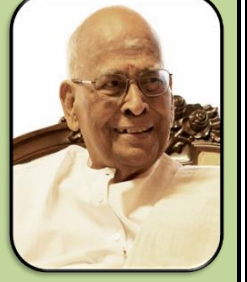




**SAKTHI POLYTECHNIC
COLLEGE
DEPARTMENT OF MECHANICAL
ENGINEERING
NEWS LETTER**



ISSUE No:14

VOL No:01

JUNE to NOV-2024

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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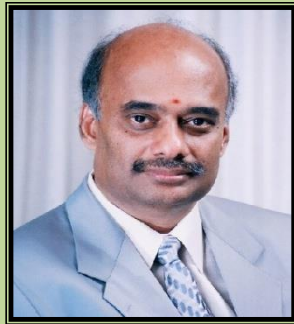
ஆசிரியர் உரை

கல்வி என்பது மதிப்பெண்களைப் பெறும் பயணம் மட்டுமல்ல; மனிதனை முழுமைப்படுத்தும் வாழ்வியல் பயணமாகும். ஒவ்வொரு நாளும் நாம் கற்கும் புதிய அறிவு, பெறும் அனுபவம், மேற்கொள்ளும் முயற்சி ஆகியவை நமது எதிர்கால வெற்றிக்கான வலுவான அடித்தளமாக அமைகின்றன.

"கற்போம்... சிந்திப்போம்...
படைப்போம்...
உழைப்பால் உயர்வோம்;
சாதனையால் சமுதாயத்தை
உயர்த்துவோம்."

**DEPARTMENT OF MECHANICAL ENGINEERING****Since 1981****Department News Letter****For the Academic year 2024-2025-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.

**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.,**

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., CI., 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. B. Sabinath D.M.E.,B.E.,	Workshop Instructor
15	Mr. T.Selvaraj I.T.I.	Skilled Assistant (Sel.Gr.)
16	Mr. S.Sivalingam I.T.I.	Skilled Assistant

Industrial Visit: Sendhur Hydraulics, Kunnathur, Tirupur-638 103.
Date of Visit: 06.09.2024 (II-A & B)

The primary aim of the industrial visit to Sendhur Hydraulics was to provide students with practical insights into hydraulic systems, enhance their understanding of manufacturing processes, and bridge the gap between theoretical knowledge and real-world applications.

Practical Understanding: Enhanced knowledge of hydraulic systems and their applications across various industries.

Manufacturing Insights: Gained firsthand experience of the manufacturing processes, emphasizing precision and quality control.



Industrial Visit to Sendhur Hydraulics

Industrial Visit: Coral Manufacturing India Pvt. Ltd., Modakurichi, Erode, Tamil Nadu 638104. Date of Visit: 14.09.2024(II-A) 28.09.2024(II-B)

The purpose of the visit to Coral Manufacturing India Pvt. Ltd. was to provide students with practical insights into the assembly process

of windmill generators, understand renewable energy technologies, and explore the operational practices of a leading manufacturing firm.

Assembly Process: Gained practical knowledge of the assembly procedures specific to windmill generators, including the intricacies of each component.

Renewable Energy Insights: Developed an understanding of the operational mechanisms behind wind energy and its significance in the global energy landscape.



Industrial Visit to Coral Manufacturing India Pvt. Ltd

Industrial Visit: Mettur Thermal Power Station, Mettur Dam-636 406. Date of Visit: 26.09.2024 (II-B,) 27.09.2024 (II-A)

The industrial visit to Mettur Thermal Power Station (MTPS) provides students with a practical understanding of power generation, industrial operations, and environmental management. This visit aims to bridge theoretical knowledge with real-world applications in the energy sector.

Educational Exposure: To familiarize students with thermal power generation processes and technologies.

Career Awareness: To inspire students about career opportunities in energy and industrial fields



Industrial Visit to Mettur Thermal Power Station

Industrial Visit: Sri Dhandayuthapani Workshop, 24-Kunnathur Road, Tripur Date of Visit: 30.08.2024 (III-A & B)

The primary aim of the visit to Sri Dhandayuthapani Workshop was to provide students with hands-on experience and insights into traditional and modern manufacturing techniques, particularly in the context of engineering and craftsmanship.

Understanding of Manufacturing Techniques: Gained practical knowledge of various machining and fabrication processes used in the workshop.

Integration of Tradition and Technology: Learned about the balance between traditional craftsmanship and modern manufacturing technologies.



Industrial Visit to Sri Dhandayuthapani Workshop

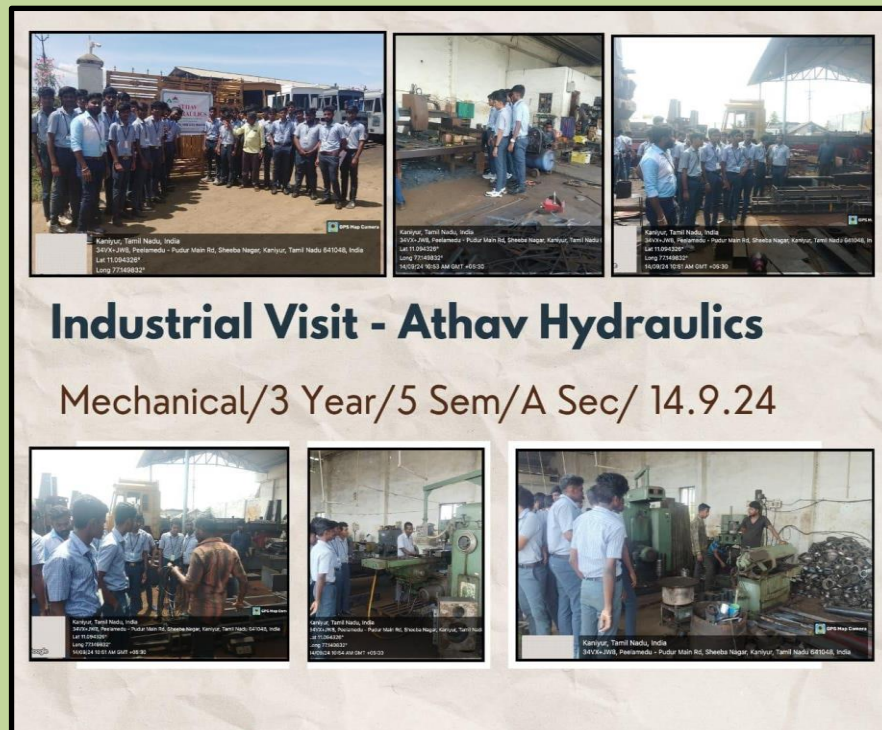
Industrial Visit: Athav Hydraulics, Gobi Rd, Kunnathur. Date of Visit: 14.09.2024 (III-A)

The primary objective of the visit to Athav Hydraulics was to provide students with a comprehensive understanding of hydraulic systems, their applications, and the manufacturing processes involved in producing hydraulic components.

Understanding Hydraulic Systems: Gained valuable insights into the operation and application of hydraulic systems in various sectors.

Manufacturing Techniques: Observed the processes involved in manufacturing hydraulic components, emphasizing precision and quality

control. **Industry Trends:** Developed awareness of current trends and innovations in the hydraulic industry, including automation and eco-friendly practices.



Industrial Visit to Athav Hydraulics

Forum Meeting: The Department of Mechanical Engineering at Sakthi Polytechnic College was organized Guest Lecture on “Recent trends in Artificial Intelligence”. Special guest Mr. S.M.Naveenkumar TANSAM, TIDEL PARK, Chennai, was delivered lecture at Meeting Hall on 24.08.2024. (FN Session). The meeting aimed to explore and discuss the recent trends in Artificial Intelligence (AI), highlighting their implications across various sectors and the potential future developments in the field. The meeting provided valuable insights into the latest trends in AI, emphasizing the importance of ethical

considerations, transparency, and the potential for AI to transform industries. Participants left with a greater understanding of how to navigate the evolving landscape of AI technology.



Guest Lecture on Recent trends in Artificial Intelligence

Forum Meeting The Department of Mechanical Engineering at Sakthi Polytechnic College was organized Guest Lecture on “Fuel Cell Technology”. Special guest Dr. M.Muthukumar, Head of the Department, Department of Mechanical Engineering, Nandha Engineering College, erode., was delivered lecture at Meeting Hall on 24.08.2024 (AN Session). The primary goal of the meeting was to discuss the current advancements and future prospects of fuel cell

technology, exploring its applications, challenges, and impact on sustainable energy solutions. The meeting provided valuable insights into the state of fuel cell technology, highlighting its potential to play a crucial role in achieving sustainable energy goals. Participants left with a deeper understanding of the opportunities and challenges facing this technology



Guest Lecture on Fuel Cell Technology

Faculty Achievements:

- ❖ Dr.A.Shyam published a research article titled, Numerical investigation in an indirect concentrated solar thermal dryer incorporated with discrete mirrors. Numerical Heat Transfer, Part A: Applications, pp.1-20, 2024 (ImpactFactor:2.8)
- ❖ Dr.A.Shyam published a review article titled, Path of Carbon Dioxide Capture Technologies: An Overview," has been published in the prestigious journal Next Sustainability, available on Science Direct.
- ❖ Dr.A.Shyam received Patent on Solar Powered Sea Water Desalination Apparatus, Grant Date: 02.08.2024, Indian Design Patent Application Number: 390046-001.
- ❖ Dr.A.Shyam Contributed as a Reviewer to carry out peer review of research articles in the Second International Conference on Sustainable Energy, Environment and Green Technologies (ICSEEGT 2022), organized by Poornima College of Engineering, India, during June 24-25, 2022(Certificate ID: ICSEEGT2022_RE_3038).
- ❖ Dr.A.Shyam, Lecturer, Department of Mechanical Engineering, successfully completed a one-week online Faculty Development Program on “Nanotechnology in Materials Science” (Bridging Education with Research and Applications)” from 19/08/2024 to 24/08/2024. The program was conducted by the AICTE Training and Learning (ATAL) Academy.

❖ Mr.P.Kamalesan, Lecturer, Department of Mechanical Engineering, successfully completed a one-week online Faculty Development Program on “Nanotechnology in Materials Science” (Bridging Education with Research and Applications)” from 19/08/2024 to 24/08/2024. The program was conducted by the AICTE Training and Learning (ATAL) Academy.

NPTEL COURSES:

❖ Students Hephzipah A and Mounnish K G from the Department of Mechanical Engineering successfully completed a 4-week NPTEL course on “Product Design and Development” offered during July–August 2024. This achievement reflects their commitment to continuous learning and their interest in strengthening technical skills beyond the curriculum.

Placement Training:

The Department of Mechanical Engineering organized an Aptitude Training Programme for students to enhance their quantitative aptitude, logical reasoning, verbal ability, and problem-solving skills. The training was conducted by expert trainers from Innova Technologies, Bangalore, with the objective of improving students' employability and campus placement readiness. The interactive sessions helped students develop confidence, analytical thinking, and effective test-taking strategies, preparing them for competitive examinations and recruitment processes.



Placement Training- Innova Technologies, Bangalore

Parent Teachers Meeting:

❖ A Parent-Teacher Meeting was conducted on 31 July 2024 and 1 August 2024 for the parents of our second-year and third-year students to discuss their academic progress, attendance, and overall performance.

SAKTHI POLYTECHNIC COLLEGE
SAKTHI NAGAR
DEPARTMENT OF MECHANICAL ENGINEERING

PARENT TEACHER MEETING
"WORK TOGETHER FOR OUR BETTER FUTURE"
THIRD YEAR (SF) STUDENTS
INVITATION



AUG 1, 2024
AT 10 AM
CLASSROOM M4

TOPICS OF DISCUSSION
POINTS REGARDING THE
OVERALL IMPROVEMENT
OF YOUR CHILD

WITH BEST REGARDS
HOD / (SF)
We Hope you to see there on time!

SAKTHI POLYTECHNIC COLLEGE
SAKTHI NAGAR-638315
Govt.Aided Institution

DEPARTMENT OF MECHANICAL ENGINEERING

INVITES

**PARENT TEACHERS
MEET**

For
IIInd & IIIrd year
A section

Second Year : 31 July 2024 @ 10.00 am
Third Year : 01 August 2024 @ 10.00 am

Venue
CAD/CAM
LABORATORY
MECHANICAL BLOCK

(All are cordially Invited by Staffs and Students of Mechanical)



Parents-Teachers Meeting

Pooja Celebration:

The Department of Mechanical Engineering enthusiastically celebrated **Saraswathi Pooja and Ayutha Pooja** with great devotion and traditional spirit. Faculty members and students actively participated in the celebration, offering prayers to Goddess Saraswathi for wisdom and seeking divine blessings for academic excellence, technical knowledge, and professional growth. The celebration reflected the importance of respecting knowledge, tools, and technology, while fostering unity, cultural values, and a positive learning environment among students and staff.



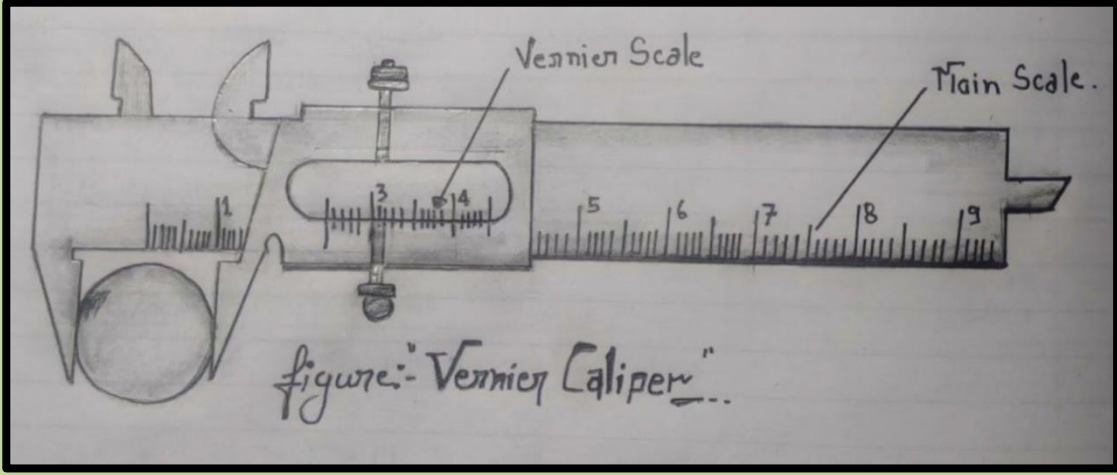
Pooja Celebration

Educational Tour:

❖ The third-year Mechanical Engineering students participated in an educational tour to Mysuru, Karnataka, as a part of the curriculum to enhance their practical knowledge and exposure to the outside world.



Educational Tour

Students Activities:

Art by,
Hephzipah A
II / Mech

இயந்திரவியல் – எதிர்காலத்தின் இதயம்

சக்கரம் சுழல, உலகம் நகர,
சிந்தனை சேர, சாதனை மலர.
வரைகோலில் பிறக்கும் ஒரு கனவு,
வாழ்வில் மாறும் புதிய உருவு.
இரும்பை வடிவம் தரும் கைகள்,
நாட்டை உயர்த்தும் திறமை மிக்க மாணவர்கள்.
அளவிலும் துல்லியம்,
செயலிலும் நேர்மை,
அறிவிலும் புதுமை –
அதுவே மெக்கானிக்கலின் பெருமை.
கற்றதை செயலாக்கி,
செய்ததை சாதனையாக்கி,
உழைப்பை உயர்வாக்கும்
இளம் பொறியாளர்கள் நாமே!

"கற்போம்... படைப்போம்... முன்னேறுவோம்...
இயந்திரவியல் மூலம் இந்தியாவை வளர்ப்போம்!"