



**SAKTHI POLYTECHNIC
COLLEGE
DEPARTMENT OF MECHANICAL
ENGINEERING
NEWS LETTER**



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DEPARTMENT VISION

➤ To create industry competent and socially responsible Mechanical Engineers with an appetite for lifelong learning.

DEPARTMENT MISSION

➤ Create high quality technical learning environment with an emphasis on social and moral responsibility.

➤ Impart mechanical engineering knowledge in latest and trending concepts.

➤ Encourage the students to acquire knowledge and skills needed for industries.

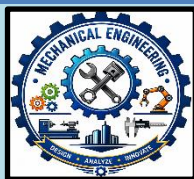
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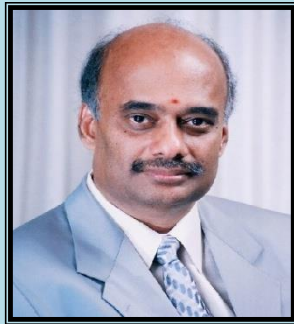
ஆசிரியர் உரை

வெற்றி என்பது ஒரே நாளில் கிடைப்பதில்லை; அது ஒவ்வொரு நாளும் மேற்கொள்ளும் சிறிய முயற்சிகளின் பலனாக உருவாகிறது. கற்றல், ஒழுக்கம், நேர்மை மற்றும் விடாமுயற்சி ஆகிய நான்கு தூண்களே ஒரு சிறந்த மனிதனையும் சிறந்த பொறியாளரையும் உருவாக்குகின்றன.

"கற்பது அறிவுக்காக;
உழைப்பது உயர்வுக்காக;
சாதிப்பது சமூக நலனுக்காக."

**DEPARTMENT OF MECHANICAL ENGINEERING****Since 1981****Department News Letter****For the Academic year 2023-2024-ODD Semester****With blessings from our founder****Padma Bhushan****Arutselvar Dr. N. MAHALINGAM, B.Sc., F.I.E.****Founder – Sakthi Polytechnic College.**

Arutselvar DR. N. MAHALINGAM a legendary Gandhian by principle, a patriotic and proud son of the soil, Dr. N. MAHALINGAM was a man of pious living. His exemplary social contributions in numerous fields of socio-economic spectrum have benefited scores of institutions and individuals inspired by him during his long career. The government of India duly recognized his meritorious deeds and honored him with the prestigious Civilian Award - PADMA BHUSHAN. Dr. N. Mahalingam is also a recipient of many awards and titles conferred upon him by various educational, social and cultural institutions. As a industrialist he has several important positions and has played major roles fostering the development of agricultural, industrial, human resource and institutional development at the State and National levels. He is the Pioneer of sugar industry. He has rendered notable literary contributions. His social and humanitarian considerations took his journey beyond the boundaries of industries and scholarly tents he nurtured.

**CHAIRMAN****Dr. M. MANICKAM, M.Sc., M.B.A**

Dr. M. Manickam, the eldest son of Arutchelvar Dr N Mahalingam, is an industrialist, educationalist and an outstanding administrator with an M.B.A from the University of Michigan, U.S.A. He is the chairman of NIA educational institutions and Vice- Chairman of Sakthi Sugars. Under his capable guidance and stewardship, Sakthi Sugar Mills has expanded and set-up institutions in many places. Through his constant efforts, Sakthi Auto Components Ltd has modernized and expanded. He had been the President of the "All India Sugar Manufacturers Association" and currently he is the President of Indian Sugar Technologists Association. He was awarded an Honorary Doctorate Degree by Tamil Nadu Agricultural University. He evinces keen interest in the development of Good Infrastructure in the technical institute.

**PRINCIPAL****Dr. N. THANGAVELU M.E., Ph.D., MISTE.,**

Technology is the need of the hour. In this era of Globalization when there is a need for an enormous number of technically qualified personnel, Polytechnics play a vital role in supplying the industries, the inputs of their choice. Keeping this in mind our beloved Founder Arutselvar Padma Bhushan Dr N. Mahalingam established Sakthi Polytechnic College with a foresight and vision in this predominantly rural and agricultural area of Sakthi Nagar. The main aim of this Institution is to bring technical education within the reach of the rural youth. We ensure that our Institution with its excellent infrastructure, well qualified staff and conducive atmosphere for learning will go a long way in motivating the rural students to become leaders of technology in future. With Sakthi to lead them, Technical Education is no longer a distant dream for rural youth but very much a reality within their reach.

S.No	Name of the Faculty	Designation
1	Dr. N.Thangavelu M.E., Ph.D.,	HOD
2	Dr. A.Shyam M.E., Ph.D.,	Lecturer
3	Mr. S.Prabakaran M.E.,	Lecturer
4	Mr. R.Srinivasan B.E.,	Lecturer
5	Mr. J.Sasikumar B.E.,	Lecturer
6	Mr. T.Velmurugan M.E.	Lecturer
7	Mr. P.Kamalesan M.E.,	Lecturer
8	Mr. D.Mahendran B.E.,	Lecturer
9	Mr. R.Thangaraj D.M.E., B.E.,	Junior Drafting Officer
10	Mr. M.Sasikumar D.M.E.,	Workshop Instructor
11	Mr. K.R.Sankar I.T.I., CI., PGDCA., MA.	Workshop Instructor
12	Mr. A.Karthikeyan I.T.I.	Workshop Instructor
13	Mr. M.Jagadeesh I.T.I.	Workshop Instructor
14	Mr. K.S.Bagavathiannan D.M.E.,	Workshop Instructor
15	Mr. B.Sabinath D.M.E., B.E.,	Workshop Instructor
16	Mr. T.Selvaraj I.T.I.	Skilled Assistant (Sel.Gr.)
17	Mr. S.Sivalingam I.T.I.	Skilled Assistant

Industrial Visit: The Department of Mechanical Engineering organized an industrial visit to **Akshara Papers, Rajannagar P.O., Sathy Taluk, Erode District**, on **08.07.2023**. During the visit, students gained practical exposure to the paper manufacturing process, including raw material preparation, pulp processing, paper production, quality control, and finishing operations. The visit helped bridge the gap between classroom learning and industrial practices while enhancing students' understanding of modern manufacturing techniques, production management, and workplace safety.



Industrial Visit to Akshara Papers

Industrial Visit: The Department of Mechanical Engineering organized an industrial visit to Vinayaka Electro Alloys (I) Pvt. Ltd., Chennimalai Road, Ingur, Perundurai, Erode District, on 14.08.2023. The visit provided students with valuable insights into alloy manufacturing processes, material handling, quality assurance, and industrial safety practices. It offered an excellent opportunity to understand real-time production operations and strengthened the students' practical knowledge of modern manufacturing industries.



Industrial Visit to Vinayaka Electro Alloys

Guest Lecture: The Department of Mechanical Engineering organized a guest lecture on "Thermal Management Systems in Electric Vehicles" on 25.09.2023 for the Second and Third Year Mechanical Engineering students. The session was delivered by Mr. S. M. Naveenkumar, TANSAM, TIDEL Park, Chennai. The resource person explained the importance of thermal management in electric vehicles, covering battery cooling techniques, heat dissipation methods, thermal safety, and emerging technologies in EV systems. The lecture enhanced students' knowledge of electric vehicle technology and provided valuable insights into current industry practices and future career opportunities in the EV sector.



Guest Lecture on Thermal Management Systems in Electric Vehicles

Faculty Achievement:

❖ Dr. A. Shyam, Department of Mechanical Engineering, secured Top 2% and earned the Elite + Silver performance certificate in the 8-week NPTEL online course, "Roadmap for Patent Creation," conducted during the January–March 2023 session. This outstanding achievement reflects his commitment to continuous professional development, innovation, and strengthening intellectual property awareness in engineering education.

❖ Dr. A. Shyam, Department of Mechanical Engineering, received a research grant of ₹1,50,000 from the Tamil Nadu State Council for Science and Technology (TNSCST–STC) under the Science and Technology Capacity Building for Industrial Needs (TNSCST/STC/2021–2022) scheme during the 2023–2024 academic year. The funded Faculty Development Programme (FDP) was successfully completed, reflecting his commitment to enhancing technical knowledge, fostering industry-oriented learning, and promoting quality engineering education.

Paper publication:

❖ Shyam, A., Ahmed, K.R.A., Christopher, S.S. and Iniyan, S., 2023. Thermal performance enhancement in a solar parabolic trough collector with optimized secondary optics. Clean Technologies and Environmental Policy, pp.1-14.(ImpactFactor:4.3)

❖ Shyam, A., Arshad Ahmed, K.R., Iniyan, S. and Goic, R., 2023. Experimental investigation in a solar parabolic trough collector with optimized secondary optics. Energy Sources, Part A: Recovery, Utilization, and Environmental Effects, 45(2), pp.5994-6009.(ImpactFactor:2.902).

❖ Christopher, S.S., Arshad Ahmed, K.R., Shyam, A. and Iniyan, S., 2023. Experimental study in a compound parabolic solar concentrator with different configurations of thermal energy storage system. International Journal of Green Energy, pp.1-10.(ImpactFactor:3.206).

Patent Granted:

❖ Dr. A. Shyam, Department of Mechanical Engineering, was granted a UK Design Patent for the innovation titled "Robotic Device for Human Resource Management" on 26.06.2023. The invention was awarded UK Design Patent No. 6290439, recognizing its novelty and innovative design.

Conference:

❖ Dr. N. Thangavelu and Dr. A. Shyam, Solar Energy Application in Agriculture, Vaanum Mannum 2023, International Agriculture Science Conference – Agri Sakthi, SI. No. 19, pp. 131-137, ISBN No: 979-8-88896-814-8.

Reviewer:

❖ Dr. A. Shyam, Department of Mechanical Engineering, serves as a peer reviewer for the MethodsX open-access journal through the Elsevier **Reviewer Hub**. He actively reviews research and review articles, contributing to the maintenance of high standards in scientific publishing. This recognition reflects his research expertise, academic excellence, and commitment to advancing quality scholarly publications at the international level.

❖ Dr. A. Shyam, Department of Mechanical Engineering, served as a Reviewer for the Third International Conference on Sustainable Energy, Environment and Green Technologies (ICSEEGT 2023), organized by Poornima College of Engineering, India, during 27–28 June 2023. He contributed to the peer review of research articles, ensuring the quality and technical merit of the conference proceedings. This academic contribution reflects his expertise in research evaluation and his commitment to promoting high-quality scientific research. *(Certificate ID: ICSEEGT/2023/RE/3004).*

Faculty Development Program Organized:

❖ Dr. A. Shyam, Lecturer, Department of Mechanical Engineering, Sakthi Polytechnic College, Erode, successfully coordinated a Faculty Development Programme (FDP) on ANSYS FLUENT FOR BEGINNERS conducted from 25.07.2023 to 27.07.2023. The programme provided a platform for faculty members to enhance their

technical knowledge, teaching methodologies, and professional competencies. His effective coordination contributed to the successful organization of the programme and promoted continuous professional development among engineering educators.

Internship:

❖ The second-year Mechanical Engineering students at Sakthi Polytechnic College, undergone in-plant training at various industries from the part of curriculum. This training was intended to obtaining the industrial knowledge, practical exposure of the students.

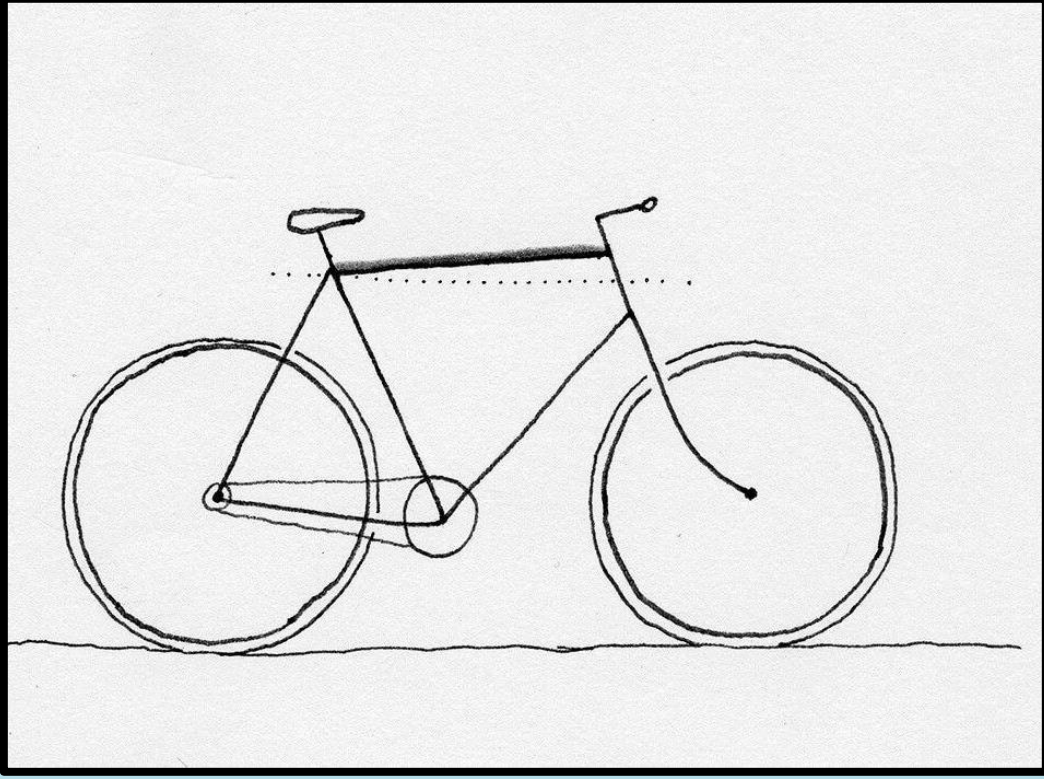
Students Participation:

❖ Mr. J. Keerthivasan, a student of the Department of Mechanical Engineering, represented Sakthi Polytechnic College in the CREATE technical event organized by Murugappa Polytechnic College.

❖ Ms. A. Hephzipah, a student of the Department of Mechanical Engineering, represented Sakthi Polytechnic College in POLYFIESTA, a technical event organized by KSR Polytechnic College.

❖ Ms. A. Hephzipah, a student of the Department of Mechanical Engineering, represented Sakthi Polytechnic College in KONGU FEST, a technical event organized by Kongu Polytechnic College.

❖ Students of the Department of Mechanical Engineering, Sakthi Polytechnic College, participated in a Workshop on "Additive and Subtractive Manufacturing" organized by Erode Sengunthar Engineering College.

Students Activities:

Art by,
M.P.Dhavendra, II / Mech

இயந்திரத்தின் மொழி

சக்கரம் சுழலட்டும்,
சாதனை தொடரட்டும்.
கனவுகள் உயரட்டும்,
கண்டுபிடிப்புகள் பெருகட்டும்.
உழைப்பின் வியர்வை,
வெற்றியின் முத்தாகட்டும்.

“மெக்கானிக்கல் என்பது தொழில் அல்ல;
மனித முன்னேற்றத்தின் இயக்க சக்தி”