

Volume -I
2025-2026



ERODE SENGUNTHAR ENGINEERING COLLEGE

AUTONOMOUS

(APPROVED BY AICTE, NEW DELHI AND PERMANENTLY AFFILIATED TO ANNA UNIVERSITY, CHENNAI
ACCREDITED BY NBA, NEW DELHI, NAAC WITH GRADE "A", BANGALORE, IE(I), KOLKATA)

PERUNDURAI, ERODE - 638 057, TAMILNADU.

DEPARTMENT OF MECHANICAL ENGINEERING

News Letter

Mech Tattva -The Truth in Depth

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Visit us at <https://erode-sengunthar.ac.in/>

Founder



UDYOG RATTAN
Thiru J Sudhanandhen

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VISION

To become the premier department of excellence in the field of Mechanical Engineering, committed to provide global quality Mechanical Engineers to cater the needs of industries and the nation, in general.

MISSION

DM1: Teaching – Learning Process: To impart quality technical education through innovative teaching and learning mechanisms.

DM2: State of Art Infrastructure: To build the state-of-the-art infrastructure facilitating the faculty and students to learn and disseminate knowledge and innovate in their career.

DM3: Research and Development: To mould the aspiring young minds to emerge as successful practitioners of quality education through entrepreneurship, consultancy and research.

DM4: Core values & Ethics: To instill core values and strong ethics, nurturing the intellectual, socio-cultural and economic development of our diverse community.

PEO

PEO1: Basic knowledge: To prepare the students with strong fundamental knowledge in Mathematics, Science, English and Engineering Sciences so as to enable them to analyze the Mechanical Engineering related problems

PEO2: Core competence and professionalism: To develop ability among the students for acquiring technical knowledge in the Subjects and gaining the technical skills in classical software packages, applying the same for design, fabricate and install the machines.

PEO3: Research and Consultancy: To provide opportunities for the students to carry out research and consultancy activities by understanding the different industrial environments.

PEO4: Continuous Learning: To promote the students for continuous learning and higher studies with strong professional, moral and ethical values.

PSO

PSO1: Materials and Methods: An ability to choose the appropriate materials, the manufacturing process to design, model, simulate, analyze and fabricate the mechanical and thermal systems using suitable tools and techniques.

PSO2: Standardization: An ability to adopt various standard practices pertaining to design, manufacturing, operation and testing.

PSO3: Publication: An ability to document the inferences, interpretation of the results and publish the output in different forums.



PO'S



PO1: Engineering Knowledge: Apply knowledge of mathematics, natural science, computing, engineering fundamentals and an engineering specialization as specified in WK1 to WK4 respectively to develop to the solution of complex engineering problems.

PO2: Problem Analysis: Identify, formulate, review research literature and analyze complex engineering problems reaching substantiated conclusions with consideration for sustainable development. (WK1 to WK4)

PO3: Design/Development of Solutions: Design creative solutions for complex engineering problems and design/develop systems/components/processes to meet identified needs with consideration for the public health and safety, whole-life cost, net zero carbon, culture, society and environment as required. (WK5)

PO4: Conduct Investigations of Complex Problems: Conduct investigations of complex engineering problems using research-based knowledge including design of experiments, modelling, analysis & interpretation of data to provide valid conclusions. (WK8).

PO5: Engineering Tool Usage: Create, select and apply appropriate techniques, resources and modern engineering & IT tools, including prediction and modelling recognizing their limitations to solve complex engineering problems. (WK2 and WK6)

PO6: The Engineer and The World: Analyze and evaluate societal and environmental aspects while solving complex engineering problems for its impact on sustainability with reference to economy, health, safety, legal frame work, culture and environment. (WK1, WK5, and WK7).

PO7: Ethics: Apply ethical principles and commit to professional ethics, human values, diversity and inclusion; adhere to national & international laws. (WK9)

PO8: Individual and Collaborative Teamwork: Function effectively as an individual, and as a member or leader in diverse/multi-disciplinary teams.

PO9: Communication: Communicate effectively and inclusively within the engineering community and society at large, such as being able to comprehend and write effective reports and design documentation, make effective presentations considering cultural, language, and learning differences

PO10: Project Management and Finance: Apply knowledge and understanding of engineering management principles and economic decision-making and apply these to one's own work, as a member and leader in a team, and to manage projects and in multidisciplinary environments.

PO11: Life-Long Learning: Recognize the need for, and have the preparation and ability for
i) Independent and life-long learning ii) adaptability to new and emerging technologies and iii) critical thinking in the broadest context of technological change. (WK8)

About the Department

As industries move towards greater efficiency and environmental responsibility, mechanical engineering continues to play a crucial role in shaping modern technology and infrastructure.

The **Department of Mechanical Engineering** was established in the year **1996**. It is equipped with the state-of-the-art laboratories and computing facilities with high caliber equipment and machinery. The department has highly qualified and experienced faculty members. Accredited by **NBA in 2009** the Department has been recognized as a research centre by Anna University. The department also offers a Postgraduate Programme (M.E.) in Industrial Safety Engineering and M.E Manufacturing Engineering.

The Department has **modern facilities**, enabling **cutting edge research** in a wide spectrum of technological areas. The department actively assists local industries in product design, complex-part manufacturing etc.,

The faculty members actively engage in research and constantly publish papers in International and National Journals. Guest lectures and industrial visits are periodically arranged for the students to enhance their curriculum. The department is well known for its vibrant club activities and professional chapters. The students are trained through the incubation centre, **CNC Training** cum Machining center and **Drone development** center to carry out real time projects.

The students are exposed to latest developments in the field of Mechanical Engineering by means of organizing symposia, seminars, workshops to enrich their knowledge. Apart from that, the students are **trained in language laboratory** to enhance their communication skills and in **software packages** to design and simulate and analyses the mechanical components. It strives for all round excellence in students, encouraging them in all extra-curricular activities.

Editorial Board



Dr.V.Venkatachalam,B.E.,M.S.,M.E.,Ph.D.

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Executive Editor & Chief



Mr.L.Boopalan,B.E.,M.E(ISE).,(Ph.D).

Assistant Professor

Editor & Design

Faculty Achievements



Lightweight Composite Breakthrough: S. Karthikeyan Enhances Performance Standards

S. Karthikeyan authored "Synthetic fiber featured epoxy composite for light weight application: Performance measures" in *AIP Conference Proceedings* on June 12, 2025. Indexed in Scopus, this work improves lightweight composite performance.

Material Stability Breakthrough: Dr. N. Saravanan Shines in Research

Dr. N. Saravanan published "Enhancement of thermal stability and energy absorption behaviour of magnesium alloy hybrid composite detoured with titanium di nanoparticles" in ICCEAS - 2025 on July 18 & 19, 2025. Indexed in Scopus, this work advances material stability in engineering applications.



Construction Safety Advancement: S. Karthikeyan Elevates Industry Standards

S. Karthikeyan authored "Emerging methods for hazard identification and risk management techniques for interior construction safety" in *AIP Conference Proceedings* on June 12, 2025. Indexed in Scopus, this study enhances construction safety protocols.



Research Milestone: Dr. S. Suresh Excels in Sustainable Composites Eco-Innovation with Waste Plastic & Pineapple Fiber



Int. J. Adv. Sci. Eng. Vol.12 No.1 5017-5025 (2025) 5017 E-ISSN: 2349 5359; P-ISSN: 2454-9967

Investigating the Moisture Absorption Characteristics of a Composite Material Produced from Waste Plastic Filled with Pineapple Fibre Reinforcement

M. Babu¹, R. Elayaraja^{2*}, S. Suresh³, V. Sugan¹

¹Department of Mechanical Engineering, Mahendra Engineering College (Autonomous), Mallasamudram, Namakkal, Tamilnadu, India – 637503

²School of Mechanical Engineering, Vellore Institute of Technology, Vellore, Tamilnadu, India – 632014

³Department of Mechanical Engineering, Erode Sengunthar Engineering College, Erode, Tamilnadu, India – 638057

RESEARCH ARTICLE

Dr. S. Suresh has published *"Investigating the Moisture Absorption Characteristics of a Composite Material Produced from Waste Plastic Filled with Pineapple Fibre Reinforcement"* in International Journal of Advanced Science and Engineering, Vol. 12, No. 1, pp. 5017–5025 (2025).

This international, Scopus-indexed study highlights a green composite with enhanced moisture resistance, paving the way for sustainable engineering solutions.

Precision Manufacturing Leap: S. Karthikeyan Secures Utility Patent

S. Karthikeyan further patented "Cognitive Control Architecture For Intelligent Mechatronic Systems In Precision Manufacturing" (PATENT-202541056066) on August 22, 2025, as a utility patent, advancing precision manufacturing.



Engineering Advancement: V. P. Krishnamurthy Pioneers Ductile Iron Research



AIP Conference Proceedings

DOI: 10.1063/5.0276017 • Corpus ID: 279226154

Process and characteristics of austempered ductile iron - A review

V. P. Krishnamurthy, S. Prabaqaran • Published in AIP Conference Proceedings 2025 • Materials Science, Engineering



V. P. Krishnamurthy contributed "Process and characteristics of austempered ductile iron" to AIP Conference Proceedings on June 5, 2025. Indexed in Scopus, this study advances ductile iron applications.

Composite Material Advancement: Dr. N. Saravanan Excels in Research

Dr. N. Saravanan also contributed "Processing and combined action of short carbon fiber/nano silicon carbide particles on behaviour of epoxy composites" to ICCEAS - 2025 on July 18 & 19, 2025. Indexed in Scopus, this research enhances composite material performance.



Material Science Milestone: Dr. N. Saravanan Advances Polyethylene Composites



AIP Conference Proceedings

DOI: 10.1063/5.0264688 • Corpus ID: 279335374

Effect of surface treatment on characteristics of bast fiber incorporated polyethylene composite: Behavior study

N. Saravanan, S. Karthikeyan, S. Marimuthu, J. G. Murali, M. Prasath, A. Gowrishankar less •

Published in AIP Conference Proceedings 2025 • Materials Science, Engineering

Dr. N. Saravanan published "Effect of surface treatment on characteristics of bast fiber incorporated polyethylene composite: Behavior study" in AIP Conference Proceedings on June 12, 2025. Indexed in Scopus, this research enhances the properties of polyethylene composites.



Eco-Friendly Materials Breakthrough: S. Karthikeyan Leads Sustainable Research

S. Karthikeyan published "Biodegradable bast fiber made polypropylene composite via hot compression: Characteristics study" in *AIP Conference Proceedings* on June 12, 2025. Indexed in Scopus, this research promotes eco-friendly materials.

Groundbreaking Patent Achievement: Dr. S. Navaneethakrishnan Transforms Sustainable Construction

Dr. S. Navaneethakrishnan patented "Evaluating Material Savings and Cost Reduction Using EPS Lightweight Concrete in House Construction" (PATENT-202541068961) on July 25, 2025, revolutionizing sustainable construction.



Construction Safety Advancement: S. Karthikeyan Elevates Industry Standards

S. Karthikeyan authored "Emerging methods for hazard identification and risk management techniques for interior construction safety" in *AIP Conference Proceedings* on June 12, 2025. Indexed in Scopus, this study enhances constructionsafety protocols.

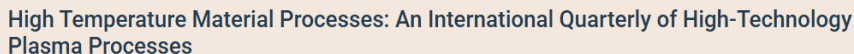
Solar Efficiency Innovation: Dr. N. Saravanan Secures National Patent

Dr. N. Saravanan filed a national patent for "Low-Cost Dual-Axis Solar Panel Tracker Using Rack-and-Pinion Gear Drive with Temperature Compensation" on September 5, 2025, offering an affordable solution to maximize solar efficiency with temperature adjustments.





Pioneering High-Temperature Engineering Solutions by Mechanical Engineering Faculty



Editors-in-Chief: Valiantsin M. Astashynski, Andrey V. Gusarov
Associate Editor: Nikolai N. Cherenda

DOI: 10.1615/HighTempMatProc.2025058747

Studies on Oxidation Protection Spray Coatings: Advanced Compositions and High-Temperature Applications

Karthikeyan S

Published 4 issues per year
ISSN Print: 1093-3611
ISSN Online: 1940-4360

Clarivate Analytics IF: 0.6

Clarivate Analytics 5-Year IF: 0.6

Clarivate Analytics Immediacy Index: 0.2

Clarivate Analytics Eigenfactor: 0.00007

Clarivate Analytics JCI: 0.1

SJR: 0.212

SNIP: 0.476

CiteScore™: 1.2

H-Index: 20

Indexed in



S.Karthikeyan published "Studies on Oxidation Protection Spray Coatings: Advanced Compositions and High-Temperature Applications" in High Temperature Material Processes: An International Quarterly of High-Technology Plasma Processes on July 31, 2025.

This work, also indexed in SCI, Scopus, and WoS, tackles high-temperature engineering challenges.

Digital Marketing Diploma Course

28 September 2025 | GUVI / Uptor Learning Platform

Mr. L. Boopalan earned his Digital Marketing Diploma with hands-on training in SEO, social media strategy, content marketing, and analytics.



Solar Power Optimization Breakthrough: V. P. Krishnamurthy Earns Innovative Patent

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202541077953 A

(19) INDIA

(22) Date of filing of Application :16/08/2025

(43) Publication Date : 29/08/2025

(54) Title of the invention : AN INTELLIGENT MACHINE LEARNING SYSTEM FOR OPTIMIZING POWER OUTPUT IN PHOTOVOLTAIC ARRAYS UNDER PARTIAL SHADING CONDITIONS



(71)Name of Applicant :

1)Dr.Venkata Kiran Kumar Ravi

Address of Applicant :Assistant Professor, Department of Mechanical Engineering,
Velagapudi Ramakrishna Siddhartha Engineering College, Kanuru, Vijayawada, Andhra
Pradesh, India Vijayawada -----

2)Dr. Rajkumar Kundlik Chougale

3)Prof. Mukesh Kumar Singh

4)Vibhu Sharma

5)M.Kalidasan

6)V P Krishnamurthy

7)Dr. Praveenkumar Arjun Patel

8)Gowdhami K

9)Ramala Ashok

10)P. V. Muralikrishna

11)Salina pooja

12)Dr. Pritam Chattopadhyay

V. P. Krishnamurthy secured a patent for "An intelligent machine learning system for optimizing power output in Photovoltaic arrays under partial shading conditions" (PATENT-202541068961) on July 25, 2025, optimizing solar power under challenging conditions.

Electric Vehicle Innovation: Dr. J. Manivannan Shines at International Conference

Dr. J. Manivannan presented at an International Conference from September 24 to 26, 2025 (3 days), exploring a "Smart battery balancing system for electric vehicles using fuzzy logic and neural network".





Nanocomposite Development Milestone: S. Karthikeyan Drives Innovation

S. Karthikeyan contributed "Synthesis and characteristics evaluation of epoxy hybrid nanocomposite featured with ramie fiber and SiC" in *AIP Conference Proceedings* on June 12, 2025. Indexed in Scopus, this work advances nanocomposite.



Research Milestone: Dr. S. Navaneethakrishnan and C. Chelladurai Shine in Material Science

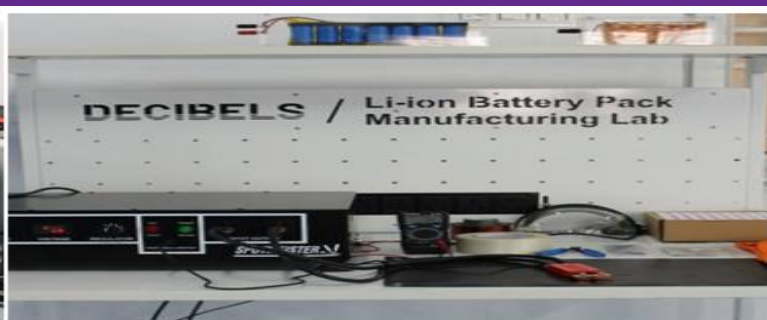
Pioneering Hybrid Natural Fiber Reinforced Materials

Dr. S. Navaneethakrishnan and C. Chelladurai published "Investigating the Mechanical Performance and Applications of Hybrid Natural Fiber Reinforced Materials" in *International Journal of Research Publication and Reviews*, Vol 6, Issue 9, pp 2282-2288, in September 2025. This international study, indexed in WoS, explores the mechanical properties and potential applications of innovative materials.



Composite Synthesis Innovation: S. Karthikeyan Advances Material Research

S. Karthikeyan authored "Influences of jute fiber and alumina nanoparticles on behaviour of polyester composite synthesized via hand layup route" in *AIP Conference Proceedings* on June 12, 2025. Indexed in Scopus.



Pioneering Design in HVAC and Fluid Distribution



6th International Conference on Smart Electronics and Communication (ICOSEC)

24-26, September 2025

<https://icoseac.com/2025/> - icsec.conf@gmail.com

Letter of Acceptance

Paper ID	Paper Title	Author(s)
ICOSEC-0732	Smart Battery Balancing System for Electric Vehicles Using Fuzzy Logic and Neural Networks	Vaibhav Baburao Magdum, Jyoti Gupta, Rajkumar K, Manivannan J, Kalidindi Lakshmi Divya, A. Kathiravan



Dr. J. Manivannan obtained a design patent for "fluid Distribution equipment, sanitary, heating, ventilation and air conditioning equipment, solid fuel" (Design PATENT-6464221) on August 18, 2025, advancing HVAC and fluid distribution technologies.



Erode Sengunthar Engineering College



Breakthrough in Solar Energy Efficiency: Innovation at Erode Sengunthar Engineering College

Chalcogenide Letters

Vol. 22, No. 7, July 2025, p. 615 - 624

Boosting power efficiency in polycrystalline silicon solar cells: antimony selenide sputter coating with advanced optical, electrical, and thermal insights

R. M. Reddy ^a, S. Chirag ^b, T. Anu ^c, A. R. Venkataramanan ^d, **S. Karthikeyan ^e ***,
D. Palaniswamy ^f, E. Venugopal Goud ^a, N. Dineshbabu ^g,
T. Thirugnanasambandham ^h

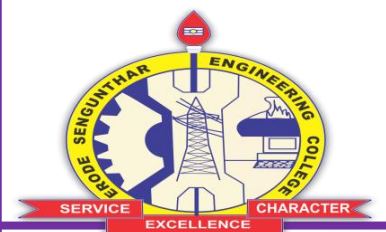
^a Department of Mechanical Engineering, G.Pulla Reddy Engineering College, Kurnool, Andhrapradesh, India

^b Department of Product Design, DLC state university of performing and visual arts, Rohtak, India

^c Department of Multidisciplinary Engineering, The North Cap University, Gurugram, Haryana, India

^d Department of Mechanical Engineering, Sona college of Technology, Salem, Tamil Nadu, India

^e Department of Mechanical Engineering, Erode Sengunthar Engineering College, Perundurai, Tamil Nadu, India



S. Karthikeyan authored "Boosting power efficiency in polycrystalline silicon solar cells: antimony selenide sputter coating with advanced optical, electrical, and thermal insights", featured in Chalcogenide Letters on July 16, 2025. Indexed in SCI, Scopus, and WoS, this research advances solar energy technology.



Mr. L. Boopalan Presents Paper at International Conference ICMST'25

Mr. L. Boopalan, actively participated and presented a research paper at the International Conference on Multidisciplinary Sciences and Technologies (ICMST'25) Organized by: Lunar Publications, Gudiyatham, Tamil Nadu
Date: 14–15 November 2025 Mode: Hybrid



Faculty Excellence: Dr. S. Navaneethakrishnan Receives NPTEL-Aspirant Award



We are proud to announce a significant achievement for our institution. **Dr. S. Navaneethakrishnan**, Associate Professor of Mechanical Engineering and our official SPOC for NPTEL, has been honored with the **NPTEL-Aspirant Award**.

The prestigious award was presented by **IIT Madras** on July 5th, 2025. Dr. Navaneethakrishnan received this recognition on behalf of **Erode Sengunthar Engineering College** for his outstanding contributions and commitment to the NPTEL program.

The college management and community extend our warmest congratulations to Dr. S. Navaneethakrishnan for this well-deserved honor

Mr. L. Boopalan Participates in Prestigious ATAL Faculty Development Programme on Innovation & Entrepreneurship

We are delighted to share that Mr. L. Boopalan, , has successfully completed the (ATAL) Online Faculty Development Programme titled "**Innovation and Entrepreneurship for India's Sustainable Future**" it is Organized by: (NIT) Patna, Duration: 10–15 November 2025.



Breakthrough in Catalysis and Nanotechnology: Pioneering Insights in Catalytic Nanotechnology



Journal of Rare Earths

Available online 8 May 2025

In Press, Journal Pre-proof [What's this?](#)



Synthesis, characterization, and mechanistic insights into catalytic performance of La/Pr-doped SrFe_2O_4 nanoparticles

N.S. Mohan¹, Golu Kumar Singh¹, Rahul Kumar Jha¹, Kundan Kumar¹, A. Arulraj², V. Vijayalakshmi³

N. S. Mohan authored "Synthesis, characterization, and mechanistic insights into catalytic performance of La/Pr-doped SrFe_2O_4 nanoparticles" in Journal of Rare Earths in August 2025. Indexed in Scopus, this study provides valuable insights into catalytic nanotechnology.

Mechanical Load Management Innovation: S. Karthikeyan Achieves Utility Patent

S. Karthikeyan also secured a utility patent for "Dynamic Mechanical Pivots Managed Through Intelligent AI Load-Balancing" (PATENT-202541055692) on June 10, 2025, improving mechanical load management.



Vehicle Adaptability Milestone: S. Karthikeyan Secures Innovative Patent

S. Karthikeyan patented "Self-Adjusting Multi-Terrain Wheel Suspension System For Agricultural And Off-Road Vehicles" (PATENT-202541075886) on August 22, 2025, as a utility patent, enhancing vehicle adaptability.

Celebrating Research Excellence Advancing Photovoltaic Technology

Chalcogenide Letters

Vol. 22, No. 9, September 2025, p. 797 - 806

Advanced chalcogenide Ga_2S_3 coatings for reducing reflective loss and boosting efficiency in silicon photovoltaics

R. M. Reddy ^a, J. A. Prakash ^b, A. Tonk ^c, S. Karvendhan ^d, G. Sivaraman ^e, D. K. Patel ^f, S. P. Dillibabu ^g, **S. Karthikeyan ^h**, T. Thirugnanasambandham ⁱ

^a Department of Mechanical Engineering, G.Pulla Reddy Engineering College, Kurnool, Andhrapradesh

^b Department of Aeronautical Engineering, Nehru Institute of Engineering and Technology, Coimbatore, Tamil Nadu

^c Department of Multidisciplinary Engineering, The NorthCap University, Gurugram

^d Department of Mechanical Engineering, Velalar College of Engineering and Technology, Erode

^e Department of Mechanical Engineering, Sona College of Technology

^f Department Mechanical Engineering, Sardar Patel College of Engineering

^g Department of Mechanical Engineering, Vel Tech Rangarajan Dr. Sagunthala

R&D Institute of Science and Technology, Avadi, Chennai, Tamil Nadu, 600062

^h Department of Mechanical Engineering, Erode Sengunthar Engineering College, Perundurai, 638057, India

ⁱ Department of Mechanical Engineering, Saveetha School of Engineering, Saveetha Institute of Medical and Technical Sciences (SIMATS), Saveetha University, Chennai 602105, Tamil Nadu



S. Karthikeyan contributed "Advanced chalcogenide Ga_2S_3 coatings for reducing reflective loss and boosting efficiency in silicon photovoltaics" to Chalcogenide Letters on September 16, 2025. Indexed in SCI, Scopus, and WoS, this study pushes the boundaries of photovoltaic efficiency.

Polyester Composite Exploration: S. Karthikeyan Leads Research Innovation

S. Karthikeyan published "Hot compression actions on functional behavior of polyester composite configured with basalt fiber" in *AIP Conference Proceedings* on June 12, 2025. Indexed in Scopus, this work explores polyester composite behavior.



Faculty Participations

Associate Professor Attended 5-Days internship Program



Our Mechanical Engineering **Dr.J.Balaji Associate Professor** Mechanical Engineering completed 5 days internship program 24-06-2025 to 28-06-2025 During this period, he was actively involved in understanding the operations of **Chemical Processing, Mechanical Maintenance including piping design**, the operations of various static and rotating equipments used in the plant. In **Certex Petrochemicals Limited ,Manali,Chennai**



Mr. L. Boopalan Attends Specialized Faculty Development Programme on AI in Electric & Hybrid Vehicles

We are proud to announce that **Mr. L. Boopalan**, has successfully completed a one-day national-level Faculty Development Programme titled "**Emerging Trends of AI in Electric & Hybrid Vehicles**" Organized by: **J.K.K. Munirajah College of Technology, Tamil Nadu** ,Date: 11 November 2025

“Educational Organizations Management System (ISO EOMS 21001:2018)”



Dr. M. Vijay Anand, Professor, Department of Mechanical Engineering, has successfully completed the Internal Auditor Training Course on

“Educational Organizations Management System (ISO EOMS 21001:2018)”

- Organized by: Nature Science Foundation, Coimbatore
- Dates: 15th to 17th December 2025

This three-day training program equips faculty with essential skills to conduct internal audits and implement quality management systems as per ISO standards in educational institutions.

Significance Dr. M. Vijay Anand's achievement strengthens the department's and institution's commitment to quality assurance, academic excellence, and continuous improvement in line with international standards.

This certification will significantly contribute to maintaining and enhancing the institution's NAAC and NBA accreditation processes. **Congratulations to Dr. M. Vijay Anand** on this professional accomplishment!



Innovative Faculty Achievement: International FDP on Sustainability

Mr. L. Boopalan Atended the 3rd International 5-Day FDP on —Sustainability and Research in Modern Mechanical Engineeringll at Madanapalle Institute of Technology & Science (MITS), Andhra Pradesh, from 2–6 June 2025. He gained insights into sustainable materials, green manufacturing, life-cycle assessment, and research methodologies. The department congratulates him for integrating eco-design into teaching and projects.



Faculty Mechanical Engineering Faculty Participate in ATAL FDP on Hydrogen Technologies



In a commitment to continuous learning and staying at the forefront of sustainable energy solutions, three of our esteemed faculty members from the Department of Mechanical Engineering have successfully completed a Faculty Development Programme (FDP).

Dr. N. Saravanan (Professor), **Mr. V.P. Kriishnamoorthy**, and **Mr. C. Chelladurai** attended the AICTE Training and Learning (ATAL) Academy FDP on "Hydrogen Technologies: A Synergistic Approach towards Sustainable Energy Solutions".

The intensive, week-long program was held from July 7th to July 11th, 2025, at the **PSG Institute of Technology and Applied Research**, Neelambur, Coimbatore. Their participation in this program enriches our department's expertise in this critical and emerging field.

Industry Visit to StartupTN ,Salem, Tamil Nadu | 01 November 2025



The Department of Mechanical Engineering organized an insightful **Industry Visit to StartupTN**, Salem on **1st November 2025**. The visit aimed to expose students to the vibrant startup ecosystem, innovation culture, and entrepreneurial opportunities in Tamil Nadu.

Attended by Dr. Suresh, Assistant Professor, Department of Mechanical Engineering along with a team of enthusiastic Mechanical Engineering students.

The team visited the StartupTN facility located at 3rd Floor, Spc Bhawan, Arthanari Nagar, Swarnapuri, Salem. The visit provided students with valuable exposure to government initiatives supporting startups, innovation hubs, and real-world entrepreneurial environments.

Key Highlights

- Interaction with the StartupTN ecosystem and understanding various support schemes for young entrepreneurs.
- Exposure to the startup incubation environment and networking opportunities.
- Gained insights into how mechanical engineering graduates can venture into product development, innovation, and entrepreneurship.
- Motivated students to explore startup opportunities and innovation-driven careers.

Innovation & Entrepreneurship Achievement, IIC Regional Meet 2025
at PSG College of Arts and Science, Coimbatore



The Institution's Innovation Council (IIC) of Erode Sengunthar Engineering College proudly participated in the IIC Regional Meet 2025 held at PSG College of Arts and Science, Coimbatore.

Dr. G.S. Satheesh Kumar and Dr. S. Suresh (Assistant Professor, Department of Mechanical Engineering), along with 12 innovative project teams, represented the college for the Stage II Evaluation of the Yukthi Innovation Challenge.

Event Highlights

- Showcased 12 promising student innovation projects at the regional level.
- Evaluated under the prestigious **Yukthi Innovation Challenge**.
- Opportunity to network with innovation leaders, IIC mentors, and other premier institutions across the region.
- Recognition of student creativity and problem-solving capabilities in line with national innovation initiatives.

This participation highlights the strong innovation culture fostered by the Department of Mechanical Engineering and the IIC Cell of the institution.

Faculty Participation in National/International Summit



NDO-AIT Collaborative Summit 2025

The Department of Mechanical Engineering is proud to share that **Dr. Suresh**, Assistant Professor, actively participated in the **NDO-AIT Collaborative Summit 2025** held on **1st October 2025** at **ITC Welcom Hotel, Race Course, Coimbatore**.

The summit was organized by the **Asian Institute of Technology (AIT)**, Thailand in collaboration with **AIC RAISE** and **TIDCO**, focusing on international education, research opportunities, innovation, and industry-academia collaboration.

Event Highlights

- Opportunities for global academic partnerships and research collaborations.
- Insights into emerging trends in engineering education and innovation.
- Networking with experts from premier institutions and industries.
- Exposure to international programs and funding opportunities for faculty and students.

Dr. Suresh's participation reflects the department's strong commitment to fostering global exposure, research excellence, and meaningful collaborations.

Faculty and Students Engage in Hydrogen Fuel Cell Research Visit



In a significant step to advance our ongoing faculty research, **Mr. V.P. Krishnamoorthy**, Assistant Professor of Mechanical Engineering, along with two students, **Boopathy A, Vignesh KandSuguna P**, visited the state-of-the-art Fuel Cell Laboratory at PSG Institute of Technology and Applied Research, Coimbatore, on July 30, 2025.

This visit was conducted in direct connection with the **Hydrogen Fuel Cell research** being carried out within our department. The exposure to advanced facilities and interaction with researchers at **PSG iTech** provided valuable insights and will help accelerate our research objectives in this critical area of sustainable energy.

Dr. M. Vijayanand Attends AICTE VAANI Seminar at SVHEC: Embracing Industry 4.0 for a Smarter Future



Dr. M. Vijayanand, Professor in the Department of Mechanical Engineering at Erode Sengunthar Engineering College, actively participated in the prestigious two-day AICTE VAANI Scheme-sponsored seminar titled **"Transforming Manufacturing: Harnessing Industry 4.0 for a Smarter Future"** (translated in Tamil as **"உற்பத்திமறுமலர்ச்சி இந்திய 4.0 லம்ஸ்மார்ட்வளர்ச்சிக்குவழிகாட்டும்"**). Hosted by the Department of Mechanical Engineering at Shree Venkateshwara Hi-Tech Engineering College (SVHEC), Gobichettipalayam, Erode, Tamil Naduthe event took place on September 25-26, 2025, from 10:00 AM at the Auditorium (B-Block).

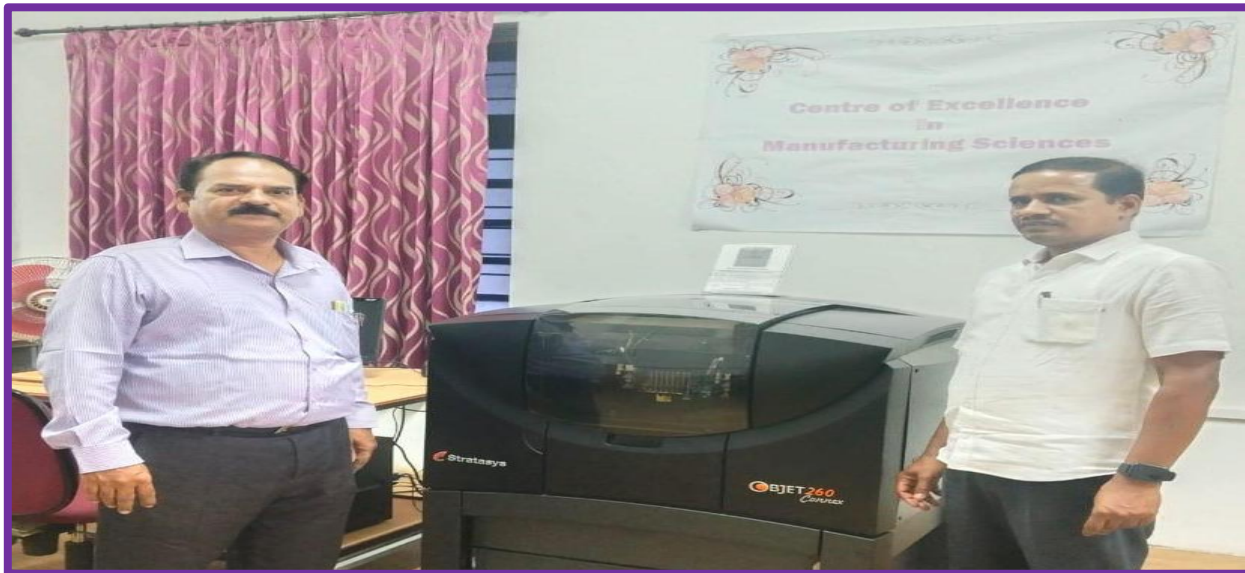
We extend our appreciation to SVHEC for organizing this insightful platform and congratulate Dr. Vijayanand on his proactive engagement!

Mr. L. Boopalan Earns Certification in Generative AI from GUVI-HCL

Mr. L. Boopalan, Assistant Professor, Department of Mechanical Engineering, has successfully completed the industry-oriented certification programme **"Master Generative AI and Get the Gen Z Edge in Your Career"** Conducted by: GUVI (an IIT Madras & IIM Ahmedabad incubated ed-tech platform) in collaboration with HCL Date: 28 November 2025



Professor Visits Mentor Institution to Strengthen Research Collaboration

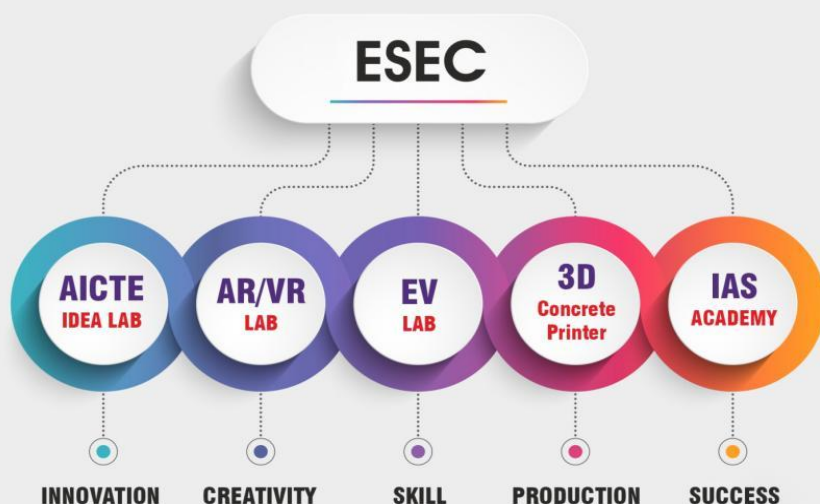


Dr. Y. Robinson, Professor and Head of the Department of Mechanical Engineering, made a strategic visit to our mentor institution, **Coimbatore Institute of Technology (CIT)**, on July 31, 2025.

The visit was in connection with the department's **Research Project Scheme (RPS)**. During his time at CIT, Dr. Robinson met with the **Advanced Integrated Manufacturing & Management Research group** to discuss collaborative opportunities and gain insights into advanced research practices. This engagement is a vital step in enhancing our department's research capabilities and outcomes.



EXCELLENCE IS OUR PRIORITY





Industry 4.0 Training Milestone: Mr. J. Parthiban Advances Manufacturing Expertise

Mr. J. Parthiban attended "Transforming Manufacturing: Harnessing Industry 4.0 for a Smarter Future" hosted by the Department of Mechanical Engineering, Shree Venkateshwara Hi-Tech Engineering College, on September 25-26, 2025 (2 days). He gained knowledge on enhancing manufacturing efficiency and innovation through Industry 4.0.

Congratulations to Mr. J. Parthiban for his dedication to modernizing engineering practices!



Exciting Achievement: Dr. Manivannan Completes Prestigious AICTE ATAL Program



We are delighted to announce that **Dr. Manivannan**, a faculty member of the Mechanical Engineering, has successfully completed the prestigious AICTE Training and Learning (ATAL) Academy Faculty Development Program on "Quantum based Generative AI for Smart and Sustainable Healthcare Ecosystems." The program, held from September 16 to 21, 2025, was organized by Sri Eshwar College of Engineering.

Renewable Energy Training Spotlight: Dr. M. Vijay Anand and Dr. P. Thangavel Excel at Surya Engineering College Pioneering Sustainable Rural Development



Dr. M. Vijay Anand & Dr. P. Thangavel attended "Rural Renaissance: Harnessing Renewable Energy for Sustainable Development of Our Country" organized by the Department of EEE, Surya Engineering College, from September 8 to 13, 2025 (6 days). The focus was to understand how renewable energy can drive sustainable growth and improve rural quality of life .

Congratulations to Dr. M. Vijay Anand and Dr. P. Thangavel for their valuable contributions to advancing renewable energy solutions!



Sports Participations

Our Engineering Student Represents Tirupur at State Level



M. Sabareesh (standing row, fourth from left) with his teammates from the Tirupur District Hockey Team at the tournament venue in Kovilpatti.

Excellence at our institution is not confined to the classroom. We are proud to highlight the outstanding accomplishment of **Mr. M. Sabareesh**, a promising first-year **Mechanical Engineering student**, who has brought laurels to the college in the sports arena.

On June 1, 2025, Sabareesh had the honour of representing the Tirupur District Hockey Team in the highly competitive State Level Hockey Tournament, which took place in Kovilpatti. His selection to the district team is a testament to his hard work, skill, and passion for the game.

Balancing the rigours of an engineering curriculum with the demands of competitive sports is no small feat. Sabareesh has proven to be a role model for fellow students. We congratulate him on this fantastic achievement and wish him great success in his journey ahead, both on the field and in his engineering career.

State-Level Honor: Arun Santhosh Awarded Best Sportsman of Tenkasi District



Mr. Arun Santhosh is receiving award from Mr. Udhayanidhi Stalin, Deputy Chief Minister of Tamil Nadu.

It is with immense pride that we announce a momentous achievement for one of our students. Mr. M. Arun Santhosh, a first-year Mechanical Engineering student, has been conferred the title of "Best Sportsman of Tenkasi District".

This distinguished honor was presented to him by the Honourable Deputy Chief Minister of Tamil Nadu, **Mr. Udhayanidhi Stalin**, at a special ceremony on July 22, 2025. This recognition at the state level is a testament to Arun Santhosh's exceptional dedication, skill, and sportsmanship.

The management, staff, and students of Erode Sengunthar Engineering College extend their heartiest congratulations to Mr. Arun Santhosh on this outstanding accomplishment.



Sports Achievement: ESEC Shines in CSK Inter-Collegiate Cricket Tournament!



Mr. Udhayakumar is Sitting Second row left side third member.

Our college team clinched the 3rd Prize in the prestigious Chennai Super Kings Inter-Collegiate Cricket Tournament organized by District Cricket Association of Erode, held at Gobi Arts & Science College Sports Academy.

Special salute to our very own

Udhayakumar – III Year Mechanical Engineering

for his outstanding performance and valuable contribution to the team's success!

Hard work, teamwork, and passion on the field — you've made ESEC truly proud!



Student Achievements

Students Engage in Hydrogen Fuel Cell Research Visit



In a significant step to advance our ongoing faculty research, **Mr. V.P. Krishnamoorthy**, Assistant Professor of Mechanical Engineering, along with three students, **Boopathi A (ES22XM04)** and **Suguna P (ES22XM34)** & **Vignesh K (ES22XM39)**, visited the state-of-the-art Fuel Cell Laboratory at **PSG Institute of Technology and Applied Research, Coimbatore**, on **July 30, 2025**.

This visit was conducted in direct connection with the **Hydrogen Fuel Cell** research being carried out within our department.

The exposure to advanced facilities and interaction with researchers at **PSG iTech** provided valuable insights and will help accelerate our research objectives in this critical area of sustainable energy.

Mechanical Students Win First Place in Project Presentation Competition



We are delighted to announce that our first-year Mechanical Engineering students, **Mr. Arun Santhosh** and **Mr. Pragadhesswaran**, have secured **First Place** in a project presentation competition.

The event was held at **Excel Engineering College** on **September 20, 2025**. The students were awarded a cash prize of ₹ 1500 for their outstanding presentation and innovative project. We also extend our appreciation to their faculty mentor, **Mr. R. Manikandan**, Assistant Professor, for his expert guidance.

INDIA ACADEMIA RANKING 2026

TITANIUM BAND

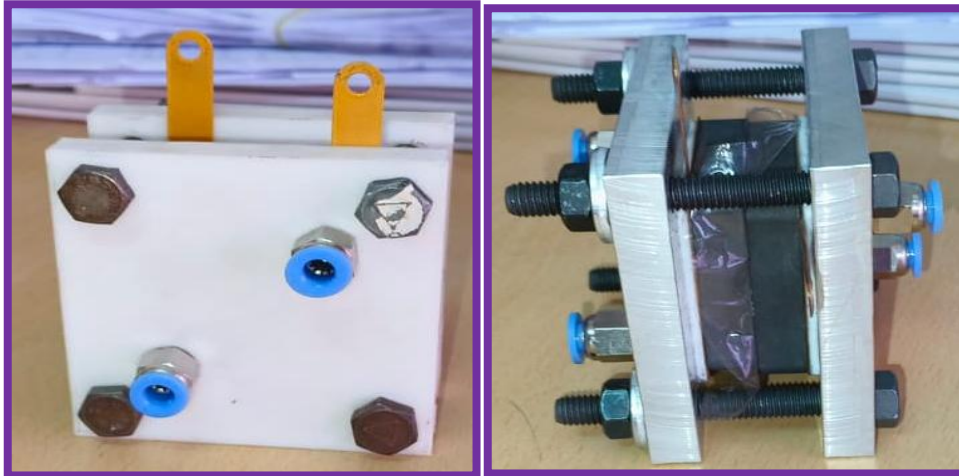
Securing Second Place in Sustainable Engineering



In a multidisciplinary triumph, three IV/VII Semester students clinched II Prize (₹2000 cash award) at the **Smart Paper Shredder Hackathon 2025**, organized by SRM Institute of Science and Technology, Kattankulathur Campus, on **September 15, 2025**. This event challenged teams to design portable, energy-efficient, low-noise smart paper shredders using recycled materials, promoting sustainability and smart tech integration. Their prototype wowed judges with its eco-friendly innovation!

- ✓ **Anand Kumar (Roll No. ES22ME02):** Led the charge in prototype development.
- ✓ **Anand Kumar (Roll No. ES22ME03):** Duplicate entry—our records confirm the stellar teamwork!
- ✓ **Bikram Kumar (Roll No. ES22ME12):** Delivered key insights for the winning design.

Student Innovation Spotlight: Clean Energy Breakthrough Final-Year Mechanical Stars Develop Portable PEM Fuel Cell



Under the guidance of **Mr. V.P. Krishnamurthy**, our **final-year Mechanical Engineering** students have successfully designed and developed an **8 cm² PEM Fuel Cell** for Portable Power Applications.

Product Name: Experimental Investigation of a 8 cm² PEM Fuel Cell for Portable Power Application

Proud Innovators

- ✓ A. Boopathi (ES22XM04)
- ✓ C. Ragun (ES22XM23)
- ✓ P. Suguna (ES22XM03)
- ✓ K. Vignesh (ES22XM39)

This indigenous, compact fuel cell delivers clean, efficient power for portable devices — a giant leap toward green energy solutions!

Heartiest congratulations to the team and guide for this outstanding project that showcases real-world engineering excellence!

Internship Triumph: III-Year Mechanical Students Secure Texmo Industries Opportunity!



Massive congratulations to the following III-Year Mechanical Engineering students for clinching coveted Internships at **Texmo Industries**, Coimbatore starting **5th August 2025**!

- ✓ MYTEESHWARAN D
- ✓ SARAVANAN G V
- ✓ DHAYANITHI A
- ✓ GOKULPRASATH R
- ✓ VIMALRAJ M
- ✓ DHIVAKAR G
- ✓ VENUGOPAL S
- ✓ VIBIN P G
- ✓ JAGADHESWARAN K
- ✓ ABDULLAH ANSARI A

This is a golden opportunity to gain hands-on industry exposure at one of India's leading pump manufacturing giants. Well done, team! Make ESEC proud with your learning and performance!

Student Participations

Hackathon Heroes from Erode Sengunthar Engineering College: Shining Bright in Healthcare Innovation



Three of our IV/VII Semester Mechanical Engineering students represented Erode Sengunthar Engineering College with brilliance at the **Shine Healthcare Hackathon 2025**, organized by The Tamil Nadu Dr. M.G.R. Medical University in collaboration with StartupTN and Aakam360. This statewide, 3-month-long challenge fosters groundbreaking healthcare solutions from Tamil Nadu innovators. Held on August 24, 2025, in Chennai, the event highlighted transformative ideas for global healthcare impact.

- ✓ **Balaji.V (Roll No. ES22ME09):** Delivered an impressive project that earned well-deserved recognition.
- ✓ **Gokulkrishnan K (Roll No. ES22ME15):** Showcased innovative problem-solving in healthcare tech.
- ✓ **Hariharan K M (Roll No. ES23LME07):** Contributed to a collaborative effort that stood out among national participants.

Congratulations on your participation—these efforts align perfectly with our mission to drive real-world healthcare advancements!

Industrial & Academic Exposure: IV-Year Mechanical Students Visit Sona College of Technology Hands-on Learning in Advanced Manufacturing



MICRO ECM SETUP	
Specification	
Make	Sivasakthy Electrical Services, Salem
Model	Specially ordered for Micro machining
Pump	Magnetic type
Pump	16 -18 Lit / min
Motor	Stepper motor
Motor resolution	1.8°/ step
Lead screw	30 teeth per inch for 75mm
Filter	5 micron cartridge
Acrylic tank size	200 X 100 X 80 mm
Tank Capacity (max)	1.6 liters
Tool movement per revolution of motor	0.8467 mm
Maximum tool movement	75 mm
Total Cost	Rs.48, 000

On 12th September 2025, our IV-Year Mechanical Engineering students visited the state-of-the-art laboratories of **Sona College of Technology, Salem** to deepen their understanding of **Electro Chemical Micro Machining (ECMM)** for their final-year project work.

Team Members

- ✓ M. Ashwinraja
- ✓ E. Praveen Kumar
- ✓ M. Praveen Kumar
- ✓ G. Poovarasam
- ✓ A. Victor Jose

The visit provided valuable practical insights and expert guidance on precision micro-machining technology — a critical skill for next-generation manufacturing. Great initiative! This exposure will significantly strengthen the quality and innovation of their project.

Industrial Visit: Power & Heavy Engineering Exposure IV-Year Mechanical Students Complete In-Plant Training at NLC India Ltd.



Two of our IV-Year Mechanical Engineering students successfully completed a comprehensive In-Plant Training at Neyveli Lignite Corporation (NLC) India Ltd., Neyveli from 06th August 2025 to 23rd August 2025.

Students

1. M. Ashwinraja
2. A. Victor Jose

Key Learning Areas

- ❖ Thermal power generation processes
- ❖ Operation and maintenance of large-scale mining equipment and power plant machinery
- ❖ Safety protocols and real-time industrial practices

This intense hands-on exposure has equipped them with practical insights into power generation and heavy machinery maintenance — invaluable for their professional journey.

Congratulations to both students for making the most of this prestigious industrial experience!

Soaring High in Drone Technology



Our III/V Semester students took flight in the **Drone Development Challenge**, hosted by **Green Tech Aviation** on **August 29, 2025**. This competition emphasizes cutting-edge drone applications in aviation and beyond, aligning with global trends in autonomous systems and sustainable tech.

- ✓ **Dinesh V (Roll No. ES23XM03)**: Excelled in drone design and functionality.
- ✓ **Yogaselvekumar (Roll No. ES23ME39)**: Demonstrated exceptional technical prowess.
- ✓ **Kartheeswaran N (Roll No. ES23XM13)**: Brought creative solutions to aerial challenges.

Your enthusiasm for drone innovation inspires us all—keep reaching new heights!



Mechanical Engineering Students Excel at National-Level Workshop on AEROS



We are proud to celebrate the participation of two outstanding students from the Department of Mechanical Engineering—**Mr. A. Manorajan** and **Mr. N. Raveendiran**—in the Workshop on AEROS as part of MECHFORGE 2K'25, a National Level Technical Symposium.

Organized by: Department of Mechanical Engineering, **Vel Tech High Tech Dr. Rangarajan Dr. Sakunthala Engineering College**, Avadi, Chennai, Tamil Nadu, India Date: 16 September 2025

This engaging workshop delved into advanced aerospace concepts, providing hands-on exposure to cutting-edge technologies in mechanical engineering. Their involvement demonstrates a strong commitment to expanding technical skills and staying abreast of industry innovations.

Congratulations to **Mr. A. Manorajan** and **Mr. N. Raveendiran** for their enthusiastic participation and for proudly representing Erode Sengunthar Engineering College on a national platform!

Hands-on Skill Development: Industry Workshop Participation



Our Mechanical Engineering students have once again demonstrated remarkable initiative by actively participating in high-impact technical events during August–September 2025. **Workshop on Future-Ready Mechanical CAD Design & Drafting**

Organized by: C Cube Technologies, Erode Date: 17 August 2025

Participants:

1. Mr. D. Kavin Kumar
2. Mr. M. Sridhar
3. Mr. R. Ganesh Chandran E

This industry-conducted workshop focused on the latest tools and techniques in 3D modeling, advanced surfacing, GD&T, sheet metal design, assembly modeling, and industry-standard drafting practices using cutting-edge CAD software. Such exposure significantly boosts employability and prepares students for real-world design challenges.

Skill Development: Intensive Mechanical Design Workshop



Intensive Mechanical Design Workshop Organized by: VCADD Engineering Solutions (MSME-registered) Date: 15 August 2025 Participants:

1. Mr. Hariprasanth R
2. Mr. Karuppasamy A

This intensive workshop focused on industry-relevant mechanical design fundamentals, advanced 3D modeling, GD&T, design for manufacturing, and real-world engineering standards, equipping students with skills highly valued by core design and manufacturing companies.

Student Achievement Spotlight: ESEC Mechanical Engineering Students Soar at Drone Pilot Competition : Representing Excellence in Drone Technology



Students from the III Year Mechanical Engineering program at Erode Sengunthar Engineering College (ESEC) proudly represented the ESEC Drone Development Center at the **Drone Pilot Competition** held at NSS College of Engineering, Palakkad, Kerala. This dynamic event took place on Saturday, September 27, 2025, showcasing the participants' skills in drone piloting, navigation, and innovative applications.

Our ESEC team demonstrated remarkable precision and teamwork, contributing to the growing legacy of our Drone Development Center in advancing aerospace and robotics education. Their participation not only honed practical skills but also positioned ESEC as a key player in drone innovation.

Congratulations to all the III Year Mechanical Engineering students for their dedication and spirited representation! This experience will undoubtedly fuel future projects and achievements.

Moments of Pride CRYOSAT '25 – 15th National Level Technical Symposium

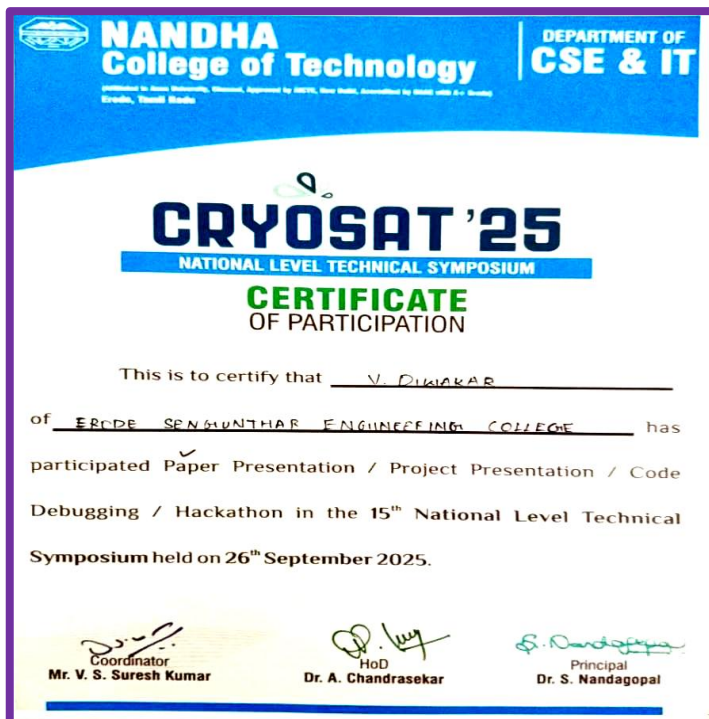
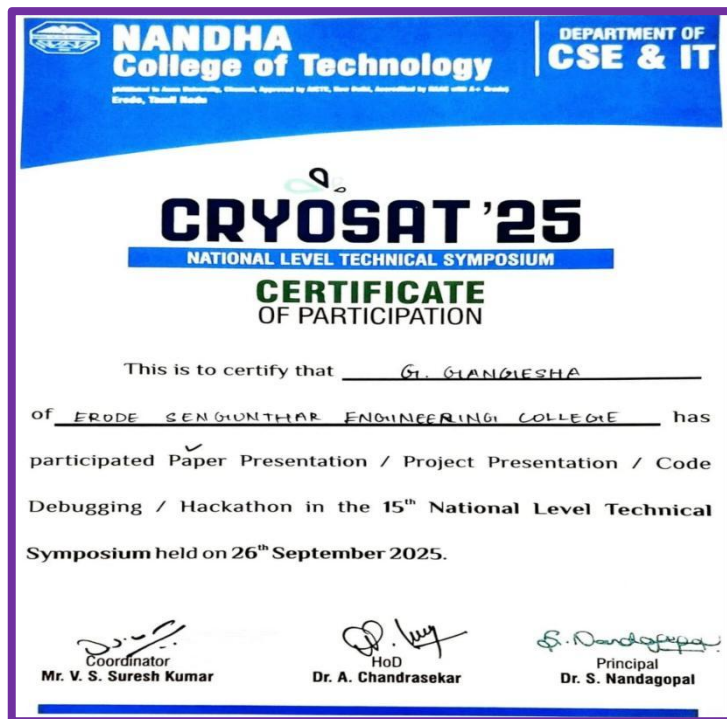
We are delighted to celebrate the outstanding achievements of the students from Erode Sengunthar Engineering College, who brought laurels to their institution with remarkable performances:

Mr. G. Gnanesha(ES24ME11)

Excelled with innovative ideas and strong technical presentation skills

Mr. V. Divakar (ES24XM07)

Active participation in multiple technical events



Activities Organized

Empowering Future Professionals: Industry Expectations and Critical Skill Sets for Career Excellence


ERODE SENGUNTHAR ENGINEERING COLLEGE
 (AUTONOMOUS) Perundurai, Erode - 638 057
 

DEPARTMENT OF MECHANICAL ENGINEERING
Mechanical Engineering Association
Organizes
Online Guest Lecture on
"Empowering Future Professionals: Industry Expectations and Critical Skill Sets for Career Excellence"



Mr. Manikanda Prabhakaran
 Principal Engineer
 Technip Energies, Chennai

 24-10-2025	 10:30AM to 11:30AM	 Online Mode
Thiru. G. Kamalamurugan, Correspondent, ESEC	Thiru. S. N. Thangaraju, Secretary, ESET	Dr. V. Venkatachalam Principal, ESEC



Convenor
Dr. P. Thangavel
 Professor/ Mech.
Dr. M. Vijay Anand
 Professor/ Mech.

Dr. N. Saravanan,
 Prof & HoD



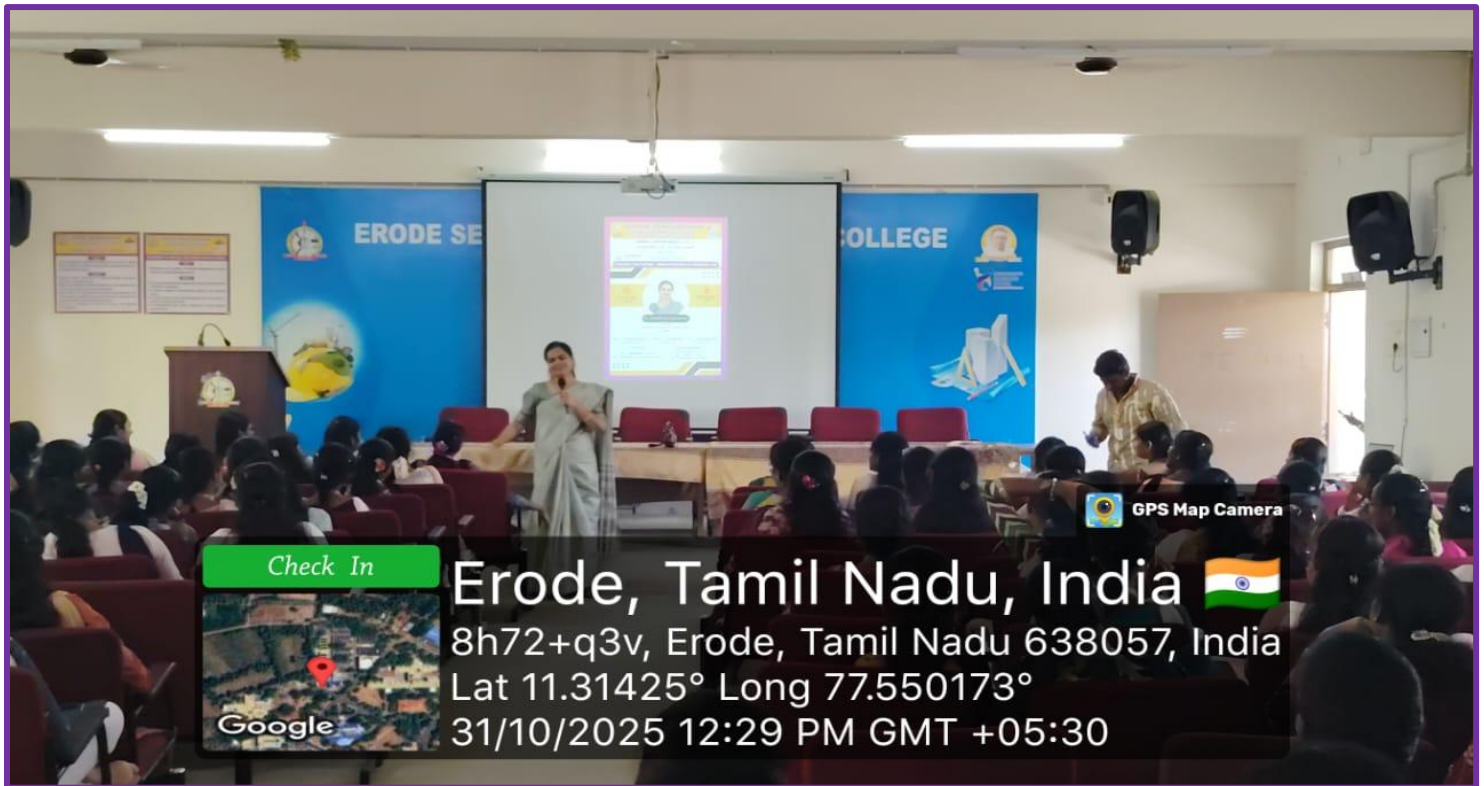
The Mechanical Engineering Association of the Department of Mechanical Engineering successfully organized an insightful **Online Guest Lecture** on **24th October 2025** from **10:30 AM to 11:30 AM**.

The session was delivered by **Mr. Manikanda Prabhakaran**, Principal Engineer at **Technip Energies, Chennai**. With his rich industry experience, Mr. Prabhakaran shared valuable perspectives on current industry expectations, emerging trends in mechanical engineering, and the critical skill sets required for young engineers to excel in their professional careers.

The lecture provided students with practical insights into bridging the gap between academic learning and industry requirements, emphasizing communication skills, problem-solving abilities, adaptability, and domain-specific technical competencies.

Convenor: Dr. P. Thangavel, Professor / Mech. Dr. M. Vijay Anand, Professor / Mech.

Fueling the Nature: Breastfeeding in Modern Life



As part of the Women Empowerment Cell, the Departments of Artificial Intelligence & Data Science (AI&DS), Robotics and Automation Engineering (RAE), Mechanical Engineering (MECH), and Computer Science & Engineering (CSE) jointly organized a meaningful One Day Seminar on “Fueling the Nature: Breastfeeding in Modern Life” on 31st October 2025 at the college auditorium.

The seminar aimed to create awareness about the importance of breastfeeding, its health benefits for both mother and child, and practical ways to balance it with modern professional and personal life.

Event Highlights

- An engaging and informative session delivered by an expert speaker.
- Interactive discussion addressing common challenges faced by working mothers.
- Valuable insights on nutrition, lactation management, and societal support systems.
- Active participation from students across multiple departments.

The program successfully promoted health awareness and reinforced the college’s commitment to women’s well-being and empowerment.

Kindness Connect: A Day of Compassion at Bharathiyar Shanthi Illam



In a heartwarming display of social responsibility, the **Department of Mechanical Engineering**, the **Department of Artificial Intelligence and Data Science**, and the **National Service Scheme (NSS)** of Erode Sengunthar Engineering College jointly organized "**Kindness Connect**," an extension activity on **July 24, 2025**.

A dedicated team of **49 student volunteers**, accompanied by faculty members **Mr. G. Dhayanithi** and **Mr. L. Boopalan** (Assistant Professors, Mechanical), visited the **Bharathiyar Shanthi Illam** old age home in Sathiyamangalam, Erode. The students spent valuable time with the **90 senior citizen** residents, sharing stories, joy, and companionship.

As a gesture of support, the team also donated a sum of **₹10,000** to the home. This initiative reflects our institution's commitment to instilling values of empathy and service in our students.

Mechanical Engineering Students Association Inaugurated with Insightful Guest Lecture



The Department of Mechanical Engineering successfully held the inaugural function of its Students Association on **July 28, 2025**. The event, which took place in the Mechanical Seminar Hall from 10:00 AM to 12:30 PM, was marked by a thought-provoking guest lecture on **"Innovation Development & Technology Readiness."** The esteemed Chief Guest for the occasion was **Mr. Murugan Paramasivam**, Project Manager-CMI Middle East & Africa at Tata Consultancy Services (TCS), who joined from Riyadh, Saudi Arabia. He shared valuable industry insights on the importance of innovation and technological preparedness with our students. The session was highly informative and set a dynamic tone for the association's activities for the year.

Final Year Students Get Hands-On with Robotic Welding

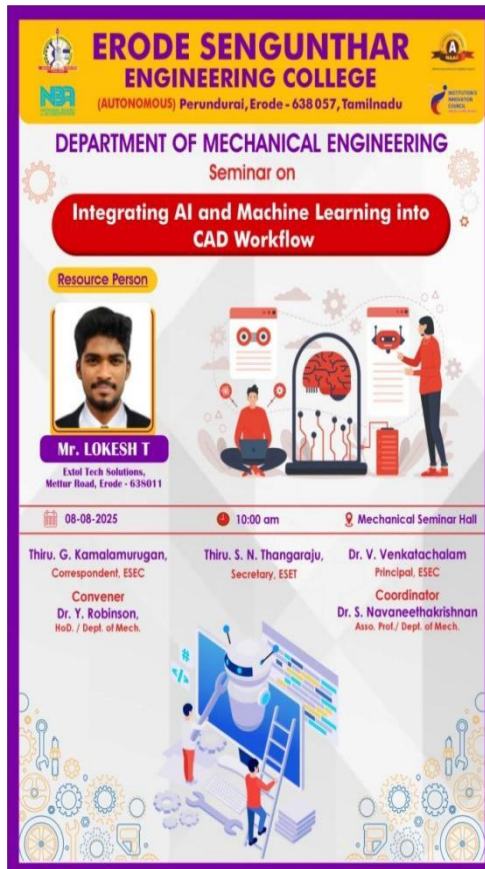


Giving our students a competitive edge, **Mr. N.S. Mohan**, Assistant Professor of Mechanical Engineering, conducted an exclusive session for our final year students on **August 1, 2025**.

The session was held at the college's IT Park and provided a practical demonstration of our **fully automated robot welding machine**. This hands-on experience is crucial for preparing our students for the advanced manufacturing and automation technologies they will encounter in the industry.



Seminar on AI and Machine Learning in CAD Workflows Held



On August 8, 2025, the Department of Mechanical Engineering organized a technical seminar on the cutting-edge topic, "**Integrating AI and Machine Learning into CAD Workflow.**" The event was held in the Mechanical Seminar Hall.

The Chief Guest and keynote speaker for the session was **Mr. T. Lokesh** from **Extol Tech Solutions, Erode**. He provided an in-depth look at how artificial intelligence is revolutionizing computer-aided design, offering valuable industry-specific knowledge to the attendees.

The seminar was successfully organized under the coordination of **Dr. S. Navaneethakrishnan**, Associate Professor.

Drone Development Center Hosts Hands-on Workshop for Students of Mechanical



The ESEC Incubation-Drone Development Center successfully organized a two-day "Hands-on Workshop on Mechanical Insights into Drone Design & Operations" on **August 13th** and 14th, 2025. The workshop was exclusively designed for our third-year Mechanical Engineering students from both English and Tamil medium sections.

The session was expertly conducted by **Mr. S. Manigandan**, Assistant Professor of Robotics & Automation Engineering and the Coordinator of the Drone Development Center. Participants gained practical experience and a deeper understanding of the mechanical principles behind drone technology, from design considerations to operational dynamics. This initiative provided our students with valuable, in-demand skills in the rapidly growing field of unmanned aerial vehicles.



Department Organizes Awareness Program on Traffic Rules and Stress Management for College Drivers



The Department of Mechanical Engineering presented a vital awareness program on "Recent Traffic Awareness and Stress Management" on August 18, 2025. This special session was organized exclusively for our college's drivers to promote safety and well-being.

Held in the Mechanical Seminar Hall, the program provided essential updates on current traffic regulations and offered practical techniques for managing stress on the road. The event was coordinated by **Mr. R. Manikandan**, Assistant Professor of Mechanical Engineering, reflecting our department's commitment to the welfare of our entire campus community.



Guest Lecture on Mechanical Design Pathways Illuminates Industry Trends



The Department of Mechanical Engineering organized a cutting-edge guest lecture titled **"Mechanical Design Pathways: Tools, Trends & Industry Needs"** on **August 22, 2025**. The event was held in the Mechanical Seminar Hall for students and faculty.

We were pleased to host two industry experts from **Lumtechfy Design Solutions** as our resource persons. **Mr. E. Ezhavarasu** and **Mr. S. Karthikeyan**, both accomplished Design Engineers, shared their extensive knowledge on the latest design tools, emerging industry trends, and the specific skills required for a successful career in mechanical design. The session was highly valuable for our aspiring engineers.



Department of Mechanical Engineering Successfully Conducts ANRF Sponsored National Level Workshop

ERODE SENGUNTHAR ENGINEERING COLLEGE
(AUTONOMOUS) Perundurai, Erode - 638 057

DEPARTMENT OF MECHANICAL ENGINEERING
Organizes

ANRF Sponsored 5-Day Workshop
on

FOSTERING SAFETY AND OPERATIONAL EXCELLENCE IN xEVs THROUGH LIDAR-BASED ADVANCED DRIVER ASSISTANCE SYSTEM FOR FUTURE-RESILIENT E-MOBILITY

Resource Persons

 Dr.K.Senthil Kumar, Professor and Head, Dept. of Aeronautical Engineering, Adityan College of Engineering, Hosur.	 Mr.M.Pradeep, CHRG Project Assistant, EV SFC Member, GCE, Erode.	 Dr.P.Maruthupandi, Associate Professor, Department of EEE, GCE, Calicutore.	 Dr.M.Sathiyathan, Associate Professor, Department of EEE, PSG Tech, Coimbatore.
 Mr.T.Vignesh, Assistant Professor, Department of EEE, DSATH, Bangalore.	 Dr.S.Deepankumar, Asso. Professor & Head, Dept. of Robotics & Automation, ESEC, Perundurai.	 Dr.G.S.SatheeshKumar, Asso. Professor, Dept. of EEE, ESEC, Perundurai.	 Mr.K.Elavarasan, Asst. Professor, Dept. of Mech, ESEC, Perundurai.

Thiru.V.Annadural, President, ESET | Thiru. G. Kamalamurugan, Correspondent, ESEC | Thiru. S. N. Thangaraju, Secretary, ESET | Dr. V. Venkatachalam, Principal, ESEC

15th - 19th Sep 2025 | 10:00 am to 04:30 pm | Mechanical Seminar Hall

Convenor: Dr. N. Saravanan, Professor & Head / Mech | Co-ordinator: Mr. N. S. Mohan, Asst. Professor / Mech | Co-Coordinator: Mr. K. Elavarasan, Asst. Professor / Mech



The Department of Mechanical Engineering successfully organized a five-day, ANRF-sponsored National Level Workshop from September 15th to 19th, 2025.

The workshop, titled “Fostering Safety and Operational Excellence in xEVs through LiDAR-Based Advanced Driver Assistance System for Future-Resilient E-Mobility,” brought together participants from across the nation. The program delved into advanced topics in electric vehicle safety, ADAS, and LiDAR technology, positioning our institution at the forefront of e-mobility research.

The event was meticulously planned and executed under the guidance of our coordinators, **Mr. N.S. Mohan** and **Mr. K. Elavarasan**.

Dr. D. Deepa Inspires Future Engineers at ESEC: Mastering Innovation and Intellectual Property

ERODE SENGUNTHAR ENGINEERING COLLEGE
(AUTONOMOUS) Perundurai, Erode - 638 057, Tamilnadu

DEPARTMENT OF MECHANICAL ENGINEERING
Organizes a Guest Lecture on

"INNOVATION & INTELLECTUAL PROPERTY: PATENT SKILLS FOR FUTURE ENGINEERS"

Resource Person

Dr. D. Deepa
Professor
Department of Biomedical Engineering
IC - Innovation Ambassador
Bannari Amman Institute of Technology
Sathyamangalam

Thiru. G. Kamalamurugan, Correspondent, ESEC
Thiru. S. N. Thangaraju, Secretary, ESET
Dr. N. Saravanan, HoD / Dept. of Mech.
Association Coordinator: Dr. M. Vijay Anand, Professor/Mech.
Dr. V. Venkatchalam, Principal, ESEC
Coordinators: Dr. P. Thangavel, Professor/Mech. and Dr. M. Vijay Anand, Professor/Mech.

Time : 09.30 am
24th SEP. 2025

Smart Class Room



The Department of Mechanical Engineering at Erode Sengunthar Engineering College (ESEC), an autonomous institution in Perundurai, Erode, is proud to host an insightful guest lecture on **"Innovation & Intellectual Property: Patent Skills for Future Engineers"** on **September 24, 2025, at 9:30 AM** in the Smart Classroom. This event, designed to equip students with essential patenting skills, will feature renowned resource person **Dr. D. Deepa, Professor** from the Department of Biomedical Engineering and IQAC Innovation Ambassador at **Bannari Amman Institute of Technology, Sathyamangalam**.

Dr. P. Thangavel (Professor/Mech.), and **Dr. M. Vijay Anand (Professor/Mech.)** are the coordinators of this remarkable guestlecture and **students of II & III year** were benifited by this program.

National Seminar Spotlight: ESEC Mechanical Engineering Hosts Innovative Biomechanics Event

Advancing Prosthetics through Cutting-Edge Technology



ERODE SENGUNTHAR ENGINEERING COLLEGE
(AUTONOMOUS)
Perundurai, Erode - 638 057

DEPARTMENT OF MECHANICAL ENGINEERING
organizes

DBT-CTEP SPONSORED
TWO-DAY NATIONAL LEVEL SEMINAR ON

Advanced Biomechanics: Prosthetics Development through Biofiller Integration for Skeletal Reconstruction via Rapid Prototyping

RESOURCE PERSONS



Dr. E. Prakash,
Associate Professor,
World Skills Training Centre,
KPRIET, Coimbatore.



Dr. S. Mudhanwaran,
Assistant Professor,
Dept. of Mechanical,
BIT, Sathyamangalam.



Dr. G. Suganya Pragasantharshini,
Assistant Professor,
Dept. of Mechanical,
CIT, Coimbatore.



Dr. C. Balaji Aggarwal,
Assistant Professor,
Dept. of Mechanical,
CIT, Coimbatore.

14TH & 15TH OCTOBER, 2025 **10:00 AM** **SMART CLASSROOM / MECH**

Organizing Committee

Thiru. V. Annadurai,
President, ESET

Thiru. G. Kamalamurugan,
Correspondent, ESEC

Thiru. S. N. Thangaraju,
Secretary, ESET

Dr. V. Venkateshram,
Principal, ESEC

Convenor
Dr. N. Saravanan,
HoD / Mech

Co-ordinator
Mr. N. S. Mohan,
Asst. Professor / Mech

Co-ordinator
Dr. J. Balaji,
Asst. Professor / Mech



The Department of Mechanical Engineering at Erode Sengunthar Engineering College (ESEC), an autonomous institution in Perundurai, Erode, is proud to organize a two-day national-level seminar on "Advanced Biomechanics: Prosthetics Development through Bio-filler Integration for Skeletal Reconstruction via Rapid Prototyping", sponsored by DBT-CTEP. This event is scheduled for **October 14-15, 2025**, starting at 10:00 AM in the Smart Classroom/Mech, bringing together experts and enthusiasts to explore innovative prosthetic solutions.

MECHANICAL 2006 BATCH ALUMNI REUNION

MECHANICAL 2006 BATCH ALUMNI STUDENTS



EVENT HIGHLIGHTS:

NETWORKING GALA | CAMPUS TOUR | GUEST LECTURES | DINNER

Thank you!

