



**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.

EDITORIAL BOARD

- | | |
|---------------------|------------|
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ஆசிரியர் உரை

வாழ்க்கை ஒரு பயணம்,
வெற்றி தோல்வி அதன்
நிலையங்கள்.

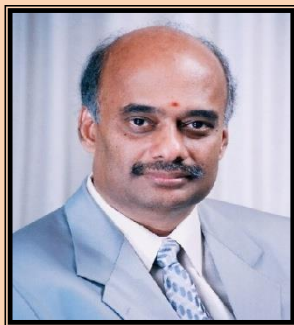
விழுந்தாலும் எழுந்திடு,
விடாமுயற்சி உன்
துணையாகட்டும்.

புன்னகையுடன் முன்னேறு,
நாளை நிச்சயம் உனதே.

" எண்ணிய முடிதல் வேண்டும்;
நல்லவே எண்ணல் வேண்டும்...!"

**DEPARTMENT OF MECHANICAL ENGINEERING****Since 1981****Department News Letter****For the Academic year 2025-2026-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 an 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.

**CORRESPONDENT****THIRU.G MUNIASAMY, B.TECH., MBA**

Sakthi Polytechnic College is an Institution with a difference, started with the mission of providing quality technical education to rural youth at affordable cost. It is the vision of our beloved Founder Chairman Arutchelvar Dr. N Mahalingam, to empower the rural youth with technical knowledge and skills to train them as the most suited manpower to meet the needs and demands of the growing industrial scenario. We ensure that with the vast potentials for growth and avenues for development, Sakthi Polytechnic College will enhance the capabilities and nurture the latent talents of youth to emerge as entrepreneurs rather than job seekers.



PRINCIPAL
Dr.S.SENTHILARASU M.E.,Ph.D.,MISTE.,
PRINCIPAL (IN-CHARGE)

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. Mahalinam 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.



DIRECTOR
DR. K.R MUTHUSWAMY M.E., Ph.D.,

“A desire can change nothing, a decision can change something but a determination can change everything”. It gives me immense pleasure to welcome you all to Sakthi Polytechnic College, an eco-friendly campus that strives with a goal to attain excellence by empowering students with sound knowledge, wisdom and experience. Our strength lies in creating pleasant ambience with an excellent infrastructure, qualified and experienced faculty, commitment to personal care, motivation to excel in academic/extracurricular activities and continuous interaction with industry. Over the past 41 years, the college has witnessed a strong blend of state-of-the-art infrastructure and dedicated human resource committed to provide professional education with thrust on creativity and innovation. The motivating environment in SPC for knowledge assimilation, generation and dissemination with a sense of social responsibility, human values and concern for environment has carved a niche for itself among the best technical Institutes.



**Dr. A. SHYAM B.E., M.E., PhD., MISTE.,
HOD i/c**

Mechanical Engineering is one of the most comprehensive professional disciplines. Mechanical engineering principles are employed in a wide range of industries such as power generation, manufacturing, energy, repair and maintenance, automation and control, robotics, electronics, nanotechnology, food industries, automotive, petroleum, aerospace etc., The Department of Mechanical Engineering was established in the year 1981. The department offers the Diploma in Mechanical Engineering with present intake of 90 students. The department has highly experienced and dedicated faculty to impart quality education to the students. In addition to academics, the department strives for the holistic development of students by arranging various activities like workshops, seminars and industrial visits. The department has well equipped laboratories and we believe that our students are molded to become successful engineers and future ethical leaders with required knowledge, analytical skills and creativity to develop innovative solutions to challenging problems who are not only committed to the industry but also to the society.

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

Welcome Party: The Third-Year Mechanical Engineering students warmly welcomed their juniors with a Welcome Party held on **30th June 2025**. The event aimed to create a friendly and encouraging environment for the Second-Year students, helping them feel comfortable and connected within the department.

The program began with a formal welcome address by a third-year representative, followed by motivational words from the HOD in-charge and Principal who emphasized the importance of unity, discipline, and active participation in departmental activities.



Welcome Party

Forum Meeting: A Forum Meeting for the **Second-Year Mechanical Engineering** students was successfully conducted on **11th July 2025**, in collaboration with **C-Cube Technologies**, a leading organization specializing in CAD/CAM/CAE solutions and industrial training. The session began with a welcome address by the Forum Coordinator, who highlighted the importance of forum activities in enhancing students technical and soft skills. The **chief guest from C-Cube Technologies**, Mr.N.Kumaresan, delivered an insightful talk on the latest trends in **Product Design, Industrial Automation, and CAD/CAM tools**.

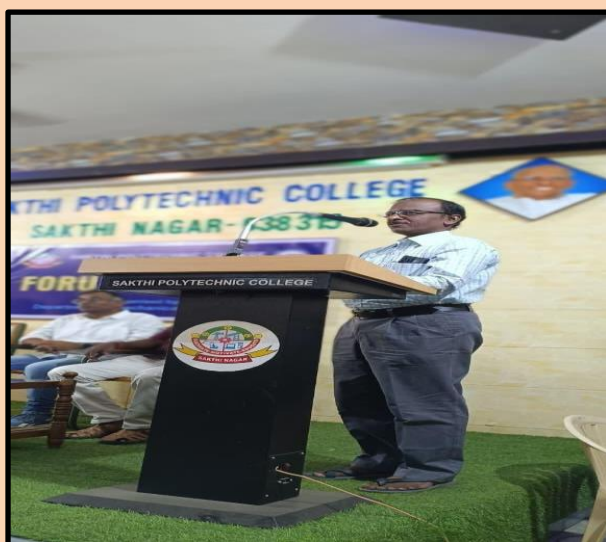
Key points discussed:

- Importance of industry-ready skills in the mechanical domain
- Introduction to software such as AutoCAD, Creo, SolidWorks, and ANSYS
- Opportunities for internships and certification programs offered by C-Cube.



Guest Lecture on Product Design

Forum Meeting: The Department of Mechanical Engineering conducted a forum meeting on **“Role of Mechanical Engineers in Real-World Problem Solving”** for mechanical engineering students on **20 August 2025**. The session was delivered by **Mr. Sivakumar Natarajan, Senior Engineering Manager, Baker Hughes, UAE**, an industry expert with extensive global experience in engineering leadership and industrial innovation. The objective of the meeting was to guide students in understanding how mechanical engineers contribute to solving complex, real-world engineering challenges. Mr. Sivakumar highlighted the importance of structured problem-solving approaches, interdisciplinary thinking, and the ability to integrate technology, safety, and sustainability into modern engineering solutions. He emphasized how mechanical engineers play a crucial role in energy systems, manufacturing, automation, product development, and emerging sectors such as renewable energy and digital engineering. The speaker also addressed the significance of goal setting, strategic planning, and continuous skill development.





Guest Lecture on Role of Mechanical Engineers

Industrial Visit: Our second-year A-Section Mechanical Engineering students had an insightful and educational visit to Sakthi Auto Component Limited, located in Pallagoundenpalayam, **on 30th July 2025**. This visit provided a valuable opportunity for students to witness the application of engineering principles in the automotive manufacturing sector.



Industrial visit to SACL- Pallagoundenpalayam

Industrial Visit: Our second-year B-Section Mechanical Engineering students had an insightful and educational visit to Sakthi Auto Component Limited, located in Pallagoundenpalayam, **on 31th July 2025**. This visit provided a valuable opportunity for students to witness the application of engineering principles in the automotive manufacturing sector. The day began with an engaging presentation about the company's history, products, and the role of mechanical engineers in their operations. Students learned about Sakthi Auto's commitment to quality, innovation, and sustainability in the automotive industry. During the plant tour, students observed the various manufacturing processes used in the production of high-quality automotive components. They were particularly impressed with the precision machinery, automated assembly lines, and the application of cutting-edge technology in producing components for leading automobile manufacturers.



Industrial visit to SACL- Pallagoundenpalayam

Industrial Visit: The Department of Mechanical Engineering organized an industrial visit for the third-year students to **Aqua Group of Industries (Pump Division)** on **24 September 2025**. The visit aimed to enhance students' practical knowledge of pump manufacturing technologies, industrial practices, and quality control processes followed in a leading engineering industry.

During the visit, students were given a detailed orientation on the company's history, product range, and its contribution to the pump and water management sector. The technical team at Aqua Group explained the complete manufacturing workflow, starting from raw material inspection to machining, assembly, testing, and final quality verification of various types of pumps.

Students gained valuable exposure to advanced machining operations, CNC manufacturing, impeller design, hydraulic testing, motor integration, and automated assembly processes.



Industrial visit to Aqua Group of Industries- Coimbatore

Health & Wellness: Our Former professor **Mr.S.D.Krishnakumar** organized a memorable **Hiking trip** for the second-year students of the Mechanical Department, on August 1st, 2025, a group of mechanical students, embarked on a journey to the Palampalayam Hills, Thalavaipettai, Erode Dst. The experience was both enriching and refreshing, allowing the students to connect with nature while strengthening bonds with their peers. Mr. S.D.Krishnakumar's initiative to arrange this hiking trip was a wonderful opportunity for students to unwind and engage in physical activity while also gaining valuable lessons in teamwork, leadership, and perseverance.



Hiking trip to Palampalayam Hills

Faculty Development Program:

1. Dr.A.Shyam, Lecturer, Department of Mechanical Engineering, successfully completed online Professional Development Programme on “Rubrics for Effective Assessment Enhancing Project Seminar and Industrial Training Evaluation” from 10.11.2025 to 14.11.2025. The program was conducted by the National Institute of Technical Teachers Training and Research (NITTTR), Chennai.

Paper Publication:

1. We are pleased to announce the publication of a research paper by Dr. A. Shyam, a distinguished faculty member in the Mechanical Engineering Department. His paper, titled "Numerical investigation in a solar air heater with V-corrugated and sinusoidal type absorber plate," has been published in the prestigious journal Numerical Heat Transfer, Part A: Applications.
<https://doi.org/10.1080/10407782.2025.2539146>
2. Dr. A.Shyam published a research article titled “Achieving Elevated Thermal Performance with Novel ‘O’ Rings Eccentric Spine as Turbulators in Solar Parabolic Trough Collector” in the reputed journal *Journal of Thermal Analysis and Calorimetry*. DOI: <https://doi.org/10.1007/s10973-025-14141-8>
3. Dr. A. Shyam published a review article titled “Effective Heat Transfer Enhancement for High-Efficient Electronic Cooling: A Review” in the reputed international journal *Journal of Thermal Analysis and Calorimetry*. DOI: <https://doi.org/10.1007/s10973-025-14513-0>

4. Dr.A.Shyam published a review article titled “Path of Carbon Dioxide Capture Technologies: An Overview” in the journal *Next Sustainability*, Volume 6, 2025, Article No. 100118. DOI: <https://doi.org/10.1016/j.nxsust.2025.100118>.
5. Mr. P. Kamalesan has published a research paper titled “A Brief Review of Current Advancements in the Proton Exchange Membrane Fuel Cell” in the *International Journal of Research Publication and Reviews*, Vol. 6, Issue 8, pp. 2900–2903, August 2025. This publication highlights his active involvement in emerging energy technologies and contributions to sustainable engineering research.
6. We are pleased to announce Mr. P. Kamalesan has published a research paper titled “A Review on the Mechanical Characteristics of Synthetic Fiber Reinforced Thermoplastic Composites” in the *International Journal of Research Publication and Reviews*, Vol. 6, Issue 8, pp. 2437–2440, August 2025, <https://doi.org/10.55248/gengpi.6.0825.3010>.
7. We are pleased to announce Mr. T. Velmurugan has published a research paper titled “A Review on the Mechanical Characteristics of Synthetic Fiber Reinforced Thermoplastic Composites” in the *International Journal of Research Publication and Reviews*, Vol. 6, Issue 8, pp. 2437–2440, August 2025, <https://doi.org/10.55248/gengpi.6.0825.3010>.

8. We are pleased to announce the publication of a research paper titled “A Brief Review of Current Advancements in the Proton Exchange Membrane Fuel Cell” by Mr. T. Velmurugan in the *International Journal of Research Publication and Reviews*, Volume 6, Issue 8, pp. 2900–2903, August 2025. This publication highlights the department’s continued commitment to promoting high-quality research in emerging and sustainable energy technologies.

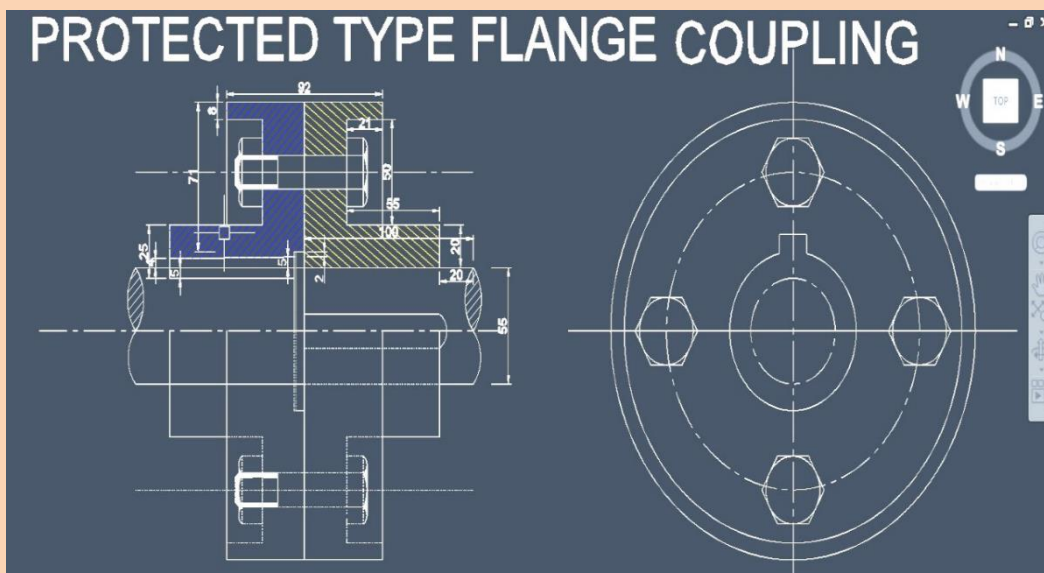
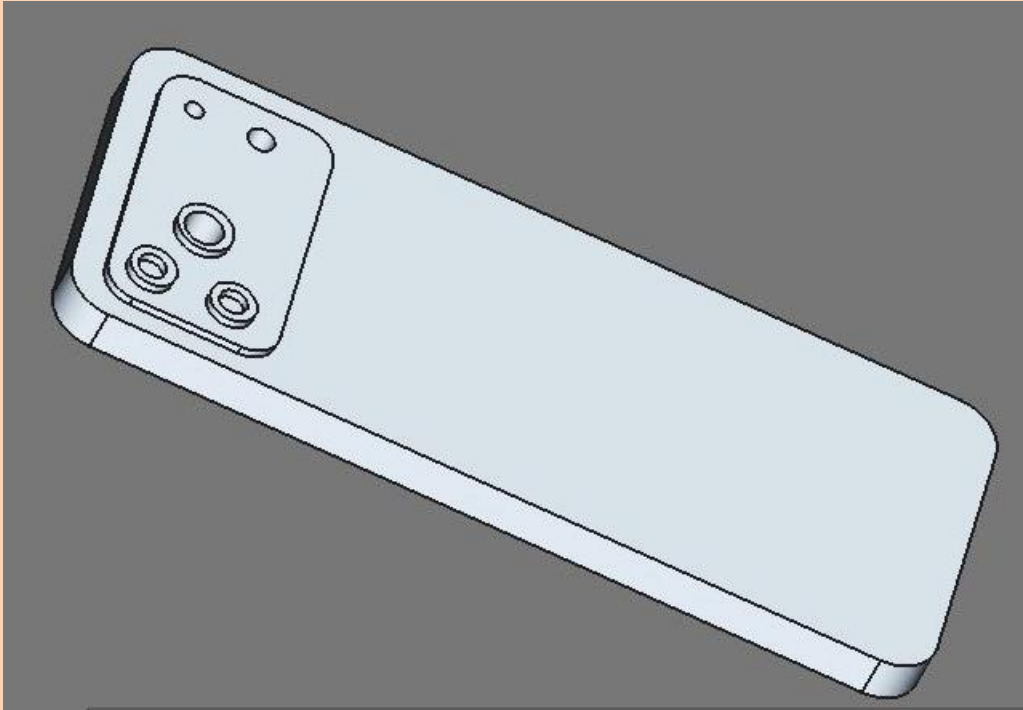
Students Achievement:

❖ Second-year students participated in various events at the National Level Technical Symposium “EFFICACY,” held at Government Polytechnic College and secured prizes in different categories.

NPTEL course Details:

❖ Mechanical Engineering students **Harikrishnan M, Karthik C, and Mounish K G** successfully completed a **4-week NPTEL course on “Principles of Vibration Control”** offered during **July–August 2025**. Their participation in this certified program demonstrates their enthusiasm for advanced learning and their commitment to strengthening core mechanical engineering competencies.

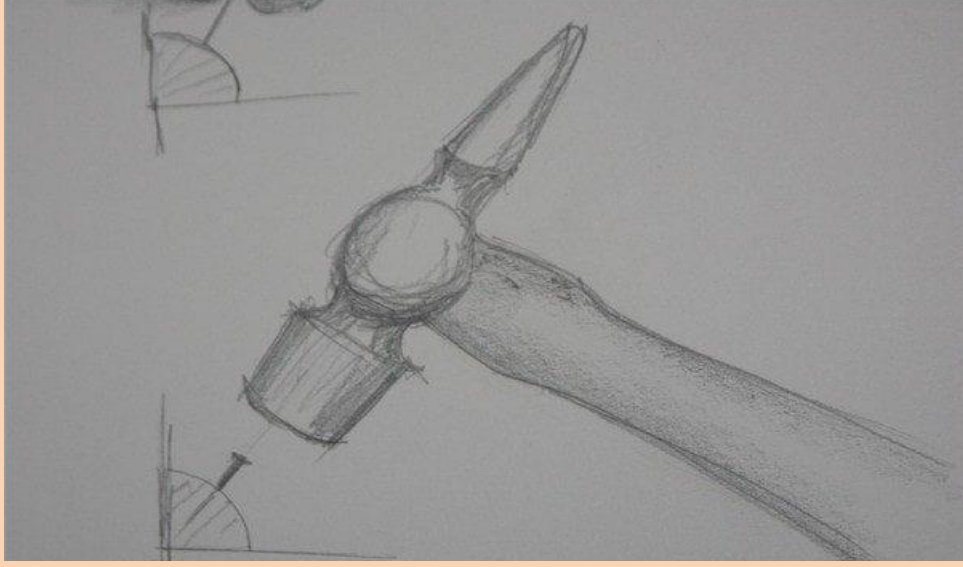
❖ Mechanical Engineering student **Mounish K G** has successfully completed a **12-week NPTEL course on “Fundamentals of Artificial Intelligence”** offered during **July–October 2025**. This accomplishment reflects his dedication to multidisciplinary learning and his interest in integrating emerging technologies with core engineering knowledge.

STUDENTS ACTIVITIES:

MODELED BY,

NANDHISHA K

II-YEAR MECHANICAL



Art by,
MOUNNISH K G
III / MECH

இரும்பை வடிப்போம்...

இரும்பை வார்ப்போம்,
இயந்திரம் படைப்போம்!
இரும்புப் பற்சக்கரத்தை வார்ப்போம்,
காலச் சக்கரத்தை இயக்குவோம்!
வரைபடம் வரைவோம்,
வடிவமைப்பை உருவாக்குவோம்!
வியர்வையை வெற்றியாக்கி,
அறிவை ஆற்றலாக்கி,
உழைப்பால் உலகை உயர்த்திடுவோம்!

**"மெக்கானிக்கல் என்பது ஒரு துறை அல்ல;
நாளைய உலகை வடிவமைக்கும் சக்தி."**

ஆக்கம் : பொ. கமலேசன்
விரிவுரையாளர்,
இயந்திரப் பொறியியல் துறை