



STELLA MARY'S

COLLEGE OF ENGINEERING

**DEPARTMENTAL OF
MECHANICAL ENGINEERING**



MECHASM

MAGAZINE 2017 - 2018



ABOUT DEPARTMENT

A magazine is a periodical publication, which can either be printed or published electronically. It is issued regularly, usually every week or every month, and it contains a variety of content.

The Department of Mechanical Engineering has been in existence since 2013 with the intake of 60 students. The department has excellent infrastructure by keeping on par with the latest trends. The Department is grown into a full-fledged one with well-equipped lab facilities, Infrastructure and faculty members of various specializations. The faculty members are not only committed to the teaching profession but also involve themselves in research and constantly, publish papers in conference proceedings, International and National Journals with respect to their field of specialization. The department has been producing excellent results with distinction in the university examinations consistently.

The Department provides high quality education along with discipline. The faculty members make it possible to give individual attention to the learners and to motivate them to achieve their professional goals. The curriculum structure of the department is designed to meet the present-day requirement of Industries and corporate sectors. The interaction between the staff and students is excellent and all the laboratories are well equipped as per the requirements of the curriculum.

The department also organizes frequent industrial visits, subject related seminars, guest lectures, workshops, symposia etc. to enhance the depth of the subject. Department of Mechanical Engineering offers a pavement for students to do innovative project work, by providing a separate lab, known as Design and Fabrication Laboratory". The Department is headed by Mr. S.A Edward Dhas and architected with 11 faculty members with the student's faculty ratio of 1:20

ABOUT MECHASM

(The Student Association of Department of Mechanical Engineering)

"MECHASM" The student association of Department of Mechanical Engineering has been formed during the academic year 2015-2016. The Association is named after the abbreviation of "MECHANICAL Association of Stella Mary's College of Engineering". The association is solely governed by the students; One president, Secretary from final year, vice president and treasurer from pre-final year, Joint Secretary from second year and steering committee members for various portfolios was formed in every academic year. Various activities like Workshop, Guest Lecture, Student Competitions, and Seminars are conducted every academic year by MECHASM. Especially Department symposium are completely planned, organized and conducted by the association.

INSTITUTION VISION AND MISSION

Vision

To emerge as a premiere institution, acknowledged as a centre for excellence imparting technical education, creating technocrats who can address the needs of the society through exploration and experimentation and uplift mankind.

Mission

To provide an education that transforms students, through rigorous course - work and by providing an understanding of the needs of the society and the industry.

DEPARTMENT VISION AND MISSION

Vision

To impart nationally and internationally recognized education on Mechanical Engineering, leading to well qualified engineers who are innovative contributors to the profession and successful in advanced studies and research.

Mission

- To provide an international class of education enabling the students to have the ability to design, plan, engineer, administer and manage the latest technologies in the field of Mechanical Engineering.
- To train students to face the future challenges of industries and society.
- To equip the students to take leading positions in industry, academia, and PSUs both in India and abroad.

PROGRAM OUTCOMES (POS)

PO1/Engineering Knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

PO2/Problem Analysis: Identify, formulate, review research literature, and analyse complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences and engineering sciences.

PO3/Design/Development of Solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

PO4/Conduct Investigations of Complex Problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions for complex problems

PO5/Modern Tool Usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.

PO6/The Engineer and Society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO7/Environment and Sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO8/Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO9/Individual and Team Work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO10/Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO11/Project Management and Finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

PO12/Life-long Learning: Recognize the need for, and have the preparation and ability to engage in independent and lifelong learning in the broadest context of technological change.

PROGRAM SPECIFIC OUTCOMES (PSOS)

PSO1/The students will be able to combine their theory, hands-on and software knowledge in the field of Mechanical Engineering to design and develop components and provide solutions to practical problems.

PSO2/The students will be able to apply their knowledge in the field of Materials and Energy to simulate and develop solution for the real time application.

PSO3/The students will be able to apply their knowledge and skills of various aspects of production, and automation, to enhance productivity and cater to current industrial needs.

PROGRAM EDUCATIONAL OBJECTIVES (PEOS)

PEO1/To produce Mechanical Engineers with an outstanding knowledge of Mathematics, Science, Engineering, Management, Humanities and other interdisciplinary subjects for a successful career.

PEO2/To equip the students with modern tools and technology for deliberating engineering solutions.

PEO3/To inculcate students with leadership skills with a high level of integrity, ethics and moral values.

CHAIRMAN MESSAGE

As a Proverb goes "Education can't make us all leaders, but it can teach us which leader to follow". Educated person is enlightened and knows how to make a tool of every faulty. Educational Institutions are accompanying places to their students during this part of their journey. The Annual Magazine reveals how it is achieved. For a department, annual Magazine is one of the important activities and Medium to showcase the growth year after year. The Annual Magazine not only gives the report of the departmental activities, but it is also a forum for the students and the staff to express their learning and exhibit their literary talents. It is the Staff who accompanies the students in their process of shaping their dreams. We are grateful to all the Parents / Guardians of our students for their cooperation and putting their trust in our institution. We are grateful to all those have helped our institutions in the past years in some way or other. I wish the Editorial Committee all success in bringing out their annual magazine.



Dr. Nazerath Charles
Founder & Chairman

CEO'S DESK

Stella Mary's College of Engineering is dedicated to achieving excellence in technical and research areas, and it measures the success and leadership of its programmes against the highest quality, innovation, and visibility standards. Our goal is to be the most preferred choice of students, faculty, and industries, as well as to be at the top of every engineering discipline. Our goal is to achieve global leadership in human development and educational excellence. Stella Mary's College of Engineering meets our goals of imparting professional education while also encouraging innovative thinking, knowledge application, instilling professional ethics, and raising awareness of social responsibilities. We want to encourage and promote research activities while also integrating them into the teaching-learning process. We believe in lifelong learning and training that benefits society. Our vision is to impact society through globally competent technologists, with the primary goal of providing a quality education while creating long-term value. Aside from curriculum-based studies, an emphasis is placed on the promotion of innovative-driven projects, interaction with industry, soft skill and personality development, co-curricular and extra-curricular activities. Our academic programmes are built around our core values of knowledge, character, excellence, integrity, transparency, quality, team work, execution with passion, trust, and continuous and student-centered learning.



Mr. Carol Judeson
Chief Executive officer

DIRECTOR'S DESK

To build a truly unique engineering institution, one with a distinct difference in quality, to serve the local people in the global arena, in the age of globalization. Our goal is to create an effervescent community of engineers in which faculty and students collaborate on a mutually inspiring education process while immersed in learning. This process of learning would result in inventions and, eventually, discoveries. We actively seek to engage our adjacent associates from research and educational institutions in the learning process by sharing their expertise and practices gained outside of the classroom. We are entrusted with the task of nurturing young minds and preparing them for challenges in today's globalised technology. Our faculty members' doors are always open to any student seeking assistance. We persuade all students to make the most of their time with professors and teaching staff in order to improve their own abilities. Effective communication through speaking and writing will be among the extracurricular activities. The addition of communication languages will make our engineers more globally adaptable. Engineers and technologists have a diverse and rewarding career path ahead of them. A well-educated engineering graduate will be equally capable in research and professional positions, drawing on his analytical, practical, and problem-solving abilities. But we're not just interested in technology. We look for and nurture creative problem-solving abilities in our students, while also encouraging them to develop as effective team players with strong ethics, communication skills, and a desire to excel.



Mr. P. Rengitham
Director

PRINCIPAL MESSAGE

The publication of the magazine from the Department of Mechanical Engineering is a source of great pride and satisfaction for Stella Mary's College of Engineering. The College has made tremendous progress in all academic and non-academic areas, as well as capacity building for staff and students. I am confident that this issue of Department magazine will send a positive signal to the staff, students and the person who are interested in the technical education and Technology based activities. A magazine is like a mirror which reflects the clear picture of all sorts of activities undertaken by a department and develops writing skills among students in particular and teaching faculty in general. I congratulate the Editorial Board of this News Letter who have played wonderful role in accomplishing the task in Record time. I express my deep sense of gratitude to those who guided this technical work which has been undertaken and completed within the stipulated time. Also, my heartfelt Congratulations to staff members and Students for their fruitful effort.

With Best Wishes.



Dr. R. SURESH PREMIL KUMAR
Principal

HOD MESSAGE

I'm overjoyed to learn that our college will publish a magazine this academic year. It provides an excellent opportunity for both faculty and students to showcase their abilities. I am convinced that it would be an excellent medium for informing the world about the potential and accomplishments of SMCE-ians. I hope that this is a continuing process, and that the magazine brings out everyone's hidden talent. I join others in appreciating and recognising the editors' and magazine committee's efforts in bringing out the magazine, and I wish them continued success.



Mr. S.A. Edward Dhas
HoD / Mech

EDITOR'S PAGE

It gives me immense pleasure to note that response to this magazine of our department has been overwhelming. The wide spectrum of articles in different sections gives me a sense of pride that our students and faculties possess creative potential and original thinking in ample measures. Each article is entertaining, interesting and absorbing. I applaud the contributors for their stimulated thoughts and varied hues in articles contributed by them. Commendable job has also been done by the Editorial Board in planning for and producing the magazine. My congratulations to the team who took the responsibility for the arduous task most effectively. I am hopeful that this small piece of technical work shall not only develop the taste for reading among students but also develop a sense belonging to the institution as well.



Mr. J. Starlin Deva Prince
Assistant Professor



“
MOVE
FORWARD.
GOOD
THINGS ARE
UP AHEAD.

”

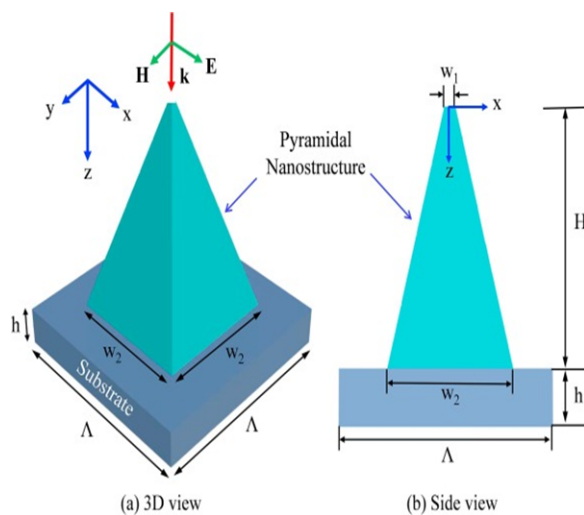
– Dr. Nazerath Charles

ARTICLES

AN ABSORBER DESIGN USING A NATURAL HYPERBOLIC MATERIAL FOR HARVESTING SOLAR ENERGY

Researchers led by Professor Ping Cheng, from Shanghai Jiao Tong University, in collaboration with Professor Zhuomin M. Zhang, from Georgia Institute of Technology, developed a perfect light absorption structure that utilizes an array of pyramidal nanostructures made of bismuth telluride (a natural hyperbolic material) over a thin substrate to absorb incident solar radiation.

The study successfully presented a perfect absorber design that manipulates a periodic array of pyramidal nanostructures that are made of a natural hyperbolic material bismuth telluride on a metallic substrate. The results from the experimental procedure undertaken in this study have shown that the proposed structure can achieve absorptance values of almost 100% in the wavelength range of 300–2400 nm, upon which most of the solar radiation spectrum fall into. Altogether, the proposed metamaterial has great potential application and can lead to the effective harvesting of solar energy during photothermal conversion processes in water or aqueous solutions.



M DANIEL
Third Year/ Mechanical

EXPERIMENTAL INVESTIGATION ON THE PERFORMANCE OF NON-METALLIC FLEXIBLE FIRE-RESISTANCE MATERIALS IN FLAMEPROOF DIESEL ENGINE LOCOMOTIVE

Three kinds of flexible refractory fiber materials were used to verify the performance of fire resistance, according to explosion-proof principle and test methods of flame arrests. Then, a comparison of transmission efficiency between flexible refractory fiber arresters and general arresters was given. The aim of this is to verify the properties of non-metallic flexible fiber materials in fire resistance and transmission efficiency so that we can apply it to the flameproof diesel engine locomotive. Theoretically, refractory fibers have good performances of air permeability and complex internal space, so it can provide with absorption area. First, irregular porous structure increases the cooling area. The temperature of the flame can decrease under the ignition point and quench after the heat exchange. Tiny pores of the porous materials, moreover, increases the probability of absorbing free radicals during chain reaction so as to prevent the combination of free radicals and premixed gas. Then, the chain reaction will slow down and even terminate.

The investigation was aimed at testing the performances in fire-resistance and transmission efficiency of non-metallic flexible materials in flameproof diesel engine locomotive which may replace traditional metal flame arresters with low gas transmission efficiency. On the basis of the chain reaction mechanism, the mixed gas was burnt in the experiment, and the free radical which can be absorbed by tiny pores of flexible fiber materials and quenched was released.



S SENIL
Final Year/ Mechanical

ACOUSTIC WAVE SEPARATION

Flo Design Sonics, with funding from the National Science Foundation, has developed a uniquely effective patented technology called Acoustic Wave Separation (AWS) that separates or cleans water or other liquids from other contaminants. Acoustic waves were the secret behind this breakthrough technology that divorced all foreign substances such as radioactive material, hydrocarbons, bacteria, chemical additives, salt, and more, without the use of chemicals or filters. Their immediate goal was to be able to process 100,000 gallons a day for the gas and oil industry. This same technology could also be used to cleanse blood during surgery, to reclaim proteins from the cells of mammals, as well as many uses in gene and cell therapies. This groundbreaking AWS technology will have innumerable potential uses in the future (<https://www.nsf.gov/water>).



M PEER HALLAJ

Second Year/ Mechanical

MECHANICAL ENGINEERING STUDENTS ARE INNOVATING TECHNOLOGIES TO MEET A WIDE RANGE OF HUMAN NEEDS

Mechanical engineering is not just a degree, it transforms an individual into an expert who can analyse, create, manage, maintain and offer innovative solutions to improve the overall quality of life. Mechanical Engineering is one of the broadest and oldest streams of engineering. Students, who opt to study this discipline, are involved with the design, analysis, testing, manufacturing, operations and maintenance of mechanical systems.

The IT discipline definitely had its days of dominance. However, students today, look for aspiring careers not only in fields of IT and manufacturing but also have a strong inclination to pursue mechanical engineering. Without this as a discipline, we would not have engines, elevators, generators or even air conditioners! It has enabled mankind to do chores with ease as it brings to the fore emerging technologies that benefit our modern society. Mechanical engineers are in demand across nations and enjoy a very high starting salary too. Most of them tend to be multi-faceted as they are given a strong working knowledge of computer applications, physics, mathematics, and structures to name a few, and an in-depth understanding of socio-environmental factors as well.

Mechanical engineering is not just a degree, it transforms an individual into an expert who can analyse, create, manage, maintain and offer innovative solutions to improve the overall quality of life. When it comes to developing new technologies for different industries like healthcare, robotics, aerospace and transportation, mechanical engineers are the most sought-after. The career paths of mechanical engineers are largely determined by the choices they make and this in itself is a big advantage in this dynamic world. Mechanical engineers are capable of working in a wide variety of industry sectors, and new technologies will create industries that don't exist today. Mechanical engineers are no longer confined to the traditional industries of aerospace, automotive, and manufacturing, but are also employed extensively in important emerging areas, such as nuclear technology, robotics, biomedical technology and energy systems. Rightly Steve Jobs reminds, "Innovation distinguishes between a leader and a follower".

INDEED, THE DISCIPLINE OF MECHANICAL ENGINEERING HAS MADE NOTEWORTHY CONTRIBUTIONS THAT HAVE TRANSFORMED MILLIONS OF LIVES:

- Ulta Chaata Harvester is a brilliant concept to promote rainwater harvesting. The same is used to generate renewable energy in towns, cities, and industries. With single Ulta Chaata, one can harvest approximately 100,000 litres of water. This device also generates solar electricity and helps to charge the electronic devices.
- 3D-printed rotor is a miniature device which freezes seawater and separates the solid form from it and leaves back plain ice. Once melted, it can be used as regular water.
- Envi Green Edible Bags is a brilliant solution by Ashwath Hegde to counter the use of plastic. The bags are edible and affordable; it gets degraded naturally in just 6 months.

- Keeping in mind that more than 40 % of rural areas in almost all the countries don't have electricity UTEC (Universidad de Ingeniería Tecnologías) has come up with an innovative lamp, called the Eco-friendly Lamp, which is powered by plants.
- Inventive Power has come up with a unique solar thermal energy design which generates steam in higher temperature and which in turn can be utilized to produce electrical power. This project is focused to reduce the LPG consumption and carbon dioxide emission to safeguard the environment.
- The washing machines use 10-15 gallons of water during every cleaning cycle. Water scarcity is growing exponentially across the globe, and it is crucial to utilize it effectively. Aqua Fresco is an innovative filter designed by MIT students, which reuses 95 % of the water used for washing. This device helps to recycle the water which again is reused for the rest of the cycles.
- Avant-Garde Innovations has devised an economical wind turbine which generates electricity for a lifetime using wind energy. The low-cost setup of a wind turbine is its unique selling point.

In conclusion, mechanical engineering as a discipline involves the study of some of the most interesting phenomena in the world of science. It allows graduates to choose from a wide array of career options and engages individuals in significant contributions that add immense value to the global economy. It is thus that Mechanical Engineering continues to be one of the most sought after and highly respected disciplines in Engineering and Sciences!



D Anish
Third Year/ Mechanical

EIGHT INSPIRATIONAL QUOTES THAT WILL CHANGE YOUR LIFE

1. "I am thankful for all of those who said NO to me. Its because of them I'm doing it myself." – Albert Einstein.
2. "The only way to do great work is to love what you do. If you haven't found it yet, keep looking. Don't settle." – Steve Jobs.
3. "When you say "It's hard", it actually means "I'm not strong enough to fight for it". Stop saying its hard. Think positive!"
4. "Don't worry about failures, worry about the chances you miss when you don't even try."
5. "The pain you feel today is the strength you feel tomorrow. For every challenge encountered there is opportunity for growth."
6. "Build your own dreams, or someone else will hire you to build theirs."
7. "The only thing that stands between you and your dream is the will to try and the belief that it is actually possible."
8. "Self-confidence is the most attractive quality a person can have. how can anyone see how awesome you are if you can't see it yourself?"



S K SANTHIYA
First Year/Mechanical

LOVE

we can live without drinking water for more than 24hrs

we can live without food for more than 5 days

but we can't live with anger for 1hr

because it leads to end of our life

try to be happy love each and every moment

than it is going to be the more precious moment

life is full of pain and gain

it will make you shine

love shows a smiling face to the world

anger shows the ugly face to the world

love is not present outside the world

it is present inside your mind

don't earn more money from others sometimes it may not help in critical situation

earn and give more love to others it will help in all the moments.



G GOKUL

First Year/ Mechanical

பிரியும் வருடம்

அறியாத இடங்களிலிருந்து வந்து
தெரியாத நபர்களுடன் பழகி
இல்லாத கதைகளை கூட
பல வகையாக பேசி மகிழ்ந்து
மதிய உணவை மன உணர்வுடன்
சரியாக பகிர்ந்து சாப்பிட்டு
காப்பாளரின் கண்மறைத்து களவு
தாளை தானமாக கடத்தி
நண்பனை நல்லுணர்வுடன் நலமாக்கி
நாலுவருடமும் நன்நட்பை சுவாசித்து
கல்லூரி வாழ்க்கையை கனவாக நினைத்து
கள்ளகபடமின்றி சிரித்து உரையாடிய
புரிந்த உறவுகளை பிரியும் வருடம்
"இந்த வருடம்"



R RENGITH
Final Year/ Mechanical

INTERESTING FACTS ABOUT INDIA

1. India never invaded any country in her last 10000 years of history.
2. India invented the Number System. Zero was invented by Aryabhata.
3. The World's first university was established in Takshila in 700BC. More than 10,500 students from all over the world studied more than 60 subjects. The University of Nalanda built in the 4th century BC was one of the greatest achievements of ancient India in the field of education.
4. Sanskrit is the mother of all the European languages. Sanskrit is the most suitable language for computer software, reported in Forbes magazine, July 1987.
5. Ayurveda is the earliest school of medicine known to humans. Charaka, the father of medicine consolidated Ayurveda 2500 years ago. Today Ayurveda is fast regaining its rightful place in our civilization.
6. Although modern images of India often show poverty and lack of development, India was the richest country on earth until the time of British invasion in the early 17th Century.
7. The art of Navigation was born in the river Sindh 6000 years ago. The very word Navigation is derived from the Sanskrit word NAVGATI. The word navy is also derived from Sanskrit 'Nau'.
8. Bhaskar Acharya calculated the time taken by the earth to orbit the sun hundreds of years before the astronomer Copernicus. Time taken by earth to orbit the sun: (5th century) 365.258756484 days.
9. The value of pi was first calculated by Budhayana, and he explained the concept of what is known as the Pythagorean Theorem. He discovered this in the 6th century long before the European mathematicians.
10. Algebra, trigonometry and calculus came from India; Quadratic equations were by Sridharacharya in the 11th Century; The largest numbers the Greeks and the Romans used were 10^6 (10 to the power of 6) Whereas Hindus used numbers as big as 10^{53} (10 to the power of 53) with specific names as early as 5000 BCE during the Vedic period. Even today, the largest used number is Tera 10^{12} (10 to the power of 12).

11. According to the Gemological Institute of America, up until 1896, India was the only source for diamonds to the world.
12. USA based IEEE has proved what has been a century-old suspicion in the world scientific community that the pioneer of Wireless communication was Prof. Jagdeesh Bose and not Marconi.
13. The earliest reservoir and dam for irrigation was built in Saurashtra. According to Saka King Rudra Daman I of 150 CE a beautiful lake called 'Sudarshana' was constructed on the hills of Raiva Taka during Chandragupta Maurya's time.
14. Chess (Shataranja or AshtaPada) was invented in India.
15. Sushruta is the father of surgery. 2600 years ago he and health scientists of his time conducted complicated surgeries like cesareans, cataract, artificial limbs, fractures, urinary stones and even plastic surgery and brain surgery. Usage of anesthesia was well known in ancient India. Over 125 surgical equipment were used. Deep knowledge of anatomy, physiology, etiology, embryology, digestion metabolism, genetics and immunity is also found in many texts.
16. When many cultures were only nomadic forest dwellers over 5000 years ago, Indians established Harappan culture in Sindhu Valley (Indus Valley Civilization)
17. The place value system, the decimal system was developed in India in 100 BC.



P J Winston Reno
Second Year/ Mechanical

EVENTS ORGANIZED

12/08/2017	Workshop on Skill Development on New Product Design And Development Technique.	S.Lakshmanan Technical Officer, (Design), Central Institute of plastics engineering and Technology, Chennai.
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12/08/2017	Workshop on Skill Development on New Product Design And Development Technique.	S.Lakshmanan Technical Officer, (Design), Central Institute of plastics engineering and Technology, Chennai.



Workshop purely depends on Ansys and Mechanical Heat Transfer which helps our engineering students to understand about Ansys and Mechanical Heat Transfer. Chief guest Mr. M. S. Sakthivel

09-09-2017	One day workshop on Scope of Renewable energy resources for project development	Dr. S Julias Jayasingh AP- SXCCE Nagercoil
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Workshop purely depends on scope of renewable energy resources which helps engineering students to develop project related to renewable energy. Chief guest Dr. S. Julyes jaisingh, presented a valuable seminar and also made an interactive session.

STUDENT ACHIEVEMENT

S. NO.	NAME OF THE STUDENT	ORGANISED / CONDUCTED BY	Date	ACHIEVEMENT
1	T Narendrananth	"VV Yenthiraz 17" VV College of Engineering	13-09-2017	Second Prize in CAD Modelling
2	M Arun Vibeesh	"Agenya 17" Mar Ephraem College of Engineering	28-09-2017	First prize in Reverse Car Parking
3	C. M. Thayananth	"Agenya 17" Mar Ephraem College of Engineering	28-09-2017	Second prize in Mud Race

STUDENT ACADEMIC TOPPERS

S. NO.	NAME OF THE TOPPER	YEAR	SEMESTER	CGPA
1	S SENIL	FINAL	VII	8.1908
2	C L Dinesh	THIRD	V	7.849
3	J John Jerlin	SECOND	III	8.455

FACULTY ACTIVITIES

S. NO.	NAME OF THE FACULTY	PROGRAMME	ORGANISED BY	NO OF DAYS & ATTENDED DATE	TYPE	LEVEL
1	Dr. M. Siva Prakash	"RESEARCH PERSPECTIVES ON ROBOTICS AND VISION"	Thiagarajar College Of Engineering	14days & 27/11/2017 to 10/12/2017	FDP	National
2	Dr. F. Micheal Raj	"RESEARCH PERSPECTIVES ON ROBOTICS AND VISION"	Thiagarajar College Of Engineering	14days & 27/11/2017 to 10/12/2017	FDP	National
3	Mr. S. Rajkumar	PMO-IEDP	Anna University, Tirunelveli	2days & 22/8/2017 to 24/8/2017	FDP	National
4	Mr. J. Stalin Deva Prince	"RESEARCH PERSPECTIVES ON ROBOTICS AND VISION"	Thiagarajar College Of Engineering	14days & 27/11/2017 to 10/12/2017	FDP	National
5	Mr. P. Vijayan	"ENGINEERING MECHANICS"	University College Of Engineering Nagercoil	7days & 18/12/2017 to 24/12/2017	FDP	National
6	Mr. S. Ajithkumar	"ENGINEERING MECHANICS"	University College Of Engineering Nagercoil	7days & 18/12/2017 to 24/12/2017	FDP	National
7	Dr. C. Dhayananth Jegan	"ENGINEERING MECHANICS"	University College Of Engineering Nagercoil	7days & 18/12/2017 to 24/12/2017	FDP	National
8	Mr. E. Bravin Daniel	"RESEARCH PERSPECTIVES ON ROBOTICS AND VISION"	Thiagarajar College Of Engineering	14days & 27/11/2017 to 10/12/2017	FDP	National
9	Dr. R. Subash Chandra Bose	"RESEARCH PERSPECTIVES ON ROBOTICS AND VISION"	Thiagarajar College Of Engineering	14days & 27/11/2017 to 10/12/2017	FDP	National

FACULTY ACHIEVEMENTS

S. No.	Authors	Publication details	Journal	ISBN/ISSN Number	Impact Factor
1.	M Siva Prakash	Machining and tribology characteristic of LM20/GR/Alumina hybrid metal matrix composite.	International Journal of printing packing and allied sciences	-	0.762
2.	F Michael Raj	"Mechanical Characterization of Discarded Monofilament Fishnet/Glass Fiber and Polyester Hybrid Composites", 44(2): 402-409	Indian Ecological Society, Indian Journal of Ecology	03045250	0.13
3.	S R Rajkumar	Experimental Comparison of Yield of Bio oil in Fixed Bed Pyrolizer	International Journal of Trend in Scientific Research and Development (IJTSRD) ISSN No: 2456 - 6470 Volume II Issue 2	2456-6470.	2.118

DETAILS OF PH.D PURSUANCE

S. No.	Name	Register Number	Month and Year of Registration	Supervisor Name And Details		Research Area
				Supervisor Name	University	
1.	E Bravin Daniel	17142897323	Jul2017	Dr .P.Arul Franco	Anna university , Chennai	Alternate fuel

AWARDS BY COLLEGE

- BEST TEACHER: Mr. S R Rajkumar (76% in ME6702-MECHATRONICS)
- BEST RESEARCHER: Mr. M Siva Prakash
- BEST OUTGOING STUDENT: S SENIL

EVENTS ORGANIZED

1.	Mr. I Benjamin	Managing partner, 3 Q Inspection Service, Trichy.	04/01/2018	Seminar on Non Destructive Test
2.	Mr. M Sajeev	Manager, CAD Centre, Nagercoil	08/01/2018	Cadd Quest
3.	Mr. K J Anish Kumar	Technical Head, Edu CAD Tech, Nagercoil	30/01/2018	Workshop on Hyper Mesh

STUDENT ACHIEVEMENT

S. NO.	NAME OF THE STUDENT	ORGANISED / CONDUCTED BY	Date	ACHIEVEMENT
1	K Surya	Technical Symposium Mechera 18 James College of Engineering	13-03-2018	Second place in Poster Presentation
2	S Ajith Santhosh Raj Ajay F	Yanthrika 18 Annai Vailankanni College of Engineering	12-03-2018	Third prize in Project Expo
3	Sahaya Rajesh	Technical Symposium Mechera 18 James College of Engineering	13-03-2018	First prize for Short Film

STUDENT PARTICIPATION

S. NO.	NAME	EVENT TITLE	HELD AT	Date
1	M S Aravind	KTM Engine Explore	Rohini College of Engineering and Technology	05.01.2018 and 06.01.2018
2	M Abdul Basith	KTM Engine Explore	Rohini College of Engineering and Technology	05.01.2018 and 06.01.2018
3	S Rabin	KTM Engine Explore	Rohini College of Engineering and Technology	05.01.2018 and 06.01.2018
4	A S Ratheesh	KTM Engine Explore	Rohini College of Engineering and Technology	05.01.2018 and 06.01.2018
5	Mahesh	KTM Engine Explore	Rohini College of Engineering and Technology	05.01.2018 and 06.01.2018
6	C I Dinesh	KTM Engine Explore	Rohini College of Engineering and Technology	05.01.2018 and 06.01.2018
7	M Bala Williams	KTM Engine Explore	Rohini College of Engineering and Technology	05.01.2018 and 06.01.2018

STUDENT PARTICIPATION

S. No.	NAME	EVENT	HELD AT	COMPETITION	DATE
1.	S Ajith	Yanthrika 18	Annai Vailankanni College of Engineering	General Quiz, Project Expo	12-03-2018
2.	E Ajay	Yanthrika 18	Annai Vailankanni College of Engineering	General Quiz, Project Expo	12-03-2018
3.	Santhosh Raj	Yanthrika 18	Annai Vailankanni College of Engineering	General Quiz, Project Expo	12-03-2018

STUDENT ACADEMIC TOPPERS

S. NO.	NAME OF THE TOPPER	YEAR	SEMESTER	CGPA
1	S SENIL	FINAL	VIII	8.239
2	C L Dinesh	THIRD	VI	7.793
3	J John Jerlin	SECOND	IV	8.314

FACULTY ACHIEVEMENTS

S. No.	Authors	Publication details	Journal	ISBN/ISSN Number	Impact Factor
1.	Mr. F Michael Raj	'Influence of Processing Parameters on AA 6063/SiC (Black & Green) Composites in Wire EDM', Volume 53, ISSUE 2, pp. 1966-1990.	Caribbean Journal of Science	0008-6452	0.28
2.	Mr. F Michael Raj	"Hybrid composites with discarded fishnet and polyester: a novel boat-building material", https://doi.org/10.1080/17445302.2018.1464890 (Taylor & Francis)	Ships and Offshore Structures	1744-5302	1.85
3.	Mr. F Michael Raj	"Waste to Poles: Discarded fishnet/glass fiber and Polyester for building Electrical Poles" 2997-3005.	John Wiley-Polymer Composites	2728397	2.35
4.	Mr. F Michael Raj	Evaluation of mechanical behavior of multifilament discarded fishnet/glass fiber and polyester composites for marine applications" 58, 361-366.)	Elsevier, Marine Structures	0951-8339	2.708
5.	Mr. C Dhayananth Jegan	A noval investigation of heat transfer characteristic in rifled tubes.	SPRINGER HEAT AND MASS TRANSFER	ISSN 0947-7411 Volume 54 Number 5	1.32
6.	Mr. S R Rajkumar	Synthesis and Analysis of Bio-Oil from Coconut Leaf Stalk By Pyrolysis	International Journal of Research Volume VIII, Issue II, February/2019 ISSN NO:2236-6124	2236-6124	5.7
7.	Mr. S R Rajkumar	Synthesis and Sctrutiny of Pyrolysis-Oil from Tamarind Shell	JASC: Journal of Applied Science and Computations.	1076-5131	5.8

FACULTY AWARDED PH.D

S. No.	Name of the Faculty	University	Designation	Date of Joining	Year of Award of Ph.D.
1.	Dr. M Siva Prakash	Anna university, Chennai	Professor	22/06/2015	2017

AWARDS BY COLLEGE

- BEST TEACHER: Mr. S R Rajkumar (94% in ME6016/Internal Combustion Engines)
- BEST RESEARCHER: Mr. F Michael Raj
- BEST OUTGOING STUDENT: S SENIL

OUT GOING STUDENTS 2014-2018 BATCH



| CLUB ACTIVITIES

BLOOD DONATION CAMP

Date of Programme: 26/09/2017

Time of Programme: 10.00 AM

No. of Days : 1/2 DAY

Venue : Auditorium

Session : FN

A blood donation camp was organized by STELLA MARY'S COLLEGE OF ENGINEERING, ARUTHENGANVILAI, AZHIKAL, on 26th September 2017. A team of 11 doctors and nurses of Blood Bank, Kanyakumari Medical College, Asaripallam, Nagercoil, came for collection of blood. The event started with 'Tamil Thai Valthu' by Volunteers of NSS and YRC, welcome Address followed by Dr. Suresh Premil Kumar (Principal, Stella Mary's college of Engineering). Dr. Caroline Geetha (Blood Bank Medical Officer, Kanyakumari Medical College) enlightened the students about the importance of donating blood.



| CLUB ACTIVITIES

NATIONAL SERVICE SCHEME

Date of Programme : 01/09/2017

Time of Programme : 9.30 AM

No. of Days : ½ Day

Venue : COLLEGE

Session : FN

Our college National Service Scheme (NSS) and Youth Red Cross (YRC) together conducted a Dengue Awareness program on 1st September 2017. In this program the Staff from the Government Primary Health Centre, Ganapathipuram also participated and joined in the rally.



DEPARTMENT OF MECHANICAL ENGINEERING



DEPARTMENT OF MECHANICAL ENGINEERING MINI PROJECTS



1. Oxygen refilling sensor



2. Reverse gear mechanism



3. Multipurpose cylindrical
fixture



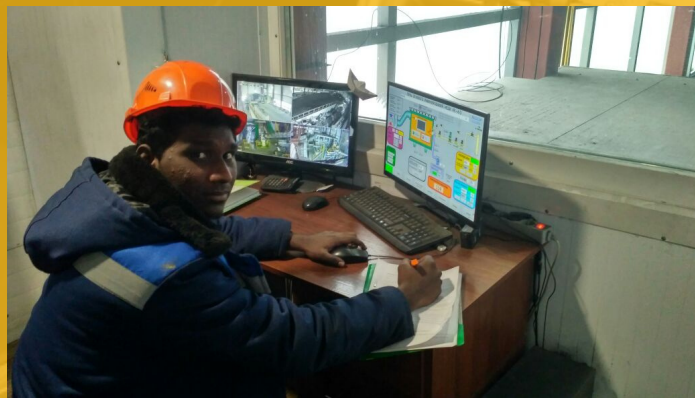
4. Areca tree gripper

DEPARTMENT OF MECHANICAL ENGINEERING MINI PROJECTS



5. Dual power cutting machine

PLACEMENT TRAINING



FIELD TRIP





EDITORIAL BOARD

Year

2017-18

Issue

April 2018

**Faculty
Editor**

Mr. J. Starlin Deva Prince

**Faculty
Coordinators**

Mr. S A Edward Dhas
Mr. F Michael Raj



INSTITUTION VISION AND MISSION

Vision

To emerge as a premiere institution, acknowledged as a centre for excellence imparting technical education, creating technocrats who can address the needs of the society through exploration and experimentation and uplift mankind.

Mission

To provide an education that transforms students, through rigorous course – work and by providing an understanding of the needs of the society and the industry.



DEPARTMENT VISION AND MISSION

Vision

To impart nationally and internationally recognized education on Mechanical Engineering, leading to well qualified engineers who are innovative contributors to the profession and successful in advanced studies and research.

Mission

To provide an international class of education enabling the students to have the ability to design, plan, engineer, administer and manage the latest technologies in the field of Mechanical Engineering.
To train students to face the future challenges of industries and society.
To equip the students to take leading positions in industry, academia, and PUS both in India and abroad.

