

Volume -I
2023-2024



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

PH: 04294-232701, 232702

Email: esecprincipal@gmail.com

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

Founder



UDYOG RATTAN
Thiru J Sudhanandhen

Contents

S. No.	Content
1.	Vision & Mission statements.
2.	PEO & PSO Statements.
3.	PO'S Statements.
4.	Faculty Achievements.
5.	Faculty Participations.
6.	Sports Participations.
7.	Students Achievement.
8.	Student Participations.
9.	Events Organized.
10.	Others.

COLLEGE VISION

Vision of Erode Sengunthar Engineering College is to become a World Class Technical Institution and Scientific Research Centre for the Benefit of the Society.

COLLEGE MISSION

Erode Sengunthar Engineering College will strive continuously to

1. Create Positive difference to Society through Innovative Teaching – Learning Process.
2. Impart Value Based Technical Education to the Students from across various Socio Economic backgrounds.
3. Build State of art infrastructure for high quality Research and Development capabilities on par with the finest in the Globe and widen student's horizons beyond Class Room.
4. Bring out Competent, Ethically Strong and Quality Professionals.

QUALITY POLICY

Erode Sengunthar Engineering College is committed to impart World Class Technical Know-How to the Students from diverse Socio Economic backgrounds and to transform their lives by nurturing Multi-Skills and facilitating them to develop holistically



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



P01: 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.

P02: Problem Analysis: Identify, formulate, review research literature and analyze complex engineering problems reaching substantiated conclusions with consideration for sustainable development. (WK1 to WK4)

P03: 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)

P04: 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).

P05: 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)

P06: 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).

P07: Ethics: Apply ethical principles and commit to professional ethics, human values, diversity and inclusion; adhere to national & international laws. (WK9)

P08: Individual and Collaborative Teamwork: Function effectively as an individual, and as a member or leader in diverse/multi-disciplinary teams.

P09: 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

P010: 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.

P011: 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.

Faculty Achievements

Mr. G. Dhayanithi, Assistant Professor, Department of Mechanical Engineering, participated in the Research Conclave on RIDET 2K23 on "Recent Innovations and Developments in Energy Technologies" held at Velammal Engineering College, Chennai, from 05–07 July 2023.



Mr. P. Krishnamurthy, Assistant Professor, Department of Mechanical Engineering, participated in the Research Conclave on RIDET 2K23 on "Recent Innovations and Developments in Energy Technologies" organized by Velammal Engineering College, Chennai, from 05–07 July 2023.

Mr. P. Chokkalingam, Assistant Professor, Department of Mechanical Engineering, participated in the Research Conclave on RIDET 2K23 on "Recent Innovations and Developments in Energy Technologies" organized by Velammal Engineering College, Chennai, from 05–07 July 2023.



Dr. Y. Robinson, Professor, Department of Mechanical Engineering, participated in the International Conference on Engineering and Artificial Intelligence (ICEAI 2023) held at Malaysia University from 13-14 September 2023.



Dr. J. Manivannan Assistant Professor , Department of Mechanical Engineering , participated in a five-day Faculty Development Programme (FDP) on “Sustainability in Environmental Remediation” organized by Hindustan College of Engineering & Technology, Chennai, from 05 June 2023 to 09 June 2023.

Mr. S. Mohan Assistant Professorr The Department of Mechanical Engineering , participated in the International Conference on Disruptive Technologies (ICDT-2023) held at G.L. Bajaj Institute of Technology and Management (ITM), Greater Noida, from 11 May 2023 to 12 May 2023.



Mr. R. Prabhakaran, Assistant Professor, Department of Mechanical Engineering, Erode Sengunthar Engineering College, at the Faculty Development Programme on “Current Trends in Engineering, Science and Technology” held at Sree Sakthi Engineering College, Coimbatore (03-08 July 2023).

Dr. J. Manivannan, Assistant Professor, Department of Mechanical Engineering, Erode Sengunthar Engineering College, at the Faculty Development Programme on “Sustainability in Environmental Remediation” held at Hindustan College of Engineering & Technology, Chennai (05-09 June 2023).



Mr. S. Karthikeyan, Assistant Professor, Department of Mechanical Engineering, Erode Sengunthar Engineering College, at the Faculty Development Programme on “Contemporary Literary Themes and Techniques” held at VIT Chennai (19–23 June 2023).



Dr. J. Manivannan, Assistant Professor, from the Department of Mechanical Engineering, Erode Sengunthar Engineering College, at the Faculty Development Programme on “Recent Advances in Nanomaterial and Nanotechnology” held at KIT Coimbatore (21–26 August 2023).

Mr. S. Karthikeyan, Assistant Professor, Department of Mechanical Engineering, Erode Sengunthar Engineering College, at the Faculty Development Programme on “Laser Based Manufacturing for Future Industrial Development” held at NIT Rourkela (21–25 July 2023).



Mr. A. Prabhakaran, Assistant Professor, from the Department of Mechanical Engineering, Erode Sengunthar Engineering College, at the Faculty Development Programme on “Recent Advances in Nanomaterial and Nanotechnology” held at KIT Coimbatore (21–26 August 2023).

Mr. R. Prabhakaran, Assistant Professor, Department of Mechanical Engineering, Erode Sengunthar Engineering College, at the Faculty Development Programme on “Metal Additive Manufacturing: From Advances to Adaptability” held at St. Joseph Institute of Technology, Chennai (04–08 November 2023).



Dr. P. Thangavel Assistant Professor,, Department of Mechanical Engineering, Erode Sengunthar Engineering College, at the Faculty Development Programme on “Laser Based Manufacturing for Future Industrial Development” held at NIT Rourkela (21–25 July 2023).



Dr. N. Saravanan Assistant Professor, from the Department of Mechanical Engineering, Erode Sengunthar Engineering College, at the Faculty Development Programme on “Recent Advances in Nanomaterial and Nanotechnology” held at KIT Coimbatore (21–26 August 2023).

Mr. G. Dhayanithi Assistant Professor, from the Department of Mechanical Engineering, Erode Sengunthar Engineering College, at the Faculty Development Programme on “Recent Advances in Nanomaterial and Nanotechnology” held at KIT Coimbatore (21–26 August 2023).



Mr. V. P. Krishnamurthy, Assistant Professor, Department of Mechanical Engineering, Erode Sengunthar Engineering College, at the Faculty Development Programme on “Recent Advancements in Materials, Manufacturing and Technology” held at Swarnandhra Engineering College (30 October – 04 November 2023).

Dr. S. Suresh Assistant Professor, Department of Mechanical Engineering, Erode Sengunthar Engineering College participated in the Faculty Development Programme on "Recent Development in Advanced Manufacturing Systems" conducted by Karpagam Academy of Higher Education, Coimbatore, from 20 to 25 November 2023.



Mr. A. Prabhakaran Assistant Professor, Department of Mechanical Engineering, Erode Sengunthar Engineering College participated in the Faculty Development Programme on "Recent Development in Advanced Manufacturing Systems" conducted by Karpagam Academy of Higher Education, Coimbatore, from 20 to 25 November 2023.



Dr. P. Thangavel, Assistant Professor, Department of Mechanical Engineering, Erode Sengunthar Engineering College participated in the Faculty Development Programme on "Instructional Design and Delivery System" organized by Dhanalakshmi Srinivasan University, Tiruchirappalli, from 27 November to 01 December 2023.

Mr. A. Prabhakaran Assistant Professor, Department of Mechanical Engineering,, participated in the workshop on "Preparation, Characterization & Testing of Metal Matrix Composites (PM Technique)" organized by SRM Madurai College of Engineering and Technology on 26 August 2023.



Mr. A. Prabhakaran Assistant Professor, Department of Mechanical Engineering, Erode Sengunthar Engineering College participated in the workshop on "Preparation, Characterization & Testing of Metal Matrix Composites (PM Technique)" organized by SRM Madurai College of Engineering and Technology on 26 August 2023.

Mr. G. Dhayanithi,. Assistant Professor, Department of Mechanical Engineering, Erode Sengunthar Engineering College participated in the awareness programme "First Aid in the Digital World" organized by Excel Engineering College on 09 September 2023, enhancing their knowledge of cybersecurity, digital safety, and responsible use of technology.



Dr. N. Saravanan, Assistant Professor, Department of Mechanical Engineering, Erode Sengunthar Engineering College participated in the Faculty Development Programme on "Instructional Design and Delivery System" organized by Dhanalakshmi Srinivasan University, Tiruchirappalli, from 27 November to 01 December 2023.



Mr. P. Chokkalingam Assistant Professor, Department of Mechanical Engineering, Erode Sengunthar Engineering College participated in the Faculty Development Programme on "Instructional Design and Delivery System" organized by Dhanalakshmi Srinivasan University, Tiruchirappalli, from 27 November to 01 December 2023.

Dr. N. Saravanan Assistant Professor, Department of Mechanical Engineering, participated in the workshop on "Preparation, Characterization & Testing of Metal Matrix Composites (PM Technique)" organized by SRM Madurai College of Engineering and Technology on 26 August 2023.



Mr. G. Dhayanithi Assistant Professor, Department of Mechanical Engineering, Erode Sengunthar Engineering College participated in the programme on "Research Scope on Composite Materials" organized by SRM Madurai College of Engineering and Technology on 24 August 2023.

Dr. P. Thangavel, Assistant Professor, Department of Mechanical Engineering, Erode Sengunthar Engineering College participated in the awareness programme "First Aid in the Digital World" organized by Excel Engineering College on 09 September 2023, enhancing their knowledge of cybersecurity, digital safety, and responsible use of technology.



Mr. S. Karthikeyan Assistant Professor, Department of Mechanical Engineering, Erode Sengunthar Engineering College participated in the technical programme on "Recent Advancements in Engine Technology" organized by SRM Madurai College of Engineering and Technology on 29 September 2023.



Mr. A. Prabhakaran Department of Mechanical Engineering, Erode Sengunthar Engineering

College participated in the technical programme on "Recent Advancements in Engine Technology" organized by SRM Madurai College of Engineering and Technology on 29 September 2023,



EXCELLENCE IS OUR PRIORITY



Student Achievements

The Department of Mechanical Engineering is proud to announce the active participation of its students in TECH YUVA (National), a prestigious national-level technical event held on 03 December 2024.

Participating Students:

Sl.NO	Name Of the Students
1.	Anand Kumar
2.	Annamalai D
3.	Mithun Kumar
4.	Palani Selvam C
5.	Ponperumal Saravanan K
6.	Ranjith K
7.	Harishwaran V
8.	Sibiraj G
9.	Boopathi A
10.	Dhinakaran B
11.	Elangovan R
12.	Sakthibala M
13.	Avinash Yadav
14.	Raviranjana Kumar
15.	Cibi C
16.	Dhasaradhan S
17.	Sivanantham S
18.	Surya C
19.	Thooyavan M
20.	Premnath P
21.	Sethubathi J
22.	Sujith R S

. The Department of Mechanical Engineering is proud to announce the active participation of its students in YUKTA (National), a prestigious national-level technical symposium held on 26 September 2024. Iniyavan M, Vimal Raj R, Nishak J, Viswa S, Sri Sakthivel P, Kavin S

ParticipatingStudents:

Sl.NO	Name Of the Students
1.	Bhagat Singh
2.	Suyabarathan R
3.	Kavibarathi V
4.	Sivaraj G P
5.	Karthikeyan S
6.	Kavinkumar K
7.	Dineshkumar N

The Department of Mechanical Engineering is proud to announce the active participation of its students in QModelX Hackathon (State), a state-level technical hackathon held on 09 October 2024.

ParticipatingStudents:

Sl.NO	Name Of the Students
1.	Dinesh U
2.	Victor Jose A
3.	Mohanvel S R
4.	Tamilselvan K
5.	Liyakath Nijamudeen J M
6.	Maharaja K
7.	Gowtham

The Department of Mechanical Engineering is pleased to share the active participation of its students in PRESTO V1 (State), a state-level technical event held on 29 August 2024.

Participating Students:

Sl.NO	Name Of the Students
1.	Gokulkumar S
2.	Vimal S,,
3.	Shanmugavel K
4.	Mohammed Faizal J A
5.	Karthik M

The Department of Mechanical Engineering is pleased to share that six of our students actively participated in the **State-Level INTER O FEST** held on 16th November 2024.

Participating Students:

Sl.NO	Name Of the Students
1.	Iniyavan M
2.	Vimal Raj R
3.	Nishak J
4.	Viswa S
5.	Liyakath Nijamudeen J M
6.	Sri Sakthivel P
7.	Kavin S



The Department of Mechanical Engineering represented the college at the **National-Level TECHFINIX** event held on **11th August 2024**.

Participating Students:

Sl.NO	Name Of the Students
1.	Kush Kumar,
2.	Aravindh N
3.	Pravinkumar S
4.	Yugender R,
5.	Vaanmukil B
6.	Mushraf Khan
7.	Prakash M
8.	Madhan Kumar K

. The Department of Mechanical Engineering congratulates six students for their active participation in the **State-Level SHINE Healthcare Hackathon** conducted on **14th August 2024**.

Participating Students:

Sl.NO	Name Of the Students
1.	Lakshminarayanan R J
2.	, Gokul B
3.	Alagarsamy P
4.	Sabarish S
5.	Satheesh K
	Naveen Kumar M
6.	Prakash M
7.	Madhan Kumar K

The Department of Mechanical Engineering participated in the **State-Level AARA** event held on **18th October 2024**. Yuvan Shankar S, Wesly Jose J, Tamilselvan V, Kaviraj S

Participating Students:

Sl.NO	Name Of the Students
1.	Yuvan Shankar S
2.	Wesly Jose J
3.	Tamilselvan V
4.	Kaviraj S

The Department of Mechanical Engineering is happy to share the participation of five students in the **State-Level Spring Fest** held on **27th September 2024**.

Participating Students:

Sl.NO	Name Of the Students
1.	. Bharath R,
2.	Rajadurai J
3.	Vishnu A
4.	Vignesh M
5.	Muthuraman G



The Department of Mechanical Engineering took part in the **State-Level KRIZEN** event conducted on **18th October 2024**.

Participating Students:

Sl.NO	Name Of the Students
1.	Dinesh P
2.	Ranjithkumar E,
3.	Abhimanyu Kumar
4.	Nandhakumar S
5.	Manikandan K,
6.	Rajeshkumar T

The Department of Mechanical Engineering is proud that five of our students participated in the **National-Level Synergy Workshop** held on **14th August 2024**.

Participating Students:

Sl.NO	Name Of the Students
1.	Robert Rajan L
2.	Aman Kumar
3.	Aswanth S
4.	Prabu G
5.	Ranjith R



The Department of Mechanical Engineering, Erode Sengunthar Engineering College, facilitated a 19-day industrial training programme at Hemalathaa Hi-Tech Industry, SIPCOT, Cuddalore, from 04 September 2023 to 22 September 2023. Ten students participated in the training and gained valuable exposure to industrial practices and manufacturing operations.

Participating Students:

Sl.NO	Name Of the Students
1.	Hariprasath A S
2.	Kandasamy R,
3.	Karthikeyan S
4.	Kavibarathi V
5.	Mohanvel S R
6.	Mohanbabu K,
7.	Mohamed Naveeth
8.	Mohanram M
9.	Sri Sakthivel P
10.	Vignesh M.



The Department of Mechanical Engineering, Erode Sengunthar Engineering College, facilitated an industrial training programme at Galexon Robotics, Coimbatore, from 11 September 2023 to 22 September 2023. Ten students participated in the twelve-day programme and gained valuable exposure to the rapidly evolving fields of robotics and industrial automation.

Participating Students:

Sl.NO	Name Of the Students
1.	Arunkumar V
2.	Dharmaraj K
3.	Dhinakaran B
4.	Ranjithkumar E
5.	Vishnu A
6.	Hariprasath S
7.	Tamilselvan K
8.	Vimal S
9.	Karthikeyan S



The Department of Mechanical Engineering, Erode Sengunthar Engineering College, facilitated an industrial training programme at Bull Machines Pvt. Ltd., Coimbatore, from 09 October 2023 to 25 October 2023. Seven students participated in the seventeen-day training programme and gained valuable exposure to industrial manufacturing practices and mechanical engineering applications.

Participating Students:

Sl.NO	Name Of the Students
10.	Sakthibala M
11.	Sathees Kumar D
12.	Srijai M
13.	Viswa S
14.	Hemachandru V
15.	Tamilselvan
16.	Vaanmukil B

The Department of Mechanical Engineering, Erode Sengunthar Engineering College, facilitated an industrial training programme at Lakshmi Precision Technologies Limited, Coimbatore, from 17 October 2023 to 04 November 2023. Five students participated in the nineteen-day training programme and gained valuable exposure to precision manufacturing and modern industrial practices.

Participating Students:

Sl.NO	Name Of the Students
1.	Gokulnath R
2.	Karuppasamy
3.	Saravanakumar
4.	Balakumar J
5.	Edward Ranjith E

Events Organized

The Department of Mechanical Engineering, Erode Sengunthar Engineering College, organized a guest lecture on “Advances in Refrigeration” on 23 June 2023. The session was delivered by **Er. S. S. Manoj**, Safety Officer, Milky Mist India Private Limited, Seenapuram, Perundurai.

The Department of Mechanical Engineering, Erode Sengunthar Engineering College, organized an expert lecture on “Metal Additive Manufacturing” on 17 July 2023. The session was delivered by **Dr. T. Ramprabhu**, Scientist E and Joint Director, Defence Research and Development Organisation (DRDO), Government of India, Bengaluru.

The Department of Mechanical Engineering, Erode Sengunthar Engineering College, organized a seminar on “Latest Technology in Robotics and AI” on 11 August 2023. The session was delivered by **Mrs. Sowmiya Santhanam**, Director, Seventh Sense School of Robotics, Erode.



Thank you!

