil Engineering secured Gold Medal in the year 2013.
- A UG student from the Department of Computer Science Engineering also secured Gold Medal in the same year 2013.
- Result comparison with the other affiliating colleges within the district is not available. But based on the previous year performances, the pass percentage of the college is maintained above 90 % to 95% for PG and 80% to 85% for UG courses.

5.2.3 How does the institution facilitate student progression to higher level of education and/or towards employment?

➤ Higher education

- Institution offers 9 post graduate programmes such as Applied Electronics, Communication Systems, Medical Electronics, Communication and Networking, Energy Engineering, Control and Instrumentation Engineering, Power Electronics and Drives, Computer Science and Engineering, Construction Engineering and Management, Structural Engineering, Master of Business Administration and Master of Computer Application for higher education.
- Institution offers Ph.D. programmes in the Departments of Electronics and Communication Engineering, Mechanical Engineering, Electrical and Electronics Engineering, Computer Science and Engineering and Master of Computer Application for pursuing Ph.D.
- Department-wise GATE/TANCET coaching classes are provided to improve the student progression to higher level of education.
- Departments support the students for receiving good score in competitive examinations.
- Students are motivated to participate in other examinations like CAT/GRE/TOFEL.
- Odel software is used in multimedia language lab for preparing GRE and TOFEL examinations.
- For competitive examinations, students can prepare and practice using the facilities in the traditional and digital library.

➤ Employment

- Special training is given for solving aptitude problems and improving communication skills, and the training provisions are made in the regular time table.
- The efforts taken in the special training program improve the on-campus recruitment.
- Special oral and written training is given for facing interviews and improving technical presentation skills.
- Mock interview is organized to make students ready for interview and get a better placement outcome.
- Career guidance programmes, and personality development programmes are organized by Placement Cell and the Training Cell CETA.

5.2.4 Enumerate the special support provided to students who are at risk of failure and drop out?

➤ Special support to students at risk of failure:

- Slow-learners are identified based on their academic performance and special classes are arranged in the evening.

- Mentors and other faculty members counsel slow learners.
 - Tutorial classes and group study are arranged.
 - Memory training and LEAD (Life Exam Attitude and Dynamic competence) programme are conducted for the first year students.
- Poor academic performance due to frequent absence is communicated to the parents by phone, SMS as well as letters.
- Intensive coaching is conducted for every subject at the end of semester.
- Question bank and answers are discussed with slow learners.
- One-to-one meeting is conducted by faculty with the students.
- Students those who are at risk of failure are motivated by peer and alumni.
- Special support to students at risk of dropout:
 - The students are continuously monitored by mentors based on their academic performance and behavior, and the reason for dropout is analyzed.
 - The students who are at the risk of drop out are given special attention by meeting them at home and counseling by mentors followed by HOD and Principal.
 - Students who are at the risk of dropout due to psychological problem are given academic relaxation respecting the university norms.
 - After counseling and support, a few students have continued their studies.

Number of dropouts in the last four years:

Academic Year	UG	PG
2016-2017	4	1
2015-2016	25	5
2014-2015	18	6
2013-2014	29	1
2012-2013	32	2

5.3 Student Participation and Activities

5.3.1 List the range of sports, games, cultural and other extracurricular activities available to students. Provide details of participation and program calendar.

- Students are involved in the following range of sports and games
 - Football
 - Cricket
 - Tennis
 - Hand-ball
 - Kabbaddi
 - Kho-Kho
 - Basket Ball
 - Volley Ball
 - Badminton
 - Table-Tennis
 - Chess
 - Athletics
 - Best Physique
 - Weight Lifting
 - Power Lifting

Details of participation in zonal level sports and games:

Name of the Sports	No of Students Participated				
	2016-2017	2015-2016	2014-2015	2013-2014	2012-2013
Foot Ball	20	18	18	18	18
Cricket	16	16	16	16	16
Basket Ball	12	12	12	12	12
Badminton	11	11	11	11	11
Volley Ball	12	12	12	12	12
Hand Ball	12	12	12	12	12
Chess	7	7	7	7	7
Kho-Kho	12	12	12	12	12
Kabaddi	12	12	12	12	12
Tennis	5	5	5	5	5
Athletics	35	35	35	35	35

- The institution is recognized as Zone XIX sports coordinating center of Anna University, Chennai.

Details of tournaments organized by the Institution:

Year	Sports/Games	Gender	Event Control
2016-2017	Badminton	Men & Women	Anna University Chennai
	Tennis	Men	
2015-2016	Badminton	Men & Women	Anna University Chennai
	Tennis	Men	
2014-2015	Volley Ball	Women	Anna University Chennai
2013-2014	Cricket	Men	Anna University Chennai
	Athletics	Men & Women	
	Volley Ball	Men	
	Kho-Kho	Men	
2012-2013	Cricket	Men	Anna University Chennai
	Chess	Men & Women	
	Athletics	Men & Women	

- Cultural activities:
 - The cultural activities are organized and coordinated by the cells like Fine Arts Club, Tamil Mantram and Jyothis.
- Fine Arts Club
 - To bring out the talents of students in cultural activities, Fine Arts Club is functioning with a team of members comprising of staff advisor and student executive members.

The cultural activities organized by Fine Arts Club:

Year	Date	Name of the Activity	No of Students Participated
2016-2017	09-09-2016 & 10-09-2016	Calida Festa 15, Inter-Collegiate Cultural Competitions	845
	26-08-2016	Inauguration and Seminar on Arts in Personality Development of A Person.	130
	17-08-2016	All India Radio-Live Broadcast	17

2015-2016	10-09-2015 & 11-09-2015	Calida Festa 14, Inter Collegiate Cultural Competition	830
	28-08-2015	Inauguration and Guest speech on Importance of Arts in Character Development	115
	11-03-2015	Valedictory and Guest speech on Importance of Traditional Culture in Tamilnadu.	98
	14-01-2015	Pongal Celebration with People in Ambedkar Colony	46
2014-2015	14-03-2015	Valedictory and Guest speech on Self Confidence.	92
	04-02-2015	Documentary Movie Show on Perunthalaivar Kamaraj	500
	25-12-2014	Christmas Television Program in MATHA TV and local channels	36
	12-09-2014 & 13-09-2014	Calida Festa14 Inter Collegiate Cultural Competition	832
	29-08-2014	Inauguration and Guest speech on Leadership	110
	18-08-2014	Kanyakumari Book Fare, Nagercoil	140
2013-2014	30-09-2013 & 01-10-2013	Calida Festa 13, Inter Collegiate Cultural Competition	825
	26-08-2013	Inauguration and Guest speech on Arts as Media.	106
	23-07-2013	Kanyakumari Book Fare, Nagercoil	134
	27-03-2014	Valedictory and Guest speech on "Handling the Failure Situations in Life"	95
2012-2013	16-09-2012 & 17-09-2012	Calida Festa12, Inter Collegiate Cultural Competition.	645
	23-08-2012	Inauguration and Guest speech on "Importance of arts in life".	91
	24-03-2013	Valedictory and Guest speech on "Development of Decision Making Skill".	95

➤ Tamil Mantram:

- It is a platform for Tamil students to showcase their cultural talents in the traditional events of Tamil Nadu.

The events organized by Tamil Mantram:

Year	Date	Name of the Activity	No of Students Participated
2016-2017	13-01-2017	Pongal Celebration	482
	25-01-2017	Competitions for Voter Day	120
	16-09-2016	Documentary Show	56
2015-2016	10-02-2016	Voter's Day	40

	15-01-2016	Pongal Celebration in Ambedkar Nagar	300
	14-01-2016	Pongal Celebration	90
	14-01-2016	Intercollege Competition	36
2014-2015	19-01-2015 20-01-2015	Voter's Day	30
	10-01-2015	Pongal Celebration	200
	18-08-2014	Intra college competition	50
	17-09-2014	Inauguration	250
	02-09-2013	Inauguration	200

➤ Jyothis (Malayalam Literary Association)

- This association is functioning for Malayalee students to showcase their talents in the traditional events of Kerala.

The events organized by Jyothis:

Year	Date of Conducted	Name of the Program	No of Students Participated
2016-2017	10-08-2016	Installation of Jyothis	150
	12-09-2016	Onam Celebration and Attappoo Competition	265
2015-2016	26-08-2015	Onam Celebration and Attappoo Competition	240
2014-2015	05-09-2014	Onam Celebration and Attappoo Competition	225
2013-2014	13-09-2013	Onam Celebration and Attappoo Competition	240
2012-2013	27-08-2012	Onam Celebration and Attappoo Competition	228

➤ Extracurricular activities in the Institution are organized by

- National Cadet Crops (NCC)
- National Service Scheme (NSS)
- Women's Cell
- Konverze (English Club)
- Robotics
- Youth Red Cross
- Entrepreneurship Development Cell
- Voice of Xavier's
- St. Xavier's Choir
- Radio Club

Activities of National Cadet Crops:

Year	Date	Name of the Activity	No of Students Participated
2016-2017	07-04-2017	NCC Day	63
	11-02-2017	Trekking	50
	26-01-2017	Republic Day Parade	59
	25-11-2016 to 04-12-2016	Annual Training Camp at Scott Christian College.	21

	29-11-2016	Air Force Awareness Program at Scott Christian College.	36
	06-10-2016	Blood Donation Camp at South Travancore Hindu College, Nagercoil.	16
	15-08-2016	Independence Day Celebration	72
	21-06-2016 to 30-06-2016	Combined Annual Training Camp, South Travancore Hindu College, Nagercoil.	21
	21-06-2016	International Yoga Day	42
2015-2016	13-04-2016	National Cadet Crops Day Celebration	62
	26-03-2016 & 27-03-2016	C' Certificate Examination conducted in Scott Christian College, Nagercoil.	15
	27-02-2016	B' certificate examination held at S.T. Hindu College, Nagercoil.	21
	26-01-2016	Republic Day Celebration	70
	16-01-2016	Startup India Program at Scott Christian College.	15
	15-01-2016	Pongal celebrations at Ambedkar colony	15
	26-12-2015 to 04-01-2016	Combined Annual Training Camp, Nesamony Memorial Christian College, Marthandam.	3
	21-06-2015	International Yoga Day at Ponjesly College of Engineering, Nagercoil.	78
	15-08-2015	Independence Day Celebration	60
2014-2015	31-03-2015	NCC Day Celebration	70
	28-02-2015 & 01-03-2015	'C' Certificate Examination conducted in Scott Christian College, Nagercoil.	24
	21-02-2015	B' Certificate Examination held at S.T. Hindu College, Nagercoil.	17
	09 -2- 2015 to 18 -2-2015	Combined Annual Training Camp Vivekananda College, Agasteeswaram.	1
	30-01-2015	Blood Donation Camp	11
	26-01-2015	Republic Day Parade at Sethu Lakshmi Bai Government Higher Secondary School, Nagercoil.	8
	26-01-2015	Republic Day Celebration	62
	04 -01-2015	Graduation Day Ceremony at University College of Engineering, Nagercoil.	15
	26-12-2014 to 04-01-2015	Combined Annual Training Camp, Nesamony Memorial Christian College, Marthandam.	21
	20-10-2014	Blood Donation Camp at S.T. Hindu College, Nagercoil.	13
	19-08-2014	Book Exhibition held at Sethu Lakshmi Bai Government Higher Secondary School, Nagercoil.	12
	15-08-2014	Independence Day Celebration	51
	06-06-2014 to 15-06-2014	Combined Annual Training Camp, S.T. Hindu College, Nagercoil.	20
	23-03-2014	C' Certificate Examination,	8

	& 24-03-2014	Scott Christian College, Nagercoil.	
	16-02-2014	B' Certificate examination held at S.T. Hindu College, Nagercoil.	30
	26-01-2014	Republic Day Parade 2014 at Sethu Lakshmi Bai Government Higher Secondary School, Nagercoil.	10
	26-01-2014	Republic Day Celebration	74
	24-12-2013 to 02-01-2014	Combined Annual Training Camp at Nesamony Memorial Christian College, Marthandam.	30
	22-11-2013	NCC Day at Scott Christian College, Nagercoil.	20
	28-09-2013	Trekking at Karnoor Hills	66
	21-09-2013	Blood Donation Camp	10
	18-09-2013	Blood donation camp organized by the National Cadet Crop Unit Nagercoil.	10
	15-08-2013	Independence Day Celebration	59
	6-05-2013 to 15-05-2013	Combined Annual Training Camp at Scott Christian College, Nagercoil.	10
	24-03-2013 & 25-03-2013	C' Certificate Examination, Scott Christian College, Nagercoil.	28
2012-2013	16-02-2013	B' Certificate Examination held at S.T. Hindu College.	2
	21-02-2013	Blood Donation Camp	20
	21-02-2013	Awareness Program on Evils of Female Infanticide and Foeticide	75
	26-01-2013	Republic Day Celebration	80
	11-01-2013	150 th Vivekananda Jayanthi Awareness Rally	48
	22-12-2012 31-12-2012	Combined Annual Training Camp at Nesamony Memorial Christian College, Marthandam.	30
	24-11-2012	Dengue Awareness program	60
	22-09-2012	Blood Donation camp	27
	15-08-2013	Independence Day Celebration	52

➤ National Service Scheme:

- NSS is functioning effectively in the Institute with two units and many social activities are organized.
- NSS unit obtained Best Unit Award in the University on 27-10-2015

Activities of NSS in the last four years:

Year	Date	Name of the Activity	No of Students Participated
2016-2017	26-1-2017 to 01-02-2017	NSS Camp at Kolvel Village	92
	17-09-2016	NSS Day Celebration	90
	15-08-2016	Independence Day Celebration Orphanage Visit - Shanthi Nilayam	60

	11-08-2016	Installation of NSS	200
2015-2016	10-03-2016	Orphanage Visit - Charles Home	100
	25-01-2016 to 31-01-2016	Special Camp at Kappukadu	100
	15-01-2016	Pongal Celebration at Ambedkar Nagar	100
	10-12-2015	Dengue Awareness Camp	30
	22-08-2015	Marathon	25
	24-09-2015	NSS Day Celebration	120
	15-08-2015	Independence Day Celebration and Orphanage Visit	80
	11-08-2015	Inauguration	200
2014-2015	10-03-2015	Orphanage Visit - Annai Ashramam	100
	02-02-2015 to 08-02-2015	Special Camp at Kadiyapattinam	100
	30-01-2015	Blood Donation Camp	90
	26-01-2015	Republic Day Celebration	90
	31-10-2014	Dengue Awareness Camp	75
	15-08-2014	Independence Day Celebration	85
	24-10-2014	First Aid Awareness	70
	15-09-2014	State Level Technical Symposium	150
	13-08-2014	Inauguration Ceremony	200
	04-08-2014	Puthiya Thalaimurai Science Exhibition	30
2013-2014	04-03-2014	Orphanage Visit - Charles Home	100
	03-02-2014 to 09-02-2014	Special Camp at Mathiravilai	100
	26-10-2014	Republic Day Celebration	70
	03 and 04-10-2013	Gandhi Jayanthi Celebration	135
	24-09-2013	NSS Day Celebration	180
	21-09-2013	Blood Donation Camp	70
	03-09-2013	Inauguration Ceremony	200
	15-08-2013	Independence Day Celebration Orphanage Visit - Arumanai	100
	15-07-2013	Dengue Awareness Camp	80
	13-07-2013	Dengue Awareness Camp	60
	05-05-2013	Shanthi Ashramam, Mukkadal	90
2012-2013	12-02-2013	Competitions, Anna University Tirunelveli	2
	16-02-2013 & 22-02-2013	Special Camp at Kodimunai	100
	26-01-2013	Republic Day Celebrations	80
	17 and 18-01-2013	Youth Day Celebrations	200
	24-11-2012	Dengue Awareness Rally	200
	04-10-2012	Election Awareness Rally	60
	01-10-2012	NSS Inauguration Ceremony	200
	28-09-2012 to 30-09-2012	State Level Workshop	4
	22-09-2012	Blood Donation Camp	80

	15-08-2012	Orphanage Visit at Anbiillam	70
	15-08-2012	Independence Day Celebration	100
	09-05-2012	Red Ribbon Express	120

➤ Women Cell:

- This cell functions for the empowerment of women students and staff.
- Many awareness and training programmes are organized by this cell.

Programmes organized by Women's Cell:

Year	Date	Name of the Program	No of Students Participated
2016-2017	08-04-2017	Debate on Gender Equality	270
		Awareness program on Self Confidence	65
	06-04-2017	Awareness program on Relationship	60
	28-01-2017	Awareness program on Health and Hygiene for Women.	80
	12-09-2016	Awareness program on Goal Setting	70
	02-09-2016	Awareness program on Food Habits	65
	22-08-2016	Soft Skills program on Self- Confidence	60
	22-08-2016	Sensitization programme on Gender Relationship.	65
	18-08-2016	Soft Skills program on Motivational Aspects	45
	17-08-2016	Awareness program on Tips to be a Successful Woman	35
	12-08-2016	Awareness program on Healthy and Unhealthy Relationship.	30
2015-2016	15-10-2015	Soft Skills programme on Life Skills and Family Education.	100
	14-09-2015	Soft skill programme on Well Being of Students.	450
	11-09-2015	Sensitization programme on Healthy Relationship with Peer Group	25
2014-2015	25-10-2014	Sensitization programme on The Menace of Sexual Crime Against Women.	2
	17-02-2015	Sensitization programme on Ethical Values, Healthy Relationship, and Respect for Peer Group.	200
	29-01-2015	Soft skill programme on Family Life Education.	50
	24-01-2015	Awareness program on Health and Hygiene	50
2013-2014	03-03-2014	Awareness program on Health and Hygiene	85
	21-11-2013	Soft skill programme on Self-Acceptance, Self-Love, and Gender Justice.	350
	25-08-2013	Soft Skills programme on Life Skills Education.	56
	27-07-2013	Sensitization programme on Healthy Relationship, Respect for Peer Group	356
2012-2013	17-10-2012	Awareness program on Health Awareness	114
	17-10-2012	Awareness program on General Checkup	96

	20-10-2012	Awareness program on Breast Cancer	110
	20-10-2012	Awareness program on HIV- AIDS	100

➤ Konverz:

- This English club is to motivate the students and staff to converse in English.

The programmes organized by Konverz:

Year	Date	Name of the Program	No of students participated
2016-2017	12-09-2016 & 19-09-2016	Communication Skills & Technical Seminar	65
2015-2016	03-08-2015 & 17-08-2016	Conversation Analysis & Dialogic Perspectives	540
2014-2015	08-10-2014	Discourse Markers	420
2013-2014	26-09-2013	Seminar on Soft Skills Analysis	480
2012-2013	25-09-2012	Students Motivational Programme	460

➤ Robotics Club:

- Robotics Club provides a platform for the students to display and develop their practical machine-building skills and knowledge.
- Students are trained to design, build, program and operate robots to compete in a head-to-head challenge in an alliance format.
- Robotics club students participate in the First Tech Challenge, a state level talent search event on robotics conducted by Caterpillar Private Ltd., at Chennai, every year.

Year	Date	Name of the Program	No of students participated
2015-2016	01-04-2016	First Tech Challenge Competition Caterpillar Private Ltd., Chennai.	12
2014-2015	04-04-2015		12
2013-2014	22-03-2014		20
2012-2013	31-03-2013		20
2012-2013	21-07-2012		24

➤ Youth Red Cross:

- Students have donated 387 units of blood for the needy through YRC cell.
- YRC received appreciation award for donating more units of blood during the year 2014-2015.

Activities of YRC:

Year	Date	Name of the Program	No of Students Participated
2016-2017	15-08-2016	Independence Day Celebration	55
	12-08-2016	Installation	60
	05-08-2016 & 08-08-2016	National Deworming Day	1000
	03-08-2016 & 04-08-2016	Blood Donation Awareness	450
2015-2016	26-01-2016	Republic Day Celebration	50
	26-10-2015	First Aid Training program	120
	15-08-2015	Independence Day	55

	10-08-2015	National Deworming Day	1000
	27-07-2015 & 28-07-2015	Blood Donation Awareness	450
2014-2015	01-03-2015	District Level Study Camp	200
	30-01-2015	Blood Donation Camp	93
	26-01-2015	Republic Day Celebration	50
	15-08-2014	Independence Day	65
	07-08-2014 & 08-08-2014	Blood Donation Awareness	450
2013-2014	28-03-2014	Eye Donation Awareness	60
	26-01-2014	Republic Day Celebration	55
	21-09-2013	A blood A Blood Donation Camp	70
	15-08-2013	Independence Day	70
	07-08-2013 & 08-08-2013	A Seminar on Awareness of Blood Donation	450
2012-2013	26-01-2013	Republic Day Celebration	60
	24-11-2012	Dengue Awareness Program	120
	22-09-2012	Blood Donation Camp	83
	16-08-2012 & 17-08-2012	Awareness of Blood Donation	450
	15-08-2012	Independence Day celebrations	65

➤ Entrepreneurship Development Cell:

- EDC motivate and arranges programmes to ignite the students towards entrepreneurship

Activities of Entrepreneurship Development Cell:

Year	Date	Name of the Activity	No. of Students Participated
2016-2017	13-10-2016	Industrial Interaction Program and Inaugural Function of Youth Entrepreneur Challenge-2016.	75
	01-10-2016	Business Plan Competition. YEC 2016	150
	17-08-2016	Entrepreneurship Awareness Program	75
2015-2016	12-02-2016	Entrepreneurship Awareness Camp	75
	29-07-2015	Youth Entrepreneurship Summit 2015 YES 2015	15
2014-2015	01-04-2015	Business Plan Competition. Young Entrepreneurs Challenge'15	150
	24-01-2015	Industrial Interaction Programme and The Young Entrepreneurs Challenge'15	75
	22-01-2015	Entrepreneurship Awareness Camp-2	75
	18-09-2014	Industrial Interaction Programme and Entrepreneurship Awareness Camp-1	75
2013-2014	03-10-2013	Industrial Interaction Program	75
	30-09-2013	Quiz Competition	100
2012-2013	22-02-2013	TECH EXPO 2013	200

- Support service activities and its impact are analyzed by taking feedback from the participants, students and guest.

5.3.2 Furnish the details of major student achievements in co-curricular, extracurricular and cultural activities at different levels: University, State, Zonal, National, International, etc. for the previous four years.

- Student achievements in co-curricular activities
 - The Co- curricular activities are associated with the professional bodies such as IEEE Student Branch, IEEE Women in Engineering, IEEE Education Society, Institution of Engineering and Technology, Society of Automotive Engineers, Computer Society of India.

Sl. No.	Year	Award	Professional Body	Level
1.	2016-2017	Two Richard. E. Merwin Scholarship. Scholarship: \$ 1,000.	IEEE	International
2.		One IEEE Education Society Student Leadership Award. Scholarship: \$ 500.	IEEE	International
3.		All IEEE Young Engineers' Humanitarian Challenge-2016 Award of US \$ 500.	IEEE	International
4.		Second Prize in Best Poster Award in TWMA'S ZADCO Hand Safety Campaign, UAE. Cash Award of Rs. 18,000.	--	International
5.		SCILAB Text Book Companion Project - Internship Award of Rs.9,000	SEE	National
6.		Emreen F Xavier Award of Rs. 5,000 Each for Three Members	ACE	College
7.	2015-2016	Three Richard E. Merwin Scholarships. Scholarship: \$ 1,000.	IEEE	International
8.		One IEEE Education Society Student Leadership Award. Scholarship: \$ 500.	IEEE	International
9.		All IEEE Young Engineers' Humanitarian Challenge-2016 Award of \$ 500	IEEE	International
10.		IET Young Professional Kanyakumari Local Network Awards.	IET	State
11.		One IET Award for Student Excellence of Rs. 32,000.	IET	State
12.		One Er. Hudson Appreciation Award of Rs. 10,000. One Er. Hudson Appreciation Award of Rs. 5,000.	IET	State
13.		Honorable Chief minister Award for Excellence in E-Governance	--	State
14.	2014-2015	IEEE Madras Section Project Fund of R.s. 10000 for 3 members.	IEEE	State
15.		Two Richard E. Merwin Scholarships. Scholarship: \$ 1,000.	IEEE	International

16.		IET Young Professional Kanyakumari Local Network Awards.	IET	State
17.		Motivation Award	Robotics	Zonal
18.	2013-2014	IET Young Professional Chennai Local Network Award	IET	State
19.	2012-2013	IEEE Madras Section Project Fund of Rs. 2500 for 4 members.	IEEE	State
20.		IEEE Smart Grid International Video Contest Award of \$ 500 for 6 members.	IEEE	International
21.		One Upsilon Pi Epsilon Honorary Scholarship of \$ 1,000.	IEEE	International
22.		IEEE Student Branch won the IEEE Region 10 (Asia & Pacific) Exemplary Student Branch Award.	IEEE	International
23.		IET Young Professional Chennai Local Network Awards.	IET	State
24.		Championship Innovation Award	Robotics	Zonal
25.		Motivation Award	Robotics	Zonal

Achievements in extracurricular activities:

Sl. No.	Year	Award	Extracurricular Activity	Level
1.	2016-2017	Youth Entrepreneur Challenge-16 Cash Award of Rs. 65,000.	EDC	State
2.		Youth Entrepreneur Challenge-16 Cash Award of Rs. 35,000.	EDC	State
3.	2015-2016	Best Drill Award and Best College Award.	NCC	State
4.	2014-2015	Youth Entrepreneur Challenge-15 Cash Award of Rs. 35,000.	EDC	State
5.		Anna University Best Volunteer Awards	NSS	State
6.		Best Drill Award and Best College	NCC	State
7.	2013-2014	NSS Best Unit Award	NSS	State
8.	2012-2013	Best Cadet award	NCC	State

Achievement in cultural activities:

Sl. No.	Year	Award	Cultural Activity	Level
	2016-2017	SCOTIA 2017 Award of Rs. 9,500/-	St. Xavier's Choir	State
		Mar-Ephraem Award of Rs. 3,000/-	St. Xavier's Choir	District
		Arumanai Christian Association Award of Rs. 5,000/-	St. Xavier's Choir	District
		Kalarishi 2017	Women's cell	District
1		Overall Cultural	Fine Arts	Zonal

		Championship Awarded by Mar Ephraem College of Engineering and Technology		
2		Overall Cultural Championship Awarded by Rotary Club of Nagercoil	Fine Arts	Zonal
3		Overall Cultural Championship Awarded by Alphonsa Academy	Fine Arts	Zonal
4		Oviya Sudar Ozhi	Tamil Mantram	Zonal
5		Second Prize in Elocution by Tamil Vazharchi Thurai (Rs.7,500)	Tamil Mantram	Zonal
6		Kumari Super Singer	Fine Arts	Zonal
7	2015-2016	Received Award from Press Club of Kanyakumari District	Fine Arts	Zonal
8		KODAI FEST- Kodaikannal Institute of Management, Kodaikannal	Fine Arts	State
9	2014-2015	Cultural Champion of Kumari Kalai Kazhagam, Nagercoil	Fine Arts	Zonal
10	2013-2014	Overall Cultural Championship Awarded by Rotary Club of Nagercoil	Fine Arts	Zonal
11		Cultural champion of Kumari Kalai Kazhagam, Nagercoil	Fine Arts	Zonal

Achievements in sports and games:

Sl. No.	Medals	Year				
		2016-2017	2015-2016	2014-2015	2013-2014	2012-2013
1	Gold	14	15	26	9	18
2	Silver	12	24	17	34	14
3	Bronze	7	23	2	4	8

5.3.3 How does the college seek and use data and feedback from its graduates and employers, to improve the performance and quality of the institutional provisions?

➤ Graduates Feedback

- Every year, the student exit survey is collected from all the outgoing students.
- Feedback from alumni is collected during winter alumni meet on every 26th December and also at the day of convocation.
- Feedback is analyzed and the valuable suggestions are used to improve the performance and quality of the Institution.

➤ Employer Feedback

- The Placement Cell always maintains a good relationship with the organizations in which the alumni are placed and the employer feedback is obtained from HR Personnel and other senior officials of the organization.
- Based on the employer feedback, skill oriented training are given to students through Placement Cell, Training Cell (CETA) and Software Cell.

5.3.4 How does the college involve and encourage students to publish materials like catalogues, wall magazines, college magazine, and other material? List the publication materials brought out by the students during the previous four academic sessions.

- College magazine is released every year and students publish technical, non-technical articles and drawings in the magazine.
- Students are the members in the college editorial board and department magazine.
- Every year CSE and IT department students design and release the department Newsletter under the guidance of a staff editor.
- MBA department students publish e-Newsletter once in a semester.
- Students also design the brochure for conferences and symposia.
- Students are encouraged to publish their technical articles in department magazine, symposium magazine, conference proceeding and journals.
- Students are involved to prepare wall magazine to train the school students under the scheme Inspire.

The details of publications released with the involvement of students:

Year	No of Publication			
	Catalogues	Name of College Magazine	Newsletter/e-Magazine	
			Computer Science and Engineering	Information Technology
2016 -2017	1	--	ACE'16	Infotechz, Vol. 20
2015-2016	1	TECH MERZ - 2016 (Technology towards Mercy)	ACE'15	Infotechz, Vol. 19
2014-2015	1	REIN - 2015 (Renderings for Energizing Indian Nation)	Touch'15	Infotechz, Vol. 18
2013-2014	1	Going Green 2014	ACE Explorer'14	Infotechz, Vol. 7
2012-2013	2	MS-13 (Modernization and Sustainability)	RETIES'13	Infotechz, Vol. 16

5.3.5 Does the college have a Student Council or any similar body? Give details on its selection, constitution, activities and funding.

- Yes, Institution has similar bodies.
- Department associations, professional and non-professional bodies are available in the college whose activities are organized by the students.
- Executive members are selected by election or anonymous choice.

- Each association has student secretary, joint secretary, treasurer and office bearers guided by faculty advisor.
- Funds are made available by the Management.
- Activities:
 - Planning and arranging association activities.
 - Arranging programmes, Industrial visit and Educational tour.
 - Encouraging the students participation
 - Publishing materials
 - Developing team work.

5.3.6 Give details of various academic and administrative bodies that have student representatives on them.

- The College has various academic bodies that have student representatives in them.
- Academic bodies:
 - Class Committee
 - Department Associations
 - Association of Computer Engineers (ACE)
 - Brigade of Information Technology (BRIGITZ)
 - Electronic Society (ELECTROS)
 - Mechanical Engineer's Guild of Xavier's (MEGX)
 - Resplendent Engineering Association for Civil Heritage (REACH)
 - Science and Humanities Association of Xaviers (SHAX)
 - Society of Electrical Engineers (SEE)
 - Xavier's Association of Computer Applications (XACA)
 - Xavier's Management Student Association (XMA)
 - Association for Computing Machinery (ACM)
 - Computer Society of India (CSI)
 - IEEE Women in Engineering (IEEE WIE)
 - Indian Society for Technical Education (ISTE)
 - Indian Society of Heating, Refrigerating and Air Conditioning Engineers (ISHRAE)
 - Institution of Electrical and Electronic Engineers (IEEE)
 - National Cadet Corps (NCC)
 - National Service Scheme (NSS)
 - Placement Cell
 - Society of Automotive Engineers (SAE)
 - Training Cell
 - Youth Red Cross (YRC)

5.3.7 How does the institution network collaborate with the Alumni and former faculty of the Institution.

- Alumni
 - Alumni working in companies and other institutions are invited for department association activities.
 - Alumni are invited for placement guidance and software training.
 - Alumni feedback is collected for improvement.
 - Alumni are invited for seminars and workshops as resource persons and evaluators. They are also invited for guest lectures and for other celebrations.

- 30 percent of faculty members are alumni which is an added feature to get in contact with alumni. (53 out of 174)
- Former Faculty
 - Former Faculty working in other institutions are invited for association activities as chief guest.
 - Former Faculty Dr. R.S. Shaji Professor and HOD, Department of Information Technology, Noorul Islam University, Kumaracoil and Dr. P. Titus, Assistant Professor, Department of Mathematics, University College of Engineering, Nagercoil are the members of management bodies in the Institution.
 - Former faculty members are invited for guest lecturers, seminar, workshop and training as resource persons and judges for competitions.
 - They also act as Doctorial Committee members for the Research Scholars of the institution.

Any other relevant information regarding Student Support and Progression which the college would like to include.

- Transport Facility:
 - Our College transport facility is fully armed to provide safe and most convenient transport solution.
 - The college provides excellent transportation facilities for students and staff to use the most comfortable travel to save time in transit.
 - The students and staff travel from different destinations of the district to the college for which the College is operating buses from different important points of the city covering various routes.
 - The facility started with three buses in the year 2002 and elevated to a fleet of 22 deluxe buses in the year 2013.
 - Each bus is provided with an audio player and good sound system for ensuring the staff and students a pleasant journey.
 - Students are allowed to travel by college bus with the given bus pass. An average of 1450 students is utilizing the transport facility provided by the college.
 - Apart from providing transportation facility to students and staff for the regular trip, the College also provides transport facility for industrial visits and excursion trips. The transport section has a specially built bus with hi-tech body for this purpose.
 - All the buses are provided with the necessary facilities as required and recommended by the government norms such speed governor, first-aid kit, etc.
 - The transport division has also a spare bus to ensure a hassle-free transportation to the students during all working days.

Criterion VI

Governance, Leadership and Management

6.1 Institutional Vision and Leadership

6.1.1 State the vision and mission of the Institution and enumerate on how the mission statement defines the institution's distinctive characteristics in terms of addressing the needs of the society, the students it seeks to serve, institution's traditions and value orientations, vision for the future, etc.?

- Vision
To be an institution of eminence of optimal human development, excellent engineering education and pioneering research towards developing a technically-empowered humane society.
- Mission
To transform the youth majority of whom are from rural area into top class professionals and technocrats willing to serve local and global society with ethical integrity, by providing vibrant academic experiences of learning, research and innovation and stimulating opportunities to develop personal maturity and professional skills, with inspiring and high caliber faculty in a quality and serene infrastructural environment.
- The institution's distinctive characteristics from the mission statements are:
 - Needs of the Society:
 - The fruits of modern technology have not reached all in the society, especially rural people.
 - That the society is in need of persons with technical knowledge and leadership committed to empower ordinary people and to develop a culture based on humane values and scientific knowledge and to avoid inhuman treatment of persons and nature.
 - The Students it Seeks to Serve:
 - Students predominantly from Southern Tamil Nadu.
 - Majority of the students are rural, poor students.
 - Christian minority students.
 - Students from other states and categories also are given equal importance and quality education.
 - Institution's Traditions and Value Orientations:
 - As it is a Christian Minority institution, excellence, service-oriented, social commitment values are at the root of inspiration
 - The tradition and long experience of running excellent educational institutions for the benefit of disadvantaged people
 - The tradition of attaining academic excellence in an atmosphere of high standard discipline and ethics in tune with the current scientific and technical developments and providing best personalities, professionals, researchers and entrepreneurs to the industries, the world of science and society.
 - The tradition of giving high standard infrastructure and equipment with high caliber faculty.
 - Vision for the Future:
 - That all in the human society, especially the rural marginalized people, live a happy and comfortable life, having access to education and facilities,

empowered by emerging technologies and science with the service of fully-functioning persons and committed technical professionals.

6.1.2 What is the role of top management, Principal and Faculty in design and implementation of its quality policy and plans?

- Design and Implementation of Quality Policy
 - The highest body for taking decisions (top-management) is the Governing Council which comprises the Bishop, Vicar General, Correspondent, Bursar and 13 eminent academicians and industrialists and local leaders.
 - As per the vision of the Diocese of Kuzhithurai and by way of actualizing the vision and mission of the institution, the top management proposes salient aspects to be considered in policies and plans for the college.
 - The Academic Council and the IQAC presided over by the Principal discuss at length the proposed aspects in cognizance with the current academic scenario and the feedback from different stakeholders and draft the proposal for quality policy.
 - The draft is again discussed in the Governing Council (the top management) and the final statement is approved.
 - The Academic Council and IQAC again develop modalities of disseminating the policies together with the vision and mission to all the sections of the staff and students that each section imbibes the quality policy and use it as the benchmark for all the plans and activities they do.
- Design and Implementation of Plans
 - Top-down:
 - Yearly objectives to the institution are given by the top management (Governing Council), considering the perspective plans for the institution, emerging trends and feedback received in line with the vision, mission and quality policy of the institution.
 - The Academic Council and IQAC discuss and develop strategies and plans to actualize the yearly objectives and regular activities, assign responsibilities to different departments, associations and cells with time-bound schedules.
 - Bottom-up:
 - The staff of each department, including the office, transport and maintenance sections come together under their in-charges or HoDs, to draft plans for their own areas, sensing the requirements from the feedback of the staff, students and other stakeholders and the infrastructural needs. They forward the plans, list of required articles and budget to the Academic Council and IQAC. They in turn, after studying the need and practicalities of the requirements and plans, forward them to the Governing Council, which, after proper scrutiny and modifications, approves the plans, requirements and budgets.
 - After the approval by the top management, the plan is implemented by the department step-by-step.
 - The Principal presides over the Academic Council and IQAC and the Correspondent is part of the Governing Council, the top-management.
 - A consistent monitoring and periodical evaluation system is in place, especially carried out by internal audit and academic audit, where both the Governing Council and the Principal are involved.

6.1.3 What is the involvement of the leadership in ensuring?

- **The policy statements and action plans for fulfillment of the stated mission:**
 - The Governing Council situates and scrutinizes all the policies and plans that contribute to the achievement of the vision and mission of the college before giving approval.
 - The Principal, HoDs along with the faculty members, while devising strategies for the execution of the policies and plans have the vision, mission, quality policy and values as the basis.
 - The evaluation system, always considers the contribution to the achievement of the vision and mission as an important criterion for evaluation of the output of the execution of policies and plans, overseen by the Principal and the Correspondent.
- **Formulation of action plans for all operations and incorporation of the same into the institutional strategic plan**
 - Policies, perspective plans, yearly objectives and plans strategically boil down to practical action plans for execution, formulated by the executing agencies namely the departments and maintenance sections, and then they are carried out by the faculty, staff, different associations and cells.
 - All the departments, sections, associations and cells are expected to give monthly reports of their activities to the Principal and the Principal in turn briefs the Correspondent on them regularly.
 - The Correspondent briefs the Governing Council on the activities of the college every month which gives its comments and suggestions considering the overall strategic plan of the institution.
 - Periodical reports of the audits are also given to the Governing Council and Academic Council and IQAC for further considerations.
- **Interaction with stakeholders:**
 - Our stakeholders are the faculty and staff, the students, parents, alumni, industrialists, local people, the Diocese of Kuzhithurai, our twined villages, beneficiaries of extension programs, customers of consultancies, funding agencies, MoU agencies, sponsors and society at large.
 - The management has clearly arranged for the formation of specific cells and committees to interact with each section of the stakeholders. For Example, Institute Industry Collaboration Cell interacts with industries, Parent Teacher Interaction Cell interacts with parents, Alumni Cell interacts with alumni etc.
 - A responsive, smooth communication system, top-down and bottom-up, is in place. Therefore, regular interaction with the stakeholders within the campus is carried out and reported by the persons concerned and monitored by the leadership.
 - A series of meetings amongst different sections of the stakeholders serve the purpose of creative interaction for the betterment of the institution and getting feedback from them.
 - MoUs and collaboration or partnership agreements are carried out by the Principal and the Correspondent.
 - During the Christmas and New Years' time, the leadership of the college meets many of the stakeholders in person and greets them and distributes diaries and calendars of the college to them.
 - A unique system of having voluntary collaborators from each village or parish is in practice. They interact with the public in general, communicate on behalf of the institution and get periodical feedbacks from people for the Governing Council

and college.

- Regular reporting is in vogue to make monitoring and giving guidance by the Management and Principal easy.
- **Proper support for policy and planning through need analysis, research inputs and consultations with the stakeholders:**
 - Yearly need analysis is done before planning the objectives, plans and budget, based on the systematic feedback received from stakeholders.
 - Last year, a short research was done among the students and general public to find out reason for selecting this college by our Department of Management Studies, and accordingly admission strategies were planned.
 - A set of eminent consulters is regularly contacted by the Management and Principal whenever a need is felt, especially before policy decisions.
 - Besides that the nine subcommittees of the Governing Council are comprised of experts to give advice to the Governing Council in policy matters and practical decisions (Legal Committee with Experienced Lawyers, Finance Committee includes Chartered Accountants, Academic Committee includes former principals, industrialists, etc., and Building Committee is comprised of eminent engineers and so on).
- **Reinforcing the culture of excellence:**
 - The Quality Policy of the college keeps excellence as the central focus of our activities.
 - Regular orientation programs for faculty and staff are organized to update them in the recent trends in teaching, learning and other professional needs reinforcing the culture of excellence.
 - Regularity and punctuality are maintained. Regularity is rewarded.
 - Cash awards are given to faculty members who achieve centum and near centum result.
 - Encouraging the faculty to publish papers, attend seminars, FDPs, & conferences by providing on-duty leave and 50% registration fee for attending conferences abroad.
 - Yearly inspirational themes are selected to promote excellence. For Example, The theme for 2016-17 was "Commitment towards Excellence".
 - All the activities and performances are evaluated regularly and placed under four categories, "Average, Good, Very Good and Excellent", and thus motivation to achieve excellence is inherent in all the activities. For example, the aggregate activities of each department are evaluated yearly to place them under the above category and a shield is given to that effect.
- **Champion organizational change:**
 - Plethora of organizational changes has been introduced recently by the top-management of the Institution. A new Governing Council, aided with nine subcommittees, has been put in place. (Once in 5 years usually)
 - New Correspondent and Bursar have been appointed. (Once in 5 years, usually)
 - The rules and regulations of the Governing Council and the Manual of the college have been reformulated.
 - A systemic approach (defining the place and roles, responsibilities and limits of all in the college very clearly, a system of subsidiarity, constant communication, feedback and response system) has been introduced.
 - The practice of team leadership has been introduced at all levels.
 - IQAC has been started.

- A Research Dean has been appointed, to promote research activities.
- A special Training Coordinator has been appointed.
- All the maintenance activities have been reorganized under an Estate Officer.
- Many new cells and committees have been started to carry out different curricular, co-curricular and extracurricular activities. And new software has been developed by our college to record all the activities of the cells and committees.

6.1.4 What are the procedures adopted by the institution to monitor and evaluate policies and plans of the institution for effective implementation and improvement from time to time?

- A system of regular briefing and reporting at all the levels of administration is in practice.
- Class Committee meetings are conducted thrice in a semester to discuss the progress in academic, support services and implementation of the policies and plans with the student representatives.
- Departmental review meetings are held by HoDs with the staff members at least once in a month.
- All the cells and committees submit monthly written reports to the Principal.
- Monthly meets of the HoDs are conducted by the Principal, often attended by the Correspondent for reporting, evaluating and planning activities.
- The Principal briefs the Correspondent on the activities of the college almost on a daily basis, and formally once in a week.
- The Correspondent, Financial Administrator and the Principal meet regularly to review the activities and plan further.
- The Correspondent briefs the Governing Council on the activities of the college once in a month.
- The feedback from various stakeholders are collected and evaluated for effective implementation and improvement of policies and plans.

6.1.5 Give details of the academic leadership provided to the faculty by the top management?

- The following academic leaderships are provided to the faculty by the top management
 - Principal, the head of the institution is the in-charge of all academic activities and students in the college.
 - Dean for research is responsible for empowering the research activities through various departmental coordinators.
 - Director of IQAC is in-charge of quality improvement in academic and administrative activities.
 - Heads of Departments are in-charge of all activities of the staff and students in the department.
 - Placement Officer along with one or two representatives from each department arranges and conducts placement activities in the college.
 - Class Committee Chairperson of a class conducts class committee meetings and takes care of all the needs of the class.
 - Mentors are the local guardians for about 20 students.
 - They meet the students regularly to take care of their personal and academic well-being.
 - They arrange industrial visit and educational tour for the students.
 - Accreditation coordinators lend their help to IQAC activities in the college.

- Department Association Faculty Advisor plans and arranges association activities such as training program, seminar, symposium and conference.
- Exam Cell Coordinators help the smooth conduct of internal examination activities in the college.
- Faculty Members are acting as conveners and coordinators of seminars, workshops, symposium, ad-hoc committees and conferences organized in the college.

6.1.6 How does the college groom leadership at various levels?

- The Principle of subsidiarity is practiced at all levels to give enough space for autonomy and creativity in the practice of leadership in their respective areas.
- The roles and limits of each have been defined clearly that they may stand on sure-footing as they exercise their responsibilities.
- The practice of team-leadership grooms possible secondary level leaders in all the departments.
- The practice of democratic and participatory decision-making process helps personnel to develop leadership qualities.
- The regular practice of reporting, constructive evaluation with the person in-charge and giving realistic feedback help them grow in responsibility and accountability.
- The practice of fixing targets and schedules for achievements of groups and individuals, and appreciating achievements publicly groom the leaders-in-charge.
- Trainings in leadership for excellence are given to the staff.
- Periodical changes in leadership give chance to many to exercise leadership.
- Faculty members are given responsibility of being conveners and coordinators with full responsibility of planning, organizing, financial management and executing :
 - Conferences, symposia, workshops and seminars
 - Various technical and non-technical committees
 - Celebrations of Inauguration, College Day, Tech-Fest, Fine Arts Day, Sports Day, Graduation Day and Christmas.
 - Various association and cells of curricular, co-curricular and extra-curricular activities and services
- To develop the leadership skills of the students,
 - Opportunities for developing of leadership are given to them.
 - Training in leadership skills and managerial soft-skills is given to them
 - All the associations and cells that involve students in curricular, co-curricular and extra-curricular activities, student officer bearers are elected and proper role and respect are accorded.
 - Class representatives lead the classes in various activities and participatory decision-making.

6.1.7 How does the college delegate authority, and provide operational autonomy to the departments/units of the institution and work towards decentralized governance system?

- As per the college manual the college delegates authority and provides operational autonomy for decentralized governance.
- Care is taken that the principle of subsidiarity is followed in all the levels.
- Head of the Department is responsible for the academic performance in the department under the guidance of the Principal. He also ensures the job description of the staff members. He is the overall in-charge of the students in the department.

- Head of the Department in consultation with the staff members of the department ensures smooth functioning of the department.
- Policies, plans and practical decisions of the management are regularly communicated to the staff and students by circulars and messages.
- Decisions are taken independently at different levels for the creative execution of policies and plans.
- Permissions and account settlements are done through proper channel, giving due role to the people-in-charge.
- Faculty members are given freedom to plan and deliver the course assigned to them with respect to course outcomes, programme outcomes and programme educational objectives.
- Students are given autonomy for doing project work in their field of interest, and to select supervisors accordingly.

6.1.8 Does the college promote a culture of participative management? If 'yes', indicate the levels of participative management.

- At all the levels, from Top Management to the Cells decisions are taken in a participative democratic way, with chances for enough discussions and opinions.
- Regular communication at all levels makes the participatory management smooth.
- The management arranges meetings of all staff members and gives topic to be discussed in groups and to get suggestions for the development of the college.
- The Correspondent discusses with Principal and Heads of the departments (academic council and the IQAC) for their suggestion.
- The practice of team-leadership helps participative management at different levels.
- The Head of the Department takes into account of the suggestions from the faculty and takes steps for academics at the departmental level.
- Suggestion box for staff members is placed to collect the suggestions about the college to promote a culture of participative management.
- Each and every staff member of the college also gets a chance to give developmental suggestion through college automation software every year.
- All the programs conducted by the college are planned, executed and reviewed by the involvement of faculty and staff members of the college.

6.2 Strategy Development and Deployment

6.2.1 Does the Institution have a formally stated quality policy? How is it developed, driven, deployed and reviewed?

- **Quality policy:**
Attaining global eminence, by achieving excellence in all that we do, in life, education, and service, with a futuristic contributive spirit and responsive management.
- **How is it developed:**
 - The Governing Council imbibing the spirit of the vision and mission of the institution, considering the transforming academic milieu of India, understanding the expectations of the different stakeholders, and looking into the quality policy models of different benchmark institutions, discussed in length and listed the basic tenets to be included in the quality policy of SXCCE and proposed them to the Academic Council of the college.
 - The Academic Council, also having in mind the vision and mission of the college and the expectations of the stakeholders, and understanding the recent trends in

scientific and engineering fields, with the guidance of the Correspondent and Principal, formulated the quality proposal into a quality policy statement.

- The Governing Council gave the final assent to the quality policy statement to be disseminated and practiced.
- To strengthen achievement of quality, the following values have been also formulated to guide the decisions and activities of our college.
 - Excellence that leads to eminence
 - Knowledge that leads to wisdom
 - Critical thinking that leads to scientific approach
 - Innovative research leads to inventions
 - Hard work that leads to achievements
 - Fidelity that leads to responsibility
 - Appreciation that leads to high motivation
 - Genuineness that leads to authenticity
 - Transparency that leads to credibility
 - Fiscal discipline that leads to economic sustainability
 - Heeding to feedback that leads to responsibility
 - Eco-friendliness that leads to protection of nature
 - Aesthetic campus that leads to serene environment
 - Person-centeredness that leads to family-ness
 - Altruism that leads to human service
 - Spirituality that leads to committed service.

➤ **How is it driven:**

- A gradual insistence on creating a culture of excellence is practiced at all the levels of activities.
- Quality assessment of all the activities at all levels is done by the immediate superiors and public appreciation and awards are given for worthy quality achievements
- Infrastructures and facilities are developed to help quality achievement in the activities of the college.
- The triple approach of motivation-training (or exposure)-evaluation is followed to bring quality in the execution of activities.
- The scientific practice of fixing goals, expected outcome, strategic plans for execution, fixing benchmarks, sharing responsibilities, time schedules, evaluation criterions, clear documentation is encouraged for all the activities. These steps are checked during account settlements and report clearances.
- Raising the benchmarks step by step challenges to perform with better quality.
- Besides voluntarism, talents search to identify appropriate persons for particular activities, and encouraging them to take responsibilities for activities in the area of their talent is practiced.

➤ **How is it deployed:**

- Quality policy is made known to all stakeholders through prospectus, website, calendar, course file, sign boards and magazine.
- Quality policy is deployed by
 - Inducting good faculty and staff members
 - Providing facility to pursue higher education and knowledge enhancement.
 - Providing good infrastructure.
 - Conducting value added courses for the holistic development of students.

➤ **How is it reviewed:**

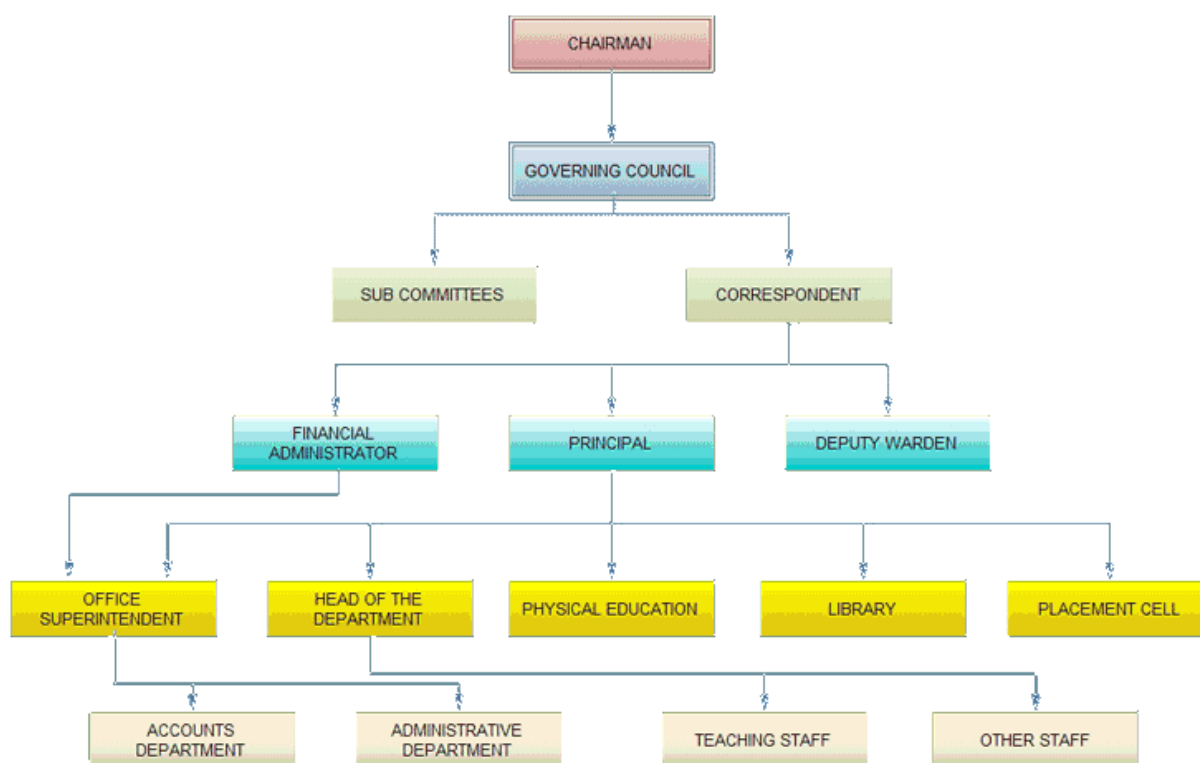
- The members of the Governing Council conduct meeting every month.
- Meetings with the sub-committees are conducted every month by the Governing Council members.
- The Correspondent conducts weekly meetings with the Principal for the review of quality policy in the college.
- The Correspondent conducts regular meetings with the Principal and Heads of the Department.
- Frequent meetings are held between the Principal, Heads of the Departments and the faculty members.

6.2.2 Does the Institute have a perspective plan for development? If so, give the aspects considered for inclusion in the plan.

➤ **Perspective plan for ten years:**

- Becoming one of the best colleges in South India and securing name globally.
- Becoming an autonomous college.
- Starting new courses and departments in response to emerging demands in the area of industry and frontiers of research.
- Developing long-term strategic alliances with leading academic/research institutions and enterprises in our land & abroad and internationalizing college activities.
- To facilitate inter disciplinary research activities, creating avenues for faculty of one department to involve in the academic activities of other departments too and encourage students to take up inter disciplinary researchers having guides from both departments and guides from other institutions.
- Developing practical ends to each department, by starting technology-based commercial production units after establishing standard consultancy centers and services for each department.
- Developing industrial consultancy with a mixture of small industries of our district and renowned companies and startups beyond our district.
- Starting an incubation center for entrepreneurship development.
- Attaining complete energy independence.
- Twinning at least 10 backward and marginalized villages from our district to empower them with technology.
- Securing at least 10 patents in 5 years and 25 in 10 years.
- Making special effort and creating proper facilities to admit students from different states, NRI students and foreign students.
- Building a state-of-the-art research center, with cutting-edge testing facilities and equipment to cater to the technical research needs of South India.
- Developing a public library which is a big need of Kanyakumari District.
- Publishing a standard technical journal.
- Becoming energy-independent by windmill energy and solar energy.
- Building staff quarters for at least 30% of the staff of the college.
- Starting a separate college for management studies.
- Starting a separate institution for language, skill development and placement training.
- Starting colleges for architecture, marine technology and the new branches that deemed necessary in the industrial sector.

6.2.3 Describe the internal organizational structure and decision making processes.



6.2.4 Give a broad description of the quality improvement strategies of the institution for each of the following

Teaching & Learning, Research & Development, Community engagement, Human resource management, Industry interaction

➤ **Teaching and Learning:**

- Subject allocation is given to the faculty, by asking choices for the subjects by the Head of the Department in the tail end of the previous semester.
- After considering different teaching methods, the IQAC gives guidelines to prepare course-file.
- Each faculty prepares the course file for subjects they have chosen to teach and delivers the academic plan with respect to course outcomes, programme outcomes and programme educational objectives.
- Teaching is done using chalk & board, OHP, LCD projectors, and using subject-related videos.
- To help interiorize the lessons, students are given chance to give seminars, and write assignments based on latest topics related to the subject.
- Besides regular classes, special training to the students by eminent academicians and industrial persons connected to the particular subjects is arranged.
- Industrial visits are arranged to expose students to the industrial environment
- Students are encouraged to do short-term project work.
- In-class observation of teaching of each staff is done at least once in a semester by the arrangement of IQAC.
- Academic audit is carried out every semester to ensure the quality of academic performances

- Report of the feedback given by the students for teaching and the guidance given (or sometimes corrective measures taken) accordingly by the HoD and IQAC help the teachers improve their performance.
 - Attending FDPs both in the particular subjects and teaching methodologies conducted within the institution or other colleges or online, help the faculty improve quality of teaching.
 - Analyses of the results of university examinations with the Principal and Correspondent and periodical tests in the departments help the teachers revamp their strategies in teaching.
 - The system of annual evaluation of the overall performance of each faculty and the awards and challenges given help them grow.
 - While personal care with individual approach is given to all the students, slow learners are given special attention by the teacher and the mentor of the students to help them cope with.
 - Coaching class for slow-learners is conducted after the class hours and in the weekends.
 - Encouraging students to attend seminars and conferences in our colleges and other colleges.
 - The various awards and reward given to the students by the college and ranks in the university vouch for the quality of teaching.
- Research and Development:
- A vibrant Research Cell is active in the college, which coordinates research activities of the college.
 - Five of our departments are research centers under Anna University and work towards making all departments as research centers within next year is going on.
 - Every research paper written in the institution is tested for plagiarism to make sure the originality and quality of the researches.
 - A total of 34 of the faculty are doctors and at present 52 are pursuing PhD. Encouragement is given to enroll in Ph.D. programs.
 - Those staff that pursues Ph.D. can avail of leave facilities, when needed, especially if they pursue full time Ph.D.
 - The college spends about R.s. 19, 32,029 every year as subscription to the online journals which are used by the researchers in and around the college. (Annual download rate is 42,032 PDFs).
 - Wi-Fi facility available throughout the college helps research efforts.
 - Special trainings to the students on ‘ How to Use the Internet for Research’, ‘Advantages and Limits of Using Online Resources for Research’, ‘Methods of Developing Projects, Different Steps and Strategies Involved, Writing Articles etc.’, and ‘Using SPSS for Research’ have been Organized.
 - It is mandatory for teachers to follow up closely and guide each student in the process of doing research projects.
 - Days of evolving relevant research problems and a bank of research questions have been organized.
 - Research Cell facilitates interdisciplinary projects among the faculty from different departments.
 - The areas of interest for research of each faculty with Ph.D. are put up in front of each so that department that those interested in doing research in that particular area may approach them.

- Two of our faculty members have funded on-going research projects. Many more projects have been sent for funding.
 - Faculty members are encouraged to publish in peer-reviewed journals and special facilities are offered to those who write to publish.
 - Faculty members are encouraged by giving OD and TA & DA to present research papers in international conferences within the college and outside, and even abroad.
 - Special efforts have been taken to enhance the research ambience in the college.
 - Every year every staff is expected to present their API scores, which gives ample evidence of their efforts in teaching and research.
- Community engagement:
- Engagement with local community is mainly carried out by the participatory structures of the college such as, NSS, YRC, NCC, Girl Rising, Science Forum and associations like IEEE.
 - The institution has twined two villages, Vattaparai, a tribal village and Ambedkar Colony, a Dalit village, and has started empowering these villages with awareness programs and technological assistance.
 - Every year, on the occasion of Pongal Celebrations, our students organize sports competitions for the people of the local Dalit village; a public meeting is organized, where both the villagers and the students of the college give cultural programs.
 - Every year a seven day NSS camp in a village for social work is organized. Planning with the leaders of the village, survey, medical camps, awareness programs, technical skills training to the dropouts, and cultural programs are parts of the camp.
 - YRC mainly organizes blood donation camps and has a list of volunteers who are ready to donate blood whenever approached in need.
 - Girl Rising works for the empowerment of the young women and especially for the education of girls.
 - Together with the Science Forum, the students of the college give social awareness programs, especially on avoiding plastics and substance abuse to the high and higher secondary school students of this district.
 - Associations like IEEE, IET visit nearby homes for the aged, centers for mentally retarded, and centers for differently abled and help them in kind with cash and other essential things.
 - The students of the department of EEE conducted energy audit in every house of a nearby village and created awareness about energy wastage, and gave guidance to save electricity.
 - Free certificate computer courses and trainings in other employable skills are given annually to the dropouts of the district.
 - Students join rallies for social awareness and on social issues in support of the disadvantaged people.
 - Vocational Guidance program is conducted in many villages (about 50) for the students who finish higher secondary and guidance to their parents.
- Human resource management:
- A quality Human Resource Management System is in place based on the manual of the college.
 - Detailed roles and duties of all the personnel work here are given in the manual, including the rules and regulations.

- Information about the administrative decisions is regularly given through the circulars of the Correspondent and Principal.
 - Well-qualified candidates with high caliber skills are selected for teaching.
 - A transparent and fair procedure of announcement of vacancies, selection and recruiting of staff, which include written exam, oral presentation and personal interview, has been given in the manual and is strictly followed, where merit stands as the paramount criterion for selection.
 - A process of initiation and orientation into the academic standard and culture of the college is given by the HoD, under the guidance of the Principal through the probationary period.
 - An automated system of attendance is in place (bio-punching).
 - All the staff is included for PF and ESI.
 - Salary is being credited to staff members' bank account on or before the first day of every month.
 - Leave facilities on par with the government employees is available and a vacation of 42 days is given on days of their choice.
 - Regular FDPs and other skill training are given to the staff to improve their quality and skills.
 - A staff tour is organized every year and almost all the staff joins it happily.
 - Staff Day and Teacher's Day are celebrated with encouraging gifts.
 - Awards for best teaching, centum or near centum results and least-leave taken are given.
 - Besides seniority and qualification, API Scores and research achievements, feedback on quality of teaching, are considered for promotion.
 - A scientific all-round automated feedback system is in place and the annual feedback analysis at different stages appreciates quality and challenges to grow.
 - Departmental staff meetings and the semester-wise all-staff meetings give chance to plan together for the quality improvement of the Human Resource of the college and their services.
 - There is an unregistered staff-club functions in the college that voices issues of the staff, arranges programs like annual long tours, loans for the staff etc.; Retirement facilities, especially gratuity is given to the retiring staff in accordance with Government Laws.
 - Suggestion and grievances box, specially meant for the staff, is available and the Principal and the Management respond without delay.
- Industry interaction:
- Institution-Industry Collaboration Cell has been developed to facilitate interaction of the college with the industries.
 - Interaction with the industries happens at three levels: Placement, Trainings or in plant training or apprenticeship and research fields. So the Placement Cell, Training Cell CETA and Research Cell work in close collaboration with industries.
 - A data base of small and big industries of our Kanyakumari district (which is rural in nature), and other relevant industries has been prepared for regular interaction.
 - A MOU with ICTACT/ICT Academy, the preeminent government body that facilitates Industry-Institution interaction, has been helping this institution for many years.
 - Other MOUs we have are:

- IBM Rational Software: Flexible software development through enhanced team collaboration and better control of risk and change.
- Oracle Workforce Development: affordable, flexible, industry-recognized oracle certification training.
- Regular Industrial Visits are conducted to give the students chance to interact with the industrial persons and to understand how technology has been applied in industries.
- Chances are given to the students for In-plant training and in-plant research projects in esteemed industries like BMW, Ford, etc.
- Department-associations and professional bodies arrange seminars and conferences where people from industries are invited to give sessions and interact with students and staff.
- Some of the industries that visit the college for placement recruitment are:
 - Infosys
 - CTS
 - Schneider Electric
 - Wipro
 - HCL
 - UST Global
 - Data Patterns
 - IVTL Infoview
 - Poornam Info Vision
 - ZOHO
 - MAFIREE
 - SOFTSQUARE
 - Object Frontier Software
 - Vernalis Technology
 - SUTHERLAND GLOBAL
 - Mobius Technologies
 - Mecton Group
 - CSS CORP
 - AllSec Technologies
 - ACCEL IT RESOURCES
 - BLUU FOX Technologies
 - VDART SOFTWARE
 - FENNA CONSTRUCTIONS
 - THAI RESEARCH INFO TECH
 - EXENTA HRMS
 - TEAMWARE SOLUTIONS
- Regular feedback from the industries is received about the past students who work there and about the current curriculum and training the institution pursues.

6.2.5 How does the Head of the institution ensure that adequate information (from feedback and personal contacts etc.) is available for the top management and the stakeholders, to review the activities of the institution?

- Annual review meeting of the Governing Council with the Correspondent, Principal and HoDs of the departments considers data from feedback analysis and plans for the objectives for the upcoming year and plans for the improvement of the college.
- The Principal gives a result analysis to the Governing Council every semester after receiving the results and other important feedback information.

- As the Governing Council and the 9 subcommittees of it, have their meetings every month in the college and so the top management is constantly in touch with the happening of the college. And as the correspondent attends all such meetings, he communicates the feedback received to the members regularly.
- Principal communicates the feedback and information gathered through meetings at different levels, and personal contacts to the management in the weekly meeting with the correspondent.
- Data from the feedback system is analyzed every semester together with the results, with the HODs and important conclusions and suggestions are informed to the staff through circulars.
- The News Letter published by the college gives important information.
- Annual college magazine is printed with the annual report and copies of which are provided to all the stakeholders.

6.2.6 How does the management encourage and support involvement of the staff in improving the effectiveness and efficiency of the institutional processes?

- Almost all the aspects of administration of the college are carried out with the suggestions, involvement and leadership of the staff at different levels, which amply contribute to the effectiveness and efficiency of the institutional activities.
- Before the reopening of the college every year, separate (full-day) meetings of the teaching faculty and non-teaching staff are conducted to get suggestions from them for the qualitative improvement of the college through brain storming and group discussions and result of which is considered by the management to formulate objectives and strategies for the college.
- All the important decisions are taken in consultation with the staff, with discussions in the academic council and departmental meetings.
- In the feedback system of our college, sections have been included for giving feedback by the staff about the leadership and management, which is taken seriously and discussed for improvement.
- Staff are welcome to give suggestions for the improvement of the college through the suggestion boxes
- A system of registering needs for maintenance at the principal's office is in place for immediate response from the maintenance personnel.
- It is the practice of the college to give leadership to the staff in executing different qualitative developments of the college. For example-
 - The automation systems in the college are designed by the college staff, with the involvement of the departments of CSE and IT.
 - The civil department is involved in the design and execution of buildings and other infrastructure.
 - The department of EEE is given the responsibility of conduction Energy audit for the whole college and overseeing modifications accordingly
 - The design of the college diary, calendar, and annual souvenir, is done by our own staff.
- Expert opinions of our staff are taken seriously for the qualitative improvement of the college, like buying a Windmill for our college, designing of the new library, beautification of the campus with gardens, establishing new labs for our college etc.
- Expert Leadership of the staff in designing programs for technical trainings and skill development to the students of the college and others and executing them. (Eg. Software cell, Placement Cell, Training Cell etc.)

- Particular staffs are given the charge to monitor the maintenance of the different facilities of the college, like monitoring the AMCs.
- For all the celebrations of the college, different committees (voluntary) are made among the staff of the college for executing different activities, and planning and budgeting is done with the representatives of such committees for qualitative execution.
- As coordinators and conveners of different committees, associations and cells, the staffs are given enough freedom and responsibility for planning and managing the activities of such.
- As feedback and result analysis are done with the staff, qualitative changes in the academic activities of the college are carried out after planning with the staff and giving responsibility for execution.
- Recommendations for good books and journals and e-materials for the library, and new equipment to the laboratories by the staff are regularly practiced.
- Departments and committees are encouraged to arrange MoUs, endowments, sponsorships with different agencies, industries and alumni for the improvement of the college.
- Interacting with eminent experts, both foreign and inland, our staff brings best resource persons in the field, for Conferences, Training and Celebrations.
- To make sure the efficiency of the involvement of the staff, evaluation of their activities is given with rewards and encouragement.

6.2.7 Enumerate the resolutions made by the Management Council in the last year and the status of implementation of such resolutions:

Month and Year	Resolutions Made by the Management Council	Status of Implementation
March 2016	The institution has fixed 60 years as retiring age for the security personnel in the institution.	Implemented
	All the retired staff members in the institution are eligible for gratuity with regard to the existing rules in the manual. Retiring staff members who are not eligible for gratuity are eligible to get a sum on compassionate grounds.	Implemented
	To establish a private Diesel Bunk inside the institution premises.	Efforts are made for implementation
	It is decided to award Scholarship for achievers and poor students by the institution.	Implemented
April 2016	The institution has decided to go for NAAC accreditation.	Implemented
May 2016	The institution Manual is to be revised.	Implemented
	New vehicle Toyota Innova is to be bought for the institution purpose.	Implemented
	New canteen building is to be built in the college.	Started
	A football ground for playing is to be made in the institution.	Efforts are made for implementation
	To gather the heads of the institution of the nearby institutions and discuss the issues in getting approval of the college buildings.	on the process
	The anomalies in the pay in the institution among the staff members are to be rectified.	Implemented

June 2016	10% dearness allowance is to be added to all the staff members in the college.	Implemented
	New bus routes for Thoothoor and Anjugramam villages.	Implemented
July 2016	Special allowance of R.s. 1000/- is to be added to the salary of lower cadre staff starting with skilled assistants.	Implemented
August 2016	To publish the college magazine for the year 2015-2016.	Implemented
	Special appointments of Dean of research, Coordinator of training and Coordinators of IQAC are to be appointed.	Implemented
	Yearly research reviews are to be conducted in the college among the Staff members as well as the efforts to bring out funded Projects.	Being practiced
September 2016	New Auditor is to be appointed for our Institution.	Implemented
	Public relation program to be conducted in our college.	Efforts are made for implementation
November 2016	The criteria for promotion from Assistant Professor to Associate Professor are proposed.	Implemented
	New construction lab is to be dedicated and blessed on 23th December.	Implemented
	Plan for new building of Kuzhithurai Diocese and Bishop House is to be prepared by Civil Department.	Implemented
	New Software for Accounting in all the Parishes of Kuzhithurai Diocese is to be developed by Computer Science Department.	Implemented

6.2.8 Does the affiliating university make a provision for according the status of autonomy to an affiliated institution? If 'yes', what are the efforts made by the institution in obtaining autonomy?

- Yes, the Anna University Chennai provides a provision for according the status of autonomy. The college has a plan to go for autonomy in the future.

6.2.9 How does the Institution ensure that grievances/ complaints are promptly attended to and resolved effectively? Is there a mechanism to analyze the nature of grievances for promoting better stakeholder relationship?

- Yes the institution ensures that grievances/complaints are promptly attended to and resolved effectively
 - The grievances/complaints directly or through the suggestion boxes are collected by the grievance cell. They are consolidated and promptly conveyed to the head of the institution.
 - Grievances can also be given directly to the Correspondent, Principal, and Head of the department.
 - Correspondent arranges meetings with principal to review the grievances/complaints.

6.2.10 During the last four years, had there been any instances of court cases filed by and against the institute? Provide details on the issues and decisions of the courts on these?

- No, the problems arising in the college are solved internally by the management through dialogue and peaceful solutions.

6.2.11 Does the Institution have a mechanism for analyzing student feedback on institutional performance? If 'yes', what was the outcome and response of the institution to such an effort?

- Yes. A comprehensive feedback and analysis system is in place with fully automated software written by the staff of this college.
- The feedback form is analyzed by the Correspondent, Principal, and head of the department and the faculty, steps are taken accordingly.
- Feedback
 - At the end of each semester feedbacks is collected.
 - Feedback from students is obtained directly.
 - Feedback from students is also obtained through the suggestion boxes.
 - Class committee meetings are conducted to discuss the academic work and the problems connected with it.
 - The institution has a system of collecting exit feedback from students.
 - Alumni meeting are conducted during Graduation Day and on 26th December every year.

6.3 Faculty Empowerment Strategies**6.3.1 What are the efforts made by the institution to enhance the professional development of its teaching and non-teaching staff?**

- Each department is to set aside certain amount for faculty development in their annual budget.
- Faculty development programs to keep the staff abreast of the current technology and changing syllabus are planned and arranged by the departments regularly, financed by the management.
- The teaching faculty participates in FDPs of their own choice online or conducted in different universities or colleges to improve in their fields of interest assisted by the management.
- The faculty are encouraged to pursue higher studies like Ph.D. or Postdoctoral studies, besides availing of special leave facilities; they use the labs and journals free.
- Special salary incentives are given to those who finish higher studies and promotions when they fulfill criteria.
- The faculty members are encouraged to present papers in national and international conferences, by meeting the travel expenses by the management.
- The faculty is given all the encouragement and facilities to publish papers in peer reviewed journals and write books in their areas of interest.
- Journals subscribed to and books are bought whenever the faculty makes a request for their interest in professional development and research.
- The faculty is encouraged and is given special leave facilities to teach in reputed universities inland or abroad.
- The institution assists the faculty members to submit project proposals for fund to national and international funding agencies.
- Industrial interactions and consultancy work are considered important part of the professional development of each faculty.
- The non-teaching staff are given special FDPs whenever new facilities or labs are added to the college with new technology.
- The non-teaching staff are encouraged to pursue higher studies in their own fields of interest, and incentives are given to those who finish.

6.3.2 What are the strategies adopted by the institution for faculty empowerment through training, retraining and motivating the employees for the roles and responsibility they perform?

- Special orientation and leadership training programs are given to those who wield special responsibilities.
- Training in mentoring is given to the mentors.
- Counseling training is arranged for those who are involved in student counseling or assistance is given to participate in courses conducted by other agencies.
- ToT Training of Trainers programs are arranged to those faculty who train students in special areas. Eg. Members of Software Cell, who are responsible for arranging and giving training in new software to the students, do first undergo training in respective software.
- The college encourages the faculty to undergo faculty development programs and orientation courses.
- The management systematically encourages every staff to join voluntarily in different activities of their choice in the college and offers privileges, training and certain amount of autonomy and freedom to exercise their leadership. (eg. Training for EDC Cell members).
- Appropriate space and facilities are given for carrying out their responsibilities successfully.
- Public appreciation is given to that faculty who performs well in their responsibilities and is considered for greater responsibilities.

6.3.3 Provide details on the performance appraisal system of the staff to evaluate and ensure that information on multiple activities is appropriately captured and considered for better appraisal.

- A systematic and comprehensive feedback and appraisal system is in place where all the activities and efforts of the staff are recorded for annual appraisal. Its details and dynamics are given below.
- Each faculty is expected to submit API score of their own performance at the end of the academic year.
- Faculty are evaluated by faculty-appraisal form each year and the components are
 - Performance in odd and even semester results.
 - Paper presentations and publications.
 - Programs conducted in the college as conveners and coordinators.
 - Feedback of head of the department and principal.
- Students are asked to fill the structured feedback forms about the faculty each semester in academics.

6.3.4 What is the outcome of the review of the performance appraisal reports by the management and the major decisions taken? How are they communicated to the appropriate stakeholders?

- Performance reports are analyzed by the governing council and subcommittees and communicated to the top management.
- Those who have satisfactory performance are appreciated and communicated personally.

6.3.5 What are the welfare schemes available for teaching and non-teaching staff? What percentage of staff have availed the benefit of such schemes in the last four years?

- Festival advance of Rs. 4,000/- for staff members are given and payable in easy 10 installments before the financial year ends.

Academic Year	Number of Staff Benefitted			Amount in R.s.	Percentage
	Male	Female	Total		
2015-16	149	61	210	R.s. 8,40,000/-	70
2014-15	161	53	214	R.s. 8,56,000/-	71.33
2013-14	118	52	170	R.s. 6,80,000/-	56.66
2012-13	110	64	174	R.s. 6,97,000/-	58
2011-12	105	61	166	R.s. 6,64,000/-	55.33

The class IV employees are given free uniforms:

Academic Year	Number of Staff Benefitted	Percentage
2015-2016	48	16
2014-2015	47	15.66
2013-2014	64	21.33
2012-2013	24	11.33
2011-2012	50	16.6

- Employee Provident Fund facility is provided to all the staff members.
- Employee State Insurance is provided for employees whose Basic Pay + Grade Pay+DA is less than Rs. 15000.
 - 58 staff members i.e. 19.33% of staff members, avail of ESI facility.
- Cash awards are given to faculty members who produce 100% results in university examinations.
- One day free yearly trip for all the staff members get-together is arranged by the management.
- Grand Teachers' Day and Christmas Day celebrations are conducted in the college for all the staff members where all are treated with gifts.
- Medical leave, casual leave, study leave and maternity leave are provided by the college to the staff members.
- On duty leave for faculty development programs and conference are provided to faculty members.
- Our college has a staff club for the welfare of the staff members

6.3.6 What are the measures taken by the Institution for attracting and retaining eminent faculty?

- Fair procedure for the selection and recruiting of staff members is practiced where merit is given the central importance.
 - Written exam, oral presentation and interview are conducted by external subject experts.
- The faculty draws higher salary compared to other institutions of the district.
- The good reputation this college enjoys as a Christian college run by the R.C Diocese of Kuzhithurai, and the consistency and continuity in the management policies are special attractions.

- The positive professional environment of job-security, enough autonomy, democratic decision-making, possibilities for professional development, and the treatment of the staff with respect and fairness attract good staff to this college.
- The staff enjoy job-satisfaction and social reputation because of the achievements of the students of this institution in results, placement, and awards and prizes they win in sports, cultural and other activities help the staff continue working in this institution.
- Station continuously service allowance SCSA is provided to staff members who work continuously in the institute for a period of 5 to 10 years.
- Fair staff-welfare schemes and assurance of retirement benefits like gratuity help the staff continue in this institution.
- The systematic appraisal system and the recognition given to the contributions and the public appreciation to the staff help.
- Providing all academic facilities to faculty and giving them freedom to work.
- Cash awards are given to faculty members who produce 100% results in university examinations.
- Encouraging the staff members to pursue higher studies.

6.4 Financial Management and Resource Mobilization

6.4.1 What is the institutional mechanism to monitor effective and efficient use of available financial resources?

- Systematic processes of preparing budget, automated accounting, systematic purchase and bill settlement process, and regular periodical audit are important aspects of making sure of the best use of the financial resources of the institution.
- All the departments and sections of the institution prepare a yearly budget proposal cognizant of the needs and improvement plans and submits it to the principal, who ascertaining real needs, passes it on to the correspondent.
- The correspondent, together with the finance committee of the Governing Council, sits with the HOD and scrutinizes the budget proposals, keeping in mind the income of the college, yearly objectives and other improvements envisaged, and suggests necessary changes to the budget.
- The finance committee of the Governing Council prepares the annual budget of the college that includes these departmental budget proposals and presents it to the Governing Council which, after enough deliberations, approves the budget.
- A review of the budgets is done at the beginning of the second semester, especially to give caution that budget limits are not to be exceeded or to reallocate if some unexpected needs had arisen.
- Well spelt out policies of: 1. (fulfilling the) purpose, 2. (Optimal standards or aesthetics) quality and 3. Simplicity is at the root of the fiscal discipline of the institution.
- Special forms are in vogue for purchase and bill settlement which go through proper channels to get the final approval of the correspondent.
- All the important purchases are done through the purchase committee. And the audit committee of the Governing Council audits the accounts every month.
- The summary of daily accounts is submitted by the accountant to the Financial Administrator.
- Proper stock registers and usage registers are maintained electronically and manually.

6.4.2 What are the institutional mechanisms for internal and external audit? When was the last audit done and what are the major audit objections? Provide the details on compliance.

- The internal audit is done by the college office on weekly basis and reported to the Correspondent.
- Internal audit is also done by the audit committee of the Governing Council every month.
- The Chartered Accountant conducts the annual external audit and helps to fulfill the legal requirements.
- Audit objections raised by the audit committee and the Chartered accountant are discussed in the governing council and prompt compliance is carried out with the guidance of the financial administrator.
- The last external audit was done in the month of August 2016 for the financial year 2015-2016.
- There are no major internal and external audit objections for the past four years.

6.4.3 What are the major sources of institutional receipts/funding and how is the deficit managed? Provide audited income and expenditure statement of academic and administrative activities of the previous four years and the reserve fund/corpus available with Institutions, if any.

- The major sources of income are from tuition fee, hostel fee and bus fee.
- There is no deficit of funds till now in the college.

The final income and expenditure statement for the last four and the reserve fund available are given below:

Year	Income	Expense	Reserve fund
2015-2016	187616539	152459733	45075199
2014-2015	179100073	167114133	37259638
2013-2014	192622575	144253362	29227623
2012-2013	165238336	129511668	31969871

6.4.4 Give details on the efforts made by the institution in securing additional funding and the utilization of the same (if any).

- Through funded projects
- Sponsorships, endowments.
- Infrastructural charges from external examinations (Government or Companies).
- For events like International conferences, part of the expenditure is met by solicitation of donations and sponsorships.
- Conducting technical courses for candidates form outside our college.
- A minimal amount is collected through advertisements in the annual magazine.
- The institution generates a small income from research grants, international conferences and consultancy services
- Utilization of the amounts:
 - Sponsorship amounts have been used to give prizes to the achieving students.
 - Money from research grants (funded projects) has been used to add equipment to the labs.

6.5 Internal Quality Assurance System (IQAS)

6.5.1 Internal Quality Assurance Cell (IQAC)

A. Has the institution established an Internal Quality Assurance Cell (IQAC)? If 'yes', what is the institutional policy with regard to quality assurance and how has it contributed in institutionalizing the quality assurance processes?

- Yes, the institution has established an Internal Quality Assurance Cell (IQAC).
- The quality policy of the institution is "Attaining global eminence, by achieving excellence in all that we do, in life, education and service."
- It is the policy of the management that all the academic and administrative activities of the college come under the scanner of the IQAC which establishes quality benchmarks, monitors, evaluates and proposes changes for highest quality standards which will be executed accordingly. The IQAC can also recommend quality standards with regard to infrastructure and maintenance to the management.
- The quality assurance activities have been made an integral part of administration
 - By establishing clear and conspicuous benchmarks for almost all the activities of the college.
 - Important academic activities and activities of the committees and cells are connected to the automated system and reports and evaluations based on the established benchmarks are examined periodically for quality assurance.
 - Feedback and evaluation meetings are conducted for the different sections of academic and administration by the IQAC to motivate compliance to the quality standards.
 - Information from the automated system to get feedback from different stakeholders that exists in our college is taken seriously by the IQAC and considered for fixing new benchmarks and guiding qualitatively standard activities.

B. How many decisions of the IQAC have been approved by the management/authorities for implementation and how many of them were actually implemented?

- Proposals:
 - Restructured course file.
 - Course outcome, Programme outcome and Cognitive level measurement through automation software based on students' performance in test, assignment and reviews.
 - Mid-semester feedback.
 - Online alumni profile and feedback entry.
 - Creation of Counseling Cell, Health Care Cell, Parent Teacher Interaction Cell, Sports Council, Students Welfare Cell, Grievance Cell, SC/ST Welfare Cell, Eco Club, Library Advisory Board, Outreach Program Committee, Industry Institute Collaboration Cell.
 - Recording all activities in college automation software.
 - Green facelift.
- Accepted and Implemented:
 - Restructured course file has been implemented and practiced by all faculty members.
 - Mid-semester feedback on teaching has been implemented in automation software.

- Online alumni profile and feedback have been designed and implemented.
- The proposed 9 cells have been formed.
- Recording all activities in college automation software is under process.

C. Does the IQAC have external members on its committee? If so, mention any significant contribution made by them.

- Yes. The college has external members from industrial and academic side in the IQAC.
- They have sincerely extended support in the formation of IQAC, in giving valuable ideas about NAAC and have guided us in many other aspects to improve the quality.
- External members of IQAC
 - Dr. R.S. Shaji, External Academician & Expert in accreditation process.
 - Helps with preparation for accreditation, brings experts for training in NBA and NAAC.
 - Dr. S.L. Rayar, External Academician and Expert in NAAC
 - Helped with training the IQAC members for NAAC and helped in the preparation process.
 - Guided the faculty to prepare API scores and present them to the management every year.
 - Mr. R. Leo Bright Singh, Local Leader & Governing Council Member
 - Gives suggestions for the quality of the college, helps with public relations and brand building which helps admissions.
 - Mr. M. Prince Paul Raj, Parent & Industrialist.
 - Trainer of the students in new technologies.
 - Motivates students for entrepreneurship.
 - Gives suggestions for the improvement of the college as a parent.

D. How do students and alumni contribute to the effective functioning of the IQAC?

- Students contribute to the effective functioning of IQAC through feedback and suggestions.
- Alumni gladly contribute by giving feedback and suggesting benchmarks, and some give training in the quality development of the students.

E. How does the IQAC communicate and engage staff from different constituents of the institution?

- One faculty from each department is the member of IQAC.
- Relationship with HoDs to reach the staff.
- Regular circulars through the Principal.
- Regular evaluation meetings of different sections.
- Through website (activities and programs).

6.5.2 Does the institution have an integrated framework for Quality assurance of the academic and administrative activities? If 'yes', give details on its operationalization.

- Yes. The institution has the following framework for quality assurance
 - Benchmarks for academic and administrative activities are discussed and framed.
 - The framed benchmarks are communicated to the persons concerned.
 - The process for the benchmarks is monitored and evaluated with the help of automated software.
 - The benchmarks and the process are renovated and executed.

- The framework and its operationalization of academic course planning and delivery is given below
 - Subject allocation
 - Timetable preparation
 - Course file preparation by faculty with the following criteria
 - Course description, objectives and outcomes
 - Extra syllabus
 - Additional materials
 - Concept map
 - Scheme of evaluation and target
 - Course delivery plan
 - Course plan for advanced learners
 - Course plan for slow learners
 - Course plan for creativity
 - Feedback on teaching
 - Academic performance analysis
 - Innovative teaching and participatory learning methods
 - Feedback on syllabus
 - Course file verification by HoD
 - Class Committee meetings
 - Mid-semester feedback
 - Three internal assessment tests
 - Association activities and industrial visit
 - Staff meeting
 - Coaching class for slow learners
 - Course file and academic audit
 - End-semester feedback
 - Staff feedback on university examination
 - Result analysis meeting

6.5.3 Does the institution provide training to its staff for effective implementation of the Quality assurance procedures? If 'yes', give details enumerating its impact.

- Yes. The following are the training provided to staff for effective implementation of the quality assurance procedures.
 - One day seminar on Internal Quality Assurance by Dr. M. Jezer Jabanessan was conducted on 30-07-2016.
 - One week training from 14-11-2016 to 17-11-2016 was conducted by Dr. S.L. Rayar for the IQAC internal members.
 - Conveners of all the newly created co-curricular, extracurricular and services activity cells were trained on quality improved activities on 12-12-2016.
 - One day training to all the heads of department about new course file model was conducted by the IQAC coordinator on 16-12-2016.
 - Quality initiative seminar on NBA and NAAC accreditation was conducted by Dr. V. Sadasivam on 19-12-2016 for all faculty members.
 - An interactive meeting between Dr. V. Sadasivam and IQAC internal members on NAAC accreditation was conducted on 19-12-2016.
 - Quality initiative seminar on Academic Performance Indicator was conducted by Dr. S.L. Rayar on 20-12-2016 for all the faculty members.

- Conveners of all the co-curricular, extracurricular and services activity cells were deepened on quality improved activities on 05-01-2017.
- Interactive meeting of HoDs and IQAC members was conducted on 27-12-2016, 28-12-2016, 04-01-2017, 05-01-2017, 06-01-2017, 11-01-2017, 13-01-2017 and 18-01-2017.
- Impact of the training programmes:
 - Clarity about Internal Quality Assurance Cell
 - IQAC members and staff have been enriched with quality criteria for accreditation.
 - Different cells have been formed and all the cells started functioning with quality procedures.
 - Course planning and delivery methods have been improved with additional quality features.

6.5.4 Does the institution undertake Academic Audit or other external review of the academic provisions? If 'yes', how are the outcomes used to improve the institutional activities?

- Yes, the institution undertakes the following academic audit
 - Course file audit which audits the course plan and delivery.
 - Academic audit which audits overall standard of the academic activities.
 - Course file audit and academic audit are done by a team formed by the Principal.
- Outcome usage
 - The outcomes of the audit are communicated to each department for its effective implementation

6.5.5 How are the internal quality assurance mechanisms aligned with the requirements of the relevant external quality assurance agencies/regulatory authorities?

- The institution quality assurance mechanisms ensure that the norms stipulated by AICTE and Anna University, Chennai are followed.
- All the activities in the college are planned, executed, monitored and evaluated to meet the quality standards prescribed by NAAC and NBA.
- Benchmarks are set as per the above regulatory and quality assurance agencies.
 - The implementation of the benchmarks is monitored with feedbacks as per quality standards using automation software.

6.5.6 What institutional mechanisms are in place to continuously review the teaching learning process? Give details of its structure, methodologies of operations and outcome?

- Mechanisms to review teaching-learning process
 - Course file audit and academic audit
 - Class committee meeting
 - Mid-semester and end-semester feedback
 - Suggestion boxes
 - Review meetings
 - Parent Teacher interaction meeting
- The faculty prepares the course file and delivers academic plan with respect to course outcomes, programme outcomes and programme educational objectives which are verified by the academic audit committee formed by the Principal each semester.

- The student representatives, course-in-charges, a chairperson and HOD discuss the academic activities by conducting class committee meetings three times in a semester to enhance teaching-learning process.
- Feedback is taken from the students directly and through suggestion boxes, these are analyzed by Principal and appropriate action is taken to meet the standards.
- Regular meeting by Principal with HODs, by HODs with staff members analyses and reviews the teaching-learning process and its outcomes.
- PTA meetings are conducted at the departmental level and the suggestions relating to teaching learning process are considered for further improvement.
- The alumni contribute by giving their feedback during the alumni meeting that are conducted on Graduation Day and on 26th December every year.

6.5.7 How does the institution communicate its quality assurance policies, mechanisms and outcomes to the various internal and external stakeholders?

- The internal stakeholders are made aware of the quality assurance policies and mechanisms during staff meetings, circulars, and through orientation programs, college day report and first year inaugural day report.
- The external stakeholders are communicated through the college prospectus, college website, noticeboard, college magazine, calendar and newspaper.
- Alumni meetings are used to communicate the policies to alumni and to get valuable feedback from them.
- Parents are informed and heard through parent teachers meeting and at the time of admission.

Criterion VII

Innovations and Best Practices

7.1 Environment Consciousness

7.1.1 Does the Institute conduct a Green Audit of its campus and facilities?

- Yes, green audit for the institution has been done yearly from 2011 onwards with the strategic support of “HEAL - Human Education and Action for Liberation”, a social organization based at Nagercoil.
- It is done to ensure systematic identification, quantification, and analysis of every component of the system directly or indirectly affecting the ecological diversity of the area.
- It involves energy conservation, effective use of renewables, water management system, plantation and landscaping, carbon neutrality measures and hazardous and E-waste management system.
- Constructive, corrective and economic measures are periodically taken to ensure that the recommendation of green auditing are implemented.

7.1.2 What are the initiatives taken by the college to make the campus eco-friendly?

Energy conservation

- The department of Electrical and Electronics Engineering is entrusted with conducting ‘Energy Audit’ of the campus with a view to provide professional care and to ensure efficient use of the available energy with less impact on earth. Per day energy consumption of our college amounts to ~1500 kWh
- The suggestions and remedial measures of the green audit are implemented then and there. For example, the incandescent bulbs are replaced with fluorescent tube lights and CFL bulbs.
- The old electrical regulators of the fan are replaced with energy-efficient electronic regulators.
- The audit team has recommended replacing all air conditioning units with lesser-star rating to all-star rated system.
- Most of the air-conditioned computer labs are on the top most floor of the building. In order to reduce the thermal heat infiltration through the roof structure, the top surface of the roofs is well insulated by a weathering course layer, which is a mixture of broken bricks in lime mortar, followed by earthen tiles covering. This insulation reduces the cooling loads of the air-conditioning system.

Use of renewable energy

- The degradable wastes collected from the hostels, canteen and collection baskets from the college premises are fed to two biogas plants of the capacity 15 m³ and 10 m³ along with nightsoil from boys and girls hostels respectively. These two plants have been running successfully since 2005 and 2009 respectively and have saved approximately 5 to 6 conventional commercial LPG cylinders per plant per month.
- The segregated non-degradable solid wastes from the collection baskets are fed to two downdraft gasifiers of capacities 40 kg and 50 kg along with waste-wood materials generated from labs to produce syngas, which is used to cook foods in the college extension canteen.
- 1 kW pilot solar PV power system is connected to the college grid via solar string inverter. It produces an average of 5 units of energy per day, accounting to ~ 2000

kWh per year.

Water harvesting

- The institution is located at the lap of the Western Ghats surrounded by lush green agriculture fields which is a blessing for favorable atmosphere for learning. However, the universal phenomena of hill station water scarcity and thermal radiation from rocky Mountains are a reality and a challenge for the campus.
- The Kanniyakumari district receives 1465 mm of annual rainfall, which is more than sufficient, if collected and conserved efficiently.
- The institution has devised a proper mechanism to tackle this challenge, with great success.
- The storm water generated due to rain is channelized through drainage system to a reservoir dam with a storage capacity of around 1162 m³, round in shape (~23 m diameter) on the downside of the college.
- This water is directly used for watering the plants in the gardens maintained in the campus to provide the greenery, where approximately 10 m³ of water is required on dry days.
- The thermal radiations from the mountain surface are mitigated by planting trees through drip irrigation system, and the harvested water is utilized effectively.
- The planted trees on the mountain slopes prevent soil erosion by reducing the velocity of water flows and preserve the ecosystem and natural environment.
- Even though earth contains 70% water, only 2.5% is fresh water and considering the importance of it, the college adopts the policy to reduce, recycle/reuse and recharge water in the premises. Accordingly, measures are taken to reduce the water consumption by using high-efficiency fixtures like aerator taps. Most of the single flush closet tanks which use 10 liters per flush were replaced with dual-flush water closets, which use 4 liters for liquid waste and 8 liters for solid waste disposal.

Check dam construction

- To control water flow in the erosive channels on the mountain, small check dams are constructed by using loose masonry then and there. However, the big collection tank cum-check dam on the downside of the buildings acts as a barrier to soil erosion.

Efforts for Carbon neutrality

- The green plantation of the campus includes lawn, small trees, big trees and flowering plants which neutralize the CO₂ emissions.
- This is a smoke-free campus with stringent emission norms for all equipment.
- No thoroughfare vehicular movement is allowed inside the campus premises.

Plantation

- The grey water and rain water collected in the reservoir are sufficient to water many species of trees, plants, shrubs and lawns.
- These plantations maintain the ecosystem, reduce heat island effects, and help to maintain carbon neutrality. The trees are named botanically for correct knowledge of them.
- In order to beautify the campus, flowering plants were planted by volunteering student volunteers from each department through a symbolic representation named as 'Girl Rising' movement. This movement's objective is to protect, liberate and empower the girl child.

Hazardous waste management

- The hazardous wastes are the ones which are potentially dangerous or harmful to human health or the environment.
- Being conscious of the use of chemical, pesticides, and other hazardous substances; the generation of hazardous waste is prevented at its inception by having a hazardous waste management system separately.

e-waste management

- Accumulation of e-waste is unavoidable in a technical institution where computers, electronic circuit boards, electrical fittings, printers, scanners, and photocopier machines are extensively used.
- Systematic disposal of these things is in practice to effectively handle those things for maximum usage.
- To provide adequate infrastructure with up-to-date technology in this fast changing IT world is a challenge for an institution, which requires periodic up gradation of the system.
- Outdated computer systems are provided to less intense-research sister institutions of the management such as schools, orphanages, old age homes, parish halls, etc.
- Less efficient, damaged, and not working e-wastes are sold to professional vendors when accumulated.

7.2 Innovations

7.2.1 Give details of innovations introduced during the last four years which have created a positive impact on the functioning of the college.

Innovation in Curricular Aspects

- Many FDP's/workshops and training programmes are arranged for the staff members in upcoming areas to keep in touch with the current technology.
- In collaboration with National Mission on Education through Information and Communication Technology, MHRD, Government of India, the institute has participated in 10 ISTE workshops conducted by IITs through video-conferencing mode.
- Similar agreements have been made with Anna University for orientation to specific courses via EduSat programmes.
- ICT facilities such as LCD projector, Laptops, WI-FI connectivity, quality sound systems with equalizer are available.
- Most of the laboratories are upgraded with modern equipments and the softwares upgraded to prepare our students industry-ready.
- Students are encouraged and motivated to attend various internship/in-plant training programmes in various companies to gain practical knowledge and to understand the nature of work in industries.
- Value-added courses are designed and offered to students in each department for fulfilling the gaps in the University curriculum and industrial requirements.
- Training programmes, orientation programs and motivational programmes are organized in every department to enrich the curriculum and for the personality development of the students and to make them well-prepared for global employment markets.
- Industry-institute collaboration projects are being taken up to provide exposure to real challenging situations of the society.

- Entrepreneurial development programmes are systematically done through Entrepreneur Development Cell to motivate the students for self-employment.
- Extra-curricular programmes and environmental awareness programmes are periodically conducted to have a holistic approach in every area.
- Departmental associations, Placement Cell, professional bodies such as IEEE, ACM, IET, ISHRAE, CSI, ISTE, SAE, IE (I), SESI, Indian Mathematical Society, Ramanujan Mathematical Society, American Mathematical Society, Ultrasonic Society of India and AIMA, Consultancy Cell, EDC, Research Center, and Software Cell are catering to the technical needs of the student community.
- Non-academicals bodies like Jyothis, NCC, NSS, Radio Club, Fine Arts Club, Tamil Mantam, Women's Cell, Alumni Cell, YRC, Photography Club, Eco Club, Konverz Club and Sports activities are available for student's welfare.
- The College has installed a pilot 1 kVA solar power system to harness the solar energy and a solar water-heater to meet the hot-water requirement of boy's hostel.
- The institution has data acquisition system to continuously monitor the consumption of power to demand curve and make necessary arrangements to shift load to efficient power usage.
- Our students are updated in various fields by displaying relevant information in the notice board thus to providing value to education. Some of the topics for display include, Inspirational Quote, G.K. Challenge, Knowledge Bank, Art of Living, Book Shelf, Job Market, Health Tips, and Education, Who is Who, Discover India, Laugh to Live Long, Day to Remember, New Books, and Come Let's Learn English.

Innovation in Teaching and Learning Process

- Special course in basic science and engineering subjects is conducted before the commencement of the regular program for the students admitted from weaker category, especially for those who studied through regional language. Diploma students, admitted directly to second year stream, are brushed up with science and Mathematics to cope with the engineering level of education.
- Industrialists and academician from higher learning institutions are invited regularly to share their experience and to motivate the students to move higher.
- Many value-added courses and workshops are conducted to update their knowledge and acquire skills to face the present challenges.
- Gender discrimination is exterminated and equality ensured to all feminine gender members. Debate on Gender Equality and Self Confidence are organized by the Women's Cell of our college along with various seminars on health care issues faced by women. They give serious care and attention to any gender-based issues faced by the women in the college.
- Identifying and satisfying the needs of the advanced learners are systematically done by providing special seminars, training, GATE coaching, etc.
- Student-Centric learning system is adopted in our institution. Professional and non-professional bodies will help students learn the current technology and develop the required skills to cope with the challenges in industries.
- Tutorial classes and special classes are provided to the students to enrich the self-learning ability.
- All the 1020 computers with high speed internet connectivity, Wi-Fi campus, subscription to e-journals, LCD projectors, and Audio-Video streaming facilities support teaching and learning.
- Interactive Learning, Collaborative Learning, Self-Learning, and NPTEL videos promote teaching and learning.

Innovation in Research, Consultancy and Extension

- Lab equipment and facilities are upgraded to meet the research standards and the subscription to research journals uplifts the research atmosphere.
- Some of the innovative ideas are nurtured and partly funded to convert them into project work.
- Workshops and international conferences are periodically organized to provide opportunity for the staff and students to interact with experts in the related field.
- 'Tech Fest' is the annual academic festival for students to showcase their innovations, best projects and paper presentation which are duly awarded.
- This is a Wi-Fi campus and all the computers are connected with Intranet and Internet facilities.
- Research grants were received from government agencies such as AICTE, DST for practical application works like Biomass Gasifier - an efficient way to burn bricks, and Energy Analyzer for high performance computer (HPC) applications.
- The HPC Cloud Research Laboratory of SXCCE has a collaborative-funded project with the University of Innsbruck, Austria.
- DST Inspire fellowship is being granted to five full time research scholars with a grant of 3.8 lakh per year.
- Exposure program is going on with University Sains, Malaysia and a MoU is signed for students and faculty for the advancement of research.
- Industry Institute Interaction Cell promotes sharing of knowledge between industry and institute by signing MoUs. Invited lectures by industrialists and in-plant training by students contribute to the progress and development of both the stakeholders.
- The institution further extends its responsibilities towards the societal issues through various student bodies such as NSS, NCC, Youth Red Cross, Energy Club, Eco Club, Entrepreneurship Development Cell, Women Cell, and Counseling Cell.
- The Center of Excellence for Training and Application (CETA) empowers the faculty and students by organizing various workshops, seminars, technical training, etc.,

Innovation in Infrastructure and Learning Resources

- Sufficient number of laptops and portable LCD are available in each department for audio-visualized teaching and learning process.
- Seminar Halls, Auditoriums and Common Utility Computer Labs are provided with good sound system to utilize NPTEL course materials for learning.
- Communication and life-skill development laboratory was established for the development of students to compete successfully.
- An HT line connected with two 500 kVA transformers provides sufficient electric supply from electricity board. To compensate or meet the power supply in case of emergency diesel generator with capacities 320 kVA, 120 kVA and 5 kVA are available in the power supply yard.
- All the computing facilities, conference room, seminar room are linked with Uninterrupted Power Supply (UPS) facility.
- The quality of the drinking water is good enough with TDS level lesser than the permissible limit to demand RO treatment. UV filters are installed at different locations to supply hygienic drinking water to all.
- For the physically-challenged people to commute without any difficulties inside the campus, ramp is provided along with special wash-room facilities.

Innovation in Student Support and Progression

- The management provides all assistance to the deserving students to receive financial assistance from State /Central/Other National agencies such as BC/MBC Scholarship, SC/ST Scholarship, Minority Scholarship, Handicapped Scholarship, Tamil Nadu Educational Trust Scholarship and First Graduate Tuition Fee Concession.
- 20 students are attached to a mentor for individual personal attention for providing all needed support and monitoring their academic progress.
- Slow learners are identified and special attention is provided to overcome their academic deficiencies.
- A prayer hall is kept open all the time for the students to offer prayer of their faith, such as Hindu, Muslim, Christian, etc.
- Every morning, we start the day with a melodies song embodying ethical values and principles to be followed in life.
- Counseling Cell helps in overcoming psychological and other related issues, which act as drag on their studies?
- To prepare students to have an edge in this competitive world, special trainings are provided department-wise to prepare them for examinations such as GATE, TANCET, CAT, MAT, UPSC, and TNPSC.
- Systematic training is provided to the students from the second year onwards for preparing them for placement on quantitative aptitude, reasoning, verbal and mind-gaming.
- For the wholesome development of every student, the institute provides avenues to improve their extra and co-curricular talents.
- There are 52 co-curricular, extra-curricular and other service cells to support the holistic development of the students.

7.3 Best Practices**7.3.1 Elaborate on any two best practices which have contributed to the achievement of the Institutional Objectives and/or contributed to the Quality improvement of the core activities of the college.**

The institute adopts and follows many good practices for the smooth functioning of the college and to excel academically on par with international standards. The publication qualities of the institute are the major evidences for this. The research ambience of the college has been enhanced by these activities.

Best Practice - I**1. Title of the Practice:**

Resource Development for Teaching and Learning-Comprehensive Course File System.

2. Goal:

To achieve fulfillment in teaching experience by effectively designing the course to prepare comprehensive resources to clearly define what we expect the students to learn by the end of the course.

3. The Context:

The vision of the institution is to ensure optimal human development through quality education and to empower them with cutting edge technology and skills to lead a value-based lifestyle.

Considering the enormous amount of facts to be remembered on one side and advanced skills to be developed for coping with industrial demands on the other side we should be sure of our stand in the process of teaching and learning. Defining the important facts and knowledge that the students should acquire involves the teacher to be specific in preparing the course.

Once the goals are identified, translating them into course content is vital. Providing materials based on quality and relevancy is paramount for the student to demonstrate key learning goals. Well planned teaching and learning methods, field trips, projects, journal exposure, workshops, assignment, discussion, problem sets, etc. enable the students to emerge out with knowledge, skill and with new perspectives in their fields of interest.

4. The Practice:

The course file is the one prepared by the course instructor for a particular course. It contains the syllabus, the objectives and outcomes expected of this course. It provides comprehensive information about the course in relevance to the programme connected with. In short, it defines what the student **needs to know** and be **able to do** at the end of the course, enabling the teacher and the student to set specific measurable goals.

Course File Verification and Auditing: Course file prepared by the instructor will be verified and approved by HOD. Later it will be available for scrutinizing by the academic audit member and the Principal.

Mapping: The course is taught with a clear description, objectives and outcomes. The course outcomes are mapped to Vision, Mission, Programme Educational Objectives and Programme Outcomes.

Syllabus and Extra Syllabus: Being an affiliated college, prescribed syllabus is followed for every course. However, extra topics are taught for the following reasons: a) to prepare the rural students from regional language background to understand the engineering concepts. b) to provide current software proficiency training for industrial absorption c) to provide awareness and exposure on real time applications.

Concept Map: Concept maps connect the main objective of the course to its sub concepts through vertical/horizontal connections. Concept maps visually present the information to grasp ideas much more quickly.

References: The course file details provide all the references used to prepare the course content like text books, reference books, additional text and reference books, relevant journal/magazines, related websites providing additional contents and other references.

Scheme of Evaluation, Course Plan and Target: The students are informed about the scheme of evaluation followed, like three internal exams for internal assessment (20%) and university examination (80%). Separate activities are planned for advanced learners to further their vision to compete with the world, whereas the slow learners are motivated and supported to catch-up with the target.

Course Delivery Plan: The dates and total period required to complete every unit of the course are planned meticulously in advance in accordance with internal assessment exams. Special topics were identified for seminar, assignments, interactive, collaborative and self-learning.

Feedback: Students' feedback on teaching and result analysis are used to understand the learning level and to change the teaching strategy. At the end of the course, the students' and

staff's feedbacks on the curriculum is recorded and processed further for enriching the course.

5. Evidence of Success:

Preparing comprehensive course file may be a tedious and time consuming critical task, but it is very rewarding to achieve the vision and mission of the institution. The success of improvement in teaching and learning practice through course file preparation will be directly reflected on pass percentage, placement success rate, willingness to go for higher education, etc.

Traditional effective and efficient way of teaching learning process may falter under today's learning demand and with present generation of students. Adapting new strategies for effective transfer of knowledge is a challenge in this fast-paced world. For example, adapting small group discussion technique offers more student participation to learn from peers through clarification and refinement. The contents once prepared for delivery is the baseline resources, which may be used by other course instructors effectively in subsequent years after customization and updation. Continuous assessment of the success of the system is reflected in increased student motivation and performance in learning.

6. Problems Encountered and Resources Required:

Quality and closer to perfection does not come without hard work. Understanding the students and knowing what interests and life constraints conflict with their academic priorities are itself a major challenges of an instructor. Implementing resource development for teaching and learning through comprehensive course file system needs time and resources for preparation. A saying goes like this, 'If you are not planning, you are planning to fail'. If we fail to prepare systematically the deliverables in teaching and learning process, the system fails.

The resources required for comprehensive resource preparation are text books, reference books, additional materials, internet facilities, journal accessibility, etc. A good quality ring file is needed for each course file preparation and it is a useful resource for first time teachers to start the teaching career. Continuous updating of the course file with present trends, examination evaluation pattern, and model question papers is very much needed to draw the benefits of the system.

7. Contact Details:

Name of the Principal	: Dr. S. Joseph Sekhar
Name of the Institution	: St. Xavier's Catholic College of Engineering
City	: Nagercoil
Pin Code	: 629003
Accredited Status	: NA
Work Phone	: 04652- 232560 Fax : 04652- 259664
Website	: www.sxcce.edu.in
E-mail	: principalsxcce@gmail.com
Mobile	: 9952001816

Best Practice-II

1. Title of the Practice:

Comprehensive Value Education System for the Total Development of the Students

2. Goal:

- To work for the total development of students and to prepare them to achieve the vision of the institution of developing a technically empowered humane society
- To animate the students to have a noble vision and a right value system for their life, avoiding all possible dissipations, so that they become pro-social technocrats and professionals who contribute to the world with humanism and a successful fulfilling life.
- To make the students into positive mature persons, who know their unique selves, the vagaries of the society, the potentialities of their profession and have the ability to relate with others maturely and contribute to industrial and human development.
- To give the students opportunities to experience the realities of our society and practice their leadership and values that they become reinforced in a value based life.

3. The Context:

Our contemporary Indian society is experiencing a big churning,- while people are very earnest to develop their life by making use of the new opportunities being opened, they are also facing a lot of confusion and tension, violation of human rights and a resurging phenomenon of degradation of life and nature because of wrong priorities and lopsided approaches. With judiciary taking its time for justice, women and children are the major victims in this media saturated world. The social menaces like eve teasing and caste discrimination, and the deep rooted corruption are still a nagging concern to all. Dissipating attractions like drugs, alcohol and even fundamentalism are threats to the healthy development of the students. Helping students to have personal vision for life and healthy relationships and sensitizing them with values such as honesty, hard work, social commitment and patriotism are important. When the staff and the experts sat together with the management to discuss about the total formation of our students, systematic value education program emerged as a task of paramount importance. A clear cut syllabus was developed with a credible strategy to execute it.

4. The Practice:

Providing service oriented high quality education in a wholesome manner for the marginally deprived society with discipline and human touch without discrimination is our goal. Value education starts from the practice of having a five minute prayer, with readings and song every day at the beginning of the college. The Value Education Program courses have been systematically designed to run parallel with the academic curriculum in three phase every year. (Details of curriculum is given in the Table in section 7).

Separate hours have been allotted in the regular schedules for such trainings. Bringing in eminent trainers periodically, for intensive special trainings is in vogue. Recently a comprehensive life planning program has been ushered in from the first year. Shaping one's life and navigating them in their late teens by exposing their own potentials and helping them to be aware of themselves and their uniqueness and accept themselves as they are and helping them find a fitting place for themselves on the global stage are the initial challenges for wholesome education.

Guiding them to fix their vision and dreams realistically in accordance with their personality makes them self-directed. Developing healthy relationship among peers and with complementary gender without intriguing emotional attachments are imported to develop the right attributes, attitudes and responses to work together. Attaining autonomy to take care of themselves and independence to take responsible decision for their own problems are instilled in the minds of the young.

Adapting to the changing environments and getting along with others in spite of differences, surviving and thriving in an atmosphere of competition are emphasized in their

2nd and 3rd years. They are asked to uphold the meaning of 'Universality', as unity in diversity, which is further stated as unity is not uniformity. Personal commitment and leadership skills are inducted to develop their personality to take up social responsibilities and group/team activities with a deep understanding of the dynamics of the society by social analysis. Exposure programs like village visits, social work camps, eco-friendly activities, and programs for school children help them explore their values. Opportunities for choosing the appropriate platforms to groom and nurture their own individual skills and leadership styles are provided for wholesome development.

While CETA (the training cell), Students Welfare Cell, and Counselling Cell come together in the training of the students, NCC, NSS, Women's Cell, Girl Rising, Eco-Club, Science Forum and other many professional associations help animating students and often form platform for the exercise of the values they learn.

5. Evidence of Success:

- Increasing participation of our students for the social causes such as helping the needy, visiting old age homes, empowering girl child, adopting orphanages, voters awareness programs, blood donations, celebrating national festivals in under-privileged village atmosphere, etc. is a very encouraging sign of success.
- The cordial relationship that exists among the students of various backgrounds and departments, and between the staff and students is encouraging.
- It is pleasing to see our alumni have developed themselves into wholesome persons taking life's success and challenges equally. Their professional leadership with amiable and loyal attitudes have received appreciation from their bosses and recruiting companies and have increased the effectiveness in their domain of influence. That is one of the reasons why placement record of our colleges is steadily on the increase.
- It is motivating and encouraging to find that none of our alumni has been accused of involving in any sort of corruption or anti-social activities. The testimony by their recruiters and especially by their spouses about their pleasing character, is the success of this movement.
- Some students take up projects that are connected with the enhancement of the lives of ordinary people.
- Agreeing to disagree, values of tolerance, harmony and peace at any cost, values for cooperation, etc. are some of the professional ethical values they have adopted from these initiatives.
- Students practice life principles like humility, simplicity, love, peace, interdependency among human beings, etc. in their own home to have a fulfilling life.

6. Problems Encountered and Resources Required:

All good things come at a price. Getting resource persons who only give a talk is easy; but the one who walks the talk is more important to make a lasting impression in the minds of the younger generation, who are watchful and evaluate critically. Providing right models to emulate is very powerful and contagious. Lack of conducive environment and resources for nurturing these ideal ethics such as social environment, human resources, financial resources and appropriate time for training is a challenge. Due to the presence of more day scholar students in the institution, we struggle to find appropriate slots to have lengthy workshops with practice in real life situations. Moreover, balancing the pressures of academic curriculum and professional growth along with these very much needed value based courses and activities is a challenge for the students, mainly because of the constraints in time and residence.

7. Notes: Curriculum Details:

Curriculum for the co-curricular activities for the total development of students:

Year	Phase - I	Phase - II	Phase - III
1 st Importance of Life	Understanding oneself and one's uniqueness, Self-awareness, Self-acceptance, Self-esteem, Self-confidence, Sense of gratitude.	Understanding one's purpose of life and finding a place in the universe (identity) and accordingly fixing vision/dreams for one's own life.	Manners and etiquettes, Respecting superiors and peers, Mature communication, Healthy relationships with institution, authorities, peers and opposite gender, Gender quality.
2 nd Developing of Value System	Attaining personal autonomy, Self-determination to study well and develop into good engineer, Independent decision making.	Knowing the place of technology in the society, choosing what is right and developing a set of personal values and priorities to practice one's vision of life.	Being genuine and serene, Facing challenges of life, Emotional management (EQ), Personal problem solving skills, Eco friendliness.
3 rd Experimentation and Leadership	Taking up responsibilities and developing leadership, learning technology with social commitment to ameliorate the pains of others and for industrial development.	Developing social awareness by social analysis and exposure programs, understanding peoples' need, Conviction of social harmony and inclusive development, Social Commitment.	Organizing groups, evolving programs for social activities through college professional associations, using technology to empower ordinary people and find solutions for them etc.
4 th Beginning Life of Fullness	Foretasting professional life, Planning for a long professional life, Planning for life in adulthood, Learning to balance personal, Professional and social challenges of life, Loyalty to the institutions.	Learning mature social relationships, Developing projects and programs for social development and harmony, Planning to make use of education and profession to achieve personal vision and find meaning in life.	Learning to develop professional networking, Support systems for social contributions, making a difference by Innovation and pro-social entrepreneurship, Finding meaning in life.

8. Contact Details:

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 Website : www.sxcce.edu.in
 E-mail : principalsxcce@gmail.com
 Mobile : 9952001816

Evaluative Report

Department of Electronics and Communication Engineering

1. Name of the department : Electronics and Communication Engineering

2. Year of Establishment : 1998

3. Names of Programmes/Courses offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.):

Sl. No.	Programmes/Courses Offered	Programme Level
1	B.E. Electronics and Communication Engineering	UG
2	M.E. Applied Electronics	PG
3	M.E. Communication Systems	PG
4	M.E. Medical Electronics	PG
5	M.E. Communication and Networking	PG
6	Ph.D. Electronics and Communication Engineering	Ph.D.

4. Names of Interdisciplinary courses and the departments/units involved:

Sl. No.	Interdisciplinary Courses	Department Involved
1	i) Computer Programming, ii) Computer Practice Laboratory, iii) Object Oriented Programming and Data Structures and iv) OOPS and Data Structures Laboratory	Computer Science and Engineering
2	i) Engineering Practices Laboratory, ii) Electrical Engineering and Instrumentation and iii) Electrical Engineering and Control System Laboratory	Electrical and Electronics Engineering
3	i) Engineering Graphics and ii) Engineering Practices Laboratory	Mechanical Engineering
4	Principles of Management	Master of Business Administration
5	i) Technical English – I, ii) Mathematics – I, iii) Engineering Chemistry – I, iv) Physics and Chemistry Laboratory – I, v) Engineering Chemistry – II, vi) Engineering Physics – II, vii) Mathematics – II, viii) Communicative English, ix) Probability and Random Process x) Transforms and Partial Differential Equations	Humanities and Sciences

5. Annual/ semester/choice based credit system (programme wise) :

Sl. No.	Programme Level	Programme/Course	Annual/Semester/Choice Based
1	UG	B.E. Electronics and Communication Engineering	Semester System
2	PG	M.E. Applied Electronics	Semester System
3		M.E. Communication Systems	Semester System
4		M.E. Medical Electronics	Semester System
5		M.E. Communication and Networking	Semester System
6	Ph.D.	Ph.D. Electronics and Communication Engineering	Semester System

6. Participation of the department in the courses offered by other departments:

Sl. No.	Courses	Department
1	Communication Engineering	Electrical and Electronics Engineering

7. Courses in collaboration with other universities, industries, foreign institutions, etc.:

Sl. No.	Courses	University/Industry/Institution
1	Introduction to Embedded System	Cape Institute of Technology, Levingepuram.
2	Embedded C, Microcontroller and ARM	Prolific Systems and Technologies Pvt. Ltd., Chennai.
3	Project Based Learning using Matlab	Enthu Technology Solutions, Coimbatore.
4	Android	Talent Edge Solutions, Nagercoil.
5	Android Application Development	Knowsys Technologies, Nagercoil.
6	Embedded systems	Talentedge Solutions, Nagercoil.
7	Course on C,C++ and Object Oriented Programming	IFY Technologies, Tirunelveli.
8	Placement Training	BSNL, Nagercoil.

8. Details of courses/programmes discontinued (if any) with reasons: Nil

9. Number of Teaching posts:

Teaching Post	Sanctioned	Filled
Professor	3	3
Associate Professor	3	3
Assistant Professor	21	21

10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt./Ph.D. / M. Phil. etc.):

(Experience as on 31-03-2017)

Sl. No.	Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students Guided for the Last 4 Years
1	Dr. Mary Helta Daisy M.	B.E., M.E., Ph.D.	Head & Asso. Prof.	Image Processing	16 Y 5 M	--
2	Dr. Helen Sulochana C.	B.E., M.Tech., Ph.D.	Prof.	Image processing	24 Y 9 M	Completed-2 Enrolled-7
3	Dr. Jeraldin Auxillia D.	B.E., M.E., Ph.D.	Prof.	Controller Design	26 Y 9 M	Enrolled-2
4	Dr. Shajulin Benedict	B.E., M.E., Ph.D., P.D.F.	Prof.	Grid/Cloud/HP C	9 Y 6 M	Enrolled-6
5	Dr. Latha T.	B.E., M.Tech., Ph.D.	Asso. Prof.	VLSI, Image Processing	16 Y 5M	Enrolled-8
6	Dr. Milton A.	B.E., M.Tech., Ph.D.	Asso. Prof.	Digital Speech Signal Processing	17 Y 3M	Enrolled-7

7	Mr. John Moses C.	B.E., M.E.	Asst. Prof.	Applied Electronics	16 Y 9 M	--
8	Ms. Caroline S.	B.E., M.E.	Asst. Prof.	Power Electronics and Drives	13 Y 5 M	--
9	Ms. Maria Seraphin Sujitha S.	B.E., M.E.	Asst. Prof.	Image Processing	15 Y 9 M	--
10	Ms. Mary Vasanthi S.	B.E., M.E.	Asst. Prof.	Signal Processing	14 Y 8 M	--
11	Ms. Absa S.	B.E., M.E.	Asst. Prof.	Cloud Computing	15 Y 1 M	--
12	Ms. Annie Bessant Y.R.	B.E., M.E.	Asst. Prof.	VLSI	10 Y 8 M	--
13	Dr. Judson D.	B.E., M.E., Ph.D.	Asst. Prof.	Wireless Communication	13 Y 1 M	--
14	Ms. Preethi B.C.	B.E., M.E.	Asst. Prof.	Cloud computing	9 Y 9M	--
15	Ms. Sheeja Herobin Rani C.	B.E., M.E.	Asst. Prof.	TFET (Analytical Modeling)	13Y 9M	--
16	Ms. Jinisha A.C.	B.E., M.E.	Asst. Prof.	Applied Electronics	10 Y 9 M	--
17	Ms. Mary Reeja Y.	B.E., M.E.	Asst. Prof.	Image Processing	9Y 9 M	--
18	Mr. Florin Raja Singh R.	B.E., M.E.	Asst. Prof.	Communication Systems	7Y 9 M	--
19	Mr. Edwin Lawrence S.	B.E., M.E.	Asst. Prof.	Communication Systems	7Y 9 M	--
20	Ms. Janne Helma R.L.	B.E., M.E.	Asst. Prof.	Applied Electronics	7Y 6M	--
21	Ms. Femila Savio V.	B.E., M.E.	Asst. Prof.	VLSI Design	10Y 2M	--
22	Ms. Mary Little Flower T.	B.E., M.E.	Asst. Prof.	Communication Systems	8Y 6M	--
23	Ms. Anitha A.	B.E., M.E.	Asst. Prof.	Communication Systems	7Y 4 M	--
24	Mr. Ascar Davix X.	B.E., M.E.	Asst. Prof.	Digital Image Processing	5 Y 9 M	--
25	Mr. Maceal Tony L.	B.E., M.E.	Asst. Prof.	VLSI Design	6Y 2M	--
26	Mr. Denvar Pravin Joy T.	B.E., M.E.	Asst. Prof.	Applied Electronics	4Y 9M	--
27	Mr. Starwin M.	B.E., M.E.	Asst. Prof.	Optical Communication	5Y 7M	--

11. List of senior visiting faculty: Nil

12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty:

Sl. No.	Programme	% of Classes Handled by Temporary Faculty
1	UG (B.E.)	0
2	PG (M.E.)	0

13. Student -Teacher Ratio (programme wise)

Sl. No.	Programme	Student-Teacher Ratio
1	UG (B.E.)	16:1
2	PG (M.E.)	12:1

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled:

Support Staff	Sanctioned	Filled
Technical	5	5
Administrative	1	1

15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/ MPhil / PG.

Highest Qualification	Number of faculty
Ph.D.	7
Pursuing Ph.D.	11
M.E.	20

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received: 01

Sl. No.	Title of the Ongoing Project	Principal Investigator	Funding Agency	Grant Received (Rs. in Lakhs)
1	Energy Aware Auto Tuning for Scientific Applications	Dr. Shajulin Benedict	DST-FWF	17.06
2	Efficient Decoder Design for WIMAX Applications	Dr. Latha T.	AICTE-RPS	Submitted
3	Recent Trends in Microwave and Wireless Communication	Dr. Milton A.	AICTE-SG	Submitted
4	Faculty Development Programme on Advanced VLSI Design Techniques and Applications	Dr. Latha T.	AICTE-FDP	Submitted

17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received: Nil

18. Research Centre /facility recognized by the University:

Department of Electronics and Communication Engineering is a recognized research centre

University	Year of First and Last Recognition	Validity	Recognition Number	No. of Supervisors	No. of Scholars
Anna University Chennai	First recognized on 8-7-2011. Last Renewed on 28-10-2014.	Renewed in every three years	4497107	05	32

19. Publications:

a) Publication per faculty: 10.44

Journal Publication per Faculty	Conference Publication per Faculty	Total Publication per Faculty
104/27= 3.85	178/27= 6.59	282/27= 10.44

- b) Number of papers published in peer reviewed journals (national/international) by faculty and students :103
 ➤ Conference publications (National- International) :188
- c) Number of publications listed in International Database :83
 ➤ Web of Science :5
 ➤ Scopus :38
 ➤ Google Scholar :40
- d) Monographs :Nil
 e) Chapter in Books :Nil
 f) Books Edited :Nil
 g) Books with ISBN/ISSN numbers with details of publishers :3
 h) Citation Index :311
 i) SNIP (range) :0.70 -1.648
 j) SJR (range) :0.102 - 0.974
 k) Impact factor (range) :0.62 -4.557
 l) h-index :0-8

Sl. No.	Faculty and Book Publication Details	Publisher	ISBN/ISSN Number
1	Milton, A & Caroline, S 2012, Electric Circuits and Electron Devices. (Three Editions)	Trisea Publications, Nagercoil.	ISBN: 978-81-909278-5-7
2	Albert Raj A. & T. Latha, 2008, VLSI Design	PHI, New Delhi	ISBN:978-81-203343-1-1
3	Albert Raj A. & T. Latha, 2006, VLSI Circuit Design	Anuradha Publishers, Chennai	ISBN:81-89638-03-31

20. Areas of consultancy and income generated: Nil

21. Faculty as members in a) National committees b) International Committees c) Editorial Boards.....:

Sl. No.	Faculty	Details of the Committee
1	Dr. Helen Sulochana C.	Member of Syllabus Committee (2017 regulation)– Anna University – Chennai
2	Dr. Shajulin Benedict	Advisory Board – EuroPar Series Program Committee – CCGrid17, CloudCom15,16, ICS2014, PARCO2011
3	Mr. John Moses C.	Chair, IEEE Madras Education Society Chapter (2012-2015)
4	Dr. Helen Sulochana C.	Member of Syllabus Committee (2013 regulation)– Anna University – Chennai
5	Dr. Jeraldin Auxillia D.	Member Board of studies (2010) –Anna University of Technology-Tirunelveli
6	Dr. Helen Sulochana C.	Member of Academic Council(2009)- Noorul Islam

		University, Kumaracoil
7	Dr. Helen Sulochana C.	Chairman, Board of Studies-ECE (2009)– Noorul Islam University , Kumaracoil
8	Dr. Judson D.	Executive Committee Member-IET YPCLN

22. Student projects:

a) Percentage of students who have done in-house projects including inter departmental/programme:

Sl. No.	Academic Year	UG	PG
1	2016-2017	100	100
2	2015-2016	100	100
3	2014-2015	100	100
4	2013-2014	98.7	100
5	2012-2013	94.16	100

b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies:

Sl. No.	Academic Year	UG	PG
1	2016-2017	0	0
2	2015-2016	0	0
3	2014-2015	0	0
4	2013-2014	2.3	0
5	2012-2013	5.84	0

23. Awards/Recognitions received by faculty and students:

- Two faculty have received award from IEEE and IET
- Four staff members have received appreciation award in an industrial visit in BSNL.
- Research recognitions have been received by seven faculty in International and National level.
- Faculty have received 115 awards for producing centum and near to centum results.
- Students have received 87 awards and recognition in academic, co-curricular and extra-curricular activities from college to international level.

24. List of eminent academicians and scientists/visitors to the department:

Sl. No.	Name of the Eminent Person	Date of Visit	Purpose
1	Mr. Zibeeon Haniel L., HR, Flextronics, Chennai.	05/08/2016	Interactive session with students about current job opportunities for ECE students.
2	Mr. Arun prabhu George, Sr. System Engineer, Ajace Inc. U.S.A	05/08/2016	Interactive session with students about current job opportunities for ECE students.
3	Mr. Benzigar Rajan A., Manager of Cryogenic Rocket Engine Test Facility Instrumentation System, ISRO Propulsion Complex, Mahendragiri.	29/03/2016	Technical Talk on Rocket launching and Cryogenic rocket engine.
4	Mr. Arun George Philip,	30/03/2016	Inspirational talk on factors that

	Group Manager, Global Human Resources, IBS Software Services Pvt. Ltd., Technopark, Trivandrum.		bridge on corporate and educational methods. Interactive session with students on career guidance and placement drive.
5	Er. Louis Sam Titus L., Chief General Manager, CSIA, ISRO Propulsion Complex (IPRC), Mahendragiri.	05/03/2015	Interactive session with students on current job opportunities in private and government sector (ISRO) for ECE students.
6	Mr. Neelakandan Pradeesh Kumar, Project Manager, NIUSAT, NICHE, Kumaracoil.	05/03/2015	Technical talk on the importance of technical education and future scope of Electronics Engineers.
7	Mr. Saju George K., ITS, General Manager, BSNL, Nagercoil.	12/08/2015	Interactive session with students on current job opportunities in private and government sector (BSNL) for ECE students.
8	Dr. Ajith Bosco Raj T., Director, PSN Engineering College, Tirunelveli.	12/08/2015	Inspirational talk on importance of technical education
9	Mr. Rose Cyril Xavier M., Sub Divisional Engineer, BSNL, Nagercoil.	21/03/2014	Chief guest for the Inaugural function of the 11 th National Conference on Advances in Image Processing & Communication. Aptitude training for students and conducted quiz competition for students.
10	Dr. Amalin Prince A., Dept.of Electronics, Electrical Instrumentational Engineering, BITS Pilani, KK Birla Goa Campus.	21/03/2014	Chief guest for the Inaugural function of the 11 th National Conference on Advances in Image Processing & Communication. Talk on the recent IC technologies.
11	Dr. Thayal Singh Elias, Associate Professor, Division of Radiation Physics, RCC, Thiruvananthapuram.	22/03/2014	Chief guest for the Valedictory function of the 11 th National Conference on Advances in Image Processing & Communication. Motivational talk and explained how Electronics engineers could excel in medical field.
12	Mr. Vaikundamani P. Asst.Engineer, TNEB, Nagercoil.	04/09/2014	Motivational talk and career opportunities in TNEB for ECE students.
13	Mrs. Brenila Prasad, Associate Project Manager, Robert Bosch, Bangalore.	04/09/2014	Inspirational talk on factors that bridge on corporate and educational methods.
14	Mr. Kannan Muthupandian, Head of Operations, My Media InfoThomas Reuters	21/08/2013	Chief guest for the Inauguration of ELECTROS. Talk on the recent job opportunities

	India Services Pvt. Ltd., REDEGG Info Park, Nagercoil.		and the skills a student needs for his career development.
15	Mr. Arun Gladwin D. Director, Vantage, Nagercoil.	21/08/2013	Alumnus guest for the Inauguration of ELECTROS. He shared his experiences about his college days.
16	Mr. Rajapandian S. Manager, LPSC, ISRO, Mahendragiri	06/03/2013	Chief guest for the Inaugural function of National Conference on Innovative Electronics Systems & Information Technology. Talk on recent technologies and scope of engineering students in different fields.
17	Mr. Thirunavukkarasu I. Senior General Manager, BSNL, Nagercoil	07/03/2013	Chief guest for Valedictory function of National Conference on Innovative Electronics Systems & Information Technology. Talk on recent technologies available in BSNL.
18	Mr. Anil Kumar C.N. EHS Manager, GE Energy, Chennai	07/08/2012	Alumnus guest for the Inauguration of ELECTROS. He discussed with the students about how to achieve in life.
19	Mr. Suresh Mathew, Director, Amnet Technology, Chennai	07/08/2012	Chief guest for the Inauguration of ELECTROS. Seminar on microwave technology. Interactive session with students.
20	Er. Murugan P., Rtd. Senior Scientist, ISRO	05/03/2012	Chief guest for the Valedictory function of the 9 th National Conference on Recent Advancements in Communication and Electronics Systems. Talk on communication technologies.

25. Seminars/Conferences/Workshops organized & the source of funding

a) National: 11

b) International: 02

Sl. No.	Seminar/Conference/Workshop	Date	Source of Funding
1	Electros conference on "Researches in Electronics and Communication Technologies"	29-03-2016	Management
2	IEEE International Conference on Green High Performance Computing' 16. (ICGHPC' 16)	26-02-2016 & 27-02-2016	Management
3	ARM Processor Embedded systems	05-05-2015 & 06-05-2015	PanTech, Chennai
4	VLSI System Design using HDL and System Generator	11-09-2015 & 12-09-2015	Management

5	National Conference on “Recent Innovations in Communication and Electronics Systems NCRICE-15”	05-03-2015	Management
6	Genetic Algorithm and Programming	Aug 2014	Management
7	ISTE workshop on Control system	02-12-2014 to 12-12-2014	NMEICT MHRD, Govt. of India
8	National Conference on “Advances in Image Processing and Communication NCAIC'14”	21-03-2014 & 22-03-2014	Management
9	Two Week ISTE Main Workshop on Analog Electronics	04-06-2013 to 14-06-2013	NMEICT MHRD, Govt. of India
10	IEEE International Conference on Green High Performance Computing'13. (ICGHPC'13)	14-03-2013 & 15-03-2013	Management
11	National conference on “Innovative Electronics Systems and Information Technology NCIESIT'13”	06-03-2013 & 07-03-2013	Management
12	Advances in VLSI Technolgy and Tools	19-11-2012 to 21-11-2012	SXCCE and Agilent Technologies, Bangalore
13	National conference on “Recent Advancements in Communication and Electronics Systems”	06-03-2012	Management

26. Student profile programme/course wise:

Name of the Course/Programme	Academic Year	Applications Received		Selected	Enrolled		Pass Percentage
		GA	CA		*M	*F	
B.E. Electronics and Communication Engineering	2016-2017	40	58	98	30	68	--
	2015-2016	48	64	112	23	89	84.3
	2014-2015	50	61	111	20	91	87
	2013-2014	52	67	119	17	102	86.89
	2012-2013	57	63	120	18	102	89
M.E. Applied Electronics	2016-2017	3	12	15	-	15	--
	2015-2016	3	17	20	-	20	100
	2014-2015	10	11	21	4	17	100
	2013-2014	8	15	23	5	18	100
	2012-2013	-	18	18	3	15	100
M.E. Communication Systems	2016-2017	4	16	20	1	19	--
	2015-2016	9	14	23	4	19	100
	2014-2015	8	10	18	3	15	100
	2013-2014	9	15	24	1	23	100
	2012-2013	-	18	18	1	17	94
M.E. Medical Electronics	2016-2017	-	4	4	-	4	--
	2015-2016	2	4	6	1	5	100
	2014-2015	8	7	15	2	13	100

M.E. Communication and Networking	2013-2014	7	2	9	2	7	100
	2012-2013	-	11	11	-	11	--
	2016-2017	-	6	6	-	6	--
	2015-2016	2	3	5	2	3	100
	2014-2015	5	1	6	-	6	100
	2013-2014	6	8	14	1	13	--
	2012-2013	-	18	18	2	16	--

*M = Male *F = Female GA-Government Allotment CA-Consortium Allotment

27. Diversity of Students:

Name of the Course	Academic Year	% of Students from the Same State	% of Students from Other States	% of Students from Abroad
B.E. Electronics and Communication Engineering	2016-2017	97	3	-
	2015-2016	96.72	3.28	-
	2014-2015	97.6	2.4	-
	2013-2014	95.65	4.35	-
	2012-2013	97.83	2.17	-
M.E. Applied Electronics	2016-2017	100	-	-
	2015-2016	100	-	-
	2014-2015	100	-	-
	2013-2014	91.3	8.7	-
	2012-2013	94.44	5.56	-
M.E. Communication Systems	2016-2017	100	-	-
	2015-2016	100	-	-
	2014-2015	72.22	27.78	-
	2013-2014	100	-	-
	2012-2013	83.33	16.67	-
M.E. Medical Electronics	2016-2017	100	-	-
	2015-2016	100	-	-
	2014-2015	80	20	-
	2013-2014	88.89	11.11	-
	2012-2013	81.82	18.18	-
M.E. Communication and Networking	2016-2017	100	-	-
	2015-2016	50	50	-
	2014-2015	100	-	-
	2013-2014	85.71	14.29	-
	2012-2013	83.33	16.67	-

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?

Sl. No.	Competitive Examination	Number of Students Appeared	Number of Students Cleared
1	GATE	47	01
2	TANCET	42	42
3	Defense	2	--
4	CAT	1	--
5	MAT	1	--

29. Student progression:

Student Progression	Against % Enrolled			
	2015-2016	2014-2015	2013-2014	2012-2013
UG to PG	14.58	20	25.49	37.22
PG to M.Phil.	Not Applicable			
PG to Ph.D.	-	-	2	2
Ph.D. to Post-Doctoral	Nil			
Employed	35	38.5	2.6	1.4
• Campus selection	20.1	17.03	7.8	21.73
• Other than campus recruitment	1.4	0.7	1.9	2.1
Entrepreneurship/Self-employment				

30. Details of Infrastructural facilities a) Library b) Internet facilities for Staff & Students

c) Class rooms with ICT facility d) Laboratories:

Sl. No.	Infrastructural Facility		Details/Numbers		
1	Library		Area: 13.38sq.m. Book Titles: 382 NPTEL courses, Online journals EduSat virtual classes and other e-materials.		
2	Internet Facility to Staff and Students		154 computers with internet connectivity and Wi-Fi facility.		
3	Class Rooms		14		
4	Class Rooms with ICT Facility		5 portable LCD projectors and 1 Laptop available for class room use		
5	Laboratories		12		
	Name of the Laboratory		Area	Capacity	Equipment Cost in Rs.
	i	Electronics Devices Lab	83.6125sq.m	50	15,33,239
	ii	Electronic Circuits lab	83.6125 sq.m	50	
	iii	Linear Integrated Circuits Lab/ Digital Electronics Lab	64.196 sq.m	33	11,40,000
				33	57,624
	iv	Communication Systems Lab	64.196 sq.m	33	17,67,000
	v	Computer Networks Lab	167.2255 sq.m	70	4,02,500
	vi	Embedded Systems Lab			17,01,400
	vii	Microprocessor Lab	83.6125 sq.m	33	10,17,786
	viii	Microwave and Optical Lab	83.6125 sq.m	33	13,10,346
	ix	Digital Signal Processing Lab	83.6125 sq.m	35	22,60,524
	x	VLSI Lab	83.6125 sq.m	35	5,48,980
	xi	Electronic System Design Lab/Data Acquisition and Processing Lab	83.6125sq.m.	32	45,45,770 8,14,515
	xii	Innovative System Design Lab	72.4644sq.m	32	28,61,592

31. Number of students receiving financial assistance from college, university, government or other agencies:

Financial Assistance from College							
General Category				Dalit			Total
Academic Year	Male	Female	Total	Male	Female	Total	
2016-17	2	25	27	-	1	1	28
2015-16	1	27	28	-	2	2	30
2014-15	6	26	32	1	3	4	36
2013-14	7	30	37	2	2	4	41
2012-13	10	26	36	2	2	4	40

Scholarship from Government				
Category	Year	Male	Female	Total
BC/MBC	2015-2016	10	60	70
	2014-2015	16	49	65
	2013-2014	16	62	78
	2012-2013	16	47	63
Minority Welfare	2015-2016	4	82	86
	2014-2015	7	92	99
	2013-2014	7	78	85
	2012-2013	4	72	76
SC/ST	2015-2016	11	9	20
	2014-2015	4	26	30
	2013-2014	9	43	52
	2012-2013	11	32	43

32. Details on student enrichment programmes (special lectures/ workshops / seminar) with external experts:

- It organized 14 enrichment programmes with external experts from industries and universities.
- It organized 6 enrichment programmes with internal experts

33. Teaching methods adopted to improve student learning:

- Faculty members plan and prepare course file. The course file is updated and verified by HOD four times in a semester.
- Faculty handles the class using chalk and board method, audio video presentation and student seminar.
- Faculty takes descriptive feedback from students after completing one unit and change the mode of teaching based on the feedback.
- Faculty members maintain assessment record to keep track of students' attendance and academic performance.
- Faculty members identify slow learners based on the class tests and internal assessment tests and motivate them by conducting coaching classes in the evening and on holidays.

34. Participation in Institutional Social Responsibility (ISR) and Extension activities:

- Students of Electronics and Communication Engineering actively participate in NSS. They attend 10 or 7 days NSS camp in villages. In the camp, their activities include

arranging medical camp, conducting awareness programs, going for house visit, conducting sports and introducing clean India campaign.

Camps conducted in the last four years:

Sl. No.	Academic Year	Total Number of Students	Place
1	2016-2017	16	Kolvel, Kanyakumari District.
2	2015-2016	19	Kaapukadu, Kanyakumari District.
3	2014-2015	16	Kadiyapatanam, Kanyakumari District.
4	2013-2014	9	Maathiravilai, Kanyakumari District.
5	2012-2013	23	Kodimunai, Kanyakumari District.

- Students donate blood to needy people in and around the college through YRC unit of our college.
- Students actively participate in voter awareness program.

35. SWOC analysis of the department and Future plans:

Strengths:

1. Highly qualified committed experienced faculty with 6 Ph.D.s and 18 pursuing doctoral degree.
2. Transparent governance and administration
3. Good infrastructure with modern laboratories that consist of latest equipment, online journals and full time internet facility.
4. Professional societies like IET, IEEE, ACM, and CSI are beneficial for students.
5. Association and Continuing Education Cell activities provide extra technical knowledge and improve organizational skills.
6. Digital library facilities like IEEE, IET and Science Direct.
7. Improve self-confidence by organizing national, international conference and other activities.
8. Conducting personality development program to develop student skills.
9. Career guidance is given by allocating one hour each for Competitive Examination Training, Group Discussion and Aptitude Training per week.
10. Developing the communication skills of students through communicative English.
11. Active involvement of students in academic, co-curricular and extracurricular events.
12. Guiding and counseling the students through mentor system.
13. Student friendly campus.
14. Message alert system is active inside the campus that provide required information to parents.

Weaknesses:

1. Industrial consultancy on applied research.
2. Lack of students sponsored projects.
3. Lack of interest to improve English communication.

Opportunities:

1. Good public opinion.
2. Career opportunities in public sector companies through GATE.
3. A few new software companies in the district.
4. Networking with industry for academic interaction through MoUs.
5. Giving importance to both curricular and extracurricular activities makes students to face interviews easy and placed in MNCs.
6. CET, GD, AT and CE classes makes the students to enter into the job and higher studies.

7. IET, IEEE, and ACM gives opportunity to get prestigious awards, scholarships and attend meetings in foreign countries.

Challenges:

1. To acquire professionalism in collaboration with industry and thus serving the society.
2. To increase the number of students to do projects in government organizations and relevant industries.
3. Motivate to reveal the professional behavior and attitude so as to reflect the objective to serve the society abiding the human values and ethical concern.

Future Plans:

1. To help them develop research and start new course by strengthening endowment funds.
2. Starting new courses in collaboration with industries and national labs.

Evaluative Report

Department of Mechanical Engineering

1. Name of the department : Mechanical Engineering

2. Year of Establishment : 2003

3. Names of Programmes/Courses offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.):

Sl. No.	Programmes/Courses Offered	Programme Level
1	B.E., Mechanical Engineering	UG
2	M.E., Energy Engineering	PG
3	Ph.D., Mechanical Engineering	Research

4. Names of Inter disciplinary courses and the departments/units involved:

Sl. No.	Interdisciplinary Courses	Department Involved
1	Engineering Physics I & II	Humanities and Sciences
2	Engineering Chemistry I & II	Humanities and Sciences
3	Technical English I & II	Humanities and Sciences
4	Engineering Mathematics I & II	Humanities and Sciences
5	Transforms and Partial Differential Equation	Humanities and Sciences
6	Statistics and Numerical Methods	Humanities and Sciences
7	Advanced Numerical Methods	Humanities and Sciences
8	Electrical Drives and Controls	Electrical and Electronics Engineering
9	Electrical Engineering Laboratory.	Electrical and Electronics Engineering
10	Electronics and Microprocessors	Electrical and Electronics Engineering

5. Annual/semester/choice based credit system (programme wise) :

Sl. No.	Programme Level	Programme/Course	Annual/Semester/Choice Based
1	UG	B.E., Mechanical Engineering	Semester System
2	PG	M.E., Energy Engineering	Semester System
3	Ph.D.	Ph.D., Mechanical Engineering	Semester System

6. Participation of the department in the courses offered by other departments:

Sl. No.	Courses	Department
1	Engineering Graphics	Computer Science and Engineering. Electronics and Communication Engineering. Electrical and Electronics Engineering Civil Engineering Information Technology.
2	Engineering Mechanics	Civil Engineering

7. Courses in collaboration with other universities, industries, foreign institutions, etc.:

Sl. No.	Courses	University/Industry/Institution
1	AutoCAD	ICT Academy
2	Inventor	ICT Academy
3	Fusion 360	ICT Academy
4	Reaching Greater Heights	Vantage Academy
5	Activity Based Teaching and Learning	Vantage Academy

8. Details of courses/programmes discontinued (if any) with reasons: Nil

9. Number of Teaching posts:

Teaching Post	Sanctioned	Filled
Professor	2	2
Associate Professor	2	2
Assistant Professor	27	26

10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt./Ph.D./M.Phil.etc.):
(Experience as on 31-03-2017)

Sl. No.	Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students Guided for the Last 4 Years
1	Dr. S. Joseph Sekhar	B.E.,M.E., Ph.D	Principal	Refrigeration & Air Conditioning	28 Y 7 M	Completed: 1 Enrolled: 12
2	Dr. V. Christus Jeya Singh	B.E.,M.E., Ph.D.	Associate Professor	Thermal Engineering	18 Y 4 M	Enrolled: 1
3	Dr. R Edwin Raj	B.E.,M.E., Ph.D.	Professor	Thermal Power Engineering	21 Y	Completed: 4 Enrolled: 9
4	Dr. S. Julyes Jaisingh	B.E.,M. Tech, Ph.D.	Associate Professor	Energy Engineering	20 Y 1 M	Enrolled: 9
5	Dr. G. Antony Miraculas	B.E.,M.E., Ph.D.	Asst. Prof.	Thermal Engineering	13 Y 9 M	Enrolled: 1
6	Dr. M. Felix Xavier Muthu	B.E.,M.E., Ph.D.	Asst. Prof.	Manufacturing Engineering	13 Y	--
7	Mr. J. Gnana Rajan	B.E.,M.E.	Asst. Prof	Manufacturing Engineering	21 Y 6 M	--
8	Mr. T. M. Chenthil Jegan	B.E.,M.E.	Asst. Prof	CAD	15 Y 6 M	--
9	Mr. P. Jose Aloysius	B.E.,M.E.	Asst. Prof	CAD	13 Y 8 M	--
10	Mr. V.T. Vijumon	B.E.,M. Tech.	Asst. Prof	Advanced Manufacturing	12 Y 6 M	--
11	Mr. Ajith J. Kings	B.E.,M.E.	Asst. Prof	CAD	10 Y 5 M	--
12	Mr. M. Antony Forster Raj	B.E.,M.E.	Asst. Prof	Industrial Engineering	13 Y 1 M	--
13	Mr. Y. Balto	B.E.,M.E.	Asst. Prof	Computer Integrated Manufacturing	13 Y 6 M	--
14	Mr. M. Gerold Arul Selvan	B.E.,M.E.	Asst. Prof	Manufacturing Engineering	8 Y 5 M	--

15	Mr. J. Jebeen Moses	B.E.,M.E.	Asst. Prof	Manufacturing Engineering	8 Y 4 M	--
16	Mr. M.L. Ajin	B.E.,M.Tech.	Asst. Prof	Engineering Design	5 Y 7 M	--
17	Mr. T. Darwin	B.E.,M.E.	Asst. Prof	Manufacturing Engineering	6 Y 11 M	--
18	Mr. M.M. Anwar Rajesh	B.E.,M.E.	Asst. Prof	Manufacturing	9 Y 6 M	--
19	Mr. M. Anto Xavier Roche	B.E.,M.S (Engg)	Asst. Prof	Fracture Mechanics	11 Y 6 M	--
20	Mr. A.S. Ramesh	B.E.,M.E.	Asst. Prof	Thermal Engineering	5 Y 7 M	--
21	Mr. P. Saji Raveendren	B.E.,M.E.	Asst. Prof	Thermal Engineering	5 Y 7 M	--
22	Mr. Godwin Glivin	B.E.,M.E.	Asst. Prof	CAD	5 Y 5 M	--
23	Mr. P.C. Murugan	B.E.,M.E.	Asst. Prof	Energy Engineering	4 Y 6 M	--
24	Mr. M. Anjan Augustine	B.E.,M.E.	Asst. Prof	Energy Engineering	2 Y 6 M	--
25	Mr. V.V. Sivaji	B.E.,M.E.	Asst. Prof	Energy Engineering	2 Y 1 M	--
26	Mr. S. Vimal Kumar	B.E.,M.E.	Asst. Prof	Energy engineering	1 Y 7 M	--
27	Mr. R. Vibin	B.E.,M.E.	Asst. Prof	Energy Engineering	1 Y 7 M	--
28	Mr. C. Arul Jerman	B.E.,M.E.	Asst. Prof	Energy Engineering	1 Y 6 M	--
29	Mr. Paul F. Vijay	B.E.,M.E.	Asst. Prof	Energy Engineering	14 Y 6 M	--
30	Mr. D.X. Tittu George	B.E.,M.E.	Asst. Prof	Energy Engineering	1 Y 6 M	--

11. List of senior visiting faculty: Nil

12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty:

Sl. No.	Programme	% of Classes Handled by Temporary Faculty
1	UG (B.E.)	0
2	PG (M.E.)	0

13. Student-Teacher Ratio (programme wise)

Sl. No.	Programme	Student-Teacher Ratio
1	UG (B.E.)	15 : 1
2	PG (M.E.)	12 : 1

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled:

Support Staff	Sanctioned	Filled
Technical	9	9
Administrative	1	1

15. Qualifications of teaching faculty with DSc/D.Litt./Ph.D./MPhil/PG.

Qualification	Number of Faculty
Ph.D.	6
M.E./M. Tech.	24
Ph.D. (Pursuing)	17

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received:

Sl. No.	Title of the Ongoing Project	Principal Investigator	Funding Agency	Grant Received (Rs. in Lakhs)
1	Biomass-An Alternative Fuel for Brick/Pottery Manufacturing Kiln in Rural Areas	Dr. S. Joseph Sekhar	AICTE	16

17. Departmental projects funded by DST-FIST; UGC, DBT, ICSSR, etc. and total grants received:

Sl. No.	Departmental Project	Funding Agency	Grant Received (Rs. in Lakhs)
1	International Conference on Energy Efficient Technologies for Sustainability (ICEETS-16)	ISRO	0.20
2	International Conference on Energy Efficient Technologies for Sustainability (ICEETS-16)	SERB(DST)	0.50

18. Research Centre/facility recognized by the University:

Department of Mechanical Engineering is a recognized research centre. The following table shows the details of research centre.

University	Year of First and Last Recognition	Validity	Recognition Number	No. of Supervisors	No. of Scholars
Anna University Chennai	08-06-2011 28-10-2014	3 years	4497117	6	31

19. Publications

- a) Publication per faculty :3.1
- b) Number of papers published in peer reviewed journals (national/international) by faculty and students :98
 - Conference paper published (national and international) :20
- c) Number of publications listed in International Database :98
 - Web of Science :64
 - Scopus :92
 - Google Scholar :98
- d) Monographs :Nil
- e) Chaptering Books :Nil
- f) Books Edited :03
- g) Books with ISBN/ISSN numbers with details of publishers :03

h) Citation Index	:526
i) SNIP(range)	:0.52-2.367
j) SJR(range)	:0.13-2.35
k) Impact factor (range)	:0.2-4.959
l) h-index	:1-10

Sl. No.	Faculty and Book Details	Publisher	ISBN/ISSN Number
1	Dr. S. Julyes Jaisingh, Engineering Graphics	SRM Publication	978-1-5090-1534-4
2	Dr. S. Julyes Jaisingh, Basic Engineering-Civil & Mechanical	SRM Publication	978-1-4693-9925-8
3	Dr. S. Julyes Jaisingh, Engineering Practices Lab Manual	SRM Publication	978-1-5090-2546-7

20. Areas of consultancy and income generated: Nil

21. Faculty as members in a) National committees b) International Committees c) Editorial Boards.....:

Sl. No.	Faculty	Details of the Committee
1	Dr. S. Joseph Sekar	Academic Council Member of Anna University
2	Dr. S. Joseph Sekar	Chairman, Institution of Engineering and Technology, Kanyakumari Local Network (IETKKLN)
3	Dr. V. Christus Jeya Singh	Treasurer, Institution of Engineering and Technology, Kanyakumari Local Network (IETKKLN)
4	Dr. S. Julyes Jaisingh	CCSA Member (IETKKLN)
5	Dr. R. Edwin Raj	Editor of special issue of the journals Applied Information and Digital Image Technologies, Control and Power Engineering, and Applied Mechanics and Materials. Trans Tech Publications Ltd, Switzerland (ISSN print 1660-9336, ISSN Web 1662-7482).
6	Dr. S. Joseph Sekhar, Dr. R. Edwin Raj	Editors of special issue of the journals Energy Efficient Technologies for Sustainability, and Advanced Materials Research, Trans Tech Publications Ltd, Switzerland (ISSN print 1022-6680, ISSN Web 1662-8985).

22. Student projects:

- Percentage of students who have done in-house projects including inter departmental/ programme: UG – 98%; PG - 98%
- Percentage of students placed for projects in organizations outside the institution i.e. in Research laboratories/Industry/ other agencies: UG - 02%; PG - 02%

23. Awards/Recognitions received by faculty and students:

Sl. No.	Faculty Member	Award/Recognition	National/ International
1	Dr. S. Joseph Sekar	Er. D.A. Rajan Promotional Award 2014	National

2	Dr. S. Joseph Sekar	Sir C.V. Raman Research Award	National
3	Dr. S. Joseph Sekar	Outstanding Reviewer Award by Elsevier	International
4	Mr. M. Antony Forster Raj	Third Place in National Students Design Competition Organised by Visvesvaraya Industrial and Technological Museum, Bangalore	National

- Students have received 16 awards and recognition in academic, co-curricular and extra-curricular activities from college to international level.

24. List of eminent academicians and scientists/visitors to the department:

Sl. No.	Name of the Eminent Person	Date of Visit	Purpose
1.	Dr. Saravanan, Professor, Anna University, Chennai.	18-08-2016	Guest lecture on Heating Ventilation and Air Conditioning
2.	Er. C. Nagarajan, Manager, IPRC, Mahendragiri	12-08-2016	Technical Talk on How to Develop the Interpersonal Skills of Budding Engineers.
3.	Dr. D. Mohan Lal, Anna University, Chennai	08-04-2016	Technical talk on “New Combined Absorption Power and Refrigeration System”
4.	Dr. S. Jayaraj, Professor, NIT, Calicut.	08-04-2016	Technical talk on “Future Energy – Renewable & Sustainable”
5.	Dr. Alberto Coronas, URV–Spain	07-04-2016	Technical talk on “New Combined Absorption Power and Refrigeration System”
6.	Dr. Charlie Paton, Director of Seawater Greenhouse Ltd.–UK	07-04-2016	Technical talk on “Wasteland + Seawater for High Value Horticulture”
7.	Dr. Philip Davies, Aston University–UK	07-04-2016	Technical talk on “Energy Efficiency for Rural Microenterprise outcomes of India-UK Science Bridge Project”
8.	Mr. Opubo Igobo Aston University, U.K.	07-04-2016	Technical talk on “Low-Temperature Isothermal Rankine Cycle for Desalination”
9.	Dr. Abdul Hossain, Professor.	07-04-2016	Technical talk on “Sustainable fuel for Poly generation”
10.	Dr. Bevita Mattu, Aston University–UK	07-04-2016	Technical talk on “A theoretical model for a Brackish Water Desalination System”
11.	Er. S. Joseph Winston, Scientific officer-F, IGCAR, Kalpakkam.	10-08-2015	Technical Talk on Testing methods in Fast Breeder Nuclear Reactors
12.	Dr. S. Daniel Chellappa, Senior scientist, Dept. of Atomic Energy, Kalpakkam	28-01-2015	Guest lecture on Safety issues in Nuclear Power Plants in India

13.	Er. S. Alfred Retna Dhas, Assistant Executive Engineer, Tuticorin Thermal Power Plant	16-09-2014	Key note speaker for a Seminar on Recent Advancements in Thermal power Plants
14.	Mr. K. Velmurugan Scientist 'D', LPSC/ISRO, Mahendragiri.	19-08-2013	Resource Person for an one day Seminar on Space research
15.	Dr. Joshi C. Haran Amirtha School of Engineering, Coimbatore	10-04-2013	Technical talk on "Doing Research"
16.	Dr. T. Srinivas, VIT, Vellore.	10-04-2013	Technical talk on "Energy Efficient Technology using Nano Technology"
17.	Dr. V. Kirubakaran Gandhi gram University, Dindigul	10-04-2013	Technical talk on "Biomass Gasification Technique"
18.	Dr. Bale V. Reddy Institute of Tech., University of Ontario, Canada	10-04-2013	Technical talk on "Research Scope in Sustainable Technology"
19.	Dr. V. Antony Aroul Raj Easwari Engg., College Chennai	10-04-2013	Technical talk on "Green Building Technologies"
20.	Dr. S. Vasudevan Electro-inorganics Division Central Electrochemical Research Institute, Karaikudi	10-04-2013	Technical talk on "Electrolysis- Inevitable Energy Transforming in a World of Sustainable Energy"
21.	Dr. Sethu Madhavan Professor, Institution of Energy Studies	16-03-2013	Resource person in one Awareness Programme on Renewable Energy

25. Seminars/Conferences/Workshops organized & the source of funding a) National b) International

Sl. No.	Seminar/Conference/Workshop	Date	Source of Funding
1	One Week Workshop on computational fluid dynamics	8-12-2015 to 12-12-2015	Self-Funding
2	International Conference on Energy Efficient Technologies for Sustainability ICEETS'16	7-4-2016 to 8-4-2016	SERB(DST), ISRO,IET
3	Nuclear Power Generation and the safety issues	28-01-2015	Self-Funding
4	Seminar on HVAC and Heat load Calculations	19-09-2014	Self-Funding
5	Two day Workshop on computational fluid dynamics	28-10-2013 to 29-10-2013	Self-Funding
6	Two days' workshop and competition on Robots "Robo Tryst 2013" Conducted by Robosapiens Technologies in Association with IIT-Delhi	19-09-2013& 20-09-2013	Self-Funding

7	One day awareness Programme on renewable Energy Sponsored by UGC under Institute of energy studies, Anna University Chennai	16-03-2013	UGC & Institute of Energy studies, Anna University, Chennai
8	International Conference on Energy Efficient Technologies for Sustainability ICEETS'13	07 to 09-04-2013	Self-Funding

26. Student profile programme/course wise:

Name of the Course/Programme	Academic Year	Applications Received	Selected	Enrolled		Pass Percentage %
				*M	*F	
B.E Mechanical Engineering	2016-2017	124	124	122	2	--
	2015-2016	125	125	118	7	80.45
	2014-2015	120	120	116	4	84.28
	2013-2014	126	126	123	3	95.18
	2012-2013	125	125	125	--	89
M.E Energy Engineering	2016-2017	3	3	3	--	--
	2015-2016	5	5	5	--	100
	2014-2015	10	10	10	--	100
	2013-2014	14	14	14	--	93.75
	2012-2013	15	15	15	--	94

*M=Male *F=Female

27. Diversity of Students:

Name of the Course	Academic Year	% of Students from the Same State	% of Students from Other States	% of Students from Abroad
B.E. Mechanical Engineering	2016-2017	97.2	2.8	--
	2015-2016	97.24	2.76	--
	2014-2015	97.18	2.82	--
	2013-2014	96.03	3.97	--
	2012-2013	90.44	9.56	--
M.E. Energy Engineering	2016-2017	66.67	33.33	--
	2015-2016	100	--	--
	2014-2015	70	30	--
	2013-2014	92.86	7.14	--
	2012-2013	73.33	26.67	--

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civilservices, Defense services, etc.?

Year	Name of the competitive	No of students appeared	No. of students qualified
2015-2016	TANCET	18	04
2014-2015	TANCET	15	04
2013-2014	TANCET	09	03
2012-2013	TANCET	12	02
	GMAT	03	01

29. Student progression:

Student Progression	Against % Enrolled			
	2015-2016	2014-2015	2013-2014	2012-2013
UG to PG	11.66	12.85	14	4.44
PG to M.Phil.	Not Applicable			
PG to Ph.D.	11	-	7	11
Ph.D. to Post-Doctoral	Nil			
Employed	8	7	11	7
• Campus selection				
• Other than campus recruitment	53	67	45	51
Entrepreneurship/Self-employment	10	9	2	7

30. Details of Infrastructural facilities a) Library b) Internet facilities for Staff & Students
c) Class rooms with ICT facility d) Laboratories:

Sl. No.	Infrastructural Facility		Details/Numbers		
1	Library		Area: 160Sq.ft Book Titles: 400 Nos.		
2	Internet Facility to Staff and Students		150 computers with internet facility		
3	Class Rooms		8 nos., Total size-5680 Sq. ft.		
4	Class Rooms with ICT Facility		4 LCD projectors, 1 Lap top available for class room use.		
5	Laboratories		13		
	Name of the Laboratory		Area (Sq. m.)	Capacity	Equipment Cost (Rs.)
	i	Engineering Practices Laboratory	72.46	30	165944
		i) Welding Lab			
		ii) Carpentry Lab			
		iii) Smithy Lab			
		iv) Foundry Lab			
		v) Sheet Metal Lab			
		vi) fitting Lab			
	ii	Manufacturing Technology Lab I	376.26	40	1775000
	iii	Manufacturing Technology Lab II	376.26	40	2063345
	iv	Thermal Lab I	250.84	40	1400000
	v	Thermal Lab II	250.84	40	600000
	vi	Energy Lab	72.46	20	4250000
	vii	Metrology Lab	83.61	35	305473
	viii	Dynamics Lab	83.61	35	528384
	ix	Mechatronics Lab	139.35	35	750000
	x	Fluid Mechanics Lab	185.81	40	1180900
	xi	Strength of Materials Lab	139.35	40	1206809
	xii	CAD, CAM Lab	111.48	45	4383020
	xiii	CAD Lab II	195.1	80	3151813

31. Number of students receiving financial assistance from college, university, Government or other agencies:

Scholarship	From College	From University	From Government	From Other Agency
Number of Students	4	--	174	--

32. Details on student enrichment programmes (special lectures/workshops/seminar) with external experts:

Sl. No.	Enrichment Programme	Date	External Expert
1	Basics of Refrigeration and Air Conditioning	18-08-2016	Dr. R. Saravanan (R & C Head, Anna University, Guindy)
2	Installation Ceremony of ISHRAE Students Chapter	07-10-2016	Mr. R. Kishore President ISHRAE Madurai Chapter
3	Online Eligibility Test for Hitachi Ltd	07-10-2016	Prof. Kumara Guruparan, Thiagarajar College, Madurai
4	Expert seminar on Air Conditioning System Design	07-10-2016	Mr. R. Kishore President ISHRAE Madurai Chapter
5	Recent Manufacturing Process in Automotive Technology	21-03-2015	Mr. Retina Mani Manager, Simpson Group of Companies, Chennai

33. Teaching methods adopted to improve student learning:

- Identifying the student's level of learning ability is done initially by asking assessment questions in every course from all levels of Bloom in order to define the learning objectives.
- The teaching-learning process is planned very systematically by taking into account all factors,
- The hierarchy of cognitive skills are assessed through questions from every level such as recall, understanding, apply, analyses, and evaluate. Activity based learning like tutorial system, Think-pair-share are practiced to improve their learning ability.
- The course concepts are mapped for the course, then for every unit separately in order to imbibe and relate the concepts for effective learning.
- Digital tools are used judiciously for effective use in learning. The 21st Century learners are 'networked' with many social media and are more comfortable with picture, video, animation.
- Efforts are made to exploit the virtual space for relevant learning by using power point presentation with animation, video, real picture, etc.
- Making the invisible visible with visual aids and creating experimentation scenarios with "what-if" using simulation enhance learning.
- Peer-instruction question and discussion helps in conceptual understanding, elicits alternate conceptions and brings new ideas in new context.
- Group assignments help them to learn from the peer group in an effective way.

34. Participation in Institutional Social Responsibility (ISR) and Extension activities:

Our department students actively participate in NSS, NCC, YRC, etc. Energy club was installed in the year 2009 in order to create awareness about the benefits of renewable energy and the need of saving energy.

35. SWOC analysis of the department and Future plans:

Strengths:

- Expertise faculties in Research area such as Bio Energy, Refrigeration, Materials and Metallurgy.
- State of art lab facilities for both UG & PG students.
- Students can access online journals any were in the campus.

- Adequate Computing facility with internet for students and faculties.
- Students process good academic record in UG & PG.
- The department is an approved Research Center of Anna University.
- The department has two international technical chapters such as ISHRAE and SAE.
- Good number of licensed software relevant to key areas is available in the department.

Weaknesses:

- Students have no special hours for Physical Trainings.
- Lack in on campus Placement by core companies.

Opportunities:

- More opportunities to get job consistently for Mechanical Engineering students
- Students Placed in Global companies.
- Students exhibit their Projects in National and International forum.
- Students get jobs in core companies.
- Students have good scope in diverse field.
- Students can get Central Government Jobs in different sectors.

Challenges:

- To interact with Research centers/Industries.
- To build up industrial exposures to students.
- To train the slow learners.

Future Plans:

- Initiating department level placement activities for jobs in core companies.
- Conducting additional job oriented software training courses.
- Increasing endowment fund.
- Applying for more funded projects.
- Awarding and rewarding the students achievements like best project, publishing/presenting papers, etc.,
- Establishing consultancy cell in the department.

Evaluative Report

Department of Electrical and Electronics Engineering

1. Name of the Department : Electrical and Electronics Engineering
2. Year of Establishment : 1998
3. Names of Programmes/Courses offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.):

Sl. No.	Programmes/Courses Offered	Programme Level
1	B.E. Electrical and Electronics Engineering	UG
2	M.E. Control and Instrumentation	PG
3	M.E. Power Electronics and Drives	PG
4	M.S. Electrical and Electronics Engineering	Research
5	Ph.D. Electrical and Electronics Engineering	Research

4. Names of Interdisciplinary Courses and the Departments/Units involved:

Sl. No.	Interdisciplinary Courses	Department Involved
1	i) Computer Programming, ii) Computer Practice Laboratory, iii) Object Oriented Programming iv) Object Oriented Programming Laboratory	Computer Science and Engineering
2	i) Communication Engineering	Electronics and Communication Engineering
3	i) Engineering Graphics and ii) Engineering Practices Laboratory	Mechanical Engineering
4	i) Principles of Management ii) Professional Ethics for Engineers	Master of Business Administration
5	i) Technical English-I ii) Technical English-II iii) Communication Skills - Laboratory Based	English
6	i) Mathematics-I ii) Mathematics-II iii) Transforms and Partial Differential Equations	Mathematics
7	i) Engineering Physics-I ii) Engineering Physics-II iii) Physics and Chemistry Laboratory-I iv) Physics and Chemistry Laboratory-II	Physics
8	i) Engineering Chemistry-I ii) Engineering Chemistry-II iii) Physics and Chemistry Laboratory-I iv) Physics and Chemistry Laboratory-II	Chemistry

5. Annual/ semester/choice based credit system (programme wise):

Sl. No.	Programme Level	Programme/Course	Annual/Semester/Choice Based
1	UG	B.E. Electrical and Electronics Engineering	Semester System

2	PG	M.E. Control & Instrumentation	Semester System
3		M.E. Power Electronics & Drives	Semester System
4	Research	M.S. Electrical and Electronics Engineering	Semester System
5		Ph.D. Electrical and Electronics Engineering	

6. Participation of the department in the courses offered by other departments:

Sl. No.	Courses	Department
1	i) Engineering Practices Laboratory, ii) Electrical Engineering and Instrumentation and iii) Electrical Engineering and Control System Laboratory	Electronics and Communication Engineering
2	i) Engineering Practices Laboratory, ii) Basic Electrical and Electronics Engineering, iii) Electrical Drives and Controls, iv) Electrical Engineering Lab,	Mechanical Engineering
3	i) Engineering Practices Laboratory ii) Basic Electrical and Electronics Engineering	Civil Engineering
4	i) Engineering Practices Laboratory	Computer Science & Engineering
5	i) Engineering Practices Laboratory	Information Technology

7. Courses in collaboration with other universities, industries, foreign institutions, etc.:

Sl. No.	Courses	University/Industry/Institution
1	Android APP Development	ECCI Academy
2	Arduino and Robotics	ECCI Academy
3	Industrial Automation	Prolific Ltd.
4	Raspberry Pi and IOT	Blue Berry Industries
5	LED and Lighting Products Design	Blue Berry Industries

8. Details of courses/programmes discontinued (if any) with reasons: Nil

9. Number of Teaching Posts:

Teaching Post	Sanctioned	Filled
Professor	02	02
Associate Professor	01	01
Assistant Professor	13	13

10. Faculty Profile with Name, Qualification, Designation, Specialization, (D.Sc. /D.Litt. /Ph.D. / M. Phil. etc.),
(Experience as on 31-03-2017)

Sl. No.	Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students Guided for the Last 4 Years
1	Dr. M. Marsaline Beno	B.E., M.Tech., Ph.D.	Professor	Electrical Machines	16Y 6 M	Completed-01 Enrolled-12
2	Dr. M. Carolin Mabel	B.E., M.E., Ph.D.	Professor	Power Systems	18 Y 5M	Enrolled-06

3	Dr. J. Merry Geisa	B.E., M.E, Ph.D.	Associate Professor	Power Electronics & Drives	17Y 2M	--
4	Mr. A. Darwin Jose Raju	B.E., M.E	Asst. Prof.	Applied Electronics	16Y 9 M	--
5	Mr. M. John Bosco	B.E., M.E	Asst. Prof.	Power Systems	11Y 7 M	--
6	Mr. Almond D'Souza	B.E., M.E	Asst. Prof.	Applied Electronics	11Y 7 M	--
7	Mr. S.V. Kayalvizhi	B.E., M.E	Asst. Prof.	Applied Electronics	15Y 7 M	--
8	Mr. S.S. Selva Pradeep	B.E., M.E	Asst. Prof.	Control & Instrumentation	10 Y 9M	--
9	Mr. W. Vinil Dani	B.E., M.E	Asst. Prof.	Power Electronics & Drives	10Y 5 M	--
10	Mr. P. Suji Garland	B.E., M.E	Asst. Prof.	Applied Electronics	7Y 9 M	--
11	Mr. Jain B. Marshel	B.E., M.E	Asst. Prof.	Power Systems	9 Y 9 M	--
12	Ms. A. Arthi Jannie	B.E., M.E	Asst. Prof.	Power Electronics & Drives	5 Y 9 M	--
13	Mr. A. George Ansfer	B.E., M.E	Asst. Prof.	Power Electronics & Drives	5 Y 9 M	--
14	Mr. M. Abragam Siyon Singh	B.E., M.E	Asst. Prof.	Embedded Systems	4 Y 9 M	--
15	Mr. V. Jesus Bobin	B.E., M.E	Asst. Prof.	Applied Electronics	9 Y 5 M	--
16	Mr. J. Leon Bosco Raj	B.E., M.E	Asst. Prof.	Power Electronics & Drives	5 Y 9 M	--

11. List of senior visiting faculty:

Sl. No.	Faculty Name	Designation
1	Dr. S. Bala Krishnan	Professor

12. Percentage of lectures delivered and practical classes handled (Programme Wise) by temporary faculty:

Sl. No.	Programme	% of Classes Handled by Temporary Faculty
1	UG (B.E.)	0
2	PG (M.E.)	0

13. Student -Teacher Ratio (Programme Wise)

Sl. No.	Programme	Student-Teacher Ratio
1	UG (B.E.)	16:1
2	PG (M.E.)	12:1

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled:

Support Staff	Sanctioned	Filled
Technical	4	4
Administrative	1	1

15. Qualifications of teaching faculty with DSC / D.Litt. / Ph.D. / MPhil / PG.

Highest Qualification	No of Faculty		
	Total	Male	Female
Ph.D.	3	1	2
Pursuing Ph.D.	9	7	2
M.E / M. Tech.	13	9	4

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received:

Sl. No.	Title of the Ongoing Project	Principal Investigator	Funding Agency	Grant Received (R.s. in Lakhs)
1	Lab Migration Project on Digital Control and Instrumentation Laboratory	Mr. M. Abragam Siyon Sing	ACT - MHRD	0.1
2	Lab Migration Project on Power Electronics and Drives Laboratory	Mr. V. Jesus Bobin	ACT - MHRD	0.1
3	Lab Migration Project on Electrical Engineering and Control System Laboratory	Mr. S.S. Selva Pradeep	ACT - MHRD	0.1
4	Lab Migration Project on Electrical Circuits	Ms. A. Arthi Jannie	ACT - MHRD	0.1

17. Departmental projects funded by DST – FIST; UGC, DBT, ICSSR, etc. and total grants received:

Sl. No.	Departmental Project	Funding Agency	Grant Received (R.s. In Lakhs)
1	Mr. Jain B. Marshel	ACT -MHRD	0.1
2	Mr. A. George Ansfer	ACT -MHRD	0.1

18. Research Centre /Facility recognized by the University:

Department of Electrical and Electronics Engineering is recognized as Research Centre:

University	Year of First and Last Recognition	Validity	Recognition Number	No. of Supervisors	No. of Scholars
Anna University Chennai	First recognized on 8-7-2011. Last renewed on 28-10-2014.	Renewed in every three years	4497108	02	18

19. Publications:

a) Publication per faculty	: 7.87
b) Number of papers published in peer reviewed journals (national/International) by faculty and students	:19
➤ Conference publication (national and international)	:93
c) Number of publications listed in International Database	:44
➤ Web of Science	:7
➤ Scopus	:12
➤ Google Scholar	:25
d) Monographs	:Nil
e) Chapter in Books	:Nil
f) Books Edited	:Nil
g) Books with ISBN/ISSN numbers with details of publishers	:02
h) Citation Index	:375
i) SNIP(range)	:1.308-3.109
j) SJR(range)	:0.717-3.120
k) Impact factor(range)	:1.683-7.896
l) h-index	:1-7

Sl. No.	Faculty and Book Publication Details	Publisher	ISBN/ISSN Number
1	Marsaline Beno. M & Leon Bosco .J, "Special Electrical Machines"2015	NIMeric	-----
2	Marsaline Beno. M & V. Jesus Bobin. "Electromagnetic Field Theory" 2016	EEE Department SXCCE	-----
3	Suresh. V & Kayalvizhi S.V. "Digital Logic Circuits"2016	SRI KRISHNA Hi -Tech	ISBN:978-93-85364-67-9
4	Suresh. V & Kayalvizhi S.V. "MEDICAL ELECTRONICS "2015	SRI KRISHNA Hi-Tech	ISBN:978-93-85364-39-6
5	Marsaline Beno. M & Arthi Janni. A "Circuit Theory"2016	Charulatha Publications	-----
6	Marsaline Beno .M & Abragam Siyon Sing. M "Basic Electrical and Electronics Engineering"2016	Charulatha Publications	-----
7	Abragam Siyon Sing. M, "Embedded System", 2016	EEE Department SXCCE	-----

20. Areas of consultancy and income generated:

Sl. No.	Faculty Member(s)	Areas of Consultancy	Income Generated (in R.s.)
1	Dr. M. Marsaline Beno Mr. A. George Ansfer Mr. M.A. Bragam Siyon Sing	Energy Audit	10,000/-
2	Dr. M. Marsaline Beno	Electrical Wiring	25,000/-

	Mr. M. John Bosco Mr. V. Jesus Bobin.		
3	Dr. M. Marsaline Beno Mr. A. Darwin Jose Raju	Electrical Workshop Lab Modules	12,500/-

21. Faculty as members in a) National Committees b) International Committees c) Editorial Boards.....:

Sl. No.	Faculty	Details of the National Committee	Details of the International Committee
1	Dr. M. Marsaline Beno	Member of Anna University Chennai EEE Syllabus Committee, period 2016-2018. Member of Anna University Chennai EEE Board of Study, period 2012-2015. Member of NEC Kovilpatti EEE Board of Study, period 2012-2014. Member of PSN College of Eng. EIE Dept. Board of Study, period 2012-2014. Member of. PSN College of Eng. EEE Dept. Board of Study, period 2014-2016. IET KKLN YP Chairman (2014-2016). IET Chennai YP Vice Chairman (2011-2014).	IET UK Council Member (2013-2016). IET UK YPRC (South Asia) Chairman (2012-2014). IET UK Global support Group Member (2013-2016). IET UK Monitoring & Governance Committee Member (2015-2016). IET UK Future & Current Strategy Committee Member (2013-2015).
2	Dr. M. Carolin Mabel	--	Reviewer Committee of Elsevier Energy Journal
3	Mr. A. Darwin Jose Raju	Vice Chair, IEEE Madras Society on Social Implications of Technology (2015- Present). Treasurer, IEEE Madras Section (2014- 2015). Chairman of IEEE Young Professionals (Formerly GOLD) Madras Section (2012- 2014). Execom Member, IEEE Madras Section (2012-2013).	Member, Project Sub- Committee, Global IEEE SIGHT (2016-Present). R10 HTA Team Member (2015-Present). Finance Committee Lead, IEEE WIE International Leadership Summit (2015).
4	Mr. M. John Bosco	IET KKLN YP Treasurer (2014-2015). IET KKLN YP Secretary (2015-2016). IET Chennai YP Committee Member (2008-2010). CESPA Academic Committee Member 2014.	--
4	Mr. S.S. Selva Pradeep	IET KKLN YP Exe Com Member (2014- 2016).	--
5	Mr. Jain B. Marshel	--	Reviewer of Elsevier Renewable Energy Journal

22. Student projects:

- a) Percentage of students who have done in-house projects including inter departmental/programme: UG - ; PG - .
- b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies: UG - ; PG - .

Percentage of students who have done in-house projects including inter departmental / programme

Year	Total No. of Projects	In- House Projects	% Projects Carried Out in the College
2012	12	12	100
2013	12	12	100
2014	14	14	100
2015	17	16	94
2016	19	17	90

Percentage of students placed for projects in organizations outside the institution i.e. in Research laboratories/ Industry/ other agencies

Year	Total No. of Projects	Outside Institution	% of projects Carried Out in the Industry
2012	12	0	0
2013	12	0	0
2014	14	0	0
2015	17	1	6
2016	19	2	10

23. Awards/Recognitions received by faculty and students:

- Four faculty have got 11 awards from professional bodies such as IEEE and IET
- Students have received 68 awards and recognition in academic, co-curricular and extra-curricular activities from college to international level.

24. List of eminent academicians and scientists/visitors to the department:

- Eminent academicians visited:27

25. Seminars/Conferences/Workshops organized & the source of funding

a) National b) International

- The department organized 13 IET, 20 management and one SEE sponsored seminars and workshops.

26. Student profile programme/course wise:

Name of the Course/Programme	Academic Year	Applications Received		Selected	Enrolled		Pass Percentage
		GA	CA		*M	*F	
B.E. Electrical and Electronics Engineering	2016-2017	18	24	42	24	18	--
	2015-2016	26	29	55	30	25	83.82
	2014-2015	26	20	46	27	19	88.63
	2013-2014	27	29	56	25	31	83.33
	2012-2013	29	26	55	26	29	88
M.E. Control and Instrumentation	2016-2017	1	5	6	3	3	--
	2015-2016	3	2	5	3	2	100

M.E. Power Electronics and Drives	2014-2015	7	4	11	6	5	100
	2013-2014	5	10	15	3	12	100
	2012-2013	-	17	17	5	12	94
	2016-2017	1	11	12	1	11	--
	2015-2016	4	9	13	4	9	100
	2014-2015	5	7	12	2	10	100
	2013-2014	7	8	15	2	13	100
	2012-2013	-	18	18	3	15	--

*M = Male *F = Female GA-Government Allotment CA=Consortium Allotment

27. Diversity of Students:

Name of the Course	Academic Year	% of Students from the Same State	% of Students from Other States	% of Students from Abroad
B.E. Electrical and Electronics Engineering	2016-2017	96.22	3.78	-
	2015-2016	94.37	5.63	-
	2014-2015	87.93	13.07	-
	2013-2014	88.73	11.27	-
	2012-2013	95.31	4.69	-
M.E. Control and Instrumentation	2016-2017	83.33	16.67	-
	2015-2016	40	60	-
	2014-2015	63.63	36.37	-
	2013-2014	46.67	53.33	-
	2012-2013	58.82	41.18	-
M.E. Power Electronics and Drives	2016-2017	100	-	-
	2015-2016	83.33	16.67	-
	2014-2015	80	20	-
	2013-2014	77.78	22.22	-
	2012-2013	-	-	-

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?

Sl. No.	Name of the Competitive Exam	Number of students appeared	Number of students Cleared
1	GATE	79	4
2	TANCET	53	37
3	IBPS	87	12

29. Student progression:

Student Progression	Against % Enrolled			
	2015-2016	2014-2015	2013-2014	2012-2013
UG to PG	15	25	15	30
PG to M.Phil.	Not Applicable			
PG to Ph.D.	-	-	-	-
Ph.D. to Post-Doctoral	Nil			
Employed				
• Campus selection	36.67	8.8	4.2	2.2
• Other than campus recruitment	16.18	35.5	56.25	56.52
Entrepreneurship/Self-employment	32.35	35.55	25	15.21

30. Details of Infrastructural facilities a) Library b) Internet facilities for Staff & Students
c) Class rooms with ICT facility d) Laboratories:

Sl. No.	Infrastructural Facility	Details/Numbers			
1	Library	Area: 9. Sq. m Book Titles:725			
2	Internet Facility to Staff and Students	114 computers with internet connectivity			
3	Class Rooms	8			
4	Class Rooms with ICT Facility	3 portable and 1 fixed LCD projectors,2 OHP and 1 Laptop available for class room use			
5	Laboratories	10			
	Name of the Laboratory	Area	Capacity	Equipment Cost	
	i Electrical Machines Lab	362.13 Sq. m	72	16.3 lakhs	
	ii Electrical Workshop	111.483 Sq. m	36	4.11 lakhs	
	iii Control & Instrumentation Lab	139.35 Sq. m	36	14 lakhs	
	iv Power Electronics Lab	153.29 Sq. m	36	18.5 lakhs	
	v Simulation Lab	195.096 Sq. m	72	22 lakhs	
	vi PG Lab	75 Sq. m	25	12lakhs	

Library: The department library consists of the following facilities:

Sl. No.	Infrastructure	Quantity
1	Chairs	5
2	Tables	2
3	Computer	1
4	Printer and Scanner	1
5	Books /Titles	725

Internet facilities for Staff & Students

- Available Bandwidth: 1:1
- Access Speed: 50 Mbps
- Availability of Internet in an Exclusive Lab: YES
- Availability in most Computing Labs: YES
- Availability in Departments and Other Units: YES
- Availability in Faculty Rooms YES
- Institute's own e-mail facility to Faculty/Students: YES
- Security/Privacy to e-mail/internet users:
- 24x7 WI- Fi facilities available in the campus.
- Fiber optic links for all campus buildings 2500 meters

(b) Faculty Rooms:

Name	Location	Numbers	Facility
No. of Faculty rooms	HOD	01	PC, internet, book rack, meeting space
	Professor	01	
	Associate Professor	01	
	Assistant Professors	10	

31. Number of students receiving financial assistance from college, university, Government or other agencies:

Scholarship	From College	From University	From Government	From Other Agency
Number of Students	8	--	70	--

Scholarship From Other Agency	No of Students	Scholarship Amount Received
IEEE Madras Section	7 students (2 Project Teams),	Rs.10,000 per team
IET KKLN	2 students	Rs.15,000
IET UK	Present Around The World Prize	Rs.30,000
IEEE Communication Society	6 Students received Video Competition Prize	US \$ 1000

32. Details on Student Enrichment Programmes (Special lectures/Workshops/Seminar) with External Experts:

- It organized 20 enrichment programmes with external experts from industries and universities.

33. Teaching methods adopted to improve student learning:

- The staff members have obtained training under “Mission 10X” training by Wipro to help them to handle their classes more effectively.
- The students’ performance is continuously monitored through the mentor system.
- Students are encouraged to implement their theoretical knowledge in projects by organizing project exhibition every year.
- Regular industrial visits are organized to expose students to the current developments in the industry
- Regular invited talks by industrial experts are organized.

34. Participation in Institutional Social Responsibility (ISR) and Extension activities:

- The department students participated in blood donation camps organized by YRC
- We have collected Rs. 1,00,000 from our students and the same amount was given to Mr. Bright Jenifer on 22-03-2015, who met with an accident
- The students of EEE has visited an Orphanage home, where they distributed sweets, fruits, dresses, and other stationary items to the people as a part of charity.
- The students of EEE has visited a mentally retarded students home, where they distributed sweets, fruits, dresses, and other stationary items to the children as a part of charity.
- We have collected Rs. 60,000 from alumni and the same amount was given to Mr. Ajith, 2016 passed out student, on 22-03-2015 for his father’s medical treatment.
- We have collected Rs. 72,000 from alumni and the same amount was given to Mr. P. Sathya Raj, 2016 ECE passed out student, on 10-07-2016, who met with an accident.

Sl. No.	Year	Total Number of Students	Activities (Medical camp, awareness program, House visit, Clean India campaign)
1	2015-2016	12	NSS Camp, Kaapukadu
2	2014-2015	08	NSS Camp, Kadiyapatanam

3	2013-2014	10	NSS Camp, Mathiravilai
4	2012-2013	06	NSS Camp, Kodimunai

35. SWOC analysis of the department and Future plans:

Strengths:

- Adequate and qualified faculty and supporting staff.
- The department is a recognized research center for MS (research) & PhD.
- State of the Art equipment's in laboratory.
- Effective teaching learning process.
- Library with adequate numbers of books Articles, journals, e-line journals.
- Value added training programs.

Weaknesses:

- Lack of Industry Institute Interaction.
- Less number of Core industry placements.
- Less number of funded projects & patents.

Opportunities:

- A good alumni network is existing in the department. Enormous opportunities/ placement assistance can be sought from alumnus.
- To get social relevance projects and consultancy.
- Signing MoU with premier research institutes and core industry.

Challenges:

- Enabling maximum theory & practices of education to have better placement.
- To maximize ICT enabled theory and practices of education.
- Making the department excel in research & in placement.

Future Plans:

- To make the department Centre of excellence.
- Preparing the students for better placements.
- To promote research culture among faculty and students.

Evaluative Report

Department of Computer Science and Engineering

1. Name of the department : Computer Science and Engineering

2. Year of Establishment : 1998

3. Names of Programmes/Courses offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.):

Sl. No.	Programmes/Courses Offered	Programme Level
1	B.E. Computer Science and Engineering	UG
2	M.E. Computer Science and Engineering	PG
3	Ph.D. Computer Science and Engineering	Research

4. Names of Interdisciplinary courses and the departments/units involved:

Sl. No.	Interdisciplinary Courses	Department Involved
1	Mathematics-I. Engineering Physics-I. Technical English-I. Engineering Chemistry-I. Physics and Chemistry Laboratory-I. Technical English-II. Mathematics-II. Engineering Physics-II. Engineering Chemistry-II. Physics and Chemistry Laboratory-II. Transforms and Partial Differential Equations. Environmental Science and Engineering. Probability and Queuing Theory. Discrete Mathematics. Applied Probability and Statistics.	Humanities and Sciences
2	Engineering Graphics, Engineering Practices Laboratory.	Mechanical Engineering, Electrical and Electronics Engineering
3	Principles of Management. Engineering Economics and Financial Accounting.	Master of Business Administration

5. Annual/ semester/choice based credit system (programme wise):

Sl. No.	Programme Level	Programme/Course	Annual/Semester/ Choice Based
1	UG	B.E. Computer Science and Engineering	Semester System
2	PG	M.E. Computer Science and Engineering	Semester System

6. Participation of the department in the courses offered by other departments:

Sl. No.	Courses	Department
1	Object Oriented Programming and Data Structures, Object Oriented Programming and Data Structures Laboratory	Electronics and Communication Engineering.
2	Object Oriented Programming. Computer Networks. Data Structures. Computer Programming Laboratory.	Electrical and Electronics Engineering.
3	Computer Programming Computer Practices Laboratory	Electronics and Communication Engineering. Electrical and Electronics Engineering. Civil Engineering. Information Technology. Mechanical Engineering.

7. Courses in collaboration with other universities, industries, foreign institutions, etc.:

Sl. No.	Courses	University/Industry/Institution
1	Database Design and Programming with SQL	Oracle Academy
2	Web Designing and Scripting	ICT Academy
3	PHP with MYSQL	ICT Academy
4	Data Science and Big Data Analytics	EMC2
5	Java Programming	ICT Academy
6	DotNet Programming	ICT Academy
7	Oracle Database : Introduction to SQL	Oracle University
8	Oracle Database : PL/SQL	Oracle University
9	Cloud Infrastructure Services	EMC2
10	C# & ADO DotNet Programming	ICT Academy
11	ASP DotNet Programming	ICT Academy
12	CCNA	Thasar Infotech

8. Details of courses/programmes discontinued (if any) with reasons: Nil

9. Number of teaching posts:

UG:

Teaching Post	Sanctioned	Filled
Professor	1	1
Associate Professor	0	0
Assistant Professor	26	26

10. Faculty profile with name, qualification, designation, specialization, (D.Sc. /D.Litt. /Ph.D. / M. Phil. etc.):
(Experience as on 31-03-2017)

Sl. No.	Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students Guided for the Last 4 Years

1	Ms. A. Subitha	B.E., M. Tech.	AP	Computer Science and Engineering	20Y 8M	-
2	Dr. C. Seldev Christopher	B.E, M.E, Ph.D.	P	Communication Systems Engg and CSE	17Y 1M	Completed-1 Enrolled-9
2	Ms. P.R. Sheebha Rani	M.E.	AP	Computer Science and Engineering	13Y 1M	-
3	Mr. S. John Pimo	M.E.	AP	Computer Science and Engineering	15Y 8M	-
5	Ms. P. Ajitha	M. Tech.	AP	Computer and Information Technology	10Y 8M	-
6	Ms. J.S. Simi Mole	M. Tech.	AP	Computer and Information Technology	10Y 8M	-
7	Ms. Sobini X. Pushpa	M.E.	AP	Computer Science and Engineering	10Y 7M	-
8	Ms. J. Annrose	B. Tech, M.E.	AP	Image Retrieval	9Y 7M	-
9	Ms. A. Bamila Virgin Louis	M.E.	AP	Computer Science and Engineering	10Y 7M	-
10	Ms. T. Ajitha	M.E.	AP	Applied Electronics	9Y 5M	-
11	Ms. T.S. Sheela Shiney	M.E.	AP	Computer Science and Engineering	10Y3M	-
12	Ms. S.L. Soniya	M.E.	AP	Computer Science and Engineering	9Y 8M	-
13	Ms. G. Johncy	M.E.	AP	Computer Science and Engineering	9Y 9M	-
14	Ms. C. Bency Bright	M.E.	AP	Computer Science and Engineering	9Y 9M	-
15	Ms. C. Renit	M.E.	AP	VLSI Design	8Y 9M	-
16	Ms. A. Anisha	M.E.	AP	Computer Science and Engineering	8Y 9M	-
17	Ms. S.T. Sheriba	M.E.	AP	Network Engineering	8Y 9M	-
18	Mr. L.G.X. Agnel	M.E., M.B.A.	AP	Computer	8Y3M	-

	Livingston			Science and Engineering		
19	Mr. S. Gavaskar	M.E.	AP	Network and Internet Engineering	7Y 7M	-
20	Ms. A. Cibi	M.E.	AP	Software Engineering	7Y 7M	-
21	Mr. R. Edwin Jose	B. Tech, M.E.	AP	Computer Science and Engineering	9Y 8M	-
22	Mr. J. Bright Jose	B. Tech., M.E.	AP	Computer Science and Engineering	4Y 9M	-
23	Mr. M. Ajin	M.E.	AP	Computer Science and Engineering	5Y3M	-
24	Ms. R.S. Rejitha	M.E.	AP	Computer Science and Engineering	3Y9M	-
25	Ms. M.C. Sheeba	B. Tech., M.E.	AP	Computer Science and Engineering	11Y 1M	-
26	Ms. R. Aloys Divya	B. Tech., M.E.	AP	Computer Science and Engineering	2Y 1M	-
27	Ms. T. Brindha Shiny Bai	B. Tech., M.E.	AP	Computer Science and Engineering	4Y3M	-

11. List of senior visiting faculty: Nil

12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty:

Sl. No.	Programme	% of Classes Handled by Temporary Faculty
1	UG (B.E.)	0
2	PG (M.E.)	0

13. Student -Teacher Ratio (programme wise):

Sl. No.	Programme	Student-Teacher Ratio
1	UG (B.E.)	15:1
2	PG (M.E.)	12:1

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled:

Support Staff	Sanctioned	Filled
Technical	4	4
Administrative	1	1

15. Qualifications of teaching faculty with DSC/ D.Litt. / Ph.D. / MPhil / PG.

Sl. No.	Highest Qualification	Number of Faculty
1	Ph.D.	1
2	Ph.D. (Pursuing)	6
3	M.E. / M.Tech.	20

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received: Nil

17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received: Nil

18. Research Centre /facility recognized by the University

The following table shows the details of research centre.

University	Year of First and Last Recognition	Validity	Recognition Number	No. of Supervisors	No. of Scholars
Anna University Chennai	2011 2017	Three Years	4497106	2	10

19. Publications:

a. Publication per faculty	:6.18
b. Number of papers published in peer reviewed journals (national/international) by faculty and students	:32
➤ Conference publication	:135
c. Number of publications listed in International Database	:49
➤ Web of Science	:03
➤ Scopus	:14
➤ Google Scholar	:33
d. Monographs	:Nil
e. Chapter in Books	:01
f. Books Edited	:Nil
g. Books with ISBN/ISSN numbers with details of publishers	:01
h. Citation Index	:75
i. SNIP (range)	:0.037-1.229
j. SJR (range)	:0.105-0.497
k. Impact factor (range)	:0.685-4.753
l. h-index	:1-12

Sl. No.	Faculty and Book Publication Details	Publisher	ISBN/ISSN Number
1	Ms. A. Anisha , Ms. P.R. Sheebha Rani Data Warehousing and Data Mining	Sri Krishna Hitech Publishing Plot No. 14, Lakshmi Knanthammal, 1 st Street, Rajiv Nagar, Vanagaram, Chennai - 600 077.	ISBN : 978-93-85364-95-2, 2017

20. Areas of consultancy and income generated:

- The department issued identity cards service and web designing to the diocese of kuzhithurai and nearby institution by which an income of around Rs. 3, 50,000 is generated.

21. Faculty as members in a) National committees b) International Committees c) Editorial Boards.....:

- National: IETE and CSI members-17
- International: IEEE and IET members-11
- Editorial boards: Two staff members in 5 Editorial boards

22. Student projects:

- a) Percentage of students who have done in-house projects including inter departmental/programme: UG -100%; PG - .100%
- b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies: UG -Nil; PG -Nil.

23. Awards/Recognitions received by faculty and students:

- Faculty have received 47 awards for producing centum and near to centum results.
- Students have received 06 awards and recognition in academic, co-curricular and extra-curricular activities from college to international level.

24. List of eminent academicians and scientists/visitors to the department:

Sl. No.	Name of the Eminent Person	Date of Visit	Purpose
1.	Dr. J. Emerson Raja, Professor, Multimedia University, Malaysia	19/09/2016	Technical Seminar on Soft Computing
2.	Mr. Arul Jerald Prakash, Director, District Science Centre, Kerala	08/08/2016	Talk on Recent Technology in Telescope during Association Installation (ACE)
3.	Mr. V. Arockiam, Deputy Manager, ISRO Mahendragiri	21/03/2016	Talk on Contributions of CSE in Space and Technology during National Level Technical Symposium (Phoenix'16)
4.	Er. S.L. Bibin, Software Analyst, UST Global, Techno Park, Trivandrum	07/08/2015	Talk on Software Development Life Cycle during Association Installation (ACE)

5.	Dr.G.Chandrasekaran, Senior Professor and Director of MCA Department, Mepco Schlenk Engineering College	19/03/2015	Invited Talk on Network Security during National level Conference (ARETE 2KXV)
6.	Er. M. Anto Prakash Business Analyst, TCS Chennai	02/09/2014	Talk on Recent Technologies during Association Installation (ACE)
7.	Dr. E. Babu Raj, Professor ,Sun College of Engineering and Technology	26/03/2014	Invited talk on Big Data Analytics during National level Conference
8.	Mr. M. S. Arun Kumar Lead Product Support, IDS Software Services Pvt Ltd., Techno Park	09/03/2013	Guidance on how to face MNC interviews
9.	Mr. N. Arun Samuel Project manager, Talisman, Bengaluru	20/07/2012	Awareness on latest technologies during National level Symposium

25. Seminars/Conferences/Workshops organized & the source of funding

a) National: 12

b) International: Nil

26. Student profile programme/course wise:

Name of the Course/Programme	Academic Year	Applications Received		Selected	Enrolled		Pass Percentage
		GA	CA		*M	*F	
B.E. Computer Science and Engineering	2016-2017	42	69	111	40	71	-
	2015-2016	48	36	84	33	51	80.8
	2014-2015	55	53	108	29	79	80.64
	2013-2014	49	56	105	24	81	86.61
	2012-2013	54	58	112	21	91	75
M.E. Computer Science and Engineering	2016-2017	1	6	7	1	6	-
	2015-2016	8	8	16	-	16	100
	2014-2015	5	16	21	1	20	100
	2013-2014	10	13	22	3	19	94.44
	2012-2013	-	18	18	-	18	100

*M = Male *F = Female GA-Government Allotment CA-Consortium allotment

27. Diversity of Students:

Name of the Course	Academic Year	% of Students from the Same State	% of Students from Other States	% of Students from Abroad
B.E. Computer Science and Engineering	2016-2017	97.4	2.6	-
	2015-2016	89.66	10.34	-
	2014-2015	88.7	11.3	-
	2013-2014	91.6	8.4	-
	2012-2013	94.7	5.3	-

M.E. Computer Science and Engineering	2016-2017	100	-	-
	2015-2016	87.5	12.5	-
	2014-2015	95.23	4.77	-
	2013-2014	86.36	13.64	-
	2012-2013	94.44	5.56	-

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defence services, etc.?

Sl. No.	Competitive Examination	Number of Students Appeared	Number of Students Cleared
1	GATE	27	2
2	IBPS	11	11
3	TANCET	9	9

29. Student progression:

Student Progression	2012-13	2013-14	2014-15	2015-16	2016-17
UG to PG	26.77%	21.8%	11.9%	9.9%	-
PG to M.Phil.	NA				
PG to Ph.D.	-	-	-	-	-
Ph.D. to Post-Doctoral	-	-	-	-	-
Employed					
• Campus selection	1	4	4	42	
• Other than campus recruitment	59	49	36	22	
Entrepreneurship/ Self-employment	1	-	-	-	

30. Details of Infrastructural facilities

a) Library

Working Hours	Total No of Text Books	Total No of Specimen copy
8.30 a.m. to 4.00 p.m.	111	558

b) Internet facilities for Staff & Students

Sl. No.	Description of the Room/Laboratory	Computing Facilities Available			
		Servers	Computers	Internet	Wi-Fi
1	Server Room	6	-	Yes	Yes
2	Computer Laboratory - I	-	41	Yes	Yes
3	Computer Laboratory - II	-	40	Yes	Yes
4	Computer Laboratory - III	-	75	Yes	Yes
5	General Computing Laboratory	1	70	Yes	Yes

c) Class rooms with ICT facility : 6 UG Class Rooms each of 84 Sq.m

2 PG Class rooms each of 56 Sq.m

LCD Projectors : 6

OHP Projectors : 3

Laptop : 1

d) Laboratories:

Sl. No.	Name of the Laboratory	Area	Capacity	Equipment Cost
1	General Computing Laboratory	167 Sq. m	70	Rs.32,74,800/-
2	Computer Laboratory - I	84 Sq. m	42	Rs.14,56,330/-
3	Computer Laboratory - II	84 Sq. m	42	Rs.16,29,380/-
4	Computer Laboratory - III	167 Sq. m	73	Rs.28,01,280/-

31. Number of students receiving financial assistance from college, university, government or other agencies:

Scholarship	From College	From University	From Government	From Other Agency
Number of Students	21	Nil	680	Nil

32. Details on student enrichment programmes (special lectures/workshops/seminar) with external experts:

- External experts from nearby institutes, companies, industries and research fields are invited to give enrichment programmes. During the last four years 33 programmes have been conducted.

33. Teaching methods adopted to improve student learning:

Our students are from different geographical areas and cultural backgrounds. So naturally they will be different in their attitude, method of learning, level of understanding and social interactions. By offering constructive ideas and methods, we give them the confidence and talent to intermingle with people of different sections. We are following different methodologies to train the students according to their calibre and make them to understand subjects better, so that they excel in their academic performances.

Mode of Delivery:

- Lecture with Explanations
- Peer Learning
- Role Play
- TPS-Think Pair Share
- Video Demonstrations
- Web Information
- Quiz
- Hardware demonstration
- Computer software simulation with graphical user interface
- Seminars
- Android based Mobile Application

34. Participation in Institutional Social Responsibility (ISR) and Extension activities:

Our students are involved in social activities conducted by NSS, NCC, Women Cell, YRC and Professional bodies like IEEE and IET. The number of programmes in which the students took part is:

- National Service Scheme :25
- Women Cell :01

➤ Youth Red Cross	:12
➤ IEEE	:09
➤ IET	:01
➤ Others	:01

- Basic Computer training programmes were conducted for the public based on their need.
- NDLM training and certification for the public in association with ICT Academy.
- Regular training to school teachers, school students, police personnel's etc.
- Regular motivation programs for school students towards higher studies.

35. SWOC analysis of the department and Future plans:

Strengths:

- Quality Education by using ICT tools.
- Highly qualified and knowledgeable faculty.
- An equitable balance of teaching duties among the department faculty.
- Various Enrichment courses by eminent persons and scientists from reputed firms.
- Advanced computer laboratories to meet the current trends in software.
- Eco-friendly ICT supportive classrooms.
- Students are highly motivated to participate in extra-curricular and co-curricular activities.
- Weekly meetings of staff with the HOD to address the current issues.
- Interdisciplinary and experiential education at both the undergraduate and graduate level to meet our quality policy.
- More Number of Industrial Visits.
- Arranging North India Tour for learning culture and custom.
- Value-added Courses on Oracle, PHP, MYSQL, .Net, Android, Big Data Analytics and special training on C, C++ and Java to strengthen the programming skills of the students.
- Constant tracking of students performance and personal issues through mentors.
- Well Organised Course File system.

Weaknesses:

- Lack of English communication skill is the major setback for placement.
- Student's attitude for self-learning is poor.
- Paucity of time for the teachers for research work.
- Lack of funded projects
- Lack of institute-industry interaction
- Less employment opportunity in Tier-1 companies with good job description.
- Students participation in internship is less

Opportunities:

- Scope of employment in various fields.
- Becoming a leader in interdisciplinary and integrated learning.
- Opportunity to learn new technologies through alumni.
- Opportunities to get awareness about the industries and their practices through experts, alumni and parents.

Challenges:

- To with stand highly dynamic nature of the computer science field which makes people and systems easily out-dated.
- To create an awareness among the rural students to achieve excellence.
- To create research and industry oriented atmosphere.

- To create awareness for transforming the rural students towards excellence.
- Influence of social media against our value system.

Future Plans:

- Stressing on research especially in the field of local culture and socio economic problems.
- Establishing smart classrooms for effective teaching.
- To produce good researches.
- Make the students more employable.

Evaluative Report Department of Civil Engineering

1. Name of the Department : Civil Engineering

2. Year of Establishment : 1999

3. Names of Programs /Courses offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.):

Sl. No.	Programmes/Courses Offered	Programme Level
1	B.E Civil Engineering	UG
2	M.E Construction Engineering & Management	PG
3	M.E Structural Engineering	PG

4. Names of Interdisciplinary courses and the departments/units involved:

Sl. No.	Interdisciplinary Courses	Department Involved
1	Computer Programming Computer Practice Laboratory	Computer Science and Engineering
2	Engineering Practices Laboratory Basic Electrical and Electronics Engineering	Electrical and Electronics Engineering
3	Engineering Graphics Engineering Practices Laboratory Engineering Mechanics Computer Aided Drawing	Mechanical Engineering
4	Contract Laws and Regulations	Master of Business Administration
5	Technical English-I and II Engineering Physics-I and II Engineering Chemistry-I and II Engineering Mathematics-I and II Transforms and Partial Differentiation Numerical Methods	Humanities and Science.

5. Annual/ semester/choice based credit system (programme wise):

Sl. No.	Programme Level	Programme/Course	Annual/Semester/ Choice Based
1	UG	B.E. Civil Engineering	Semester System
2	PG	M.E. Construction Engineering and Management	Semester System
3	PG	M.E. Structural Engineering	Semester System

6. Participation of the department in the courses offered by other departments:

Sl. No.	Courses	Department
1	Basic Civil and Mechanical Engineering	Electrical and Electronics Engineering

7. Courses in collaboration with other universities, industries, foreign institutions, etc.:

Sl. No.	Courses	University/Industry/Institution
1	AutoCAD- 2016	ICT - Academy

2	REVIT Architecture - 2016	ICT – Academy
3	REVIT Architecture -2013	CADD Centre

8. Details of courses/programs discontinued (if any) with reasons: NIL

9. Number of teaching posts:

Teaching Post	Sanctioned	Filled
Professor	0	0
Associate Professor	1	1
Assistant Professor	15	15

10. Faculty profile with name, qualification, designation, specialization, (D.Sc. /D.Litt. /Ph.D. / M. Phil. etc. (Experience as on 31-03-2017)

Sl. No.	Name	Qualification	Designation	Specialization	No. of Years of Experience		No. of Ph.D. Students Guided for the Last 4 Years
					Teaching	Industry	
1	Dr. S. Carmel Jawahar	B.E., M.E., Ph.D.	Assistant Professor	Corrosion Management in Construction	30Y9M	--	--
2	Dr. J. Jerlin Regin	B.E., M.E., Ph.D.	Associate Professor	Light Weight Concrete	11Y9M	--	--
3	Mrs. I. Jessy Mol	B.E., M.E.	Assistant Professor	Hydrology and Water Resource Engineering	8Y7M	--	--
4	Mrs. S. Shiela Balanta	B.E., M.E.	Assistant Professor	Structural Engineering	9Y5M	--	--
5	Mr. P. Antony Vimal	B.E., M.E.	Assistant Professor	Structural Engineering	7Y8M	6M	--
6	Mr. M. Galesh	B.E; M.E.	Assistant Professor	Structural Engineering	5Y8M	2Y9M	--
7	Mr. J. Johil Berni Cruz	B.E., M.E.	Assistant Professor	Construction Engineering and Management	5Y8M	1Y7M	--
8	Mr. M. Inigo Valan	B.E., M.E.	Assistant Professor	Construction Engineering and Management	4Y8M	--	--
9	Mr. S. Frank Stephen	B.E., M.E.	Assistant Professor	Structural Engineering	3Y8M	--	--
10	Mr. E. Lourdu Amalan	B.E., M.E.	Assistant Professor	Construction Engineering and Management	4Y8M	--	--

11	Mr. J. Jeya Suren Raj	B.E; M.E.	Assistant Professor	Construction Engineering and Management	4Y8M	--	--
12	Mr. M. Joseph David Selvan	B.E., M.E.	Assistant Professor	Structural Engineering	4Y9M	1Y8M	--
13	Mr. F. John Paul	B.E., M.E.	Assistant Professor	Construction Engineering and Management	4Y8M	--	--
14	Dr. M. John Robert Prince	B.E., M.E., Ph.D.	Assistant Professor	Recycled Aggregate Concrete	13Y5M	2Y6M	--
15	Mrs. L. Porcia	B.E., M.E.	Assistant Professor	Construction Engineering and Management	1Y5M	--	--
16	Ms. E.M. Nisha	B.E., M.E.	Assistant Professor	Structural Engineering	6M	--	--

11. List of senior visiting faculty:

Sl. No.	Faculty Name	Designation
1	Dr. C. Ganapathy Chettiar	Professor

12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty:

Sl. No.	Programme	% of Classes Handled by Temporary Faculty
1	UG (B.E.)	0
2	PG (M.E.)	0

13. Student -Teacher Ratio (programme wise):

Sl. No.	Programme	Student-Teacher Ratio
1	UG (B.E.)	16:1
2	PG (M.E.)	12:1

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled:

Support Staff	Sanctioned	Filled
Technical	5	5
Administrative	1	1

15. Qualifications of teaching faculty with D.Sc. / D.Litt. / Ph.D. / MPhil / PG:

Highest Qualification	Number of Faculty	
	Male	Female
Ph.D.	3	1
M.E.	9	4

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received: Nil

17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received: Nil

18. Research Centre /facility recognized by the University: Nil

19. Publications:

- a) Publication per faculty : 3.3125
- b) Number of papers published in peer reviewed journals (national/International) by faculty and students :11
 - Conference publications:38
- c) Number of publications listed in International Database :16
 - Web of Science :7
 - Scopus :12
 - Google Scholar :12
- d) Monographs : Nil
- e) Chapter in Books : Nil
- f) Books Edited : Nil
- g) Books with ISBN/ISSN numbers with details of publishers : 2
- h) Citation Index :40
- i) SNIP(range) :0.153-2.124
- j) SJR(range) :0.130-2.088
- k) Impact factor (range) :0.442-2.421
- l) h-index :0-3

Sl. No.	Faculty and Book Publication Details	Publisher	ISBN/ISSN Number
1	Dr. C. Ganapathy Chettiar, 2015, Modern Construction Materials.	Eswar Press publications	ISBN: 81-7874-096-6
2	Dr. C. Ganapathy Chettiar, 2016, Theory of Elasticity with Introduction to Plasticity.	Eswar Press publications	ISBN: 81-7874-098-2

20. Areas of consultancy and income generated:

Sl. No.	Faculty Member(s)	Area of consultancy	Income generated (in Rs.)
1	Mrs. S. Shiela Balanta	Concrete Lab	2,25,587
2	Mr. M. Galesh	Strength of Materials Lab	14,750
3	Dr. S. Carmel Jawahar	Soil Mechanics Lab	2,69,005
4	Mrs. I. Jessy Mol	Environmental Engineering Lab	2,000

21. Faculty as members in a) National committees b) International Committees c) Editorial Boards.....: Nil

22. Student projects:

a) Percentage of students who have done in-house projects including inter departmental/programme: UG -100%; PG – 100%.

M.E. Construction Engineering and Management students collect data for their project from construction industry.

b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies: UG -0%; PG -0%.

23. Awards/Recognitions received by faculty and students:

- Faculty have received 40 awards for producing centum and near to centum results.
- Students have received 101 awards and recognition in academic, technical, co-curricular and extra-curricular activities from college to international level.

24. List of eminent academicians and scientists/visitors to the department:

Sl. No.	Name of the Eminent Person	Date of Visit	Purpose
1	Dr. K.P. Jeya Professor, Anna University, Chennai	02/04/2015	Technical talk in “Earthquake Design” - National Conference CONSTRUCT’ 15
2	Dr. S. Muralidaran Senior Scientist, CECRI, India	10/04/2014 & 11/04/2014	Technical talk in ”Innovative Techniques in Building Construction” - International Conference ICASME’14
3	Dr. Khaled F. Khaled Associate Professor, Ain Shams University, Egypt	10/04/2014 & 11/04/2014	Technical talk in “Environmental Factors in Constructions” - International Conference on Advances in Sustainability of Materials and Environment, ICASME’14
4	Mr. G.P. Sathish Director Sri Renugaambaal College of Architecture,	09/09/2014	Technical talk in “Architectural Management Technical Talk” - Association Inaugural Function
5	Mr. M. Adams Joe HOD Department of Built Environment Engineering, Muscat College, Oman.	22/08/2013	Technical talk in “Job Opportunities in Civil Engineering in Abroad” - Association Inaugural Function
6	Mr. A. Babal Geoffre Senior Assistant Engineer, NTPC Ltd.	08/08/2012	Technical talk in “Smart Materials in Construction” - National Conference on Recent Trends in Civil Engineering
7	Dr. Azhagu Sundaram Head of Structural Engineering , IIT, Chennai	05/04/2013	Technical talk in “Sky Scrapers - National Conference” on Recent Trends in Civil Engineering

25. Seminars/Conferences/Workshops organized & the source of funding

a) National: 2

b) International: 1

Sl. No.	Seminar/Conference/Workshop	Date	Source of Funding
1	Seminar on 'Water Resource Management'	07/04/2016	Management
2	Seminar on 'Estimation and Approval'	06/08/2015	Management
3	International Conference on Advances in Sustainability of Materials and Environment	10/04/2014 & 11/04/2014	Management
4	Seminar on 'Smart India'	26/07/2013 & 30/07/2013	Management
5	Workshop on MATLAB and Neural Network Technique	18/10/2013	Management
6	National Conference on 'CONSTRUCT 2013'	05/04/2013	Management
7	Seminar on 'Importance and Projects in Construction Management'	30/03/2012	Management
8	Seminar on 'Importance and Role of Civil Engineers'	29/03/2012	Management
9	Seminar on 'Repair and Rehabilitation of Structures and Fire Resistance of Concrete Structures'	08/03/2012	Management
10	Seminar on 'Highway and its Development'	09/08/2011	Management
11	National Conference on 'Recent Trends in Civil Engineering'	08/08/2012	Management

26. Student profile programme/course wise:

Name of the Course/Programme	Academic Year	Applications Received		Selected	Enrolled		Pass Percentage
		GA	CA		*M	*F	
B.E. Civil Engineering	2016-2017	24	33	57	40	17	-
	2015-2016	27	33	60	24	36	74.62
	2014-2015	26	34	60	26	34	87.14
	2013-2014	26	32	58	23	35	82.69
	2012-2013	27	32	59	29	30	88
M.E. Construction Engineering and Management	2016-2017	3	2	5	1	4	-
	2015-2016	4	13	17	4	13	94.11
	2014-2015	6	12	18	10	8	100
	2013-2014	8	10	18	6	12	100
	2012-2013	-	18	18	6	12	83
M.E. Structural Engineering	2016-2017	5	12	17	5	12	-
	2015-2016	4	14	18	6	12	100
	2014-2015	6	12	18	4	14	81.25
	2013-2014	6	10	16	5	11	-
	2012-2013	-	-	-	-	-	-

*M = Male *F = Female

27. Diversity of Students:

Name of the Course	Academic Year	% of Students from the Same State	% of Students from Other States	% of Students from Abroad
B.E. Civil	2016-2017	94.2	5.8	-

Engineering	2015-2016	98.63	1.37	-
	2014-2015	97.3	2.7	-
	2013-2014	94.52	5.48	-
	2012-2013	95.95	4.05	-
M.E. Construction Engineering and Management	2016-2017	100	-	-
	2015-2016	58.82	41.18	-
	2014-2015	66.67	33.33	-
	2013-2014	66.67	33.33	-
M.E. Structural Engineering	2012-2013	55.56	44.44	-
	2016-2017	88.24	11.76	-
	2015-2016	94.44	5.56	-
	2014-2015	77.78	22.22	-
	2013-2014	81.25	18.75	-
	2012-2013	-	-	-

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?

Sl. No.	Competitive Examination	Number of Students Appeared	Number of Students Cleared
1	GATE	110	6
2	TANCET	100	9

29. Student progression:

Student Progression	Against % Enrolled
UG to PG	24%
PG to M.Phil.	Not Applicable
PG to Ph.D.	Nil
Ph.D. to Post-Doctoral	Nil
Employed	
Campus Selection	3.4%
Other than campus recruitment	48.31%
Entrepreneurship/Self-Employment	7%

30. Details of Infrastructural facilities a) Library b) Internet facilities for Staff & Students c) Class rooms with ICT facility d) Laboratories:

Sl. No.	Infrastructural Facility		Details / Numbers		
1	Library		Area: 46.4 Sq.m.		Book Titles:82
2	Internet Facility to Staff and Students		Internet connectivity and Wi-Fi facility		
3	Class Rooms		7		
4	Class Rooms with ICT Facility		2		
5	Laboratories		9		
	Name of the Laboratory		Area	Capacity	Equipment Cost (in Rs.)
	i	Plumbing	83.65 Sq.m.	25	35,391
	ii	Environment Engineering lab	139.43 Sq.m.	30	9,93,828
	iii	Soil Mechanics Lab	139.43 Sq.m.	50	2,09,085
	iv	Strength of Materials Lab	139.43 Sq.m.	50	12,06,809

	v	Concrete and Highway Engineering Lab.	139.43 Sq.m.	50	16,01,054
		Concrete Casting Yard	85.00 Sq.m		
	vi	Survey Lab	111.54 Sq. m.	45	9,64,599
	vii	Fluid Mechanics	223.08 Sq. m.	45	11,80,900
	viii	Structural Engineering Lab	330 Sq. m	60	18,37,525

31. Number of students receiving financial assistance from college, university, Government or other agencies:

Scholarship	From College	From University	From Government	From Other Agency
Number of Students	18	-	83	-

32. Details on student enrichment programs (special lectures/workshops/seminar) with external experts:

Sl. No.	Enrichment Programs	Date	External Expert
1	3D printing	23/08/2016	Mr. J. Mahesh, Mr. B. Jacob, Trainee, CADD Center, Trivandrum.
2	Interior Architectural Design	06/08/2016	Mr. Vinoth Jose, Trainee, Dream Zone, Nagercoil.
3	Healthy life	23/08/2014	Ms. Babitha, Health Inspector, Jeyasekaran Hospital, Nagercoil.
4	Special programme on STAAD Pro software	27/07/2013	Mr. S. Vinoth Jose Raj, Software Engineer, EDUCAD, Nagercoil.

33. Teaching methods adopted to improve students learning:

1. Power point presentation: At the completion of every unit the power points are showed by pictures and flow charts which is easily understandable and knowledge to the students.
2. Recent Video Visual clippings: Videos related to the subjects are shown to students which are easily grasped by students compared to theory classes.
3. Additional Practical Classes relevant to curriculum: Students are taught by experimental and device usages in laboratory which is related to their theory subjects.
4. Industrial visits: Every semester the students are taken nearly 2 to 3 industrial visits for improving their technical knowledge.

34. Participation in Institutional Social Responsibility (ISR) and Extension activities:

1. National Service Scheme: Conducting seven days camp and other various social service activities (10 students).
2. Blood Donation: 20 students from our dept. donated blood through Youth Red Cross

35. SWOC analysis of the department and Future plans:

Strength:

1. Meritorious students prefer our institute in our district because of our brand name with unique status.
2. Qualified and experienced faculty members who have both field and academic experience.

3. Well qualified visiting professor with strong academic back ground from IIT.
4. Three of our faculty members have completed research under the following specializations: Architecture, corrosion control, Light weight concrete and Recycled aggregate.
5. Staff members published papers in reputed publications and presented 45 papers in various National and International Conferences.
6. Young faculty members with excellent team work among faculty and students.
7. Well qualified and experienced technical staff members who help in academic and research activities of the faculties as well as students.
8. Good infrastructure facility with adequate labs fully ventilated and furnished class rooms, tutorial rooms and drawing hall.
9. Effective programmes are planned in advance and perfectly executed.
10. Periodical interactions with popular industries are done.
11. Through sincere commitment of faculties, the department maintains the result percentage of 87.51%.
12. With Wi-Fi facility, student and staff can access 46 online journals including Else view, springer, ICSC etc.,
13. The department secured 44 University ranks and awards in Symposia, Conferences, Sports and Fine Arts.
14. With the help of our Alumni, we come to know the latest trends in our field and also get placement guidance.
15. Various Values added, Co-curricular, and Extracurricular courses are planned and conducted.

Weaknesses:

1. Lack of funded research projects.
2. Inability to acquire funds for research projects and to procure advanced hardware
3. As most of the students are from rural area, lack of communication skill becomes a barrier for them to get placed.
4. Lack of major construction companies in our locality. Hence students may not get the sufficient exposure.

Opportunities:

1. Improved potential helps to acquire International collaboration.
2. Communication network with R & D labs globally, IITs etc.
3. Generation of more fund through sponsored projects & consultancy.
4. More MOUs with industries, which will help in acquiring industrial training, Research & Placement.
5. By digitalized library system, possibility of enhancing the e-book and journal access globally.
6. Preparing Self-confident & quality enhanced UG/PG students as per the requirement of job market.
7. Sharing of recent advanced technologies among all technical staff.

Challenges:

1. To get highly meritorious students
2. To compete with colleges in cities, in admission and placement.
3. To prepare our students to face the latest changes in technologies by procuring advanced hardware / software.
4. To increase the job opportunities by improving the technical skill of students in term with the modern environment.
5. To get better salary / remuneration from Indian companies.
6. To receive Medias response for the development of our student's welfare with good

values.

Future Plans:

1. To establish resource Centre to impose the research activities.
2. To go for funded projects.
3. To expand our professional consultancy service.
4. Develop the career guidance team and programs.
5. To encourage the students in the involvement of research activities.
6. To have a linkage with village around.
7. To make more MoUs with industries in Cities

Evaluative Report

Department of Information Technology

1. Name of the Department : Information Technology

2. Year of Establishment : 2001

3. Names of Programmes/Courses offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.):

Sl. No.	Programmes/Courses Offered	Programme Level
1	B.Tech Information Technology	UG

4. Names of interdisciplinary courses and the departments/units involved:

Sl. No.	Interdisciplinary Courses	Department Involved
1	Engineering Graphics Engineering Practices Laboratory	Mechanical Engineering
2	Technical English – I, Mathematics – I, Engineering Physics – I, Engineering Chemistry – I Physics and Chemistry Laboratory - I Technical English – II, Mathematics – II, Engineering Physics – II, Engineering Chemistry – II Physics and Chemistry Laboratory - II Transforms and Partial Differential Equations Probability and Queuing Theory Communication and Soft Skills - Laboratory Based	Humanities and Sciences
3	Environmental Science and Engineering Microprocessor and Microcontroller Microprocessor and Microcontroller Laboratory Wireless Communication Bio Informatics	Information Technology

5. Annual/ semester/choice based credit system (programme wise) :

Sl.No.	Programme Level	Programme/Course	Annual/Semester/Choice Based
1	UG	B.Tech Information Technology	Semester

6. Participation of the department in the courses offered by other departments:

Sl. No.	Courses	Department
1	i) High Performance Networks ii) Advanced Satellite Based Systems iii) Multimedia Compression Techniques iv) Communication Networks Modelling and Simulation v) Communication and Networks Laboratory vi) Digital Electronics	Electronics and Communication Engineering

	vii) Environmental Science and Engineering viii) Real Time Embedded Systems	
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7. Courses in collaboration with other universities, industries, foreign institutions, etc.:

Sl. No.	Courses	University/Industry/Institution
1	Database Design and Programming with SQL	Oracle Academy
2	Web Designing and Scripting	ICT Academy
3	PHP with MYSQL	ICT Academy
4	Data Science and Big Data Analytics	EMC2
5	Java Programming	ICT Academy
6	DotNet Programming	ICT Academy
7	Oracle Database : Introduction to SQL	Oracle University
8	Oracle Database : PL/SQL	Oracle University
9	Cloud Infrastructure Services	EMC2
10	C# & ADO DotNet Programming	ICT Academy
11	ASP DotNet Programming	ICT Academy
12	CCNA	Thasar Infotech

8. Details of courses/programmes discontinued (if any) with reasons: Nil

9. Number of Teaching posts:

Teaching Post	Sanctioned	Filled
Professor	0	0
Associate Professor	1	1
Assistant Professor	12	12

10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt./Ph.D. / M. Phil. etc.),
(Experience as on 31-03-2017)

Sl. No.	Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students Guided for the Last 4 Years
1	Dr. R.P Anto Kumar	B.E.,M.E. Ph.D.	Associate Professor	B.E - ECE M.E - CSE Ph.D. - CS	16 Y & 8 M	--
2	Dr. D. Hevin Rajesh	B.E.,M.E. Ph.D.	Assistant Professor	B.E. - CSE M.E. - CSE Ph.D.-CSE	16Y & 2 M	--
3	Mr. G. Sahaya Stalin Jose	B.E.,M.E.	Assistant Professor	B.E-ECE M.E-DCN	14 Y & 9 M	--
4	Dr. R. Jemila Rose	B. Tech, M. Tech., Ph.D.	Assistant Professor	B. Tech-IT M. Tech-Computer and IT Ph.D. - CSE	9 Y & 11 M	--

5	Ms. Suja A. Alex	B. Tech., M.E.	Assistant Professor	B. Tech - IT M.E - CSE	8 Y & 8 M	--
6	Mr. N. Ansgar Mary	B. Tech., M.E.	Assistant Professor	B. Tech - IT M.E - CSE	9 Y & 8 M	--
7	Mr. J. Arul King	B.E.,M.E.	Assistant Professor	B.E - ECE M.E - Communicatio n Systems	5 Y & 9 M	--
8	Ms. M. Geetha Jenifel	B. Tech., M.E.	Assistant Professor	B. Tech - IT M.E - CSE	9Y & 8 M	--
9	Mr. E. Christo Eljin Raj	B.E.,M.E.	Assistant Professor	B.E-ECE M.E- AE	5 Y & 6 M	--
10	Mr. C.M. Varun	B.E.,M.E.	Assistant Professor	M.E. CSE B.E. CSE	5 Y & 9 M	--
11	Ms. L. Josephine Usha	B.E.,M.E.	Assistant Professor	B.E - CSE M.E - CSE	8 Y & 7 M	--
12	Ms. T.M. Angelin Monisha Sharean	B.E.,M.E.	Assistant Professor	B.E - CSE M.E - CSE	4 Y & 4M	--
13	Ms. L. Shany Infanto	B. Tech., M.E.	Lecturer	B. Tech - IT	2 Y & 4 M	--

11. List of senior visiting faculty: Nil

12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty:

Sl. No.	Programme	% of Classes Handled by Temporary Faculty
1	UG (B. Tech.)	0

13. Student -Teacher Ratio (programme wise)

Sl. No.	Programme	Student-Teacher Ratio
1	UG (B.E.)	14:1

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled:

Support Staff	Sanctioned	Filled
Technical	3	3
Administrative	1	1

15. Qualifications of teaching faculty with DSC/ D.Litt. / Ph.D. / MPhil / PG.

Highest Qualification	Number of Faculty
Ph.D.	03
Pursuing Ph.D.	04
M.E/ M. Tech	06

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received: Nil
17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received: Nil
18. Research Centre /facility recognized by the University : Nil
19. Publications:
- a) Publication per faculty :8.92
 - b) Number of papers published in peer reviewed journals (national/ International) by faculty and students :38
 - Conference publication:76
 - c) Number of publications listed in International Database :31
 - Web of Science :04
 - Scopus :09
 - Google Scholar :16
 - d) Monographs :Nil
 - e) Chapter in Books :Nil
 - f) Books Edited :Nil
 - g) Books with ISBN/ISSN numbers with details of publishers :03
 - h) Citation Index :13
 - i) SNIP(range) :Nil
 - j) SJR (range) :0.118-4.557
 - k) Impact factor (range) :0.14-5.629
 - l) h-index :1-2

Sl. No.	Faculty and Book Publication Details	Publisher	ISBN/ISSN Number
1	R. P. Anto Kumar - Computer Practice - UNIX – Basics & Advanced topics	Trisea Publications, Nagercoil	9788190927802,2010
2	R. P. Anto Kumar - Computer Practice - MS Office & C	Trisea Publications, Nagercoil	9788190927840,2009
3	R. P. Anto Kumar - Fundamentals of Computing & Computer Programming	Trisea Publications, Nagercoil	9788190927833,2009
4	Dr. R. Jemila Rose-Data Warehousing and Data Mining	Sri Krishna Hitech Publishing, Chennai - 600 077.	ISBN : 978-93-85364-95-2, 2017

20. Areas of consultancy and income generated:
- We provide consultancy in the areas of common accounting system, mess feedback system, website designing and maintenance to the institution of R.C diocese of Kuzhithurai and generated an income of Rs. 3, 50,000.
21. Faculty as members in a) National committees b) International Committees c) Editorial Boards...
- Five faculty members are having membership in IET, ISTE, IET IOT chair and CSI

member.

Sl. No.	Name of Faculty	Reviewer Details
1	Dr. D. Hevin Rajesh	1..Journal Of Computer Science 2. ETRI Journal 3. IEEE Sensor Journal 4. KSII Transaction On Internet And Information Systems
2	Dr. R.P. Anto Kumar	Int. J. of Business Information Systems (IJBIS)
3	Dr. R. Jemila Rose	1. Co-Editor: ERES International Journal of Information Management 2. Reviewer: International Conference on Novel Issues and Challenges in Science & Engineering'16 (NICSE'16) 3. Newsletter InfoTechZ

22. Student projects:

- Percentage of students who have done in-house projects including inter departmental/programme: UG -100%.
- Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies: UG -0%.

23. Awards/Recognitions received by faculty and students:

- One faculty got award from ICT academy best coordinator award.
- Faculty have received 117 awards for producing centum and near to centum results.
- Students have received 09 technical awards in national and international level.

24. List of eminent academicians and scientists/visitors to the department:

- More than 30 eminent academicians and scientist visited our department.

25. Seminars/Conferences/Workshops organized & the source of funding

a) National: 19

b) International: 01

Sl. No.	Seminar/Conference/Workshop	Date	Source of Funding
1	Symposium TechBETA2K16	01-04-2016	Management
2	Seminar on in Industry Needs	26-07-2016	Management
3	Motivational Training Programme	12-08-2016	Management
4	Motivational Training Programme	30-07-2016	Management
5	Seminar on Medical Image Processing	01-04-2016	Management
6	Seminar on Internet of Things	31-03-2016	Management
7	ICTACT Faculty Development Program on Digital Prototyping using Inventor 2015	23-11-2015 to 27-11-2015	Management
8	Faculty Development Program on Building Information Modeling using Revit 2015	26-10-2015 to	Management

		30-10-2015	
9	Seminar on How to Become Industry Ready	10-08-2015	Management
10	Motivation Training Program	08-08-2015	Management
11	Workshop on R-Programing	16-07-2015 to 17-07-2015	Management
12	Faculty Development Training Program on Android Programming	06-07-2015 to 10-07-2015	Management
13	Anna University Sponsored Faculty Development Training Program on Software Engineering	12-12-2014 to 19-02-2014	Management
14	Two day Workshop on Knowledge Discovery Using WEKA	07-09-2014 to 08-09-2014	Management
15	Motivational Program by Sigaram Academy of Excellence	31-07-2014	Management
16	Motivational and Presentation Skill Seminar	31-07-2014	Management
17	Anna University Sponsored Faculty Development Training Program on Programming and Data Structures	08-12-2014 to 15-02-2014	Management
18	Data Mining using WEKA Workshop	17-10-2013	Management
19	State Level Workshop on Simulation of Wireless Networks using NS-2	26-09-2013 to 27-09-2013	Management
20	Workshop on Android	19-09-2013 to 20-09-2013	Management
21	Workshop on Ethical Hacking Cum Championship	29-08-2013 to 30-08-2013	Management
22	International Conference on Green High Performance Computing	14-03-2013 to 15-03-2013	Management
23	National Level Conference on Future Information Technology	14-02-2013 to	Management

		15-02-2013	
24	National Level Workshop on Image Enhancement and Segmentation	29-01-2013 to 30-01-2013	Management
25	Two Day National Level Workshop on Image Processing and Web Image Mining	14-11-2012 to 15-11-2012	Management
26	Two Day National Level Workshop on NS-2	04-09-2012 to 05-09-2012	Management

26. Student profile programme/course wise:

Name of the Course/ Programme	Academic Year	Applications Received		Selected	Enrolled		Pass Percentage
		GA	CA		*M	*F	
B. Tech. Information Technology	2016-2017	19	21	40	16	24	--
	2015-2016	20	28	48	22	26	80
	2014-2015	17	17	34	11	23	94.64
	2013-2014	24	15	39	4	35	75
	2012-2013	22	28	50	8	42	73

*M = Male *F = Female, GA-Government Allotment, CA-Consortium Allotment.

27. Diversity of Students:

Name of the Course	Academic Year	% of Students from the Same State	% of Students from Other States	% of Students from Abroad
B. Tech Information Technology	2016-2017	97.5	2.5	0
	2015-2016	100	--	0
	2014-2015	91.67	8.33	0
	2013-2014	97.78	2.22	0
	2012-2013	92.6	7.4	0

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?

Sl. No.	Competitive Examination	Number of Students Appeared	Number of Students Cleared
1	GATE	16	--
2	TANCET	24	10

29. Student progression:

Student Progression	Year	Against % Enrolled
UG to PG	2015-2016	7.6
	2014-2015	3.7
	2013-2014	9.3
	2012-2013	8.6
PG to M.Phil.	Not Applicable	
PG to Ph.D.	Nil	
Ph.D. to Post-Doctoral	Nil	
Employed • Campus selection • Other than campus recruitment	Campus Selection	Off Campus Selection
	2015-2016 - 09	2015-2016 - 02
	2014-2015 - 26	2014-2015 - 04
	2013-2014 - 14	2013-2014 - 05
	2012-2013 - 03	2012-2013 - 03
	Total = 52	Total = 14
Entrepreneurship/Self-employment	01	

30. Details of Infrastructural facilities a) Library b) Internet facilities for Staff & Students c) Class rooms with ICT facility d) Laboratories:

Sl. No.	Infrastructural Facility	Details/Numbers		
1	Library	Area: 15sq.mtr Book Titles:240		
2	Internet Facility to Staff and Students	78 computers with internet connectivity and Wi-Fi.		
3	Class Rooms	3		
4	Class Rooms with ICT Facility	2 portable LCD projectors, 2 OHP projectors and 1 Laptop available for classroom use		
5	Laboratories	1		
	Name of the Laboratory	Area	Capacity	Equipment Cost
	i IT Computer Lab	180sq.mtr.	75 nos.	25,54,155.92

31. Number of students receiving financial assistance from college, university, Government or other agencies:

Scholarship	From College	From University	From Government	From Other Agency
Number of Students	7	Nil	57	Nil

32. Details on student enrichment programmes (special lectures/workshops/seminar) with external experts:

- Number of enrichment programmes organized:38

33. Teaching methods adopted to improve student learning:

The following teaching methods are used by faculty to improve student learning.

- Collaborative/Cooperative Learning
- Critical Thinking
- Discussion Strategies
- Experiential Learning

- Humor in the Classroom
- Learner-Centered Teaching
- Writing Assignments

34. Participation in Institutional Social Responsibility (ISR) and Extension activities:

Provides computer training for public during weekends and Vacation

Provides NDLM training and certification for Public in association with ICT Academy

Provides regular training to School teachers, School students, Police Personals etc..

Organize regular motivation program for School students towards higher studies

35. SWOC analysis of the department and Future plans:

Strengths:

- Highly Cooperative and smart working staff members.
- Organizing Industry oriented S/W trainings and value added courses like Oracle, Java, .NET, CCNA, PHP, Android, Cloud Infrastructure Services, Big data etc., for making industry ready graduates.
- Organizing regular placement training program to make the students updated for employability skills.
- Providing access of online Journals throughout the campus with the help of structured whole campus networking and high speed internet service.
- Organizing regular FDPs for the Faculty to enrich them as per the change of curriculum and Industry requirement.
- MOUs to train the students by Oracle University, Oracle Academy, ICTACT, IBM, EMC², Palo Alto and VMWare to compete globally.
- Regular interaction with eminent academicians, scientists and industrialists for academic enrichment.
- Atmosphere of success for faculty, staff, and students.
- Willingness to recognize weaknesses and make improvements.

Weaknesses:

- Lack of MoUs with industries for research purpose.
- Students are not able to work after college time due to Geographical distance.
- Lack of pace in adapting the fast changing modern trends.

Opportunities:

- Development of leaders in professional environment.
- Interdisciplinary growth across departments.
- Increase national and regional recognition.
- Plenty of research opportunities

Challenges:

- Influence of social media in students discipline and behaviors.
- Reduced student enrolment.
- Reduction in qualified applicants.
- Saturation of engineering education market.
- Declining interest in technical subjects by students.
- Negative perception among the public about IT.
- Geographically distant from a large urban area.

Future Plans:

- Become a research center of excellence.
- Produce 100% industry-ready engineers.
- Produce several academic ranks.

Evaluative Report

Department of Management Studies

1. Name of the department : Department of Management Studies

2. Year of Establishment : 2007

3. Names of Programmes / Courses offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.):

Sl. No.	Programmes / Courses Offered	Programme Level
1	Master of Business Administration	P.G

4. Names of Interdisciplinary courses and the departments/units involved:

Sl. No.	Interdisciplinary Courses	Department Involved
1	Written Communication	HSc - English
2	Statistics for Management	HSc - Maths
3	Applied Operation Research for Management	HSc - Maths
4	Professional Skill Development	HSc - English
5	Enterprise Resource Planning	MCA

5. Annual / semester / choice based credit system (programme wise):

Sl. No.	Programme Level	Programme/Course	Annual/Semester/Choice Based
1	P.G	Master of Business Administration	Semester System

6. Participation of the department in the courses offered by other departments:

Sl. No.	Courses	Department
1	Engineering Economics and Cost Analysis	Mechanical Engineering
2	Principles of Management	ECE and EEE
3	Professional Ethics and Human Values	EEE and ECE

7. Courses in collaboration with other universities, industries, foreign institutions, etc.: Nil

8. Details of courses / programmes discontinued (if any) with reasons: Nil

9. Number of teaching posts:

Teaching Post	Sanctioned	Filled
Professor	--	--
Associate Professor	--	--
Assistant Professor	08	08

10. Faculty profile with name, qualification, designation, specialization (D.Sc./D.Litt./Ph.D./M.Phil. etc.):

(Experience as on 31-03-2017)

Name	Qualification	Designation	Specialization	No. of Years of Experience		No. of Ph.D. Students Guided for the Last 4 Years
				Industry	Academic	
Mrs. Punitha Sahaya Mary Francis	B.Com., MBA	Asst. Professor	Finance	1Y	9Y3M	Nil

Mr. Maria Vinu.k	B.Com., MBA	Asst. Professor	Finance	6Y	8Y 6M	Nil
Dr. P. Lovelin Aguskani	B. Sc, MBA, M. Phil, Ph.D.	Asst. Professor	Finance, HRM	7Y	9Y 8M	Nil
Mr. R. Bright Reginold Raja	B.E., MBA	Asst. Professor	Production, Marketing	5Y 6M	11Y 9M	Nil
Ms. S. Jasmine Suguna	B Sc., MBA, MPhil.	Asst. Professor	Marketing	-	10Y 5M	Nil
Mr. J. Jerlin Rajan	M.A., MBA. MPhil. BGL.	Asst. Professor	Marketing, HRM	-	8Y 1M	Nil
Ms. S. Viji Chitra	B.Com., MBA	Asst. Professor	Finance	-	5Y 7M	Nil
Fr. A. Amaladhas Ten Singh	B.A., MBA.	Asst. Professor	Marketing, HRM	12Yrs	2Y 3M	Nil

11. List of senior visiting faculty:

Sl. No.	Faculty Name	Designation
1	Mr. J. Vijayadhas	Visiting Professor

12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty:

Sl. No.	Programme	% of Classes Handled by Temporary Faculty
1	PG (M.B.A.)	0

13. Student – Teacher Ratio (programme wise)

Sl. No.	Programme	Student-Teacher Ratio
1	PG (M.B.A)	15:1

14. Number of academic support staff (technical) and administrative staff; Sanctioned and filled:

Support Staff	Sanctioned	Filled
Technical	1	1
Administrative	1	1

15. Qualifications of teaching faculty with D.Sc. / D.Litt. / Ph.D. / MPhil / PG.

Sl. No.	Highest Qualification	Number of Faculty Members
1	Ph.D.	1
2	M.Phil.	2
3	M.B.A.	5

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received: Nil

17. Departmental projects funded by DST-FIST; UGC, DBT, ICSSR, etc., and total grants received: Nil

18. Research Centre / facility recognized by the University: Nil

19. Publications:

- a) Publication per faculty : 3.25
- b) Number of papers published in peer reviewed journals (national/International) by faculty and students :04
 - Conference publications :22
- c) Number of publications listed in International Database :04
 - Google Scholar :04

20. Areas of consultancy and income generated: Nil

21. Faculty as members in

a) National Committees

Sl. No.	Faculty	Details of the Committee	Year
1	Dr. P. Lovelin Aguskani	AIMA - Member	200921635 Life Member
2	Dr. P. Lovelin Aguskani	ISTE	LM 68148 Life Member

b) International Committees

Sl. No.	Faculty	Details of the Committee	Membership
1	Dr. P. Lovelin Aguskani	IEEE – SSIT - Treasurer	92310638
2	Dr. P. Lovelin Aguskani	IEEE – Education Society – Treasurer	92310638
3	Mr. R. Bright Reginold Raja	IET – Joint Secretary KKLN	1100375151

22. Student projects:

- a) Percentage of students who have done in-house projects including inter departmental / programme: PG - Nil
- b) Percentage of students placed for projects in organizations outside the institution i.e. in Research laboratories / Industry / other agencies: PG - 100 %

23. Awards / Recognitions received by faculty and students:

- Students have received 40 awards and recognition in academic, co-curricular and extra-curricular activities from college to international level.

24. List of eminent academicians and scientists / visitors to the department:

- Eminent academicians visited:27

25. Seminars / Conferences / Workshops organized & the source of funding

a) National: 10

b) International: Nil

Sl. No.	Seminar/Conference/Workshop	Date	Source of Funding
1	Application Statistical Tools in Research using SPSS and AMOS	08.04.2016 09.04.2016	Management
2	Strategic Approaches in Research Methodology	14.09.2012	Management
3	Traits of Entrepreneurship	09.09.2015	Management
4	Laws of Growth	11.09.2014	Management
5	Managerial Decision Making – Systems and Operations Research Models.	19.04.2013	Management
6	Communicate to win	04.04.2014	Management

		05.04.2014	
7	Social Entrepreneurship-Its Relevance	07.03.2014	Management
8	Quality Management for Space Applications	22.02.2014	Management
9	HR skills for Managerial Excellence	31.01.2014	Management
10	Management Practices in Contemporary Era	07.03.2014	Management

26. Student profile programme / course wise:

Name of the Course/Programme	Academic Year	Applications Received		Selected	Enrolled		Pass Percentage
		GA	CA		*M	*F	
MBA	2016-2017	14	46	60	15	45	--
	2015-2016	15	45	60	20	40	63.64
	2014-2015	14	45	59	27	32	62.16
	2013-2014	13	27	40	20	20	69.64
	2012-2013	15	45	60	28	32	62

*M=Male *F=Female

27. Diversity of Students:

Name of the Course	Academic Year	% of Students from the Same State	% of Students from Other States	% of Students from Abroad
MBA	2016-2017	98.33	1.67	-
	2015-2016	98.33	1.67	-
	2014-2015	98.31	1.69	-
	2013-2014	97.5	2.5	-
	2012-2013	95	5	-

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil Services, Defense Services, etc.?

Sl. No.	Competitive Examination	Number of Students Appeared	Number of Students Cleared
1	NET	2	-

29. Student Progression:

Student Progression	Against % Enrolled			
	2015-2016	2014-2015	2013-2014	2012-2013
UG to PG	NA	NA	NA	NA
PG to M.Phil.	--	5.40	5.35	3.84
PG to Ph.D.	--	--	--	--
Ph.D. to Post-Doctoral	--	--	--	--
Employed	2	4	--	--
• Campus selection	18	23	9	11
• Other than campus recruitment				
Entrepreneurship/Self-employment	36.36	72.97	16.07	21.15

30. Details of Infrastructural facilities a) Library b) Internet facilities for Staff & Students
c) Class rooms with ICT facility d) Laboratories:

Sl. No.	Infrastructural Facility	Details/Numbers		
1	Library	Area:40 Sq.mtr Book Titles: 162		
2	Internet Facility to Staff and Students	65 Computers with Internet Connectivity and Wi-Fi.		
3	Class Rooms	Class Rooms: 4 Area: 262 Sq.mtrs		
4	Class Rooms with ICT Facility	2 portable LCD Projectors, and 1 laptop		
5	Laboratories	1		
	Name of the Laboratory	Area	Capacity	Equipment Cost in Rs.
	i MBA Lab	135 sq.mtr	61	17,27,906

31. Number of students receiving financial assistance from college, university, Government or other agencies:

Academic year	Number of Students Received Scholarship from Government		
	First year	Second year	Total
2016-2017			
2015-2016	04	07	11
2014-2015	03	10	13
2013-2014	04	04	08
2012-2013	10	03	13

32. Details on student enrichment programmes (special lectures/workshops /seminar) with external experts:

- Enrichment Programmes :10
- Value Added Programmes :10
- Skill Development Programs :07

33. Teaching methods adopted to improve student learning:

Most of world class universities and business schools are adopting more practical methods of teaching in combination with lecturing method. Modern students prefer the teachers who are following both lecturing and non-lecturing methods of teaching to make them understand the concepts in a clear way. Some of the methods of teaching business studies courses which are widely used in the academic circles of our department are

- Class room group discussions and Brainstorming sessions
- Case Study method
- Learning in communities (Team learning) and Peer tutoring
- Role play
- Laboratory sessions on Business Application Software
- Workshops and conferences
- Industry visits
- Simulation, Business Games and Business Quiz
- Guest speakers from industry
- Research based individual/group projects
- Discussions with expert panels
- Films and audio visual methods teaching with digital edge
- Problem based learning (PBL)
- Mind Mapping

34. Participation in Institutional Social Responsibility (ISR) and Extension activities:

Students and Staff visit Government and aided schools, Orphanages, Old age homes, Home for mentally retarded and entertain the people and contribute and donate both financially and needed materials.

A bright but financially weak student Ms. L. Flomi Eskani of 2013-15 batch who did MBA was helped by contributing Rs 42,000/- financially to pay her final year tuition fees. The first year MBA students of 2015-17 batch visited St. Aloysius Higher secondary School, Karankadu and celebrated Childrens day with the school children by conducting games, events, and motivating them on career guidance.

The first year MBA students of 2016-18 batch visited Government Primary School, Chunkankadai on 14th November 2016 and celebrated Children's day with the school children by conducting games, events, and motivating them on career guidance.

35. SWOC analysis of the department and Future plans:

A scan of the internal and external environment is an important part of strategic planning process. Environmental factors internal to the college usually can be classified as Strengths (**S**) or Weaknesses (**W**) and those external to the college can be classified as Opportunities (**O**) or Challenges (**C**). Such an analysis of the strategic environment is referred to as a **SWOC Analysis**.

A strategic analysis of our environmental factors illustrated internally as well as externally.

Strengths:

- ✓ Experienced, Dedicated, and Competent Management, Faculty, and Staff.
- ✓ Growth and Diversity in MBA Program Enrollment.
- ✓ There is a strong bond and a high level of interaction between faculty and students.
- ✓ Diversified pool of faculty members who cater to the need of students from different disciplines.
- ✓ Availability of full time faculty.
- ✓ Faculties with sound industry exposure.
- ✓ Expertise in teaching non-traditional students.
- ✓ Well-known name for the college in the region.
- ✓ Increasing trend of enrollment followed by even patterns of growth in students admission.
- ✓ Staff to Student Ratio (1:15)
- ✓ Utilization of Technology Available.
- ✓ Well established facilities like Laboratory, Library, Business and Research software, Internet connected computers.
- ✓ Availability of Management Journals.
- ✓ Management support in organizing events, Management Fests, workshops, seminars.
- ✓ Training and workshops.
- ✓ Service to the university and the larger community by members of Faculty.

Weaknesses:

- Limited sources of funding like endowments.
- More management clubs to be formed to nurture the skills of the students.
- Restriction on social media due to miss practice by the students.
- Limited number of industry collaborations and MOUs.
- Lack of visiting faculty from industry.
- Research and development, consultancy and extension activities to be improved.

Opportunities:

- ✓ Global Management Concentration.
- ✓ Entrepreneurship Concentration.
- ✓ Internet, online, social media and virtual space concentration.
- ✓ Business student (entrepreneur) scholarships.
- ✓ Building on a Reputation for 'Managerial Talent'.
- ✓ Use of Competitions to Build Reputation and Enthusiasm for Business.
- ✓ Faculty and Curricular Diversity Initiatives.
- ✓ Increasing undergraduate management studies enrollment.
- ✓ Curriculum Expansion.
- ✓ Additional Partnership Programs.
- ✓ Taking students for In-house training, in-plant training.
- ✓ Diversity of interest of aspiring students towards Arts and Science.
- ✓ Scope for entrepreneurship development as to overcome sluggish job market.
- ✓ Build a postgraduate experience using the best practices from throughout the country.
- ✓ Potential for Research Cell, Consultancy cell and extension activities.

Challenges:

- No global exposure to the staff and students as the district lacks industries.
- Lack of employable skills of students.
- Dullness of employment market and increase in the number of unemployed.
- Developing the skillsets of Students to match the industry requirements.
- Non Availability of major Industries nearby.
- Location of corporates, professionals, offices, government organizations are at faraway places.
- Reduced public funding of higher education.
- Unpredictable global economic crisis which affects education industry as well.

Future Plans:

- ❖ Planning to introduce shipping and logistics course.
- ❖ Potentiality for Export and import course.
- ❖ There is a market gap for a B-School in the Region.
- ❖ Strengthening of research and development, consultancy activities.

Evaluative Report

Department of Computer Applications

1. Name of the department : Computer Applications

2. Year of Establishment : 2009

3. Names of Programmes/Courses offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.):

Sl. No.	Programmes/Courses Offered	Programme Level
1	Master of Computer Application	PG
2	Ph.D. Computer Applications	Ph.D.

4. Names of Interdisciplinary Courses and the Departments/Units Involved:

Sl. No.	Interdisciplinary Courses	Department Involved
1	Mathematical Foundation of Computer Science	Humanities and Sciences
2	Resource Management Techniques	Humanities and Sciences
3	Accounting and Financial Management	Master of Business Administration
4	Database Management Systems	Information Technology

5. Annual/semester/choice based credit system (programme wise):

Sl. No.	Programme Level	Programme/Course	Annual/Semester/Choice Based
1	PG	Master of Computer Application	Semester System
2	Ph.D.	Ph.D. Computer Applications	Semester System

6. Participation of the department in the courses offered by other departments:

Sl. No.	Courses	Department
1	Computer Programming	Computer Science and Engineering
2	Computer Programming	Mechanical Engineering
3	Computer Practice Laboratory	Computer Science and Engineering
4	Programming and Data Structures II	Computer Science and Engineering
5	Management Information Systems	Master of Business Administration
6	Advance Data Base Management System	Master of Business Administration
7	Enterprise Resource Planning	Master of Business Administration

7. Courses in collaboration with other universities, industries, foreign institutions, etc.:

Sl. No.	Courses	University/Industry/Institution
1	Excel VBA Programming	Infosys, Trivandrum
2	ANDROID Application Development	Infoziant Innovation Lab, Nagercoil.
3	Satellite and Their Applications	MS University, Tirunelveli.
4	PHP Programming	S.T. Hindu College, Nagercoil.
5	Network Simulator 2	Karunya University, Coimbatore.
6	WEKA Tool in Data Mining	PSN College of Engineering and Technology, Tirunelveli.

8. Details of courses / programmes discontinued (if any) with reasons: Nil

9. Number of teaching posts:

Teaching Post	Sanctioned	Filled
Professor	01	01
Associate Professor	01	01
Assistant Professor	05	05

10. Faculty profile with name, qualification, designation, specialization (D.Sc. /D.Litt. /Ph.D. /M.Phil. etc.)
(Experience as on 31-03-2017)

Sl. No.	Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students Guided for the Last 4 Years
1	Dr. F. Ramesh Dhanaseelan	M.Sc., M. Tech., Ph.D.	Professor	Data Mining	23 Y 7 M	Completed-01 Enrolled-08
2	Dr. M.M. Janeela Theresa	M.Sc., M.Phil., Ph.D.	Associate Professor	Soft Computing	22 Y 9 M	-
3	Dr. R. Reena Rose	M.Sc., M.Phil., Ph.D.	Assistant Professor	Image Processing	17 Y 7 M	-
4	Mrs. M. Jasmin Annie Genefer	M.Sc., M.Phil.	Assistant Professor	Networking	10 Y 7 M	-
5	Ms. M. Jeya Sutha	MCA, M.Phil.	Assistant Professor	Data Mining	12 Y 8 M	-
6	Mr. J. Jenifer Jose	B. Tech., M. Tech.	Assistant Professor	Networking	6 Y 7 M	-
7	Ms. J. Jencewin	B.E., M.E.	Assistant Professor	Networking	6 Y 8 M	-

11. List of senior visiting faculty: Nil

12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty:

Sl. No.	Programme	% of Classes Handled by Temporary Faculty
1	PG(MCA)	0

13. Student-Teacher Ratio (programme wise):

Sl. No.	Programme	Student-Teacher Ratio
1	PG (MCA)	17:1

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled:

Support Staff	Sanctioned	Filled
Technical	01	01
Administrative	01	01

15. Qualifications of teaching faculty with DSc/D.Litt./Ph.D./MPhil/PG.

Name	Qualification	No. of Years of Experience
Dr. F. Ramesh Dhanaseelan	M.Sc., M. Tech., Ph.D.	23 Y 4 M

Dr. M.M. Janeela Theresa	M.Sc., M.Phil., Ph.D. (SET)	22 Y 6 M
Dr. R. Reena Rose	M.Sc., M.Phil., Ph.D. (SET)	17 Y 3 M
Ms. M. Jasmin Annie Genefer	M.Sc., M.Phil.	10 Y 4 M
Ms. M. Jeya Sutha	MCA, M.Phil. (SET)	12 Y 5 M
Mr. J. Jenifer Jose	B. Tech., M. Tech.	6 Y 4 M
Ms. J. Jencewin	B.E., M.E.	6 Y 5 M

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received: Nil

17. Departmental projects funded by DST-FIST; UGC, DBT, ICSSR, etc. and total grants received: Nil

18. Research Centre/facility recognized by the University:

Department of Computer Applications is a recognized research Centre. The following table shows the details of research Centre.

University	Year of First and Last Recognition	Validity	Recognition Number	No. of Supervisors	No. of Scholars
Anna University	October 2016	December 2019	4497116	2	--

19. Publications:

a) Publication per faculty :03

b) Number of papers published in peer reviewed

Journals (national / international) by faculty and students :02

➤ Conference publications :15

c) Number of publications listed in International Database :19

➤ Web of Science :09

➤ Scopus :16

➤ Google Scholar :21

Sl. No.	Name of the Faculty	Publications in Journals								
		Total	Listed in International Database			Citation Index	SNIP (range)	SJR (range)	IF (range)	h-Index
			WoS	SCO	GS					
1	Dr. F. Ramesh Dhanaseelan	7	2	7	7	14	2.365	0.855	0.877	2
2	Dr. M. M. Janeela Theresa	4	3	3	4	15	3.769	2.868	4.487	2
3	Dr. R. Reena Rose	7	2	4	7	47	2.351	0.983	1.307	2
4	Ms. M. Jeya Sutha	3	2	2	3	0	0.368	0.168	0.877	0

20. Areas of consultancy and income generated:

Sl. No.	Faculty/Student Member(s)	Organization	Income Generated in Rs.
1	Ms. J. Shafrin Ashna	Life Care Trust, Kodimunai.	5,000
2	Ms. A. Arjuana	Joseph Driving School, Nagercoil.	5,000

21. Faculty as members in a) National committees b) International Committees c) Editorial Boards.....:

Sl. No.	Faculty	Details of the Committee
1	Dr. F. Ramesh Dhanaseelan	General Chair in IEEE International Conference on Emerging Trends in Electrical & Computer Technology.
2	Dr. F. Ramesh Dhanaseelan	Local Chair in IEEE International Conference on Green High Performance Computing.
3	Dr. F. Ramesh Dhanaseelan	Reviewer in Arabian Journal for Science and Engineering (Springer).
4	Dr. M.M. Janeela Theresa	Reviewer in International Journal of Computer Mathematics.(Taylor & Francis).
5	Dr. R. Reena Rose	Reviewer in IET Image Processing.
6	Dr. R. Reena Rose	Chair in IEEE International Conference on Computer and Communication Technology (ICCCT-2010).
7	Dr. R. Reena Rose	Registration committee member in IEEE International Conference on Emerging Trends in Electrical & Computer Technology.
8	Dr. R. Reena Rose	Registration and Certificate committee convener in International Conference On Applied Mathematics And Theoretical Computer Sciences (ICAMTCS-2013).

22. Student projects:

- Percentage of students who have done in-house projects including inter departmental /programme: 8%.
- Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies: 92%.

23. Awards/Recognitions received by faculty and students:

- One faculty had got best paper presentation award in IEEE.
- Faculty have received 07 awards for producing centum and near to centum results.
- Students have received 30 awards and recognition in academic, co-curricular and extra-curricular activities from college to international level.

24. List of eminent academicians and scientists/visitors to the department:

Sl. No.	Name of the Eminent Person	Date of Visit	Purpose
1	Shri. J. Anish Balan Xavier, Technical lead, Infosys, Trivandrum.	07-10-2016	Workshop on "Excel VBA Programing"
2	Shri. J. Asir Packiaraj, Scientists, ISRO, Mahendragiri.	23-02-2016	Chief Guest, National level Technical Symposium

3	Dr. J. Emerson Raja, Department of Information Technology, Malaysian University.	19-09-2016	Motivation talk for our students
4	Dr. Y. Jacob Vetha Raj, Associate Professor, Department of computer science, NMCC, Marthandam.	14.10.2015 & 15.10.2015	Workshop on “.NET Programing”
5	Mr. Alfred Raja Melbin, Department of CSE, Karunya University, Coimbatore.	01.04.2015	Workshop on “NS2”
6	Er. R.M. Cyril Xavier, BSNL, Nagercoil.	24.07.2014 & 25.07.2014	Two days “Motivational Training Program”
7	Dr. A. Suruliandi, Associate Professor, Dept. of CSE, MS University, Tirunelveli.	14.09.2012	Seminar on “Satellite and their Applications”
8	Prof. Dr. C. Nelson Kennady Babu, Dean, R & D Centre, Sri Sowbakya College of Engineering, Aruppukottai.	19.04.2012	Seminar on “Research Trends in Image Processing and its Applications”

25. Seminars/Conferences/Workshops organized & the source of funding

a) National

b) International

Sl. No.	Seminar/Conference/Workshop	Date	Source of Funding
1	National Conference on “Computing Intelligence and Applications”	09.04.2013	Management
2	National level Technical Symposium “SMART’16”	23.02.2016	Management
3	National level Technical Symposium “SMART 14”	17.09.2014	Management
4	National Level Technical Symposium “SMART’12”	27.09.2012	Management

26. Student profile programme / course wise:

Name of the Course/ Programme	Academic Year	Applications Received	Selected	Enrolled		Pass Percentage
				*M	*F	
MCA	2016-2017	52	52	8	44	-
	2015-2016	45	45	9	36	91.04
	2014-2015	68	68	09	59	98.11
	2013-2014	03	03	00	03	76
	2012-2013	37	37	7	30	88

*M=Male *F=Female

27. Diversity of Students:

Name of the Course	% of Students from the Same State	% of Students from Other States	% of Students from Abroad
2016-2017	94.23	5.77	--
2015-2016	86.67	13.33	--
2014-2015	98.53	1.47	--

2013-2014	100	--	--
2012-2013	97.3	2.7	--

28. How many students have cleared national and state competitive examinations such as NET, TANCET, SLET, GATE, Civil services, Defense services, etc.?

Sl. No.	Competitive Examination	Number of Students Appeared	Number of Students Cleared
1	TANCET	28	28

29. Student progression:

Student Progression	Against % Enrolled			
	2015-2016	2014-2015	2013-2014	2012-2013
UG to PG	Nil			
PG to M.Phil.	4.47	3.77	4	12.5
PG to Ph.D.	Nil			
Ph.D. to Post-Doctoral	Nil			
Employed	7046	9.43	--	--
• Campus selection				
• Other than campus recruitment	16.41	22.64	30	32.14
Entrepreneurship/Self-employment	11.94	18.86	26	21.42

30. Details of Infrastructural facilities a) Library b) Internet facilities for Staff & Students c) Class rooms with ICT facility d) Laboratories:

Sl. No.	Infrastructural Facility	Details/Numbers		
1	Library	Area: 9.5 sq.m Book Titles: 90		
2	Internet Facility to Staff and Students	65 computers with Internet connectivity and Wi-Fi.		
3	Class Rooms	No: 2 Area : 162 sq.m		
4	Class Rooms with ICT Facility	2 Portable LCD Projectors, 2 OHP Projector, 1 Projector Screen and 1 Laptop available for class room use.		
5	Laboratories			
	Name of the Laboratory	Area	Capacity	Equipment Cost in Rs.
	Computer Lab	142 sq.m	SYSTEM – 64 (Intel 2.2 GHz, Core 2 Duo Processor, 945 GCP Motherboard, 2 GB RAM, 160 GB Hard Disk, CD Drive, Optical Mouse, Keyboard, 17" LCD Monitor) Printer – 1 (Laser Printer) UPS – 25 KVA White Board – 1 LCD Projector – 1	16,11,800

31. Number of students receiving financial assistance from college, university, Government or other agencies:

Sl. No.	Academic Year	Nature of the Scholarship	Number of Girls	Number of Boys
1	2015-2016	Merit-cum Means Scholarship	9	1
2	2015-2016	BC/MBC/DNC Scholarship	2	-
3	2014-2015	Minority Scholarship	28	2
4	2014-2015	BC/MBC/DNC Scholarship	12	-
5	2013-2014	Minority Scholarship	17	2
6	2013-2014	BC/MBC/DNC Scholarship	13	1
7	2012-2013	Minority Scholarship	4	-
8	2012-2013	BC/MBC/DNC Scholarship	15	4

32. Details on student enrichment programmes (special lectures/workshops/seminar) with external experts:

Sl. No.	Enrichment Programme	Date	External Expert
1	Workshop on "Service Oriented Architecture"	14.10.2016	Mr. Sunil George, Technical Architect, Zafin Technologies, Technopark, Trivandrum.
2	Motivation program on "Soft Computing Techniques"	19.09.2016	Dr. J. Emerson Raja, Department of Information Technology, Malaysian University.
3	Workshop on ".Net Programming"	14.10.2015 & 15.10.2015	Dr. Y. Jacob Vetha Raj, Professor, Department of Computer Science, Nesamony Memorial Christian College, Marthandam.
4	Two day "Motivational Training Program"	24.07.2014 & 25.07.2014	Er. M.R. Cyril Xavier, BSNL, Nagercoil.
5	One day Workshop on "Hands on Training in ASP.NET"	20.04.2013	Dr. Y. Jacob Vetha Raj, Prof., Dept. of Computer Science, NMC College, Marthandam.
6	Seminar on "Big Data Analytics"	27.09.2013	Er. R. Jay Krishnan. IBS, Trivandrum.
7	Seminar on "Research Trends in Image Processing and Its Applications"	19.04.2012	Prof. Dr. C. Nelson Kennady Babu, Dean, R & D Centre, Sri Sowbakya College of Engineering, Aruppukottai.

33. Teaching methods adopted to improve student learning:

- Course In-charges prepare a course file for each course that includes syllabus, Course objectives and Course outcomes, Program Educational Objectives and Program outcomes, mapping COs and POs, lesson plans, question banks, lecturer notes.
- Audio-visual presentations are used for theory and practical classes.
- Writing assignment provides an opportunity for students to apply critical thinking skills as well as help them to learn course content.
- Seminars and Quiz.
- Class discussions conducted by a team of students for encouraging students learning

skills.

- Mini projects (Individual and group based projects).
- Research oriented final year projects and Research paper publication in conference/journals.
- Invited guest lectures are regularly arranged.
- Remedial classes are conducted for slow learners.
- Industrial visits are arranged.
- Extra syllabus allows students study beyond the university syllabus.

34. Participation in Institutional Social Responsibility (ISR) and Extension activities:

The department is committed to social responsibility, by carrying out its mission.

1. The department aims at providing very high quality education in computer applications and there by develop year new and smart generation of computer applications professionals with proper transformation of leadership, commitment and moral values.
2. It aims at pursuing excellence towards creating students with high degree of intellectual, professional and cultural development to meet the national and global challenges.
3. The department is conscious of its role in campus community connection, wellbeing of its neighborhood and has initiated a number of community development activities.

These activities include:

- Involving students in Blood Donation Camps-15 students donated blood.
- Participation in inter and intra-college symposiums (Programming contest, paper presentations and project presentations).
- Participation in student welfare activities.
- Helping students in association and club activities.

35. SWOC analysis of the department and Future plans:

Strength

- Experienced, dedicated and highly qualified Teaching Staff.
- Active Research publications.
- Recognized as research Centre for Anna University.
- Digital library and online materials.
- Well defined program assessment.
- Providing employment opportunities for the students through on campus & off campus placement.
- Successful in getting the satisfaction of the employer.
- National Conferences, Symposium, Guest Lectures, seminars, Industrial Visits, Workshops, Value added courses and Students Development Programs are being organized in every academic year.
- Wi-Fi connection facility.
- MOUs are signed with industries.
- Our students consistently secure University ranks.
- Ever year students participated in inter collegiate programs and won many prizes.
- Additional topics, beyond syllabus are covered by the teachers.
- The Department recognizes and appreciates top academic performers in each class in the internal evaluation and University examinations.
- The faculty retention is excellent. They are given full academic freedom.

- Teacher Mentors: Each class has three Mentors, who are Faculty members of the Dept.
- Special Coaching: Technical, soft skill, HR skill.
- Innovative Project Works by students.
- Very Good result.

Weakness

- Industry Institution Interaction needs to be strengthened further.
- Consultancy and extension activities need improvement.

Opportunities

- The interdisciplinary research gives opportunity in all areas.
- Lot of Government jobs for the students.
- Faculty participation in external funding.
- Funded project works.

Challenges

- Students with poor background & knowledge have to be molded as smart and talented students.
- Quality of new students is not good. The declining quality of students may exert pressure on the teachers.
- Job Market slowdown/ recession.

Future Plans:

- To establish industry / academic interactions or collaborations with reputed external organizations.
- Provide better opportunities for our faculty and students to engage in Professional consultancy services to multinational sectors.
- Patenting the innovative research work carried out in the department.
- Expansion of departmental Research activities among teachers and students.

Evaluative Report

Department of Humanities and Sciences

1. Name of the department : Humanities and Sciences
2. Year of Establishment : 1998
3. Names of Programmes / Courses offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.): NA

4. Names of Interdisciplinary courses and the departments/units involved:

Sl. No.	Interdisciplinary Courses	Department Involved
1	i) Computer Programming, ii) Digital Principles and System Design, iii) Programming and Data Structures I, iv) Computer Practice Laboratory, v) Programming and Data Structures Laboratory I, vi) Computer Programming Laboratory	Computer Science and Engineering
2	i) Circuit Theory, ii) Basic Electrical and Electronics Engineering iii) Engineering Practices Laboratory, vi) Electric Circuits Laboratory	Electrical and Electronics Engineering
3	i) Engineering Graphics, ii) Engineering Mechanics iii) Engineering Practices Laboratory, iv) Computer Aided Drafting and Modeling Laboratory, v) Basic Civil and Mechanical Engineering	Mechanical Engineering
4	i) Electronic Devices , ii) Digital Laboratory, iii) Circuits and Devices Laboratory,	Electronics and Communication Engineering
5	i) Basic Civil and Mechanical Engineering	Civil Engineering
6	i) Digital Principles and System Design, ii) Programming and Data Structures I, iii) Digital Laboratory, iv) Programming and Data Structures Laboratory I	Information Technology

5. Annual/semester/choice based credit system (programme wise):

Sl. No.	Programme Level	Programme/Course	Annual/Semester/Choice Based
1	UG	B.E. Computer Science and Engineering	Semester System
2	UG	B.E. Electronics and Communication Engineering	Semester System
3	UG	B.E. Electrical and Electronics Engineering	Semester System
4	UG	B.E. Civil Engineering	Semester System
5	UG	B. Tech. Information Technology	Semester System
6	UG	B.E. Mechanical Engineering	Semester System

6. Participation of the department in the courses offered by other departments:

Sl. No.	Courses	Department
1	i) Technical English-I ii) Engineering Mathematics-I iii) Engineering Physics-I iv) Engineering Chemistry-I	Computer Science and Engineering, Electronics and Communication Engineering, Electrical and Electronics Engineering, Mechanical Engineering, Civil Engineering, Information Technology.
2	i) Technical English-II ii) Engineering Mathematics-II iii) Engineering Physics-II iv) Engineering Chemistry-II	Computer Science and Engineering, Electronics and Communication Engineering, Electrical and Electronics Engineering, Mechanical Engineering, Civil Engineering, Information Technology.
3	i) Physics and Chemistry Laboratory-I ii) Physics and Chemistry Laboratory-II	Computer Science and Engineering, Electronics and Communication Engineering, Electrical and Electronics Engineering, Mechanical Engineering, Civil Engineering, Information Technology.
4	Communicative English	Computer Science and Engineering, Electronics and Communication Engineering, Electrical and Electronics Engineering, Mechanical Engineering, Civil Engineering, Information Technology, Master of Business Administration, Master of Computer Applications.
5	Probability and Queuing Theory	Computer Science and Engineering, Information Technology.
6	Probability and Random Processes	Electronics and Communication Engineering.
7	Numerical Methods	Civil Engineering, Electrical and Electronics Engineering.
8	Statistics and Numerical methods	Mechanical Engineering
9	Transforms and Partial Differential Equations	Computer Science and Engineering, Electronics and Communication Engineering, Electrical and Electronics Engineering, Mechanical Engineering, Civil Engineering, Information Technology.
10	Discrete Mathematics	Computer Science and Engineering.
11	Environmental Science and Engineering	Computer Science and Engineering, Electrical and Electronics Engineering.
12	Statistical Methods for Engineers	Civil Engineering, Mechanical Engineering.
13	Applied Mathematics for Electrical Engineers	Electrical and Electronics Engineering.
14	Applied Probability and Statistics	Computer Science and Engineering.

15	Advanced Mathematical methods	Civil Engineering.
16	Applied Mathematics for Electronics Engineers	Electronics and Communication Engineering.
17	Statistics for Managements	Master of Business Administration.
18	Advanced Numerical methods	Mechanical Engineering.
19	Applied Mathematics for Communication Engineers	Electronics and Communication Engineering.
20	Applied Operational Research	Master of Business Administration.
21	Theoretical Foundations for Computer Science	Computer Science and Engineering.
22	Professional Skills Development	Master of Business Administration.
23	Communication and Soft Skills - Laboratory based	Civil Engineering, Electrical and Electronics Engineering, Computer Science and Engineering, Electronics and Communication Engineering, Mechanical Engineering, Information Technology.

7. Courses in collaboration with other universities, industries, foreign institutions, etc.: Nil

8. Details of courses/programmes discontinued (if any) with reasons : Nil

9. Number of teaching posts:

Teaching Post	Sanctioned	Filled
Professor	2	2
Associate Professor	5	5
Assistant Professor	21	21

10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt./Ph.D. / M. Phil.

etc.):

(Experience as on 31-03-2017)

Sl. No.	Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students Guided for the Last 4 Years
1	Dr. J. Xavier Pragasam	M. Sc., M. Phil., Ph.D.	Professor	Mathematics	24Y 9M	--
2	Dr. L. Mary Florida	M.Sc., M.Phil., Ph.D.	Associate Professor	Mathematics	13Y 8M	--
3	Dr. D. Mary Mettalin	M.Sc., B.Ed., M.Phil., Ph.D.	Associate Professor	Mathematics	19Y 9M	--
4	Ms. M. Felix Nes Mabel	M.Sc., B.Ed., M.Phil.	Assistant Professor	Mathematics	9Y 7M	--

5	Ms. T. Berjin Magizha	M.Sc., M.Phil.	Assistant Professor	Mathematics	8Y 9M	--
6	Ms. S. Asha Alice	M.Sc., M.Phil.	Assistant Professor	Mathematics	8Y 9M	--
7	Mr. V. Vijimon Moni	M.Sc., M.Phil.	Assistant Professor	Mathematics	8Y 9M	--
8	Ms. P. Adin Shiny	M.Sc., M.Phil.	Assistant Professor	Mathematics	6Y 8M	--
9	Mr. J. Sahaya Joseph	M.Sc., M.Phil., B.Ed.	Assistant Professor	Mathematics	5Y 9M	--
10	Mr. L. Lucase	M.Sc., B.Ed., M.Phil.	Assistant Professor	Mathematics	7Y 8M	--
11	Ms. S. Sophia	M.Sc., B.Ed., M.Phil.	Assistant Professor	Mathematics	5Y 3M	--
12	Ms. M. Alexlin Sahaya Ithal	M.Sc., B.Ed., M.Phil.	Assistant Professor	Mathematics	3Y 8M	--
13	Dr. S. Edwin Gladson	M.Sc., M.Phil., Ph.D.	Associate Professor	Physics	18Y 8M	--
14	Dr. S.M.R. Joseph Ramesh	M.Sc., M.Phil. M.Ed., Ph.D.	Associate Professor	Physics	18Y 8M	--
15	Mr. N. Sheen Kumar	M.Sc., M.Phil.	Assistant Professor	Physics	14Y 7M	--
16	Ms. C. Amala Prathiba Janet	M.Sc., M.Phil.	Assistant Professor	Physics	4Y 8M	--
17	Ms. A. Ludvin Felcy	M.Sc., M.Phil. B.Ed.	Assistant Professor	Physics	10Y 8M	--
18	Dr. R. Inigo	M.Sc. M.Phil. .B.Ed. Ph.D.	Associate Professor	Chemistry	22Y 9M	--
19	Dr. V. Sreeja	M.Sc., M.Phil., Ph.D.	Assistant Professor	Chemistry	13Y 8M	--
20	Ms. A. Suhasini	M.Sc., M.Phil.	Assistant Professor	Chemistry	10Y 9M	--
21	Ms. A. Maria Sheela	M.Sc., M.Phil.	Assistant Professor	Chemistry	10Y 8M	--
22	Ms. M. Vimala Joice	M.Sc., M.Phil.	Assistant Professor	Chemistry	3Y 2M	--
23	Ms. A.M. Alice Margret	M.Sc., M.Phil.	Assistant Professor	Chemistry	19Y3M	--

24	Ms. J. Mary Vanaja	M.A., M.Phil.	Assistant Professor	English	10Y 7M	--
25	Dr. M. Maenu	MA., M.Phil., B.Ed., Ph.D.	Assistant Professor	English	9Y 4M	--
26	Mr. J. Aloysius	M.A., M.Phil.	Assistant Professor	English	20Y 10M	--
27	Ms. M. Thasnavis Illavarasi	MA., M.Phil., B.Ed.	Assistant Professor	English	8Y 5M	--

11. List of senior visiting faculty:

Sl. No.	Faculty Name	Designation
1	Mr. M. Sebastian	Professor

12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty:

Sl. No.	Programme	% of Classes Handled by Temporary Faculty
1	UG (B.E.)	0

13. Student -Teacher Ratio (programme wise)

Sl. No.	Programme	Student-Teacher Ratio
1	UG (B.E.)	16:1

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled:

Support Staff	Sanctioned	Filled
Technical	4	4
Administrative	1	1

15. Qualifications of teaching faculty with DSC/ D.Litt. / Ph.D./ M.Phil. / PG.

Highest Qualification	Number of faculty
Ph.D.	8
M.Phil.	20

Number of Faculty Members Qualified NET/SLET	4
Number of Faculty Members Pursuing Ph.D.	11

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received: NA

17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received:

Sl. No.	Departmental Project	Funding Agency	Grant Received (Rs. in Lakhs)
1	International Conference on	DST	1.00

	Applied Mathematics and Theoretical Computer Science (ICAMTCS) 24-01-2013 & 25-01-2013	CSIR DRDO	0.70 0.40
2	INSPIRE Internship Science Camp 15-07-2013 to 19-07-2013	DST	9.49
3	INSPIRE Internship Science Camp 14-07-2014 to 18-07-2014	DST	9.75

18. Research Centre /facility recognized by the University : Nil

19. Publications:

- a) Publication per faculty : 2.59
- b) Number of papers published in peer reviewed journals
(national/international) by faculty and students :32
 - Conference publications :38
- c) Number of publications listed in International Database :22
 - Scopus :08
 - Google Scholar :21
- a) Monographs :Nil
- b) Chapter in Books :Nil
- c) Books Edited :Nil
- d) Books with ISBN/ISSN numbers with details of publishers :6
- e) Citation Index :920
- f) SNIP(range) :0.627-1.067
- g) SJR(range) :0.278-1.095
- h) Impact factor(range) :0.752-3.97
- i) h-index :1-4

Sl. No.	Faculty and Book Publication Details	Publisher	ISBN/ISSN Number
1	Dr. J. Xavier Pragasam Title: Transforms and Partial Differential Equations, 2012	NiMeric Publications Nagercoil	ISBN 978-81-923371-2-8
2	Dr. L. Mary Florida Title: Statistics for Management, 2016.	Bonfring Coimbatore	ISBN 978-93-86176-21-9
3	Dr. L. Mary Florida, M. Felix Nes Mable, T. Bergin Magizha and S. Asha Alice. Title: Engineering Mathematics-II, 2017	Bonfring Coimbatore	ISBN 978-93-86176-41-7
4	Dr. L. Mary Florida Title: ICAMTCS 2013	Bonfring Coimbatore	ISBN 978-93-82338-30-7
5	Dr. S. M.R. Joseph Ramesh & N. Sheen Kumar Title: Engineering Physics – I, 2015.	Balaji Publishers	ISBN 978-93-85126-09-3
6	Dr. S. Edwin Gladson, C. Amala Prathiba Janet & A. Ludvin Felcy Title: Engineering Physics – II, 2017.	SMR Publishers	ISBN-978-81-910-747-96
7	Dr. R. Inigo, Dr. V. Sreeja A. Suhasini A. Maria Sheela M. Vimala Joice , A.M. Alice Margret	Ganam Publishers	-

	Title: Engineering Chemistry – I, 2014 Title: Engineering Chemistry – II, 2015		
8	Dr. R. Inigo, A.M. Alice Margret. Title: Engineering Chemistry – I, 2009 Title: Engineering Chemistry – II, 2010	Virucham Publications, Nagercoil,	-
9	Dr. R. Inigo Title: Engineering Chemistry – I, 2012 Title: Engineering Chemistry – II, 2013	Sri Maruthi Publishers Chennai	-
10	Dr. R. Inigo Title: Engineering Chemistry – I, 2013	Jaitech Publications Chennai	-
11	A.M. Alice Margret Title: Environmental Science & Engineering, 2009	Virucham Publications, Nagercoil,	-
12	A.M. Alice Margret Title: Polytechnic Chemistry, 1999	N.V Publications Pollachi	-
13	J. Mary Vanaja , Dr. M. Maenu , J. Aloysius, M. Thasnavis Illavarasi Title: Technical English - II	Seba Publishers	-

20. Areas of consultancy and income generated:

Experts available for consultancy and testing:

Sl. No.	Faculty Member	Areas of Consultancy
1	Dr. J. Xavier Pragasam	Krein Algebras
2	Dr. L. Mary Florida	Graph Theory, Net Working Statistical Techniques
3	Dr. D. Mary Mettalin	Graph Theory
4	Dr. S. Edwin Gladson	Biophysics, Ultrasonics
5	Dr. S. M.R. Joseph Ramesh	Crystal Physics
6	Dr. R. Inigo	Corrosion
7	Dr. V. Sreeja	Water Chemistry Sediment Chemistry
8	Dr. M. Maenu	-

21. Faculty as members in a) National committees b) International Committees c) Editorial Boards.....:

Sl. No.	Faculty	Details of the Committee
1	Dr. J. Xavier Pragasam	Life Member, Indian Mathematical Society 1989 Life Member, Ramanujan Mathematical Society (No. 262) 2016 Member, The Indian Society for Technical Education (LM 34212) 2002
2	Dr. L. Mary Florida	Member of American Mathematical Society
3	Dr. D. Mary Mettalin	Member, The Indian Society for Technical Education (LM 34218) 2002
4	Dr. S. Edwin Gladson	Member, The Indian Society for Technical Education (LM 34219) 2002 Member, Ultrasonic Society of India (LM 191) 2007
5	Dr. S.M.R. Joseph	Member, The Indian Society for Technical Education

	Ramesh	(LM 34220) 2002
6	Dr. R. Inigo	Member, The Indian Society for Technical Education(LM 34213)2002
7	Dr. V. Sreeja	Member of Board of Studies (Chemistry) Scott Christian College, Nagercoil.

22. Student projects:

- a) Percentage of students who have done in-house projects including inter Departmental/programme : NA
- b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies : NA

23. Awards/Recognitions received by faculty and students:

- Faculty have received 78 awards for producing centum and near to centum results.
- Students have received 71 awards and recognition in academic, co-curricular and extra-curricular activities from college to international level.

24. List of eminent academicians and scientists/visitors to the department:

- Eminent academicians and scientist visited :58

25. Seminars/Conferences/Workshops organized & the source of funding

a) National: 2 b) International: 2

Sl. No.	Seminar/Conference/Workshop	Date	Source of Funding
1	Seminar on Recent Trends in Graph Theory and its applications	29-09-2012	Management
2	Workshop on Latex	05-02-2015	Management
3	International Conference on Applied Mathematics and Theoretical Computer Science (ICAMTCS)	24-01-2013 & 25-01-2013	DST, CSIR, DRDO
	International Conference on Advances in Sustainability of Materials and Environment	10-04-2014 11-04-2014	Management

26. Student profile programme/course wise: NA

27. Diversity of Students : NA

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.? : NA

29. Student progression : NA

30. Details of Infrastructural facilities a) Library b) Internet facilities for Staff & Students

c) Class rooms with ICT facility d) Laboratories:

Sl. No.	Infrastructural Facility		Details/Numbers	
			Area in sq m.	Book Titles
1	Library	Mathematics	4.46	241
		Physics	3.72	250

		Chemistry	3.72	100	
		English	3.72	145	
2	Internet Facility to Staff and Students		6 computers for staff		
3	Class Rooms		9		
4	Class Rooms with ICT Facility		2 portable LCD projectors and 1 Laptop available for class room use		
5	Laboratories				
	Name of the Laboratory		Area Sq.m	Capacity	Equipment Cost in Rs.
	i	Physics	195.133	32	6,58,285
	ii	Chemistry	195.133	32	6,40,690
	iii	Language lab	198	70	32,00,000

31. Number of students receiving financial assistance from college, university, government or other agencies : NA

32. Details on student enrichment programmes (special lectures/ workshops/seminar) with external experts:

➤ Number of enrichment programmes conducted :34

33. Teaching methods adopted to improve student learning:

- Faculty handles the class by using chalk and board method, Power point presentation, Overhead projector, Video presentation, Charts, Demonstration and Student seminar.
- Faculty members prepare course file and take classes according to that.
- Assessment record is maintained by the faculty to record the attendance and academic performance of students.
- Teaching methods of staff are modified based on feedback obtained from the students
- Coaching classes are conducted in the evening and also on holidays for slow learners, identified by the faculty.
- Technical English is taught using methods like English Grammar translation (the classical method), Direct method (discovering the importance of speaking), Audio lingualism (the first modern methodology), Humanistic approaches (a range of holistic methods applied to language learning), Communicative Language Teaching (the modern standard method) and Principled Eclecticism (fitting the method to the learner, not the learner to the method).

34. Participation in Institutional Social Responsibility (ISR) and Extension activities:

- The faculty in charges for NSS, NCC, Women cell, First aid cell, KONVERZ and College choir are from this department. Using these associations students are trained in various activities and help them attain overall formation.
- Our students participated in the campaign of 'Swachh Bharat Abhiyan' an initiative taken by the Government of India for Clean India.
- A training program named 'Ariviyal Oottam' was organized in association with Tamil Nadu Science Forum on 13-8-2015. Students visited many schools on 17-8-2015 & 9-9-2015 and explained the concepts of Science with small experiments
- Our students celebrated 'Pongal' in Ambedkar colony by conducting competitions for the children of the village.
- Our students participated in a seminar on 'Kanyakumari Valarchi Sinthanai Arangam' conducted by Tamil Nadu Science Forum on 19-9-2015.
- Students are given an exposure to the real society during NSS camp and orphanage

visits.

35. SWOC analysis of the department and Future plans:

Strengths:

- Dedicated, experienced as well as young faculty members.
- Faculty members of different subjects are in the same department teaching basic sciences which are important to Engineering.
- Language lab to train students to communicate in English.
- Encouraging students to participate in all activities, social as well as technical activities.
- Doctorate holders motivating students towards research.
- Staff members involve themselves in maintaining the discipline of the college.
- SHAX, the Association for first year students helps them for overall formation.
- Bridge Courses are conducted to help the students to face the curriculum with confidence.

Weaknesses:

- Lot of disturbances for students from surroundings – Media, Social & Economic level
- Research activities have to be improved.
- Conferences / Seminars / Workshops can be conducted frequently.
- Communication in English among the students has to be improved.

Opportunities:

- Orientation Programs for personal development and Lectures by Subject experts for technical knowledge can be arranged.
- Associations like SHAX, Radio Club, KONVERZ, Fine Arts Club and Jyothis can be used to develop team spirit and leadership qualities.
- Through NSS, NCC, YRC, Sports & Women Cell social awareness, leadership qualities and discipline can be developed among the students.
- Coaching classes for slow learners and Special seminars for the toppers.
- Library and Internet facilities can be used for development.

Challenges:

- Less job opportunities in the market.
- It's a challenging task to make each and everyone in the campus to converse in English.
- Students' motivation level is low hence less cooperation.
- Number of students opting Engineering is coming down.
- Healthy Boy – Girl relationship.
- Social media is disturbance for the students.

Future Plans:

- To establish Research and Development Centre.
- To conduct International Conferences in association with other departments.
- To motivate and assign works to the students to improve their reading habit and the usage of library to the maximum.
- MOU, Consultancy, Project, Endowment have to be formed and used effectively.



Dr. S. JOSEPH SEKhar, M.E., Ph.D.
PRINCIPAL

St. XAVIER'S CATHOLIC COLLEGE OF ENGINEERING

(AN ISO 9001:2000 CERTIFIED INSTITUTION)
CHUNKANKADAI, NAGERCOIL - 629 003, KANYAKUMARI DISTRICT, TAMILNADU

Ph : (O) (04652) 232560, 224033, 227803, 237361
Fax : (91-4652) 233982, 259664
E-mail : josephsekhar@hotmail.com
josephsekhar@sxcce.edu.in
Web site : www.sxcce.edu.in

Approved by Govt. of Tamilnadu
G.O.(M.S.) No. 408 Dated 11-08-1998

Approved by AICTE, New Delhi
F.No. 732-52-181 (NDEG) ET/97 Dated 22-07-1998

Affiliated to Anna University, Chennai
G.O. MS. No. 25 Higher Education K2 Dept. Dated 23.01.2002

Declaration by the Head of the Institution

I certify that the data included in this Self-study Report (SSR) are true to the best of my knowledge.

This SSR is prepared by the institution after internal discussions, and no part thereof has been outsourced.

I am aware that the Peer team will validate the information provided in this SSR during the peer team visit.

Date: 22-03-2017
Place: Nagercoil

Signature of the Head of the institution
with seal

Dr. S. JOSEPH SEKhar, M.E., Ph.D.
PRINCIPAL,
St. XAVIER'S CATHOLIC COLLEGE OF ENGINEERING,
CHUNKANKADAI,
NAGERCOIL - 629 003





Dr. S. JOSEPH SEKCHAR, M.E., Ph.D.
PRINCIPAL

St. XAVIER'S CATHOLIC COLLEGE OF ENGINEERING

(AN ISO 9001:2000 CERTIFIED INSTITUTION)
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Certificate of Compliance

This is to certify that St. Xavier's Catholic College of Engineering fulfills all norms

1. Stipulated by the affiliating University and/or
2. Regulatory Council/Body [such as UGC, NCTE, AICTE, MCI, DCI, BCI, etc.] and
3. The affiliation and recognition [if applicable] is valid as on date.


In case the affiliation / recognition is conditional, then a detailed enclosure with regard to compliance of conditions by the institution will be sent.

It is noted that NAAC's accreditation, if granted, shall stand cancelled automatically, once the institution loses its University affiliation or Recognition by the Regulatory Council, as the case may be.

In case the undertaking submitted by the institution is found to be false then the accreditation given by NAAC is liable to be withdrawn. It is also agreeable that the undertaking given to NAAC will be displayed on the college website.

Date: 22-03-2017
Place: Nagercoil




Principal/Head of the Institution
(Name and Signature with Office seal)
Dr. S. JOSEPH SEKCHAR, M.E., Ph.D.,
PRINCIPAL,
St. XAVIER'S CATHOLIC COLLEGE OF ENGINEERING,
CHUNKANKADAI,
NAGERCOIL - 629 003



All India Council for Technical Education
(A Statutory body under Ministry of HRD, Govt. of India)

7th Floor, Chandralok Building, Janpath, New Delhi- 110 001
PHONE: 23724151/52/53/54/55/56/57 FAX: 011-23724183 www.aicte-India.org

F.No. Southern/1-2811157348/2016/EOA

Date: 05-Apr-2016

To,

The Principal Secretary
(Higher Education) Govt. of Tamil Nadu,
N. K. M. Bld. 6th Floor Secretariat,
Chennai-600009

Sub: Extension of approval for the academic year 2016-17

Ref: Application of the Institution for Extension of approval for the academic year 2016-17

Sir/Madam,

In terms of the provisions under the All India Council for Technical Education (Grant of Approvals for Technical Institutions) Regulations 2012 notified by the Council vide notification number F-No.37-3/Legal/2012 dated 27/09/2012 and norms standards, procedures and conditions prescribed by the Council from time to time, I am directed to convey the approval to

Regional Office	Southern	Application Id	1-2811157348
Name of the Institute	ST. XAVIER'S CATHOLIC COLLEGE OF ENGINEERING	Permanent Id	1-7826511
Name of the Society/Trust	THE R.C. DIOCESE OF KOTTAR	Institute Address	CHUNKANKADAI, KANYAKUMARI DISTRICT, TAMILNADU, PIN-629003, NAGERCOIL, KANYAKUMARI, Tamil Nadu, 629003
Institute Type	Unaided - Private	Society/Trust Address	BISHOP'S HOUSE, P.B. NO. : 17 ASARIPALLAM ROAD, NAGERCOIL, NAGERCOIL, KANYAKUMARI, Tamil Nadu, 629001

Opted for change from Women to Co-ed and Vice versa	No	Opted for change of name	No	Opted for change of site	No
Change from Women to Co-ed approved and Vice versa	Not Applicable	Change of name Approved	Not Applicable	Change of site Approved	Not Applicable

To conduct following courses with the intake indicated below for the academic year 2016-17

Application Id: 1-2811157348			Course	Full/Part Time	Affiliating Body	Intake 2015-16	Intake Approved for 2016-17	NRI Approval status	PIO / FN / Gulf quota Approval status	Foreign Collaboration/Twinning Program Approval status*
Program	Shift	Level								
ENGINEERING AND	1st Shift	POST GRADUATE	APPLIED ELECTRONICS	FULL TIME	Anna University, Chennai	24	24	NA	NA	NA



All India Council for Technical Education
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PHONE: 23724151/52/53/54/55/56/57 FAX: 011-23724183 www.aicte-India.org

TECHNOLOGY		DUALTE								
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	COMMUNICATION AND NETWORKING	FULL TIME	Anna University, Chennai	24	24	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	COMMUNICATION SYSTEMS	FULL TIME	Anna University, Chennai	24	24	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	COMPUTER SCIENCE AND ENGINEERING	FULL TIME	Anna University, Chennai	24	24	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	CONSTRUCTION ENGINEERING AND MANAGEMENT	FULL TIME	Anna University, Chennai	18	18	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	CONTROL AND INSTRUMENTATION	FULL TIME	Anna University, Chennai	18	18	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	ENERGY ENGINEERING	FULL TIME	Anna University, Chennai	18	18	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	MEDICAL ELECTRONICS	FULL TIME	Anna University, Chennai	18	18	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	POWER ELECTRONICS AND DRIVES	FULL TIME	Anna University, Chennai	24	24	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	STRUCTURAL ENGINEERING	FULL TIME	Anna University, Chennai	18	18	NA	NA	NA
	1st	UND	CIVIL	FULL	Anna	60	60	NA	NA	NA



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ENGINEERING AND TECHNOLOGY	Shift	ER GRADUATE	ENGINEERING	TIME	University, Chennai					
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	COMPUTER SCIENCE AND ENGINEERING	FULL TIME	Anna University, Chennai	120	120	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	ELECTRICAL AND ELECTRONICS ENGINEERING	FULL TIME	Anna University, Chennai	60	60	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	ELECTRONICS AND COMMUNICATIONS ENGINEERING	FULL TIME	Anna University, Chennai	120	120	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	INFORMATION TECHNOLOGY	FULL TIME	Anna University, Chennai	60	60	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	MECHANICAL ENGINEERING	FULL TIME	Anna University, Chennai	120	120	NA	NA	NA
MANAGEMENT	1st Shift	POST GRADUATE	BUSINESS ADMINISTRATION	FULL TIME	Anna University, Chennai	60	60	NA	NA	NA
MCA	1st Shift	POST GRADUATE	MASTERS IN COMPUTER APPLICATIONS	FULL TIME	Anna University, Chennai	60	60	NA	NA	NA

The above mentioned approval is subject to the condition that ST. XAVIER'S CATHOLIC COLLEGE OF ENGINEERING shall follow and adhere to the Regulations, guidelines and directions issued by AICTE from time to time and the undertaking / affidavit given by the institution along with the application submitted by the institution on portal.

In case of any differences in content in this Computer generated Extension of Approval Letter, the content/information as approved by the Executive Council / General Council as available on the record of AICTE shall be final and binding.

Strict compliance of Anti-Ragging Regulation:- Approval is subject to strict compliance of provisions made in AICTE Regulation notified vide F. No. 37-3/Legal/AICTE/2009 dated July 1, 2009 for Prevention and Prohibition of Ragging in Technical Institutions. In case Institution fails to take adequate steps to Prevent Ragging or fails to act in accordance with AICTE Regulation or fails to punish



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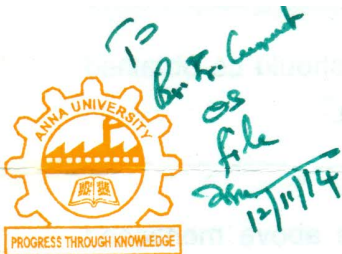
perpetrators or incidents of Ragging, it will be liable to take any action as defined under clause 9(4) of the said Regulation.

Note: Validity of the course details may be verified at www.aicte-india.org

Dr. Avinash S Pant
Vice - Chairman, AICTE

Copy to:

1. **The Regional Officer,**
All India Council for Technical Education
Shastri Bhawan 26, Haddows Road
Chennai - 600 006, Tamil Nadu
2. **The Director Of Technical Education,**
Tamil Nadu
3. **The Registrar,**
Anna University, Chennai
4. **The Principal / Director,**
ST. XAVIER'S CATHOLIC COLLEGE OF ENGINEERING
CHUNKANKADAI,
KANYAKUMARI DISTRICT,
TAMILNADU,
PIN-629003,
NAGERCOIL,KANYAKUMARI,
Tamil Nadu,629003
5. **The Secretary / Chairman,**
THE R.C. DIOCESE OF KOTTAR
BISHOP'S HOUSE, P.B. NO. : 17
ASARIPALLAM ROAD,
NAGERCOIL,
NAGERCOIL,KANYAKUMARI,
Tamil Nadu,629001
6. **Guard File(AICTE)**



ANNA UNIVERSITY

CHENNAI - 600 025, INDIA

Phone : (O) 22352161, 22357004

Fax : 91-44-2235 1956

Gram : ANNATECH

E-mail : registrar@annauniv.edu

REGISTRAR

Lr. No. 467 / CAI / Permanent Affln. / 2014-15

Dated: 10.11.2014

To

The Principal,
St. Xavier's Catholic College of Engineering,
NH-47, Chunkankadai, Aloor, Kalkulam Taluk,
Kanyakumari District- 629 003.

Sir,

Sub: **Permanent Affiliation** - Granting of Permanent Affiliation for the existing programmes – 2014-15 – Reg.

Ref: Your application for the grant of Permanent Affiliation.

I am to inform that under the provisions of section 7.6.2 of the Anna University statutes for affiliation, **Permanent Affiliation** for the existing programme(s) is granted for the following B.E. / B.Tech. / B.Arch. / M.E. / M.Tech. / M.B.A / M.C.A programme(s) with the sanctioned intake indicated against each from the academic year 2014-15 at **St. Xavier's Catholic College of Engineering, NH-47, Chunkankadai, Aloor, Kalkulam Taluk, Kanyakumari District- 629 003.**

Sl. No.	Degree	Programme(s)	Sanctioned intake	Year from which Permanent Affiliation is granted
1	B.E.	Civil Engineering	60	2014-15
2	B.E.	Computer Science and Engineering	120	
3	B.E.	Electrical and Electronics Engineering	60	
4	B.E.	Electronics and Communication Engineering	120	
5	B.E.	Mechanical Engineering	120	
6	B.Tech.	Information Technology	60	

The above said status of Permanent Affiliation is granted subject to the following conditions:

1. The college should obtain extension of approval by the UGC / AICTE / COA / DGS as applicable for every academic year for the above mentioned programmes with the corresponding sanctioned intake. In the absence of extension of approval from the appropriate authority, the Permanent Affiliation now granted will not be valid.
2. In case of increase in intake granted by the appropriate authority for a permanently affiliated programme, the college should apply to the University for the grant of

affiliation for the increased intake and orders of the University should be obtained for increasing the intake of the permanently affiliated programme.

3. The college should continue to fulfill the requirements for the above mentioned programmes as per the norms and standards of the University and the laboratory requirements as per the curricula and syllabi of Anna University, Chennai for these programmes.
4. The college should strictly adhere to and comply with the provisions of Anna University Act / Statutes / Regulations norms and standards / guidelines or any other law time being in force.
5. The permanent affiliation granted may be suspended / withdrawn after adopting the procedures laid down in the Regulations, if the college fails to comply with the provisions made in this behalf or the college has failed to observe / implement any of the conditions of affiliation or the college has conducted in a manner which is prejudicial to the interests of University education and/or students.
6. Notwithstanding the granting of Permanent Affiliation, the university reserves its right to inspect the college to verify the continued fulfillment of the affiliation requirements as prescribed by the University for the Programmes concerned.
7. The Permanent Affiliation is granted without prejudice to the right of the University of requiring production of certificate required under Section 37-B of Tamil Nadu Land Reforms (LC) Act 1961 subject to the decision of the Hon'ble High Court of Madras in W.A.No. 3454 / 2002 batch and W.A.No. 3482 / 2002 batch.
8. The Management is directed to submit a duly signed undertaking on a Rs.100/- non-judicial stamp paper to the Registrar, Anna University Chennai, Chennai-600 025, within 15 days from the date of receipt of this letter to the effect that the conditions specified above will be fulfilled.

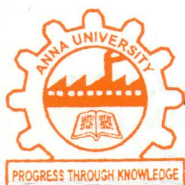
Yours sincerely



**REGISTRAR
REGISTRAR
ANNA UNIVERSITY
CHENNAI-600 025**

Copy to:

1. The Commissioner of Technical Education, Chennai – 600 025.
2. The Controller of Examinations, Anna University Chennai, Chennai – 600 025.
3. The Director, Student Affairs, Anna University Chennai, Chennai – 600 025.
4. The Director, Academic Courses, Anna University Chennai, Chennai – 600 025.
5. Master File.



file to OS
me
6/6/16

ANNA UNIVERSITY

CHENNAI - 600 025, INDIA

Phone : (O) 22352161, 22357004

Fax : 91-44-2235 1956

Gram : ANNATECH

E-mail : registrar@annauniv.edu

REGISTRAR

Lr No. 02 /AFFLN/CAI//TVL/AU/2016-17/9622

Date: 12-05-2016

To

The Principal,
St Xavier's Catholic College of Engineering, Aloor /
Chunkankadai, Nagercoil, Chunkankadai, Kalkulam,
Kanyakumari-629003

Sir,

Sub: AU - AFFILIATION - Provisional Affiliation for the existing course(s) / New course(s) / variation in intake - U.G. / P.G. for the academic year 2016-17 Granted - Reg.

Ref: 1. Your application for affiliation for the academic year 2016-17

2. AICTE Approval for the academic year 2016-17.

I am to inform that under the provisions of Section 7.6.1 of the Statutes for affiliation of Anna University, Chennai, **Provisional Affiliation** for the continuation of the existing course(s) / new course(s) / variation in intake in the existing course(s) is granted for the following U.G / P.G. courses with the sanctioned intake mentioned against each course for the academic year 2016-17 at **St Xavier's Catholic College of Engineering, Aloor / Chunkankadai, Nagercoil, Chunkankadai, Kalkulam, Kanyakumari-629003.**

Sl. No.	Degree	Course(s)	Sanctioned Intake	
			2015-16	2016-17
1	M.B.A.	Master of Business Administration	60	60
2	M.C.A.	Master of Computer Applications	60	60
3	M.E.	Applied Electronics	24	24
4	M.E.	Communication & Networking	24	24
5	M.E.	Communication Systems	24	24
6	M.E.	Computer Science and Engineering	24	24
7	M.E.	Construction Engineering and Management	18	18
8	M.E.	Control and Instrumentation Engineering	18	18
9	M.E.	Energy Engineering	18	18
10	M.E.	Medical Electronics	18	18
11	M.E.	Power Electronics and Drives	24	24
12	M.E.	Structural Engineering	18	18

The above said Provisional Affiliation is being granted subject to the fulfillment of the conditions mentioned below:

- Production of Originals of AICTE / COA / DGS approval and all other related documents for verification, whenever demanded by the University.
- Verification by a Committee towards the fulfillment of the conditions mentioned above and the continued fulfillment of the requirements for the above-mentioned course(s) as per the norms and standards of AICTE / University and the laboratory requirements as per the curricula and syllabi of Anna University, Chennai for the above courses. In the event of any violation/infringement of the above

said conditions and / or the provisions of Anna University, Chennai Act / Statutes / Regulations, AICTE Act, norms & standards / regulations / guidelines or any other law being in force, suitable action including suspension / withdrawal of affiliation of course(s) may be initiated against the college.

- Students should not be admitted for the above course(s) for the next academic year without obtaining the order of continuation of provisional affiliation for the next academic year from the University.

The Provisional Affiliation is granted without prejudice to the right of the University of requiring production of certificate required under Section 37-B of TAMILNADU Reforms (LC) Act 1961 subject to the decision of the Hon'ble High Court of Madras in W.A. No. 3454 / 2002 batch and W.A. No. 3482 / 2002 batch.

Yours sincerely,



Copy to:

[Signature]
REGISTRAR
REGISTRAR
ANNA UNIVERSITY
CHENNAI-600 025

[Handwritten initials]
[Handwritten date: 12/15]

1. The Director of Technical Education, DOTE campus, Chennai - 600 025.
2. The Regional Officer, Southern Regional Office, AICTE, 26, Haddows Road, Shastri Bhawan, Chennai 600 006.
3. Master file.

Sl. No.	Course	2015-16	2016-17
1	M.A. Master of Business Administration	60	60
2	M.E.A. Master of Computer Applications	60	60
3	M.E. Applied Electronics	24	24
4	M.E. Communication & Networking	24	24
5	M.T. Communication Systems	24	24
6	M.T. Information Systems and Management	18	18
7	M.E. Power Electronics and Drives	18	18
8	M.E. Instrumentation	18	18
9	M.E. Medical Electronics	18	18
10	M.T. Power Electronics and Drives	24	24
11	M.T. Instrumentation	18	18
12	M.T. Medical Electronics	18	18



St. Xavier's Catholic College of Engineering
Chunkankadai, Nagercoil – 629 003

Phone : 04652 232560

Web : www.sxcce.edu.in | e-mail : info@sxcce.edu.in