



St. JOSEPH'S COLLEGE OF ENGINEERING

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OMR, CHENNAI - 119



DEPARTMENT OF MECHANICAL ENGINEERING



NEWSLETTER

OCTOBER 2024



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The Choice of
Disciplined Toppers



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VISION

To become a world class Educational center of the Nation for Engineering, Technology, Computer Applications and Management with moral and professional standards to serve the community at large.

MISSION

To achieve academic excellence in Engineering, Technology, Computer Application and Management Education.

To inculcate high moral and professional standards among our students.

To develop the overall personality of our students.

To promote Industry Institute Interaction through more number of collaborative programs with Industries, Research and Development centers.

To venture for sustained placement for our students through campus interviews.





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DEPARTMENT OF MECHANICAL ENGINEERING

VISION

To become a center of excellence in Mechanical Engineering, producing competent engineers, who are innovative, entrepreneurial and skilled to meet the global challenges.

MISSION

Excellence: To offer state-of-art education in Mechanical Engineering, by providing opportunity to students to enhance their knowledge base and develop core specific skills.

Research: Build a research capability that is recognized nationally and internationally as a leading source of technological innovation and explore core research.

Professional Integrity: To create opportunities and train students to build leadership qualities blended with entrepreneurial mindset and lead an ethical and environmentally responsible career.

PROGRAMME EDUCATIONAL OBJECTIVES

Engineering graduates will be able to:

PEO1: Profession - Practice manufacturing engineering in a broad range of industries both core engineering and non-engineering fields such as medicine, space, law or business.

PEO2: Continuing Education - Pursue advanced education, research and development, and other creative and innovative efforts in science, engineering, and technology, as well as other professional careers.

PEO3: Technophile - Conduct them in a responsible, professional, and ethical manner and attain professional maturity with deep understanding of the impact of the technological solutions in a societal and global context and a need for sustainable development.

PEO4: Service - Participate as leaders in their fields of expertise and in activities that support service and economic development nationally and throughout the world.

PROGRAMME OUTCOMES

Engineering graduates will be able to:

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

Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

Design/development of solutions: Design solution for complex engineering problems and design systems components or process that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.



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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.

Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

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.

Environmental 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.

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

Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

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.

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.

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

PROGRAMME SPECIFIC OUTCOMES

PSO 1: The students graduating in Manufacturing Engineering will have profound foundation in mathematical, scientific and engineering domains necessary to achieve professional and productive excellence in technical and non-technical problem solving and analyzing engineering problems.

PSO 2: The students graduating in Manufacturing Engineering will have the ability to synthesize the engineering data and apply scientific principles for applications involving manufacturing engineering using high end CAD/CAM/CAE computational packages such as CATIA, ANSYS and MATLAB.

PSO 3: The students graduating in Manufacturing Engineering will have the ability to pursue advanced careers and discharge his/her duties entrusted with high degree of commitment to address professional and ethical responsibilities, including a respect for diversity and provide cost effective engineering solutions.

EVENTS & ACHIEVEMENTS

OCTOBER 2024



CONTENTS

- STUDENTS' CHAPTER ACTIVITIES
- STUDENTS' WORKSHOP
- PARENTS MEETING
- FACULTY ACHIEVEMENTS
- NPTEL
- STUDENTS' ACHIEVEMENT
- PLACEMENT



Students' Chapter Activities

The Standards Club of St. Joseph's College of Engineering's BIS Club Mentor, **Mr. KMB. Karthikeyan**, oversaw the event. **Mr. K. Gnanasekaran**, the mentor, gave the students instructions to the students for the planned technical.



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DEPARTMENT OF MECHANICAL ENGINEERING
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BIS CONCLAVE FOR REGISTRATION
TECHNICAL EVENTS

PRESENTATION ON STANDARDS — TECHNICAL QUIZ
 STANDARDS PARLIAMENT — SHOWCASING STANDARDS

CASH PRIZE

1 ₹3000 2 ₹2000 3 ₹1500 4 ₹1000

FACULTY COORDINATORS
 MR.K.M.B.KARTHIKEYAN MR.K.GNANASEKARAN

STUDENTS COORDINATORS
 MUKUL RICHARD G JAI AKASH LALA HESANTH KUMARS NANDHAKUMAR G NANDAKUMAR M.M

FOR MORE INFORMATION
 MR.K.GNANASEKARAN - 9176317179 || MR.K.M.B.KARTHIKEYAN - 7338992892 || MUKUL RICHARD - 8939360695

• The valedictory function was presided over by **Mr G. Saravanan** BE MBA M.Sc. (PMV) FIE FIV FIIPE C Engg(I), Chief General Manager, ITCOT Limited, a Joint Venture of IFCI, SIPCOT, THIC, SIDCO Banks.





Students' Chapter Activities

Department of Mechanical engineering organized a technical Event sponsored by **Bureau of Indian Standard(BIS)**. A Govt of India Initiative on **14th October 2024**, four event were conducted and four positions were felicitated with cash prizes. The event was inaugurated by **Dr. N. Arunkumar, Dean of IC&IQAC**, and **Dr. L. Balamurugan, Head of the Mechanical Department**.



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DEPARTMENT OF MECHANICAL ENGINEERING

GLIMPSE OF TECHNICAL EVENT ON BIS CONCLAVE 2024



14-10-2024 (MONDAY)



8AM TO 3 PM



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Students' Chapter Activities

Department of Mechanical Engineering & Indian institute of Welding (IIW) Jointly organized a **Inter chapter Technical Fest & Competition 2024** on **21st October 2024**. **Dr. V. Balasubramanian**, Director, CEMAJOR, Annamalai University, Chairman - **IIW Chennai Chapter**, Felicitated the program and quiz and technical presentation was conducted and nearly 60 students participated in the event and first three positions were felicitated with certificate and cash prize sponsored by **Meera Laser Solutions**.



IIW - Inter Chapter
Technical Fest 2024





Students' Workshop

Department of Mechanical Engineering, Organized a Workshop on *09th October 2024* in the topic **Drone Design, Development and Assembly** in partnering with Deca Drives Pvt Ltd. This comprehensive program aimed to bridge the gap between theoretical knowledge and practical application, providing students with hands-on experience in drone technology. A total of **50 Students** from Second, third and Final year students got benefited using this program.





Department Activities

On *17th October 2024*, Department of Mechanical Engineering, Organized a **career guidance meeting** for third-year students with their parents. During the meeting the progress and steps to be taken to enhance the individual students discussed.

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DEPARTMENT OF MECHANICAL ENGINEERING
GLIMPSES OF CAREER GUIDANCE MEETING
FOR THIRD YEAR (2022 - 2026 Batch) STUDENTS
ALONG WITH THEIR PARENTS



 **DATE: 17th OCTOBER 2024**

 **AICTE IDEA LAB**
St. Joseph's College of Engineering

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Faculties' Achievements

Mr. M. Ganesh, Assistant Professor from Department of Mechanical Engineering, Completed his Viva Voce on **21st October 2024** and received his degree on 27/10/2024 on the topic “ **Investigation on Deep Hole Drilling under Cryogenic Cooling Environment**” Under the Guidance of **Dr. N. Arunkumar**.





Faculties' Achievements

Publication /Patent

- **Dr. N. Arunkumar**, Professor & Dean, **Mr. M. Ganesh & Mr. M. Siva**, Assistant Professors, **Dr. G.M. Lionus Leo**, Associate Professor from the Department of Mechanical Engineering Published an article titled “**Experimental investigation on sustainable machining of Monel using vegetable oils as cutting fluids and machine learning- based surface roughness prediction**” in "Engineering Research Express".
- **Mr. G. Ashwin Prabhu**, Assistant Professor from the Department of Mechanical Engineering has Successfully Published a Patent titled "**Experimental Investigation of Mechanical Properties of Sisal and Jute Fiber Reinforced Composites**" on 04/10/2024. Application No: 202441071443
- **Mr. J. Vijayanand & Mr. G. Ashwin Prabhu**, Assistant Professor from the Department of Mechanical Engineering has Successfully Published a Patent titled "**Experimental Investigation of Tamarind Seed Powder and Glass Fiber Reinforced Composites**" on 04/10/2024. Application No: 202441070196
- **Mr. T. Balasubramanian**, Assistant Professor from Mechanical Department Secured Elite Silver Certificate in **Product Design and Development** in Association with IIT Roorkee.
- **Mr. K. Pravinkumar**, Assistant Professor from Mechanical Department secured Elite certificate in the **Welding Application Technology** in NPTEL exam in association with IIT Guwahati.



Faculties' Achievements

Publication /Patent

- **Mr. K.Gnanasekaran**, Assistant Professor from the Department of Mechanical Engineering Published a Text Book titled "**Renewable Energy Systems** " in Quill Tech Publication, ISBN 978-93-6786-963-5
- **K. Gnanasekaran**, Assistant Professor from the Department of Mechanical Engineering published a patent titled "**Design and fabrication on bench test of electric two wheeler**". Application Number . Application no: 202441071428
- **K. Gnanasekaran**, Assistant Professor from the Department of Mechanical Engineering published a patent titled "**Solar powered three blade grass cutter**" Application Number .202441071427
- **Mr. K. M. B . Karthikeyan** and **Mr. K. Gnanasekaran**, Assistant Professor, Department of Mechanical Engineering received a grant fund of Rs. 60,000/- for conducting technical events in **Bureau of indian standards BIS** (Students professional activities) .

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BIS CONCLAVE 2K24
 APPROVED GRANT ₹60000/-

TECHNICAL EVENTS

- PRESENTATION ON STANDARDS
- TECHNICAL QUIZ
- STANDARDS PARLIAMENT
- SHOWCASING STANDARDS

FACULTY COORDINATORS

- MR.K.M.B.KARTHIKEYAN (Assistant Professor)
- MR.K.GNANASEKARAN (Assistant Professor)



Faculties' Achievements

Publication /Patent

- **Mr. G. Ashwin Prabhu**, Assistant Professor from the Department of Mechanical Engineering Published an article titled "**Advanced Robotics in Manufacturing: Engineering Innovations and Management Implications**" in Scopus Indexed Journal "Nanotechnology Perceptions" Vol.20, S11 (2024) 633- 646 (ISSN 1660-6795) on September 14, 2024.
- **Mr. G. Ashwin Prabhu**, Assistant Professor from the Department of Mechanical Engineering Published a Text Book titled "**Strength of Materials**" in Alpha International Publication, ISBN 978-93-5762-775-7.
- **Dr. M. Arun & Mr. G. Ashwin Prabhu**, Assistant Professor from the Department of Mechanical Engineering has Successfully Published a Patent titled "**Enhancing Polymer Composites with Recycled Jute Fibers from Carpet Waste: Transforming Jute Fibers into High Performance Natural Fiber Composites**" on 18/10/2024. Application No: 202441075589
- **Mr. G. Ashwin Prabhu**, Assistant Professor from the Department of Mechanical Engineering has presented paper entitled "**A Fusion of SVR and Fully Connected Networks for Improved RUL Prediction of Lithium Ion Batteries**" in 2024, 2nd Global Conference on Information Technologies and Communications (GCITC) during 25th and 26th of October 2024.



Staff Accolades

- **Mr. G. Ashwin Prabhu & Mr. K. Gnanasekaran**, Assistant Professor of Mechanical Department has completed one week Industrial Training on "**Advancement on Electric Vehicle Technology**" with Certification at TEEV Pvt Ltd.





Students' Achievements

Our mechanical engineering students appeared in the *September 2024* Session of NPTEL Swayam Examinations. Among the attended list of students **138 students** successfully cleared and got certification from various IITs. Were one student secured Elite Gold, Eight Students from Third Year Mechanical Secured Elite Certification and Fifteen Students from Final Year Mechanical Secured Elite Certification.



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DEPARTMENT OF MECHANICAL ENGINEERING
 NPTEL 2024
 CONGRATULATIONS



ELITE + GOLD





*Product Design
& Development*

RAVIKRISHNAN M
 III MECH C



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Mr. M. Ravikrishnan , III Year Mechanical Student Secured Elite Gold Certification and he is also recognized as Top 2% in Product Design and Development in NPTEL Sep 2024 Session.



Students' Achievements



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DEPARTMENT OF MECHANICAL ENGINEERING

NPTEL 2024

CONGRATULATIONS

FINAL YEAR STUDENTS



On Securing
ELITE + SILVER



KAVIKUMAR K



**KARTHIK
KUMAR S**



**PRAKRITHI
HARITH P**



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Mr. K. Kavikumar, Ms. P. Prakrithi Harith, Mr. S. Karthik Kumar, IV Year Mechanical Student Secured Elite Silver Certification in NPTEL Sep 2024 Session.



Students' Achievements



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DEPARTMENT OF MECHANICAL ENGINEERING

NPTEL 2024

CONGRATULATIONS



On Securing
ELITE + SILVER

ASHER FABIO A

III MECHA

Mr. A. Asher Fabio , III Year Mechanical Student Secured Elite Silver Certification in NPTEL Sep 2024 Session.



On Securing
ELITE + SILVER

P.C. JONES ROJAR,
IV MECH B

Mr. P.C. Jones Rojar, IV Year Mechanical Student Secured Elite Silver Certification in NPTEL Sep 2024 Session.



Students' Achievements

Mechanical Student Secured **Elite** Certification in **NPTEL Sep 2024** Session.



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DEPARTMENT OF MECHANICAL ENGINEERING
NPTEL 2024

CONGRATULATIONS
FINAL YEAR STUDENTS

On Securing
ELITE



KAILASH KUMAR



BARANIKUMAR R



NAVEEN J



JAZIN JEB A



AMIRDHAVARSHINI U



HARINI JV



SANJAISRIRAM



JEROME MV



SIVAPTHI M



KANIAMUDHAN S



THIRUMALAIKUMARAN



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Students' Achievements

Mechanical Student Secured **Elite** Certification in **NPTEL Sep 2024** Session.



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CONGRATULATIONS

III YEAR STUDENTS

On Securing
ELITE



AMITH KUMARG



**ARAVIND
KUMAR B**



**SKANDA
KUMAR V**



**VEERA
KUMARAN M**



JASVIN JOSHVA A



DEEPAK B



ARJUN P



RAJASURESH K



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Students' Achievements

Publication / Patent

- **Mr.U.Srikanth** of III year Mechanical Engineering has published a patent titled **“Machine learning algorithm for quality control in pharmaceutical manufacturing”**. Application no: 202441071599
- **Mr.N.Shakthi Maheswaran** of III year Mechanical Engineering has published a patent titled **“A novel ML based intelligent data quality assessment and cleansing system”**. Application no: 202441071912

Campus Ambassadors

Mr. Arther Bhion C, Mr. Logaraj A, Mr. Manoj Kanna V, a third-year Mechanical engineering students, has been Selected as Campus Ambassadors for MyGov Program for our Campus.

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DEPARTMENT OF MECHANICAL ENGINEERING
"CONGRATULATES"

ARTHER BHION C LOGARAJ R MANOJ KANNA V

FOR BEING SELECTED AS "CAMPUS AMBASSADORS FOR THE MYGOV
CAMPUS AMBASSADOR PROGRAM "

my GOV मेरी सरकार CAMPUS AMBASSADOR PROGRAMME

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Intern- full-stack

Mr. Arther Bhion C, a third-year mechanical engineering student, has secured a 4-week full-stack development internship.





Placement

Pleased to inform that 8 **students** from our Mechanical Department have been selected as **System Engineers** by **Infosys**, following the campus recruitment drive conducted in campus with a total Cost to Company (CTC) will be revised to **Rs. 3.6 lakhs per annum**.



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Department of Mechanical Engineering

Batch: 2021 - 2025 CTC 3.6 Lakhs

Congratulations

Per Annum

to Our Students Placed in Infosys



Abishek R B



Hariharan B



Imayavaramban A



Raphael Joshua A



Sanjai Sriram K



Sivapathi M



Tarun Prasad R

**System
Engineers**



Yuvapraveen S



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Placement

Pleased to inform that **2 students** from our Mechanical Department have been selected in **Zepto** by **campus recruitment** process at our campus placement drive. This role, offer a total Cost to Company (CTC) will be revised to **Rs. 4.5 lakhs per annum.**



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Department of Mechanical Engineering Batch: 2021 - 2025

Congratulations for being placed in **zepto**



Hariharan B



Sanjai Sriram K

**CTC 4.5 Lakhs
Per
Annum**



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Mr. Balasubramanian T M.E. , (Ph.D), Assistant professor

Mr. Pravinkumar Kamatchi M.E. , (Ph.D), Assistant professor

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MECH IV- A

Mr. Hariharan

MECH IV- A