

PULSE



SAKTHI POLYTECHNIC COLLEGE
(AICTE Approved || Government Aided Institution)
(NBA Accredited – Civil, Mech., ECE, EEE and Metallurgy)
SAKTHI NAGAR – 638 315



EDITORIAL BOARD

<u>Chief Editor</u> Dr.S.SENTHILARASU Head of the Department	<u>Staff Editor</u> Mrs.R.CHITRA WORKSHIP INSTRUCTOR	<u>Student Editors</u> M.KOWSALYA S.ABDULVADUTH
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Volume - 1
Issue -2

**DEPARTMENT OF ELECTRONICS AND COMMUNICATION
ENGINEERING**



NEWS LETTER 2023-2024 – EVEN SEM

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

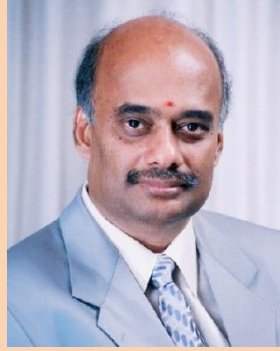
NEWS LETTER 2023 - 2024 –EVEN SEM



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.

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

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 Bhusan 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.

HOD's Desk



**Dr.S.SENTHILARASU M.E.,Ph.D.,MISTE.,
HEAD OF THE DEPARTMENT (IN-CHARGE)**

I am pleased to lead the Department of Electronics and Communication Engineering at Sakthi Polytechnic College. Our department is dedicated to imparting quality technical education, with a strong emphasis on innovation, ethics, and practical learning. We aim to develop competent engineers who are industry-ready and socially responsible. To support this goal, we regularly conduct seminars, workshops, industrial visits, and hands-on training sessions. Our focus also extends to soft skills, wellness programs, and entrepreneurial development to ensure holistic student growth. The faculty team is highly committed and plays a key role in guiding and mentoring students. We also encourage strong industry-institute interaction and alumni engagement to bridge the gap between academics and real-world applications. I urge all students to stay motivated, embrace continuous learning, and actively participate in all academic and co-curricular initiatives. Together, let us work towards achieving excellence and building a better future.

VISION OF THE INSTITUTE

To excel in imparting value-based technical education to produce industry-competent engineers and socially responsible citizens.

MISSION OF THE INSTITUTE

M1: To impart transformative technical education through innovative teaching and learning methodologies.

M2: To enhance academia-industry partnership through internships and collaborative projects.

M3: To impart requisite skills to enhance employability and entrepreneurship.

VISION OF THE DEPARTMENT

To become a center of repute and to impart high-quality technical education in the field of Electronics and Communication Engineering to develop highly competent and ethical engineers.

MISSION OF THE DEPARTMENT

M1: To create a learning environment for excellence in the field of Electronics & Communication Engineering.

M2: To provide ethical and value-based education through various activities addressing societal needs.

M3: To instill self and continuous learning attitude, professional ethics, and entrepreneurial skills.

M4: To strengthen the industry-institute partnership through various interactions.

PROGRAM EDUCATIONAL OBJECTIVES (PEOs)

PEO1: To prepare the students to take up careers in Communication Networking, Embedded Systems, VLSI Design, and Electronic Manufacturing Industries.

PEO2: To prepare the students to pursue higher education and adopt emerging trends through continuous learning.

PEO3: To prepare the students to become socially responsible and successful entrepreneurs.

PROGRAM SPECIFIC OUTCOMES (PSOs)

PSO1: Apply the fundamental concepts of Electronics and Communication Engineering in designing various systems and applications in domains like Communication, Networking, Embedded Systems, and VLSI.

PSO2: Simulate, verify, and test electronic circuits using state-of-the-art software tools.

ECE Department Events Summary

Sl. No.	Date	Details of Events / Activities
1.	09-Jan-2024	Forum Meeting – " Cloud Computing "
2.	15-Jan-2024	Pongal Festival Celebration
3.	24-Jan-2024	IoT Lab Inauguration
4.	09-Feb-2024	Aspire 2K24 Symposium
5.	14-Feb-2024	Parents–Teacher Meeting
6.	06-Mar-2024	Forum Meeting – " College to Corporate "
7.	09-Mar-2024	Educational Tour to Kodaikanal (II Year)
8.	08-Mar-2024 to 09-Mar-2024	Educational Tour to Kerala (III Year)
9.	14-Mar-2024	Farewell Party
10.	20-May-2024 to 07-Jun-2024	IoT Internship Training

Forum Meeting – "Cloud Computing"

- **Date:** 09-Jan-2024
- **Description:** A technical forum meeting was conducted on **Cloud Computing**, highlighting cloud services, deployment models, and emerging industry trends.



Pongal Festival Celebration

- **Date:** 15-Jan-2024
- **Description:** Pongal was celebrated enthusiastically to promote traditional culture and strengthen unity among students and faculty.



IoT Lab Inauguration

- **Date:** 24-Jan-2024
- **Description:** The Internet of Things (IoT) Laboratory was inaugurated to provide students with hands-on experience in IoT technologies and embedded systems.



Aspire 2K24 Symposium

- **Date:** 09-Feb-2024
- **Description:** The department organized **Aspire 2K24**, a technical symposium featuring paper presentations, technical events, quizzes, and project exhibitions.




SAKTHI POLYTECHNIC COLLEGE
 SAKTHI NAGAR (ERODE) - 638315
 (A GOVT AIDED INSTITUTION) ACCREDITED BY NBA)
 DEPARTMENT OF
ELECTRONICS & COMMUNICATION ENGINEERING.
 PROUDLY PRESENTS
ASPIRE 2K24
 A STATE LEVEL TECHNICAL SYMPOSIUM



PAPER PRESENTATION

- 1. NET WITH BLOCK CHAIN
- 2. AI IN ELECTRONICS DESIGN & MANUFACTURING
- 3. ROBOTIC ARMORS
- 4. AI IN POWER SYSTEM

PROJECT PRESENTATION

PROJECT MODEL / MINI PROJECT

REGISTRATION

MR. A. SARAVANAN
9842400005

LAST DATE FOR
REGISTRATION: 08.02.2024

INTIMATION OF SELECTED
GROUPS : 09.02.2024

SYMPOSIUM : 09.02.2024

QUIZ

GENERAL

FACULTY COORDINATOR
MR. A. NADEEN KUMAR

FUN EVENTS

SPOT REGISTRATION ON
(ATTRACTIVE PRIZES)

RULES AND REGULATIONS

1. Only two members can represent a team.
2. Abstract should not exceed 200 words.
3. Upload your Abstract & PPT in the registered link.
4. Bring your college ID card & Bonafide certificate.

ASPIRE 2K24

CHIEF COORDINATOR
 DR. R. THANGAVELU
 PRINCIPAL

COORDINATORS

DR. S. SENTHIL ARASU / MO : 98447 23968

MR. A. SARAVANAN (98523 32325)

FOR REGISTRATION

<https://forms.gle/8wupH8k8mL4gtp>

Parents-Teacher Meeting

- **Date:** 14-Feb-2024
- **Description:** A Parents-Teacher Meeting was conducted to discuss students' academic progress, attendance, and overall development.

Forum Meeting – "College to Corporate"

- **Date:** 06-Mar-2024
- **Description:** An expert session on "College to Corporate" guided students on career readiness, communication skills, workplace ethics, and professional development.



Educational Tour to Kodaikanal (II Year)

- **Date:** 09-Mar-2024
- **Description:** Second-year students participated in an educational tour to Kodaikanal, combining academic learning with team-building and experiential exposure.



Educational Tour to Kerala (III Year)

- **Date:** 08-Mar-2024 to 09-Mar-2024
- **Description:** Third-year students visited Kerala to explore industries and educational sites, enhancing their practical knowledge and collaborative learning.



Farewell Party

- **Date:** 14-Mar-2024
- **Description:** A farewell function was organized to honor the outgoing students and wish them success in their future careers.

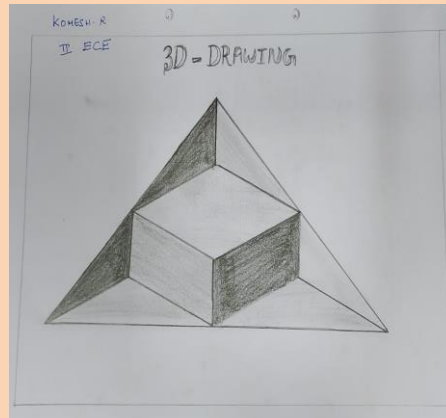


IoT Internship Training

- **Date:** 20-May-2024 to 07-Jun-2024
- **Description:** An internship training program on IoT was conducted to provide students with industry-oriented skills through practical learning and project development.



STUDENT CORNER



ARTICLE

AIoT (Artificial Intelligence of Things): The Future of Smart Connectivity

The **Artificial Intelligence of Things (AIoT)** is an emerging technology that combines **Artificial Intelligence (AI)** with the **Internet of Things (IoT)** to create intelligent, connected systems capable of making decisions with minimal human intervention. While IoT enables devices to collect and exchange data, AI analyzes that data, identifies patterns, and takes appropriate actions. Together, they are transforming industries by making systems smarter, faster, and more efficient.

AIoT devices continuously collect information through sensors and connected networks. Using AI algorithms, these devices can process data in real time, predict outcomes, and automate decision-making. This reduces response time, improves accuracy, and minimizes the need for manual monitoring.

The applications of AIoT are rapidly expanding across multiple sectors. In **smart homes**, AIoT controls lighting, security systems, and appliances based on user preferences. In **healthcare**, wearable devices monitor patients' vital signs and alert doctors to potential health issues before they become critical. **Smart agriculture** uses AIoT to monitor soil moisture, weather conditions, and crop health, helping farmers optimize irrigation and increase productivity. In **industrial automation**, AIoT enables predictive maintenance, reducing equipment failures and improving manufacturing efficiency.

The transportation sector also benefits from AIoT through intelligent traffic management, connected vehicles, and real-time navigation systems. In smart cities, AIoT helps manage energy consumption, waste collection, public safety, and environmental monitoring, leading to sustainable urban development.

Despite its immense potential, AIoT faces challenges such as data privacy, cybersecurity, interoperability, and the need for reliable high-speed communication networks. Technologies such as **5G**, **Edge Computing**, and **Cloud Computing** are playing a vital role in overcoming these challenges and enabling large-scale AIoT deployment.

For Electronics and Communication Engineers, AIoT opens exciting opportunities in embedded systems, sensor networks, wireless communication, VLSI, robotics, and intelligent automation. As industries increasingly adopt AI-driven connected devices, professionals with expertise in AIoT will be in high demand. AIoT represents the next evolution of digital technology, where intelligent devices not only communicate but also learn, adapt, and make decisions. As this technology continues to advance, it will reshape the way we live, work, and interact with the world, creating a smarter, safer, and more connected world.

K.SARAVANAN
HOD/ECE

மாணவர்களுக்கான ஊக்கவுரை

"ஒவ்வொரு முயற்சியும் ஒரு புதிய வாய்ப்பாகும். கற்றலையும், ஆராய்ச்சியையும், புதுமையையும் தொடர்ந்து மேற்கொண்டு உயரங்களை எட்டுவோம்."

இறுதி கையொப்பம் (Newsletter Closing)

அன்புடன்,
ஆசிரியர் குழு (Editorial Board)
மின்னணுவியல் மற்றும் தகவல் தொடர்பியல் துறை
கல்வியாண்டு : 2023-2024

"அறிவால் உயர்வோம் • புதுமையால் முன்னேறுவோம் •
தொழில்நுட்பத்தால் உலகை மாற்றுவோம்."