HAWKING

A MAGAZINE BY SOCIETY OF ELECTRICAL ENGINEERS

DEPARTMENT OF
ELECTRICAL AND ELECTRONICS ENGINEERING

ST XAVIERS CATHOLIC COLLEGE OF ENGINEERING

Chunkankadai, Nagercoil, Kanyakumari Dist,
TamilNadu, India

OUR COLLEGE

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 (rural) youth 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.

OUR DEPARTMENT

Vision

Producing globally competent professionals, innovative researchers and successful entrepreneurs in the field of Electrical and Electronics Engineering for developing a technically empowered humane society.

Mission

M1.To impart high quality technical education in Electrical and Electronics Engineering with high caliber faculty members, excellent infrastructure and stimulating environment.
M2. To lead the students to learn and practice technologies that are prevalent in the related industries.
M3. To introduce the students to the latest concepts and innovations through technical gatherings and research collaborations.
M4. To inculcate ethical values, team spirit and leadership qualities to meet the social challenges and needs.

Programme Educational Objectives

PEO1. Build a solid foundation in Mathematics, Science, Engineering and Soft Skills for diverse career and persistent learning.
PEO2. Engage in life long process of learning and research to keep themselves abreast of new developments in the field of Electrical and Electronics Engineering.
PEO3. Have an ability to work in multi- disciplinary environment.
PEO4. Practice their profession conforming to ethical values and environmentally friendly policies.
PEO5. Model, design and develop a system and component or process the same to meet the needs of the society and industry within realistic constraints.

ADORATION TO GOD

LORD ,THE SOURCE OF KNOWLEDGE AND WISDOM, FIRST OF ALL WE THANK YOU FOR CREATING US AS HUMAN BEINGS, MOREOVER GIVING US LIFE AT THIS NEW AGE OF ENGINEERING WORLD

.

YOU HAVE CREATED EVERYTHING FOR US, AND YOU HAVE CREATE US FOR OTHERS. ALL THAT WE HAVE AND ENJOY IN THIS WORLD .IS YOUR GIFT WHICH YOU HAVE CREATED AND GIVEN US WE THANK YOU FOR EACH AND EVERYTHING LORD

..

,HELP US THAT WE MAY SHARE OUR TALENTS, KNOWLEDGE, IDEAS APPRECIATIONS, ENCOURAGEMENTS AND CORRECTIONS FOR THE GROWTH OF THE HUMANITY WHICH YOU HAVE CREATED IN YOUR OWN IMAGE AND LIKENESS

GIVE US YOUR GRACE THAT WE MAY USE THESE GIFTS OF ENGINEERING KNOWLEDGE AND GADGETS FOR .THE GROWTH OF THE NATION

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FROM THE PATRON

I am immensely happy to know that the Department of Electrical and Electronics Engineering is releasing their annual souvenir this year with the name of "HAWKINGS" the most inspiring astrophysicst..

The achievements of Electrical Engineers are tremendous. One can confidently say that electricity is the greatest invention in the history of humanity, as it opened human beings to a whole new world of energy dynamics and conveniences.

Starting from the Lighting the world,Communications,Transportation,all kinds of Automations, to the highly valued researches like NanoTechnology,Artificial Intelligence all became possible only because human beings invented,produced and learned to use electricity.Electricity is substituting fossil energy in almost all the areas of practical and scientific endeavours.

Electrical Engineers who develop important technologies to improve the world with the use of electric energy are the hope for the continued sustenance of the earth and its creatures.The new technolgies of creating Electricl energy,such as Solar energy,Wind energy,and Bio-energy promise to make the Earth into energy affluent planet with a comfortable living.

I heartily appreciate all for the hard work they have put in and earnestly wish the HOD,Staff,Students and all those who are involved in the development and release of this magazine a great success.It is a proud moment for our eminent institution,St. Xavier's Catholic College of Engineering.

Rev.Fr.Dr.M.Maria william
Correspondent-SXCCE

FROM THE PRINCIPAL

The annual magazine of Electrical and Electronics Department 'HAWKINGS' shows the focus and commitment of the department towards inducing the research spirit in the young engineers and inculcating the current challenges to be faced students to satisfy the global needs in engineering and technology. Electrical engineering plays a vital role in the technological development, catering to the growing needs for energy conservation, clean environment, development of sustainable technologies, and protection of human beings from the disasters due to some conventional practices.The student community needs to be enlightened appropriately about all these factors, so that the future engineers could focus their minds towards the right direction to encounter the above challenges. The theme for this magazine "Achievements of Electrical Engineers in Society" is also appropriated chosen to reflect the commitment of the department for developing a sustainable future.

This magazine concisely reports international conferences conducted and the various activities which took place in the department as well as provide an opportunity for the students to present their scholarly articles from various fields. The appreciation recorded here about the achievers of various fields will certainly motivate the students to bring more laurels to the department and the college. Even though the present curriculum is not favorable for the students to take activities apart from their regular studies, the students and staff of the EEE department put additional effort to organize many events to update the knowledge of the students as per the present day requirements.

I express my sincere appreciation and gratitude to the editorial team for its arduous efforts to bring out this annual magazine. I congratulate all those who have contributed their creative and intellectual articles to bring this scholarly magazine.

Dr.S.Joseph sekar
Principal-SXCCE

FROM BURSAR

Electrical Engineering has played a major role in the 21st century.They produce electrical energy from the natural resources.Electrical Engineering is the corner stone and driver of innovation.The modern achievements are driver less cars,electric cars,small portable devices ipad,iphone or ipods,3D pruters for details models of various designs in the medical field,broadcasting and television systems make human lives safe and convenient.

At the same time we have to take right acton to cope with the challenges like global economic growth,energy shortage,environmental pollution.We hope the electrical engineers to find a solution to all there problems by their scientific and technolgical research.

I appreciate and congratulate the electrical board members and all other contributors for bringing out this magazine "Achievements of Electrical Enginners in the society".

Rev.Fr.P.Benziger,

Bursar

From the Guest

I am very happy to learn that St.Xaviers College Electrical Department is bringing out a magazine on the eve of valedictory function.

St.Xaviers College is one of the leading institution in Kanyakumari District. I have occasions to interract with the students of this prestigeous college. They have shown keen interest in learning new technology whenever they get opportunity. The faculty imparts learning culture and discipline.

I wish the magazine all success

Er.G.Sivasubramanian
Chairman
IEIKKLC

SEE President's Message

I am happy to visualize that our Department Magazine "Hawking" has come out in a wonderful manner. This prestigious magazine contains not only information regarding the activities of the EEE Department but also many stimulating and educative articles. I express my compliments to the Faculty Advisors, SEE Secretary, the Editors and their dedicated committee for their valuable efforts in bringing out this magazine.

2017-18 marked a year of transformation for the SEE.I am very happy that many of our UG and our PG students presented many papers in National, International conferences and symposiums. I am sure that this magazine will inspire the Future Electrical Engineers.

"Intelligence is the ability to adapt to change"
Stephen Hawking

Engineering is not merely knowing and being knowledgeuble,like a walking encyclopuedia; engineering is not merely analysis; engineering is not merely the possession of the capucity to get elegant solutions to non-existent engineering problems; engineering is practicing the art of the organizing forces of technological change ...Engineers operate at the interface between science and society.

I wish the readers an enjoyable time and a happy reading.

Dr. M. Marsaline Beno,
HOD-EEE

From the Faculty Advisor

I am gratified to present the annual magazine of our department Electrical and Electronics Engineering for the academic year 2017- 2018.

This is a productive technical material and subsidiary skill developing tool for the students. "HAWKING" establishes to be a flint to fire the enthusiasm and excite their minds for many intrusive innovations among the students and inspire passion among the members of the faculty of Electrical and Electronics department. SEE members have established a joint to venture, in bringing out a technical magazine with their contributions.

I express my compliments to the secretary, the editors and their dedicated committee for their valuable efforts in bringing out this issue.

I on behalf of my department , extend a heartfelt thanks to our Correspondent Rev.Fr.Dr.M.Maria William, Principal Dr.S.Joseph Sekhar,Head Of Department Dr.M. Marsaline Beno for providing valuable information,sources and wholehearted efforts to bring out the best from this department.

I would like to express my considerable appreciation to all the authors of the articles in this issue of the "HAWKING"Magazine.

I also applaud the coordination and efforts behind the team to bring out this magazine.

I wish the minds of the readers be fulfilled with Knowledge and experience

Wishing good luck to the association for its future endeavour.

A.Arthi Jannie,

Asst.Professor

EEE

Editor's Voice

"Creativity is a drug I cannot live without"

It gives us a immense joy that the SEE magazine "HAWKINGS" has come out in a great manner.

We thank oue Correspondent and our beloved Principal for their encouragement and support.

We feel thankful for our HOD who gave attention and paved way for our magazine.And we take opportunity to thank SEE faculty Advisor and entire editorial team members and the contributors for their valuable contributions.

We are glad that the book would be intresting and the readers would love it.

C.Anish Christu julin

J.Anto Rayson

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SEE REPORT -2018

To mark the beginning of our association activities the installation of SEE was conducted on 19th august 2017. Er. David Jebasing SE/ TNEB , Nagercoil inaugurated and installed the 18th see office bearers. Through our association 15 workshops and seminars, 2 International Conference, one national level symposium,4 industrial visits and an all India tour were organized.

Following are the details,

WORKSHOPS AND SEMINARS

• An two day workshop on "PLC & SCADA" was conducted by Mr. Pusphavanam ,Mr. Hariharan & Mr. Suresh Kumar /Prolific ltd on 14-07-2017 to15-07-2017 for final year and 3rd year students.

• A one day seminar on "value base education" by Mr. Glorious Steeve on 10,11,12-07-2017 for 2nd ,3rd,4th year students.

• An one day seminar on "Research methodology" by Dr.M.Marsaline Beno on 15-07-2017 for PG students.

• An two day workshop on "ARDUINO" was conducted by Mr. Benny Jackson & Mr. Arun Kumar on 27,28-07-2017 for final year and 3rd year students.

• An two day workshop on " ARM PROCESSOR" was conducted by Mr.Bala Murugan / ECCI Academy on 23,24-08-2017 for final year and third year students.

• An one day seminar on " SMART GRID& SMART METER" by Dr.M.Saravanan on 9-9-2017 for final year and Pg students.

• An one day workshop on "MULTISIM" by prof.V.Jesus Bobin on 9-9-2017 for 2nd year students.

• An one day seminar on "HARMONIC ANALYSIS ON ETAP" by prof Jain B Marshal on 12-09-2017 for final year students.

• An one day workshop on "MATLAB" BY prof W.Vinil Dani on 18-09-2017 for 3rd year students.

• An one day seminar on "water technology" by Prof.Almond D' Souza on 16-09-2017 for 2nd year students.

• An one day seminar on "AIT 17" by Prof.Jain B Marshal on 16-09-2017 for 2nd year students.

• An one day workshop on "Real time simulation in power electronics & power system application" by Prof.A.George Ansfer on 11-10-2017 for PG students.

• An one week FDP on "circuit theory " by Dr.M.Marsaline Beno &Dr.M.Saravanan on 11-12-2017 to 16-12-2017 for staffs.

• An one day seminar on "Think energy 2k17" by Dr.Shiek Mohammed on 14-12-2017 for students from our college, IET& students from other colleges.

• An 3 days internship program on "Electrical technology "conducted by ours staffs for other college students.

CONFERENCES

• An one day national level technical symposium "step up 2k17" was conucted on 28-09-2017

• A two day international conference on "Materials,Emerging-Devices and Energy Efficient Technologies" was conducted on 5th and 6th October 2017

• An two day "International Conference On Energy Efficient Technologies For Sustainability" was conducted on 5th and 6th april 2018.

INDUSTRIAL VISITS &TOUR

• Our final year students went to a industrial visit to udhayathoor substation on 30-08-2017

• Our second year students went to a industrial visit to ISRO TRIVANDRUM on 31-08-2017

• Our third year students went to a industrial visit to thermal power plant,tuticorin on 26-09-2017

• A tour To Delhi , Agru , Juisulmer , Chandighar ,Amritsar ,Chennai for final years from 16-01-2018 to 27-01-2017

S.STEPHEN MERIT MORRIES

SECRETARY-SEE

TECHNICAL ARTICLES

THE BLOOM BOX

Introduction

The bloom energy server (the bloom box) is, a solid oxide fuel cell (SOFC) power generator made by bloom energy, of Sunnyvale, California, that takes a variety of input fuels, including liquid or gaseous hydrocarbons produced from biological sources, to produce electricity at or near the site where it will be used. This new class of distributed power generator produces clean, reliable, affordable electricity at the consumer site. According to company, a single cell consisting of three ceramic plate generates 25 watts.

Saves cost

On 24 feb 2010, Sridhar claimed that his devices were making electricity for $0.08 – 10¢/kWh using natural gas, cheaper than today's electricity prices in some parts of the united states, such as California. Twenty percent of the cost saving depend upon avoiding transfer losses that result from energy grid use.

Maintenance free

Bloom energy claimed to be developing power purchase agreements to sell electricity produced by the boxes, rather than selling the boxes themselves, in order to address customer's fears about the maintenance, reliability, and servicing costs.

Installation

The company says that its first 100- kW bloom energy server were shipped to google in July 2008. Four such servers were installed at the google headquarters, which became bloom energy's first customer. Another installation of five boxes produced up to 500 kW at ebay headquarters California. Bloom energy started that their consumers include staples, Walmart, FedEx, The coca - cola company and the bank of America. 1 megawatt bloom box fuel cell system installed at yahoo headquarters in Sunnyvale, California in 2014 is designed to "power one third of the electricity to the buildings on yahoo's company ".

Components used

The bloom energy server uses thin white ceramic plate that are made from the components found in beach sand. Each plate is coated with a green nickel oxide based ink on one side, forming the anode and another black (probably Lanthanum strontium manganite) ink on the cathode side. Each fuel cell has the potential to power one light bulb. The fuel cells are stacked into brick-sized towers sandwiched with metal alloy plates.

Working

The fuel cell stacks are housed in a refrigerator-sized unit called the Bloom box. Oxygen is drawn into one side of the unit,and fuel (fossil fuel, bio fuel, or even solar power can be used) is fed into the other side. The two combine within the cell and produce a chemical reaction that creates energy with no burning, no combustion, and no power lines. About 64 stacks of fuel cell could power a small business like a Starbucks franchise.

Conclusion

By converting natural gas or renewable biogas into clean electricity using a direct electrochemical reaction without combustion, we are able to achieve an industry - leading 60% electrical efficiency. By contrast, the average coal-fired power plant converts only 33% of its energy into electricity. Energy generated in traditional power plants can travel hundreds of miles to the end consumer resulting in energy loss up to 70 % in developing economies. By generating power onsite, energy losses are avoided, further improving the emission reductions.

Anish Christo Julin C
Final EEE

IDEAS FOR PURER AIR

Air Cleaning Cannons:

A giant vacuum cleaner developed by dutch company ENVINITY group can remove particulate pollution from the air within a 7km high column with a 300m radius. The firm says the technology, unveiled at a fair in Amsterdam last October 2016, can purify 80,000 cubic meters of air in one hour filtering out 100 percent of fine particles an 95 percent of ultra-fine particles. The ability to demonstrably remove ultra - fine particles is a major step forward, the inventors say . Unlike the larger PM10 and PM2.5, concentrations of ultra-fine particles are not regularly measured although evidence suggests they might be by far the most harmful. Ultra fine particles, which are 25 times smaller in diameter than a human hair, are the likeliest to penetrate deep into the lungs an cross into the blood stream.

Pollution Ink:

Even air pollution can be transferred into some useful products - Researchers from Massachusetts. Institute of technology have found. First they developed a device called KAALINK that can be retrofitted into old vehicles to capture soot produced by the combustion engine. The MIT team collects dust and turns it into high quality ink that can be used in pens, markers or for screen printing. 45 minutes of driving produces enough soot for 30 ml of air ink, which the MIT spin-off graviky labs started selling on kick starter. Pollution collected by the KAALINK device undergoes a complex chemical treatment that removes all heavy metals and carcinogens.What remains is purified carbon rich pigments.Graviky labs also plans to start manufacturing pollution based oil paints,fabric paints and outdoor paints.

Paints That Eats Air Pollution :

Titanium dioxide, used in self cleaning paints and varnishes, can also remove nitrogen oxide pollution from the air.A couple of years ago, a team of students from the university of California Riverside developed roof tiles using the pigment installed on a roof of an average-sized residential property.UV light ,or sunlight, illuminating a surface coated with titanium oxide, initiates a chemical reaction that decomposes everything on and near the surface into CO2 and water. The titanium di-oxide concoction of the California university team could remove 21 tones of nitrogen oxide daily if one million roofs were covered with it.The cost of the coating per roof could be as low as $5. In laboratory tests, the titanium - dioxide coated tiles removed up to 97 per cent of the nitrogen oxides present in the surrounding atmosphere.

Smog Free Towers :

Dubbed the 'world's largest air purifier', the 7m- high free tower built by Dutch designer & innovator Daan Roosegaardeen his team,was put to the test in Beijing in late 2016. In development since 2013, the technology removes up to 75 per cent of PM2.5 an PM10 particles using a patented ozone-free pollution-scrubbing system.Purifying 30000 cubic metres of air per hour, the smog free tower created circular bubble of fresh air for inhabitants of the notoriously polluted chinese capital to enjoy. Roosegaardeen used Dust captured by the system to create a collection of limited edition jewellery. One smog free Ring contains compressed particles from 1,000 cubic metres of air. The technology,which was first piloted in Rotterdam, will now continue to other Chinese cities.

S.Stephen Merit Morris
Final EEE

DO YOU KNOW ABOUT THE WORLD'S SMALLEST ROBOT?

> The smallest man-made device in the world is the "RoboBee"
> It is devoloped by a research robotics team at Harvard university.
> It is tiny robot no bigger than a fly.
> It is Made up of carbon fiber.
> It is capable of flight.
> I could carry camera also.
> The wingspan is 3 centimeters.
> The wings can flap 120 times per second.
> Weights about 80 milligrams.
> Its flight capabilities are possible through a pair of flapping wings powered by super fast electronic muscles
> It can contract and relax like biological muscles
> It can be used to monitor environmental hazards
> It can also be used for search and rescue missions.

New hybrid RoboBee can fly,drive into water, swim,propel itself back out of water and safely land. The RoboBee is retrofitted with four buoyant and a central gas collection chamber. Once the RoboBee swims to the surface,an electrolytic plate in the chamber converts water into oxyhydrogen, a combustible gas field.

Shalmiya Y.R
2nd Yr EEE

FIRST INDIAN WOMAN ELECTRICAL ENGINEER

In 1940,lalitha Roy made history as the first women engineer of India , and the first women to graduate from one of the oldest Indian technical Institution,My Alma Mater,College of Engineering, Guindy(CEG),university of madras .she suffered much as an young widow with a four month daughter when she was at age of 18.

Lalitha joined Queen Mary's college in Chennai and completed her intermediate exam with first class. Lalitha entered CEG in 1940 as a student of the four year electrical engineering program.Lalitha's Honors degree in Electrical Engineering was awarded in February of 1944. In 1944 Lalitha joined the Central Standards Organization of India, Simla, as an engineering assistant. She stayed in the job until December 1946. She joined Associated Electrical Industries (AEI). In AEI, Lalitha worked in the engineering department, and sales division, Calcutta branch.

She had a very satisfying job there as a design engineer designing transmission lines. Her work also spanned solving problems of protective gear, substation layouts, and execution of contracts. A notable project was the Bhakra Nangal dam. In 1953, the Council of the Institution of Electrical Engineers (IEE), London, elected her to be an associate member and in 1966 she became a full member.

Lalitha became a full member of the Women's Engineering Society of London in 1965, and acted as their representative in India for the Second International Conference of Women Engineers & Scientists, held in Cambridge, England in July 1967.

She retired from working in 1977. In 1979, when she was only 60 years old, she was struck with a brain aneurism and passed away after a couple of weeks on October 12.

By reading true life stories like that of A. Lalitha, many girls will be inspired to study engineering and more importantly once entering the work force find a way to stay and contribute to technical fields.

Evangelin V
2nd Yr EEE

SELF PILOTING SHIPS

Most of the marine accidents are due to human error. By removing the potential of human error, the companies believes the technology could dramatically cut the number of accidents at the sea . Researches have already began to design merchant ships that would be more efficient because they don't need room for seamen to sleep and eat but in near future most of these ships will be partly autonomus.

Armchair captain is a remote operation center should me monitoring several ships at a time sitting in a room with 360 degree virtual reality views. If you go back 150 years ago we had more than 200 peoples on cargo ships now we have between 10 and 20.

"We are in a full autonomy now " said JEFF GAWRYS a marine technician for boston startup sea machine robotics "Roger that" Compute scientist MOHAMED SAAD IBN SEDDIK said hehelped guide the ships from his laptop on a nearby dock. One experimental workboat spent this summer dodging tall ships and tanks is boston harbour , outfitted with sensors and self navigating softwares and emblazoned with the word "unmanned vessels" across its aluminium hull.

The startup has signed a deal with an undisclosed company to install " the world's first autonomy system on a commerical container ship " johnson a marine engineer said that deadly 2012 capsizing and other marine disaster convinced him that "we're relying too much an old world technology"

Where Rolls Royce demonstrated a remote controlled tughout in copenhagen this year. In norway fertilizer company yara international working with engineers from kongsburg maritime on a project to replace big rig truck with an electric powered ships connecting three nearby ports. The pilot ship is scheduled to launch now, shift to remote control next year and go fully autonomus in 2020.

Similar technology is already in millitary use last year, the US navy lunched a experimental self driving warship,sea hunter ,that is designed to hunt for enemy submarines. Since there are still more challenges ahead unmewed vessel's might be more vulnerable to privacy or even outrightthe theft via remote hacking of ship's control system.

But the international maritime organisation which regulates shipping has begun a two year review of the saftey,security and environmental implication of autonomous ships.

Mohideen Thoufic M.
2nd Yr EEE

HOT SOLAR CELL

A solar power device that could theoretically doubles the efficiency of conventional solar cells. Their availability is within 10-12 years.

The key step in creating this device was the development of absorber emitter. It is essentially act as a light formed above the solar cell. The absorbing layer is built from solid black carbon nanotubes that capture all the energy in sunlight and converts most of it into heat. As temperature reach around 1000 degree celcius the adjacent emitting layer radiates the energy back out as light, now mostly narrowed to bounds that the photovoltaic cell can absorb. The structure of emitter is designed at the nanoscale to central which wavelengths of light flowing through it. The "photon recycling process" more heat, which generates most of the light that solar cell can absorb, Improving the efficiency of the system.

The black carbon nanotube sit on the top of the absorber emitter layer, collecting energy across the solar spectrum and converting it to heat.

Shivani K.N
2nd Yr EEE

STEPHEN WILLIAM HAWKING(1942-2018)

Stephen Hawking was regarded as one of the most brilliant theoretical physicists in history. His work on the origins and structure of the universe, from the Big Bang to black holes, revolutionized the field, while his best-selling books have appealed to readers who may not have Hawking's scientific background.

British cosmologist Stephen William Hawking was born in England on Jan. 8, 1942 – 300 years to the day after the death of the astronomer Galileo Galilei. He attended University College, Oxford, where he studied physics, despite his father's urging to focus on medicine. Hawking went on to Cambridge to research cosmology, the study of the universe as a whole.

In early 1963, just shy of his 21st birthday, Hawking was diagnosed with motor neuron disease, more commonly known as Lou Gehrig's disease or amyotrophic lateral sclerosis (ALS). He was not expected to live more than two years. Completing his doctorate did not appear likely. Yet, Hawking defied the odds, not only attaining his Ph.D. but also forging new roads into the understanding of universe in the decades since.

Hawking continued at Cambridge after his graduation, serving as a research fellow and later as a professional fellow. In 1974, he was inducted into the Royal Society, a worldwide fellowship of scientists. In 1979, he was appointed Lucasian Professor of Mathematics at Cambridge, the most famous academic chair in the world . Over the course of his career, Hawking studied the basic laws governing the universe. He proposed that, since the universe boasts a beginning - the Big Bang - it likely will have an ending.Working with fellow cosmologist Roger Penrose, he demonstrated that Albert Einstein's Theory of General Relativity suggests that space and time began at the birth of the universe and ends within black holes, which implies that Einstein's theory and quantum theory must be united.

Using the two theories together, Hawking also determined that black holes are not totally dark but instead emit radiation. He predicted that, following the Big Bang, black holes as tiny as protons were created, governed by both general relativity and quantum mechanics.

Stephen Hawking quotes

A list of Hawking quotes would be incomplete without mentioning some of his more controversial statements.

"It will be difficult enough to avoid disaster in the next hundred years, let alone the next thousand or million. Our only chance of long-term survival is not to remain inward-looking on planet Earth, but to spread out into space."

"[W]e must continue to go into space for the future of humanity I don't think we will survive another 1,000 years without escaping beyond our fragile planet."

"Science is not only a disciple of reason, but, also, one of romance and passion."

"The development of full artificial intelligence could spell the end of the human race"

"Because there is a law such as gravity, the universe can and will create itself from nothing. Spontaneous creation is the reason there is something rather than nothing, why the universe exists,why we exist. It is not necessary to invoke God to light the blue touch paper and set the universe going"

"I regard the brain as a computer which will stop working when its components fail. There is no heaven or after life for broken down computers; that is a fairy story for people afraid of the dark."

"Before we understand science, it is natural to believe that God created the universe. But now science offers a more convincing explanation What I meant by 'we would know the mind of God' is, we would know everything that God would know, if there were a God, which there isn't. I'm an atheist."

A.George Amsler
A.P/EEE

Smart Systems for Future

In this Digital Era, the word "Smart System" has encroached in every application with silent intrusion.

To say about this

Smart Systems are self-controlled and reactive systems with advanced functionalities. It incorporates general functions of sensing, actuation, control and intelligent functions like self-analysing, decision making based on available data in a predictive and adaptive mode subjected to perform smart action as well as inspiring with intelligent outcome. Smart systems are systems which are adaptive, automated, robust, resilient and efficient. The major aspect in smart system technology is the interpretation of diverse components developed and produced with different technologies and materials.

M.R.Arun

A/P EEE

Non Technical Articles

Inspirational Thoughts

Life resembles to the board of snakes and ladders
When the snakes of despair,hatred and betrayal
Pulls you down,keep dicing your efforts continuously.
So that the ladders of love,loyalty and hope
Will lead you to victory
Keep moving forward

Everything being unpredictable
Which always gives me a strange surprise
Chasing my dream
Which controls my illusion
Better being super dumb
When screw up healed my way
Emotions that come at seasons
Where my logic alone cannot resolve
Overwhelmed with joy
When I feel the essence of who I am
I decided to smile
Because my passion begins .
I make a wild guess always
Because its my gut feeling
Don't waste another minute
Be interesting , Be real

Denix Xavier D
2nd Yr IEI

Drowning Dreams

Hai, you may wondering why I give the title as Drowning Dreams. I have to tell you. It's not just about me or you it's about us.

This is about the dreams that we all have. We often dream about our failure in many ways. But usually, we never carry them with us. We will burry it deep down and forget them eventually. But when we get the right time to speak about it, the only thing we can see is a white board ahead us, because we already forget the place where we buried our Dreams. Then we start to search those dream in wrong place.There is a myth that says ,"You can never find an angel in the hell". So you have to search the right place. When you find those you have to let them go up and up in the vast blue sky,for every one to see and you have to build up your courage to answer those criticized your Dreams. "That's what I want to be".

But the truth is most of them don't care about those Dreams. The reason is that they have no idea about those desires. But still if you have the guts to prove it to them, then it doesn't matter your gender or who you are. It's always about what you have with in you. The life which we live now is to satisfy the people around us not for us. But we need to look life and to know it for what it is. Because our life is not fairy tale to everything we wish come true. We have to love us to chase our Dreams.

Goodwin Eginackius
2nd Yr EEE

MOtivational Quotes

"Electrical science has disclosed to us the more intimate relation existing between widely different forces and phenomena and has thus led us to more complete comprehension of nature and its many manifestations of our sense"

- Nikola Tesla

"Let us make our future now and let us make our dreams tomorrow's reality"

- MalalaYOUSAFZAI

"Blessed are the meek, for they will inherit the earth"

- Jesus Christ

"You can always trust a dishonest man to be dishonest,it is the honest man you should not trust, for you never know when he would be dishonest"

- Captain Jack Sparrow

"Its fine to celebrate the success but it is more important to learn the lesson of failure"

- Bill Gates

"Most people have the will to win ,few have the will to prepare to win"

- Bobby Knight

"Self belief and hard work will always earn you success"

- Virat Kholi

DIFLIN PETRA D M
2nd Yr EEE


Drawings
25

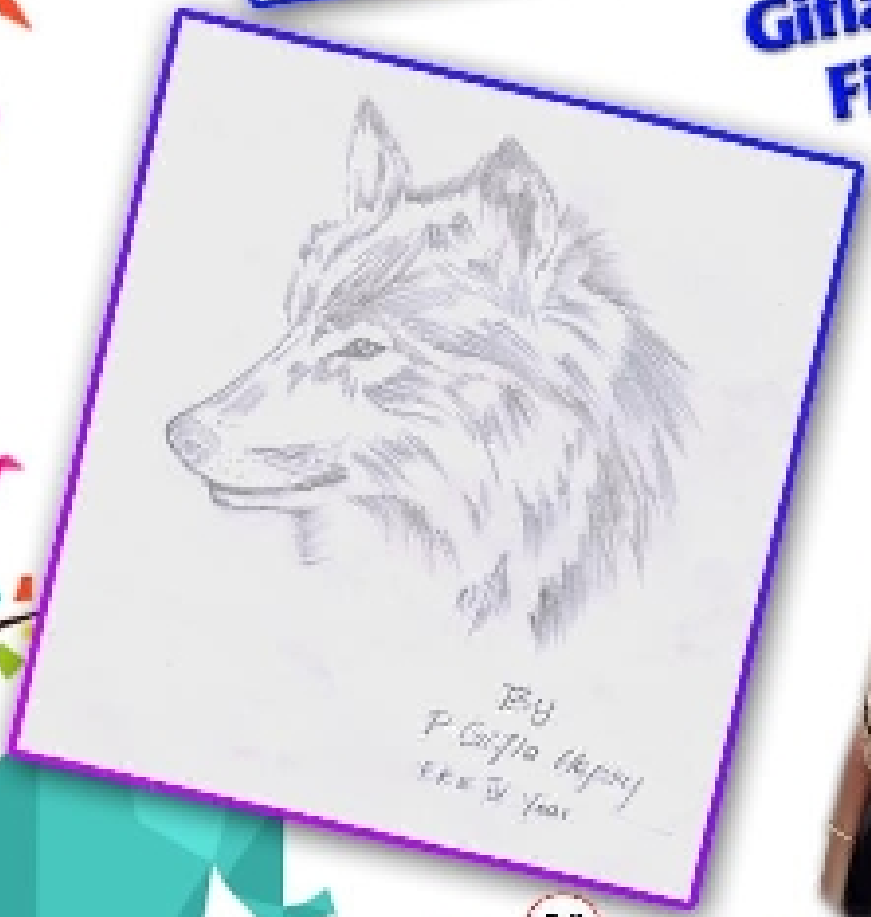
Jenkins Roch L
Final EEE

J.Anto Rayson

Final EEE

Anish Christu Julin C
Final EEE

Gifla Hepsy P.
Final EEE



Gini Raju M.R
Final EEE

Devichellija N
Final EEE

Vanthana R
Final EEE

Dhaqsna B
Final EEE

Raha Dharshini R.S
Final EEE

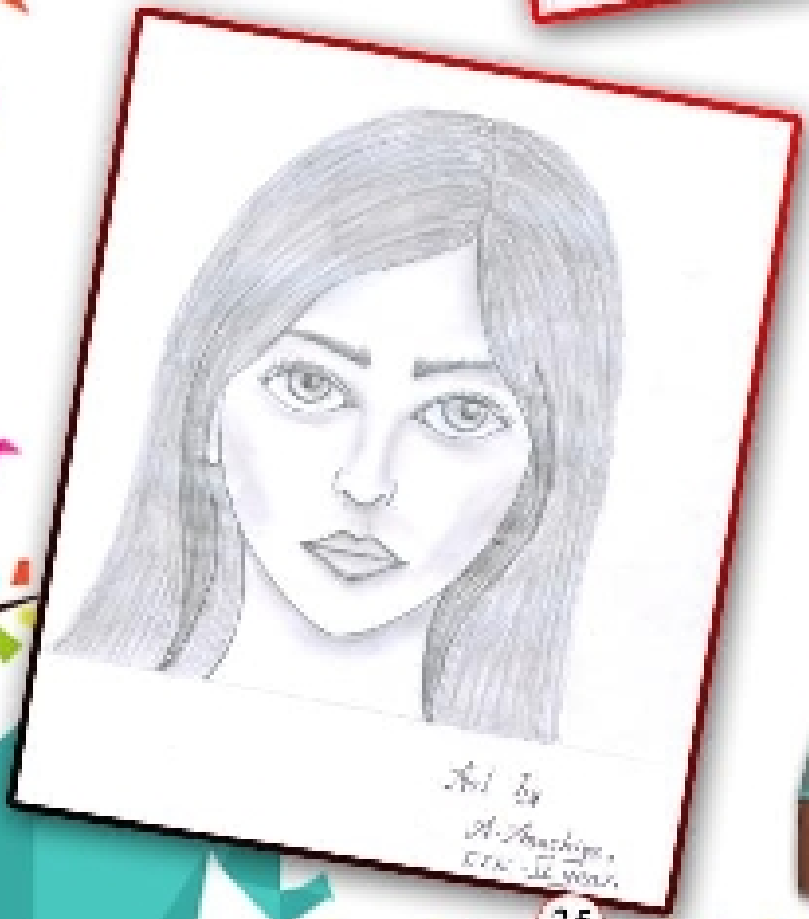
Muthu Ragavi S
Final EEE

Prabesha P
Final EEE

Shamily V
Final EEE

Suhitha T
Final EEE

Titus A
Final EEE



Anushiya.A
Final EEE

Akshya S R
3rd Yr EEE

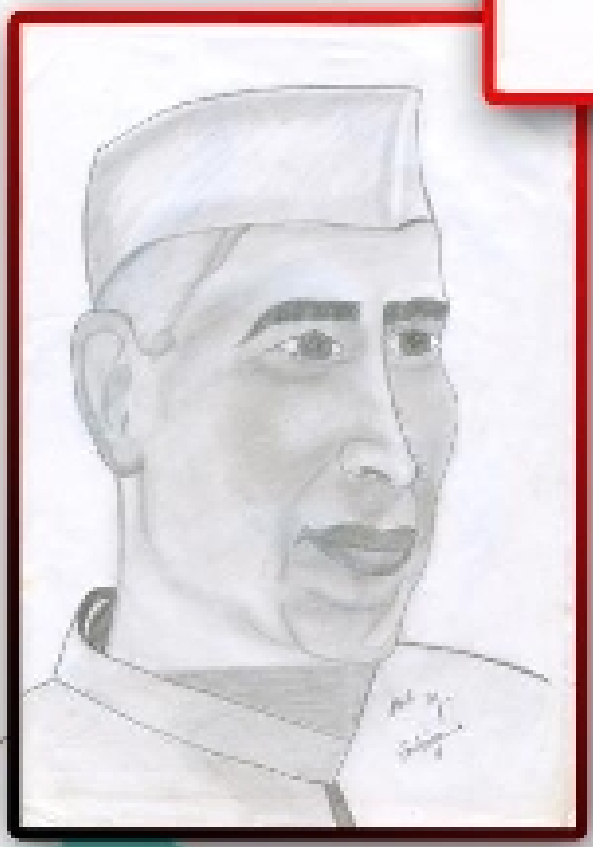
M Ajitha
3rd Yr EEE

Dhanesh R.I
3rd Yr EEE

Archana W
2nd Yr EEE

Prichu S.J
2nd Yr EEE

Shalmiya V.R
2nd Yr EEE



Shivani K N
3rd Yr EEE

Sachu Sajeev
2nd Yr EEE

Bambino.A
2nd Yr EEE

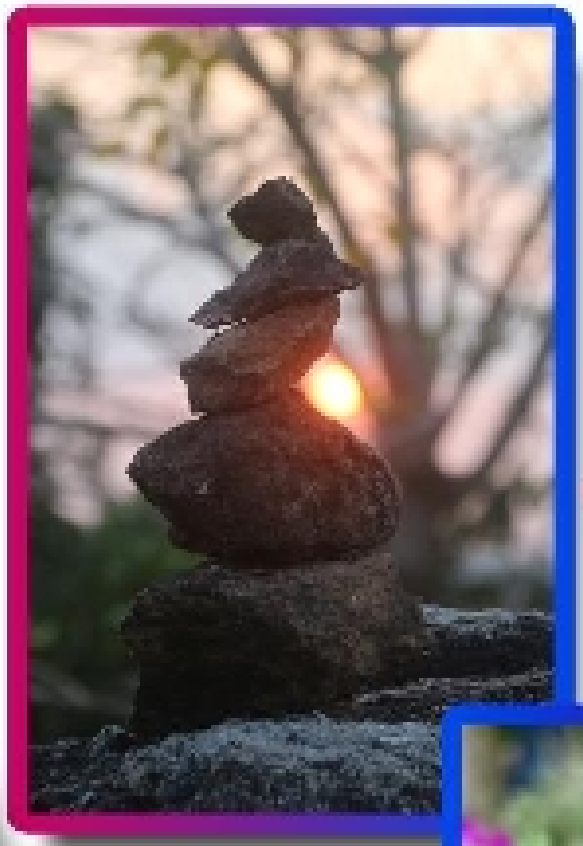
Swetha S
2nd Yr EEE

Adlin Dinfina F.R
2nd Yr EEE

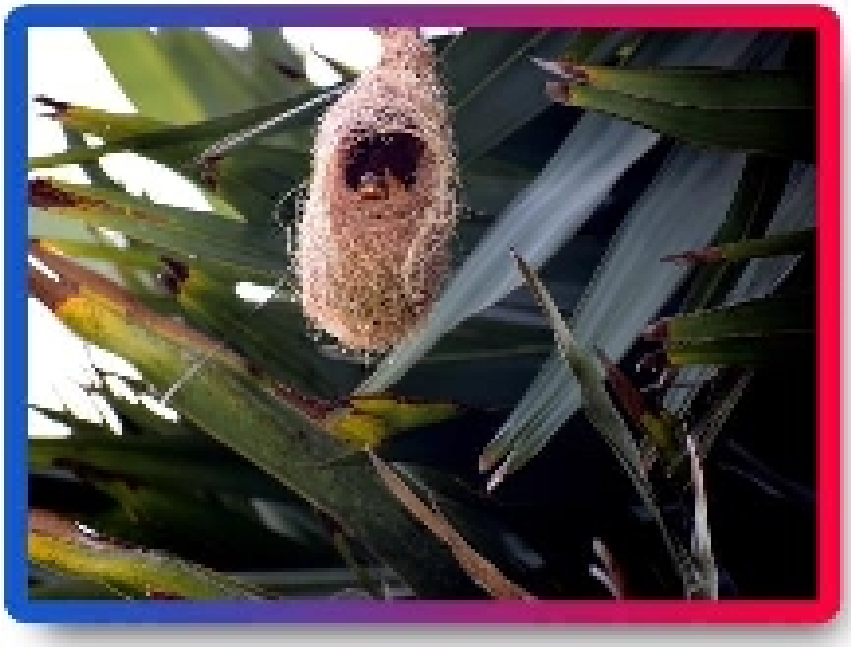
Photography

J. Anto Rayson
Final EEE

T.Arun Kumar
Final ECE



C. Anish Christu Julin
Final EEE



S.Stephen Merit Morries
Final EEE

JOYALSON. J. R
3RD EEE

MANOJ. V.S

2ND EEE


SEE AWARDS
Stephen Merit Morries S
SHINING STAR OF THE YEAR
Jenkins Roch I.
BEST OUT GOING STUDENT OF THE YEAR
Jeffery Jacob
SEE ICON OF THE YEAR AWARD
Anish Christu Julin C
SEE MARVEL AWARD
Anto Rayson J
SEE MARVEL AWARD
Sachin Sabu Maliyackal
SEE AMBASSDOR AWARD
Stalin A
SEE BEST VOLUNTEER AWARD
Carmel Raja F
SEE GLADIATOR AWARD


Devichelija N
SEE GLADIATOR AWARD
(FOR CO-CURRICULAR PERFORMANCE)
Anu Monica
SEE GLADIATOR AWARD
(FOR EXTRA-CURRICULAR PERFORMANCE)
Jebastin D
SEE GLADIATOR AWARD
(FOR SPORTS ACHIEVEMENTS)
Bala Murugan M
SEE GLADIATOR AWARD
(FOR GLOBAL ACHIEVEMENTS)
Ahish S
SEE GLADIATOR AWARD
(FOR FINE ARTS)
Suhitha T
SEE CRUSADER AWARD
(BEST ACADEMIC PERFORMER)
Anushiya A
SEE CRUSADER AWARD
(BEST ACADEMIC PERFORMER)
Babitha Joyce
SEE CRUSADER AWARD
(BEST ACADEMIC PERFORMER)
Adline
SEE CRUSADER AWARD
(BEST ACADEMIC PERFORMER)
Hepzibha Rija
SEE CRUSADER AWARD
(BEST ACADEMIC PERFORMER)

PRIZES IN TECHNICAL EVENTS

Sl.no	Name	Prize	Event	College name
1	S.STEPHEN MERIT MORRIES	2ND	PAPER PRESENTATION	V.V.COLLEGE OF ENGG
		2ND	CIRCUIT DEBUGGING	V.V. COLLEGE OF ENGG
		2ND	PAPER PRESENTATION	PONJESLEY COLLEGE OF ENGINEERING
		1ST	PHOTOGRAPHY	PONJESLEY COLLEGE OF ENGINEERING
		2ND	CIRCUIT DEBUGGING	CAPE INSTITUTE OF TECHNOLOGY
		2ND	PAPER PRESENTATION	LOYOLA INSTITUTE OF TECHNOLOGY
		2ND	POSTER DESIGN	ROHINI COLLEGE OF ENGG AN TECHNOLOGY
		1ST	POSTER PRESENTATION	MAR BASELIOUS COLLEGE OF ENGG(IET KKLN)
2	J.SAVARI PRASANTH	2ND	PAPER PRESENTATION	PONJESLEY COLLEGE OF ENGG
		2ND	CIRCUIT DEBUGGING	CAPE INSTITUTE OF TECHNOLOGY
3	GENOFER.R	2ND	QUIZ	JAMES COLLeGE OF ENGG AN TECH
		1ST	ELECTRO BUZZ	ROHINI COLLEGE OF ENGG AN TECH
		1ST	BEST MANAGER	RAJAS ENGG COLLEGE
		1ST	PAPER PRESENTATION	RAJAS ENGG COLLEGE
4	GEORGE GLYN	2ND	ELECTRO BUZZ	ROHINI COLLEGE OF ENGG AND TECH
		2ND	PAPER PRESENTATION	ROHINI COLLEGE OF ENGG AND TECH

COLLEGE LEVEL ACHIVEMENTS

SL NO	NAME	PRIZE	EVENT
1	BALA MURUGAN.M	1ST	HARDWARE PRESENTATIO
		1ST	POSTER PRESENTATION
2	AJITH KUMAR	1ST	HARWARE PRESENTATION
3	L.JENKINS ROCH	2ND	PAINTING
4	S.STEPHEN MERIT MORRIES	1ST	POSTER PRESENTATION (MEETCON)
		2ND	BEST MANAGER
		2ND	POSTER PRESENTATION
		3RD	PAPER PRESENTATION
5	AKASHYA	1ST	DRAWING
6	R.GENOFER	1ST	IDEA PRESENTATION
7	S.J. PRITHU	1ST	POSTER PRESENTATION
		2ND	ESSAY WRITING
		3RD	GROUP DANCE
8	AJAY KUMAR	1ST	FUSION DANCE
		1ST	FOLK DANCE

FINE ARTS

SL.NO	NAME	PRIZE	EVENT	COLLEGE
1	AJAY KUMAR	1ST	WESTERN DANCE	NESAMONY MEMORIAL COLLEGE
		1ST	WESTERN DANCE	IMMANUEL ARASAR JJ COLLEGE
		2ND	FOLK DANCE	ROHINI COLLEGE OF ENGG
		2ND	WESTERN DANCE	ROHINI COLLEGE OF ENGG
2	BERIN R.J	1ST	WESTERN DANCE	NESAMONY MEMORIAL COLLEGE
		1ST	WESTERN DANCE	IMMANUEL ARASAR JJ COLLEGE
		2ND	FOLK DANCE	ROHINI COLLEGE OF ENGG
		2ND	WESTERN DANCE	ROHINI COLLEGE OF ENGG
3	ABISH.S	1ST	WESTERN DANCE	NESAMONY MEMORIAL COLLEGE
		1ST	WESTERN DANCE	IMMANUEL ARASAR JJ COLLEGE
		2ND	FOLK DANCE	ROHINI COLLEGE OF ENGG
		2ND	WESTERN DANCE	ROHINI COLLEGE OF ENGG
4	LJENKINS ROCH	2ND	PAINTING	SXCCE
		1ST	DRAWING	KUMARI KALAI KALAGAM

SPORTS

SL.NO	NAME	PRIZE	EVENT	COLLEGE
1	JEBASTIN D	3RD	LONG JUMP	SXCCE
		2ND	200M RUNNING	SXCCE
		3RD	4X100 RELAY	SXCCE
		1ST	VOLLEYBALL	UNIVERSITY ZONAL
2	A.STALIN	3RD	4X100 RELAY	SXCCE
3	ANNIE PRABHA	2ND	4X400 RELAY	SXCCE
		3RD	4X100 RELAY	SXCCE
3	SWETHA	2ND	4X400 RELAY	SXCCE
		3RD	4X100 RELAY	SXCCE
4	S.J.PRITHU	3RD	100M RUNNING	SXCCE
		2ND	4X400 RELAY	SXCCE
		3RD	4X 100 RELAY	SXCCE
		2ND	TRIPLE JUMP	SXCCE
		2ND	800M RUNNING	SXCCE
5	MANOJ	3RD	100M RUNNING	SXCCE
		3RD	200M RUNNING	SXCCE


SEE
GALLERY

SEE Inaguration

Workshop on AIT

Workshop on ETAP

Workshop on Research Methodology

Workshop on MULTISIM

Workshop on ARM Processor

Workshop on ARM Processor

Workshop on Arduino

Workshop on PLC-SCADA

Workshop on Power Electronics

STEP UP'17

Internship

Workshop on Water Technology

Workshop on SMART GRID

ICEETS'18

Valedictory of SEE


SEE OFFICE BEARERS


1ST M.E


2ND M.E


2ND EEE


3RD EEE


FINAL EEE

மின்சாரக் கண்ணா ...... !.

மின்சாரக் கண்ணா
என அன்புடன்
எல்லோராலும் அழைக்கப்பட்டு
தகுதி பெற்றவர்கள்
மின் பொறியாளர்களே !

இறைவனின் ஆசி பெற்று
இரவினைப் பகலாக்கும்
திறமைசாலிகள் நீங்கள் !.

நீரின்றி அமையாது உலகு. மின்-
சாரமின்றி ஒளிராது உலகு !

பட்டால் ஷாக் அடிக்கும்
தொட்டால் தூக்கி எறியும்
தவறு செய்தால்
உயிரைப் பறிக்கும்
சக்தி வாய்ந்த மின்சாரத்தைப்
பக்குவமாகக் கையாண்டு
வித்தைகள் பல புரியும்
வித்தகர்கள் நீங்கள் !

தீவெட்டிகளைத் தூக்கி எறிந்து,
சிம்னி விளக்கைக் காலாவதியாக்கி,
ஹரிக்கேன் விளக்கை அகற்றி,
அகல் விளக்கை அப்புறப்படுத்தி,
பெட்ரோமாக்ஸ் விளக்கைப் புறந்தள்ளி,
எங்கும் மின்னொளி ஏற்றிக்
கிராமங்களையும் மிளிரச் செய்வது
மின் பொறியாளர்களே !

தேங்கிய நீரிலிருந்து மின்சாரம்
நிலக்கரியை எரியவைத்து மின்சாரம்
சூரிய ஒளியிலிருந்து மின்சாரம்
கடல் அலைகளிலிருந்து மின்சாரம்
காற்றின் அசைவுகளிலிருந்து
மின்சாரம்
கழிவுகளில் இருந்தும் மின்சாரம் !
ஆஹா ! என்ன வித்தை !
மின்னியலின் சொல்லொணா வளர்ச்சி

மின்சாரத்தைப் பாதுகாப்பாகப்
பிறநகர்களுக்கும் கொண்டுசெல்ல,
அடர்ந்த காடுகளிலும்
கழுகு போன்று
அச்சமின்றிப் பறந்து சென்று,
மின்கம்பத்தை நட்டு
வழி செய்வதும் நீங்களே !

நம் நாட்டுத் துடிப்பாம்
வேளாண்மைக்கும்
உங்கள் சேவை அவசியம்
அரசு மாளிகைகளிலும்
உங்கள் சேவை அவசியம்,
ஓலைக் குடிசைக்கும்
உங்கள் சேவை அவசியம்
அணு மின் உற்பத்தியிலும்
உங்கள் சேவை அவசியம்
மலைவாழ் மக்களுக்கும்
உங்கள் சேவை அவசியம்
அனைத்துத் துறைகளுக்கும்
உங்கள் சேவை அவசியம்
அண்ட சராசரத்திற்கும்
உங்கள் சேவை அவசியம்

கணினி பொறிகள் உயிர் பெறவும்
உங்கள் சேவை அவசியம்
உயிர்காக்கும் மருத்துவமனைக்கும்
உங்கள் சேவை மிக மிக அவசியம் !

விமானதளங்கள், துறைமுகங்கள்,
ராக்கெட் ஏவுதளங்கள்,
மின்சார ரயில் சேவைகள்
ஆராய்ச்சி கூடங்கள் என
அனைத்துத் துறைகளும் ஏற்றமுற,
உங்கள் சேவை அவசியம் !

வளர்ந்துவரும் வளர்ச்சியை
நெஞ்சினில் இருத்தி,
புதுப்பிக்கத்தக்க ஆற்றல்களை
மாற்றுச் சக்திகளாக்க,
ஆய்வுகள் மேற்கொண்டு,
நிலையான வளம்பெற
வல்லோனை வேண்டுகிறேன்.

மின்சாரம் உங்கள் உயிர்நாடி !
மின் பகிர்மானம் உங்கள் உயிர்மூச்சு !
மின் பொறியியல் வாழட்டும் !
மின்துறைப் பணிகள் ஓங்கட்டும் !

என அன்புடன் வாழ்த்தும்,

முனைவர் மார்சலின் பெனோ
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