



St. XAVIER'S
CATHOLIC COLLEGE OF ENGINEERING
(Autonomous)

Chunkankadai, Nagercoil - 629003
Kanyakumari District, Tamil Nadu

Approved by AICTE & Affiliated to Anna University, Chennai
Accredited with 'A' Grade by NAAC
UG Programs(ECE, EEE, Mech, Civil, CSE & IT) Accredited by NBA
Anna University Recognized Research Institute
Recognized under section 2(f) & 12(B) of UGC Act, 1956
UG Programs(ECE, EEE, Mech, Civil, CSE & IT),
MBA & MCA Programs Permanently Affiliated

DEPARTMENT OF INFORMATION TECHNOLOGY

TechPulse

2025-2026 Vol. II - Issue I





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2025-2026 Vol. II - Issue I



The Department of Information Technology offers an excellent atmosphere for students to learn and acquire the necessary skills demanded by the industry. The department has experienced faculty members who are fully committed to teaching and research and are specialized in various field of Information Technology. The students have access to well equipped, state-of-the-art laboratories with superb Internet facilities. A wide range of research activities undertaken in the department allow the students to gain contemporary knowledge about real-life problems in the industry. Professional activities like Symposium, Paper Presentation, Technical seminars are organized at regular intervals. Most of the students of our department are the members of technical bodies like IEEE, ISTE, CSI etc., Under the guidance of these faculty members the students are not only given a good exposure both in theory and practical but also a better way about How a human to be in our society.

This department also offers various value added training programs and international certification courses. The department has brought out outstanding engineers in the past and will continue in doing so in the years to come.

Salient Features

Excellent record of academic achievement extending 25 years. Experienced and dedicated faculty with 6 Ph.D. holders and 4 pursuing Ph.D's Every classroom has a wall-mounted LCD. The project lab, IT lab, and computer center are designed to assist faculty and students in using computers and completing projects online. Every lab has air conditioning installed with the most recent system configurations.

Accredited By



HoD's Message

It gives me great pleasure to connect with you through this January 2026 edition of our Department Newsletter. This issue reflects the dynamic spirit of our Department of Information Technology, capturing a wide range of academic enrichment activities, research initiatives, and student-centered engagements that continue to strengthen our academic ecosystem.

The month has been particularly vibrant, featuring impactful academic enrichment programs, Faculty Development Programme, and notable faculty achievements that highlight our commitment to continuous learning and professional growth. Our students have actively participated in innovative project showcases such as Intellitech, demonstrating creativity, technical excellence, and interdisciplinary thinking.

One of the key highlights of this issue is the All India Tour, which provided students with valuable exposure, experiential learning, and opportunities to connect theory with real-world practices. In addition, the placement achievements of our students stand as a testament to their hard work, skill development, and the department's consistent efforts in preparing them for successful careers.

Beyond academics and research, we also celebrated Pongal with great enthusiasm, reflecting our cultural values and sense of togetherness. Such celebrations remind us that holistic development includes not only intellectual growth but also cultural and social bonding.

This newsletter serves as a record of our collective efforts in fostering innovation, research excellence, and student success. I encourage both faculty and students to continue contributing actively and documenting their achievements, as these efforts build the legacy and visibility of our department.

I sincerely appreciate the editorial team for their dedicated work in compiling this issue with clarity and precision. I also commend our faculty and students for their continuous contributions toward excellence.

Let us move forward with renewed energy, striving for greater heights in innovation, research, and academic excellence.

Happy New year to all.



DR. SUJA A. ALEX

Associate Professor & Head,
Department of Information Technology

Academic Enrichment Activities

AI-Powered Prototyping in Figma:

The Department of Information Technology hosted a workshop titled “UI/UX Design – AI-Powered Prototyping in Figma” on January 12, 2026, at Lecture Hall C302.

The session was led by Ms. T. L. Thanika, UI/UX Designer at Networkz Systems, who introduced students to design thinking and AI-powered prototyping using Figma, along with practical demonstrations

Students actively participated and gained hands-on experience with modern UI/UX design tools.



Emerging IT Skills & Career Pathways:



The Department of Information Technology organized a Career Orientation Session titled “Emerging IT Skills & Career Pathways” on January 9, 2026, at the IT Lab, from 10:45 AM to 12:15 PM. The session featured industry experts Mr. S. Sahaya Jeas, Manager, and Mr. A. Abhinesh, Technical Lead from White Track Technologies Pvt. Ltd.

They shared valuable insights on current industry trends, in-demand IT skills, and career opportunities in the technology sector. Students actively participated and gained useful guidance for their future careers.

CONVENER:

Dr. Suja A. Alex,
Associate Professor &
HoD/IT

COORDINATORS:

- Er. T. M. Angelin Monisha Sharean,
Assistant Professor &
AHoD/IT
- Er. P. Agnes Alex Rathy, Assistant Professor / IT

FACULTY ADVISOR:

Dr. G. Geo Jenefer,
Assistant Professor/IT, &
Faculty Advisor – BRIGITZ

Academic Enrichment Activities

Dashboard to Decisions: Power BI for Modern Entrepreneurs

The Department of Information Technology organized a seminar titled “Dashboard to Decisions: Power BI for Modern Entrepreneurs” on January 8, 2026, at Lecture Hall C302, from 2:45 PM to 4:15 PM. The session was delivered by Er. Sobin from Rexknar Solutions, Nagercoil, who shared practical insights on data visualization, business intelligence dashboards, and data-driven decision-making using Power BI.



The seminar helped students understand how modern analytics tools support entrepreneurial and business success. Students actively participated and gained valuable exposure to contemporary data analytics practices.

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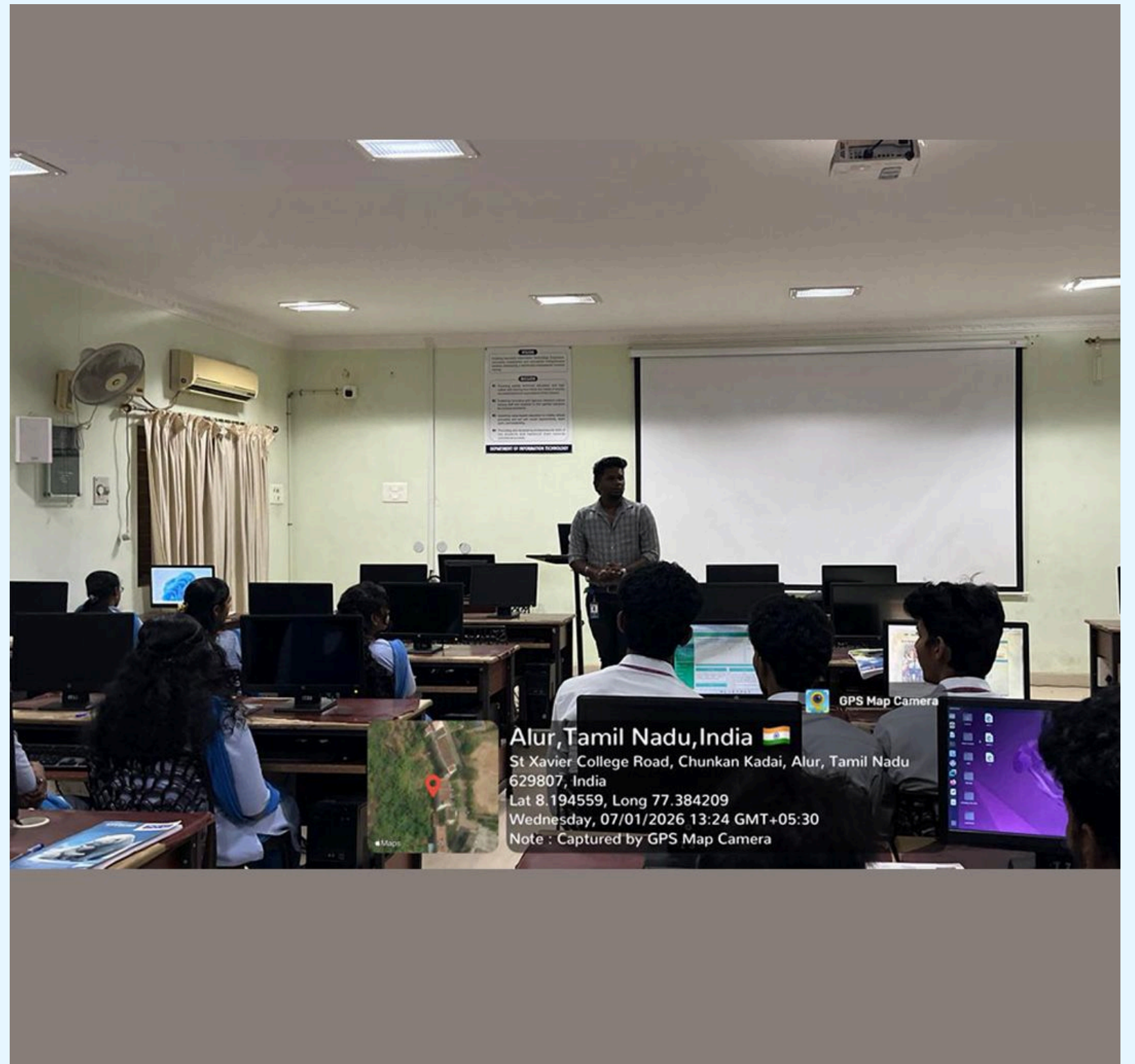
FACULTY ADVISOR:

Dr. G. Geo Jenefer,
Assistant Professor/IT &
Faculty Advisor – BRIGITZ

Academic Enrichment Activities

Scalable Web Applications using React.js, Java Microservices, and MongoDB:

The Department of Information Technology, St. Xavier's Catholic College of Engineering (Autonomous), organized a technical seminar titled "Innovation in Scalable Web Applications using React.js, Java Microservices and MongoDB" on January 7, 2026, at the IT Lab for III Year B.Tech Information Technology students.



The session was led by Mr. Joith from Infozenx IT, who shared practical insights on full-stack development, microservices architecture, and database integration for building scalable web applications. The seminar provided students with valuable exposure to modern web technologies and industry-oriented development practices, enhancing their technical knowledge and industry readiness.

CONVENER:

Dr. Suja A. Alex,
Associate Professor &
HoD/IT

COORDINATORS:

Dr. G. Geo Jenefer,
Assistant Professor / IT &
Faculty Advisor – BRIGITZ.

ORGANIZERS:

- Er. P. Agnes Alex Rathy, Assistant Professor / IT
- Er. A. Arul Rex, Assistant Professor / IT

Academic Enrichment Activities

NPTEL COURSE

Budding Technologists from our department actively enrolled in a wide range of NPTEL certification courses to strengthen both technical expertise and interdisciplinary knowledge. A total of 47 courses were taken across emerging technologies, core computing domains, management studies, and the humanities, reflecting their strong commitment to continuous learning and professional growth.

Budding Technologists actively enrolled and participated in a wide range of courses across diverse academic and professional areas, demonstrating a strong commitment to skill development, innovation, and academic excellence. The following courses are;

1. **Artificial Intelligence & Machine Learning:**

- Reinforcement Learning (11 participants)
- Deep Learning (1)
- Computer Vision and Image Processing (1)
- Introduction to Large Language Models (LLMs) (1)
- AI in Human Resource Management (3)

2. **Cloud, Data & Analytics:**

- Cloud Computing (16 participants)
- Data Analytics with Python (7)
- Python for Data Science (1)
- Data Science for Engineers (1)
- Data Mining for Decision Making (1)
- Supply Chain Analytics (1)

3. **Programming & Core Computing:**

- Programming in Java (2 participants)
- Programming, Data Structures and Algorithms using Python (2)
- Cryptography and Network Security (4)
- Edge Computing (1)
- Advanced Computer Networks (2)

4. **Interdisciplinary & Specialized Areas:**

- Aerospace Structural Analysis (1 participant)
- Algebraic Number Theory (1)
- Principles of Management (1)
- American Literature & Culture (1)

INTERNSHIP

- Young Innovators from the Department of Information Technology successfully completed a Data Analytics Internship at Shristi, Technopark, gaining valuable exposure to real-world industry practices. The internship reflected their strong commitment to hands-on learning and professional growth.
- Participants R. M. Assisi Lebana, Afra Bertina J. G, J. Fregi, Ashni Raj J, B. Anakha, Reckesha J, T. S. Nisha, Vaishnavi K, Jenish Jelastin J, and Jeevima V. M actively took part in the program. During the internship, they received training in data collection, data preprocessing, visualization techniques, and data analytics using industry-standard tools.
- Through practical assignments, team activities, and mentor-guided sessions, they strengthened their technical skills, problem-solving ability, and critical thinking. Working on real-time projects also helped them understand workplace culture, project workflows, and professional ethics, preparing them better for future careers in the data analytics field.

Academic & Technical Highlights

RISING TECH TALENT

Our students have shown some real impressive growth in their technical skills and research efforts this year. Ariya Sree S. stood out by solving 41 problems on LeetCode and building 15 GitHub repositories using tools like SQL, Python, and FastAPI.

MOVE-A-THON

Working together, Ariya Sree S., Shernika S. S., P. K. Haris Aniruth, and P. K. Haris Aswath prepared draft papers for the 7th International IT Conference, submitted abstracts for Project Expo 2K26, and took part in the IEEE MOVE-A-THON community outreach program.

WRITATHON

On top of that, Ariya Sree S. and Shernika S. S. also sharpened their professional communication skills by participating in WRITATHON 2026.

Journey Beyond Classrooms



The Department of Information Technology successfully organized the Final Year All India Tour from 01.01.2026 to 12.01.2026, providing students with a memorable and enriching learning experience. The tour offered valuable exposure to India's rich cultural heritage, historical landmarks, and national pride through visits to Agra, Punjab, Manali, and New Delhi. Along with educational insights, students gained teamwork, cultural awareness, and lifelong memories.



The program was conducted smoothly and stands as a proud achievement for the department in promoting holistic student development.

Faculty Excellence & Achievements

Research Articles Published:

- Dr. Suja A. Alex along with B. Gerald Briyolan, Tien Anh Tran, Gabriel Caumo Vaz, Gabriel Gomes de Oliveira, Angela Maria Alves, “Accelerating the Achievement of Sustainable Development Goals with Artificial Intelligence”, Proceeding of the International Joint Conference on Robotics and Artificial Intelligence has been published in a Book on Exploring the Future: Emerging Trends in Robotics and AI (LNNS), volume 1739, Pages 50-62, Springer on 02 January 2026.
- Dr. Suja A. Alex along with Vania Vieira Estrela, Gabriel Caumo Vaz, Yuzo Iano, Gabriel Gomes de Oliveira, Angela Maria Alves published a paper titled “SlidingGLCMK-NN Classifier for Stream Learning.” in Proceedings of the 9 th International Conference on Big Data and Internet of Things (BDIOT2025), Pages 57 – 62, published in ACM Digital Library on 26 January 2026.
- Dr. Suja A. Alex along with V. Raji, Vania V. Estrela, A.A. Laghari, S. Yin, Aruquia Peixoto, Abdullah Ayub Khan, Asiya Khan, G. G. Oliveira, G. C. Vaz, “AI-Enabled Mealybug Detection via MobileNet-ADRA - A Deep Learning Framework for Sustainable Precision Agriculture”, in Proceedings of the 12th International Conference on Soft Computing & Machine Intelligence (ISCMi2025), Pages 595-598, published in IEEE Xplore on 30 January 2026.

Interdisciplinary Research Article Presented:



Dr. Suja A. Alex worked on a collaborative research with Dr. SGK. Manikandan, Scientist, LPSC, ISRO and she presented the research article on “Variational Autoencoder-Driven Deep Learning Regression for Wear Rate and Coefficient of Friction Analysis in AlCoCrFeNiTi High Entropy Alloy Coatings” at the Conference on Recent Developments in Applied and Computational Mathematics (RDACM 2026) on 15 January 2026, organized by Indian Institute of Space Science and Technology(IIST), Thiruvananthapuram.

Research Articles Accepted:

Dr. Annrose J., along with Asmitha C., Fathima Irfana S., Fathima Safrin M., and Safa Gulam, had their research paper titled “Expire Eye: A Smart AI-Based System for Automated Medicine Expiry Detection Using YOLOv8 and EasyOCR” accepted at a Scopus-indexed International Conference on Advanced Computing Systems and Intelligent Communication Engineering.

Reviewer Recognition:

- Dr. Suja A. Alex reviewed a manuscript for the IEEE Sensors Journal on 31 January 2026.
- Dr. Annrose J. reviewed a manuscript for the journal Neural Computing and Applications on 3 January 2026.

NPTEL Recognition:

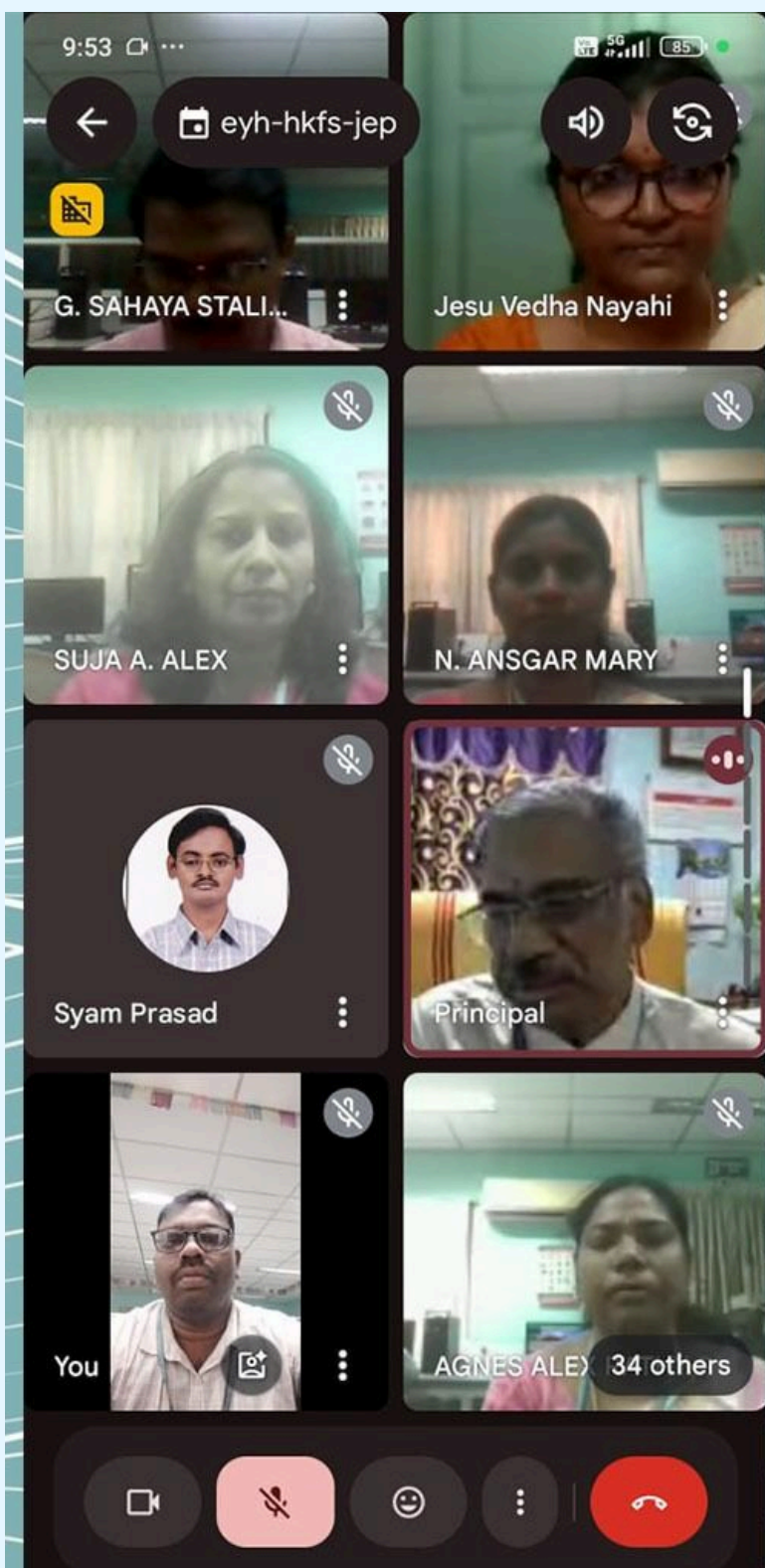
- Dr. Annrose J earned two notable recognitions from NPTEL: a Mentor Certificate for the course Learning Analytics Tools and the Special Active SPOC Award in the ASPIRANT category.

Events Organized by Faculty:

- Dr. Suja A. Alex organized GATE2026 Mock Test for the GATE2026 registered students on (27-01-2026).
- Mrs. P. Agnes Alex Rathy organized Book Expo 2026 (22nd–24th January) and a Drawing Competition (23rd January) as part of Kumari Fest 2026.

Faculty Development Program

Six-Day FDP on Research Directions in Generative AI:



The Department of Information Technology organized a Six-Day Faculty Development Program (FDP) on “Research Directions in Generative AI” from January 5 to January 10, 2026, focusing on emerging research avenues and practical applications of Generative AI. The program featured comprehensive sessions on foundations of Generative AI, large language models, agentic systems, multimodal generation, deep learning architectures, prompt engineering, AI frameworks, ethical governance, security challenges, and API integration for web and mobile applications. The FDP was enriched by expert talks from distinguished resource persons including Dr. J. Jesu Vedha Nayahi, Dr. Ankur Chaudhary, Mr. M. K. Kumaresan, Dr. S. N. Keerthana, Dr. A. Devi, Dr. M. Geetha Jenifel, Dr. L. Josephine Usha, Dr. B. Menaga, Dr. J. Preetha, and Dr. Thangavel Murugan, providing valuable academic and industry perspectives.

The program was effectively coordinated by Dr. G. Sahaya Stalin Jose, Head, Department of Information Technology, along with Dr. J. Ansgar Mary and Dr. Suja A. Alex as Co-Coordiators, and was successfully executed through the dedicated contributions of the organizing committee members Dr. D. Hevin Rajesh, Mrs. T. M. Angeline Monisha Sharen, Dr. M. Antony Joans Kumar, Dr. G. Geo Jenefer, Mrs. P. Agnes Alex Rathy, Mr. J. Arul Rex, and Mrs. J. Innasi Lineta. The FDP highlighted the department’s commitment to academic excellence and its proactive role in fostering research-oriented faculty development.

Placement Highlights – January 2026

The Department of Information Technology proudly presents the placement achievements for January 2026.

We Congratulate

The following final year student got job offers at
Ethnus Ethnus Consultancy Services Pvt. Ltd
and **Finsurge Technologies**.



Fathima Safrin M

The following final year students got job offer at **Ethnus Consultancy Services Pvt. Ltd**



Shyma S M



Sherin Rickshiya A

Project Showcase – IntelliTech 2026

IntelliTech 2026: Technology Exhibition and Innovation Showcase

The Department of Information Technology organized IntelliTech 2026, a three-day technology exhibition held on January 22, 23, and 24, 2026. The event served as a platform to showcase innovative projects, research ideas, and technical expertise developed by students and faculty.



The exhibition featured a wide range of software solutions, intelligent systems, and emerging technology applications, highlighting creativity and practical problem-solving skills. IntelliTech 2026 encouraged participants to apply theoretical knowledge to real-world applications, while promoting innovation, collaboration, and technological exploration.



As a major highlight of IntelliTech 2026, the Department of Information Technology proudly presents its Kumari Fest 2026 showcase, featuring a diverse collection of student-led projects that transform ideas into impactful real-world solutions.

The exhibits include the Game Monitoring App coordinated by Mukhilan, Altrin Benser, and Jeseem; the Student Study Monitoring App led by Jefrin, Feroz, and Mukhilan; Vehicle Entry–Exit Monitoring by Jeseem; People Entry–Exit Monitoring by Feroz; the Weather Monitoring System by Absara and Altrin Benser; the Health Monitoring System by Altrin Benser; the Smart Parking System by Sanjay and Beno; Smart Vehicle – Road Track by Fejoe and Abish; the Digital Donation Hub by Renees Jenisha; Smart Toilet for Wellness Monitoring by Shyma; the Farm Safety System by Sheno Mcjus; Smart Home Appliances by Binushaa; the Smart Dustbin by Stefflin; and the Obstacle Detection System by Steffrin Lenika.

These initiatives are guided by faculty mentors Dr. Suja A. Alex, Dr. Hevin Rajesh, Dr. Sahaya Stalin Jose, Dr. Annrose, Dr. Ansgar Mary, Er. Angelin Monisha Sharean, Dr. Geo Jenefer, Er. Agnes Alex Rathy, Er. Arul Rex, Er. Innasi Lineta, and Dr. Antony Joans Kumar, reflecting the department's strong culture of innovation and academic excellence.

Project Showcase – IntelliTech 2026

Arena of Intellect and Interaction



Adding energy and excitement to IntelliTech 2026, the IT Department will host a dynamic series of Technical Games and Interactive Challenges. Highlights include Hill Climb Racing by Belkins Shakina; the Shooting Game by Gikanix Roshan and Anson Fexo; the Driving Game by Natarajan and Anto Prince.

Cloak Invisibility by Haris Aniruth and Ashik TonI; Fruit Ninja by Ariya Sree and Hafeela Fathima; Ping Pong by Manisha; the Bike Game by Aswin A; the Football Game by Jeevima and Shernika; the Quiz by Haris Aswath and KashLY Raj; the Guessing Game by Dharshiga; Logo Finder by Vineesh and Pachaiyappan; and Charts Display by Anifer Marshal.



Each activity is supported by faculty coordinators Dr. Geo Jenefer, Er. Angelin Monisha Sharean, Er. Agnes Alex Rathy, Er. Arul Rex and Er. Innasi Lineta, ensuring a vibrant and engaging experience.



BRIGITZ @ Pongal Celebration



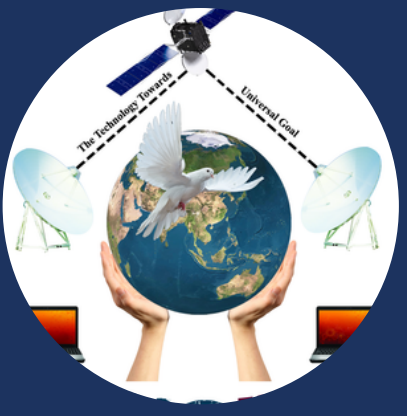
A proud moment of the event was the Tug of War victory by IT students — Sherin, Medo, Athirsha, Irfana, Jebisha, Asmitha, Safrin, Siva Priya, Sheniya, Ancelin Merbina, Stoji Helbarin, Janitha, Akshitha, Mithuna —whose outstanding teamwork and determination earned them a well-deserved win.

The celebration featured the traditional preparation of Pongal, symbolizing prosperity and gratitude, followed by energetic games such as Tug of War and Uri Adithal, which created an atmosphere of excitement and teamwork among students. Adding to the festive charm, special cultural dance performances brought color, rhythm, and vibrancy to the occasion.



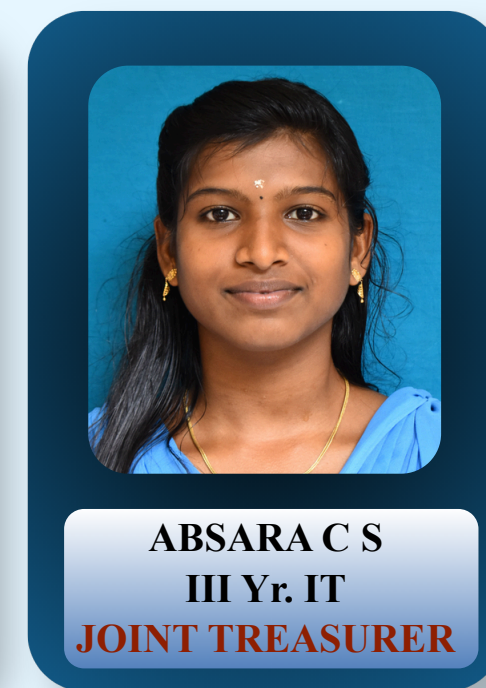
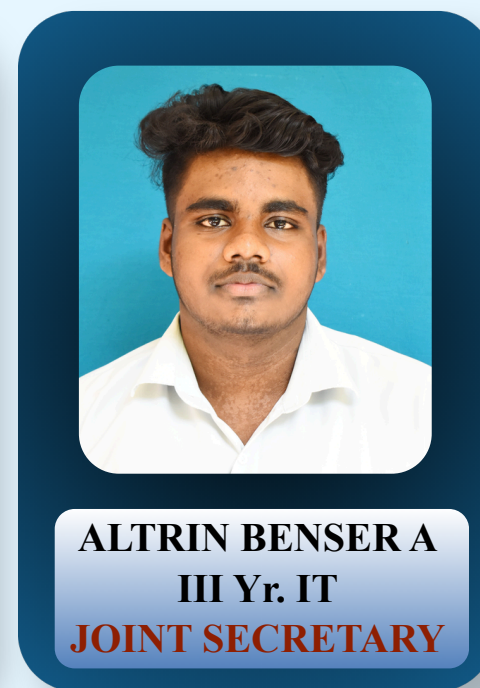
St. Xavier's Catholic College of Engineering (B.Tech – Information Technology) joyfully celebrated the Pongal Festival on 14th January 2026, embracing tradition, unity, and cultural spirit across the campus.

Overall, the Pongal celebration beautifully promoted cultural values, unity, and festive joy, making it a memorable and meaningful occasion for everyone on campus.

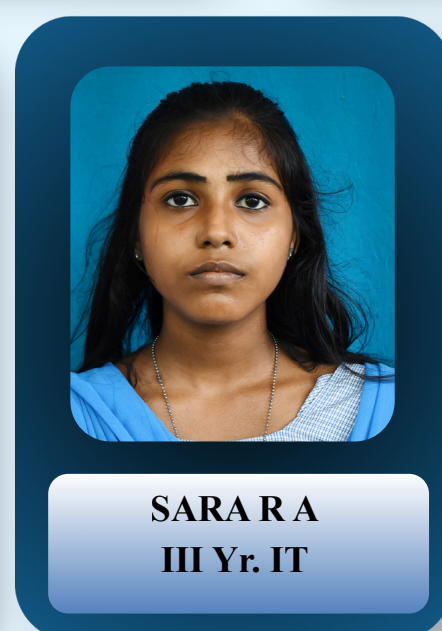
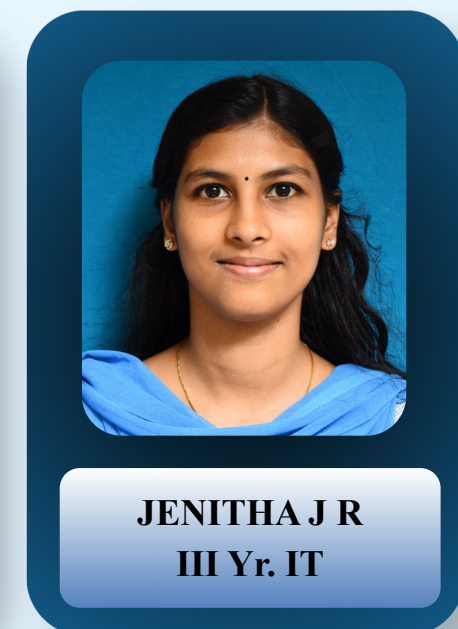
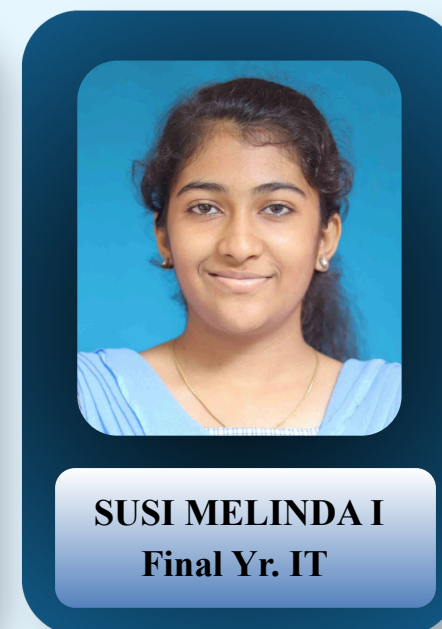
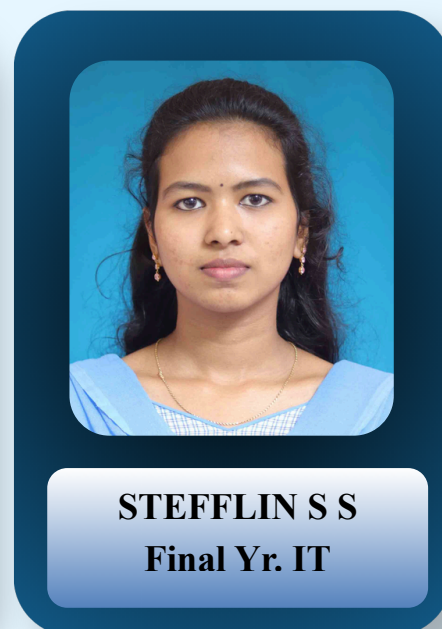
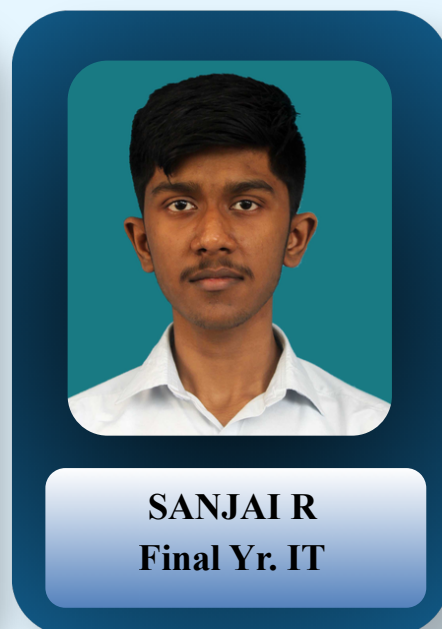
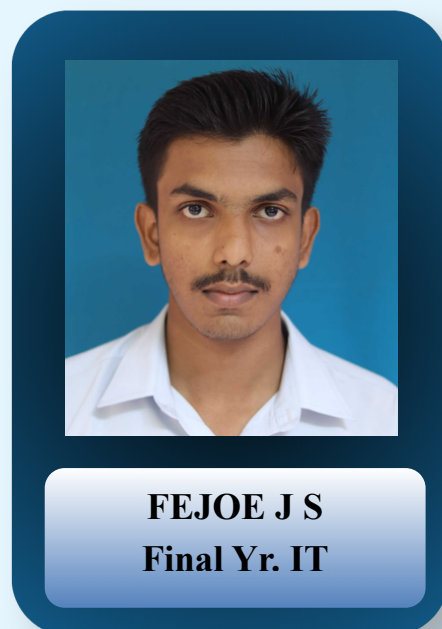


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Department of Information Technology

VISION

Creating top-notch Information Technology Engineers, innovative researchers and successful entrepreneurs towards developing a technically-empowered humane society.

MISSION

- M1. Providing quality technical education and high caliber skill training that meets the needs of society and latest technical expectations of the industry.
- M2. Fostering innovative and rigorous research culture among staff and students to find optimal solutions for complex problems.
- M3. Imparting value-based education to imbibe ethical principles and act with social responsibility, team spirit, and leadership.
- M4. Promoting and developing entrepreneurial skills of the students and handhold them towards commercial success.