

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>	<u>Staff Editor</u>	<u>Student Editors</u>
Mr.K.SARAVANAN Head of the Department	Mrs.R.CHITRA WORKSHIP INSTRUCTOR	S.ABDULVADUTH S.GOUTHAMSAKTHI

Volume - 2
Issue -2

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



NEWS LETTER 2024-2025 – EVEN SEM



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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

NEWS LETTER 2024-2025 – 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.

**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 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.

**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.

HOD's Desk



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.

– **Mr. K. Saravanan, M.E., M.S., Lecturer (Selection Grade I), HOD In-Charge**

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

S.No	Event Name	Date	Description
1	Pongal Celebration	11.01.2025	Traditional festival celebration with games and cultural activities.
2	Trekking Trip to Balamurugan Thirukovil Hill	30.01.2025	Outdoor activity promoting teamwork and physical wellness.
3	Educational Trip to Kerala	01-02.02.2025	Two-day trip focused on cultural and technological learning.
4	Industrial Visit to Radio Astronomy Center, Ooty	14.02.2025	Visit offering insights into radio telescope technology and astronomy.
5	Parents Meeting-3 (Final Year)	17-18.02.2025	Discussion on student performance, placements, and academic growth.
6	Placement Training Program	February 2025	Training sessions on resume writing, interviews, and aptitude.
7	State Level Symposium - ASPIRE 2K25	27.03.2025	Symposium with special address by industry experts from Sakthi Sugars Ltd.

Pongal Celebration:



Trekking:



Educational trip to kerala:



Industrial visit to ooty :



Parents Meeting-3: Strengthening Student Success!

Placement Training



State Level Symposium – ASPIRE 2K25 (ECE Department)




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



ASPIRE 2K25

PAPER PRESENTATION :

- AI in recent trends
- Deep learning
- Industrial robotics
- Bio medical sensors

FACULTY COORDINATOR
Mrs.A.VALARMATHI
Mrs.A.K.GOWTHAMI
86363 83973

PROJECT EXPO :
For All Branches
FACULTY COORDINATOR
Mr.M.K.SUBRAMANIAN
95248 02005

RULES & REGULATIONS :

1. Only Two members Can represent a team.
2. Abstract should not exceed 200 Words.
3. Softcopy of Abstract/PPT should be sent through link.
4. Lunch & Refreshment will be provided.
5. Student must Come with college ID.
6. Participation Certificates will be provided to all.

FOR REGISTRATION :



(Or)

FACULTY COORDINATOR
Mrs.R.CHITRA
93642 23699

Last Date For Registration : 25.03.2025
Intimation Of Selected Groups : 26.03.2025
Symposium : 27.03.2025

REGISTRATION FEE
₹100 PER PARTICIPANT
PER EVENT
(SPOT REGISTRATION AVAILABLE)

QUIZ :
GENERAL
FACULTY COORDINATOR
Mr.V.NAVEEN KUMAR
95663 47065

FUN GAMES :
Spot registration only
(Attractive Prizes &
E - certificate)

CHIEF CO ORDINATOR
DR.S.SENTHIL ARASU
PRINCIPAL I/C

CO ORDINATOR
MR.K.SARAVANAN / HOD ECE 99523 32325
S.ABDUL VADUTH / III-ECE 93455 79922
S.ROKITH / III-ECE 93635 17833

1ST WINNER ₹2000

2ND WINNER ₹1500

3RD WINNER ₹1000



STUDENTS ACADEMIC EXCELLENCE OF ELECTRONICS AND COMMUNICATION ENGINEERING DEPARTMENT

SECOND YEAR

- B.Poomika has Secured 1st Rank In III-Semester.
- C.Kiruba Sri has Secured 2nd Rank In III-Semester.
- D.Sabari has Secured 2nd Rank In III-Semester.

THIRD YEAR

- S.Abdul Vaduth has Secured 1st Rank In IV-Semester.
- K.Sathyamma has Secured 2nd Rank In IV-Semester.
- P.T.Twishaa has Secured 3rd Rank In IV-Semester.



We are proud to announce that Abdulvaduth S from the Department of Electronics & Communication Engineering secured 1st Rank in the V Semester with 696/700 marks (99.42%). His outstanding academic performance reflects his dedication, discipline, and hard work. Abdulvaduth's success serves as an inspiration to his peers. His ability to balance theory with practical learning has set a strong example. We appreciate the support and guidance of our faculty in his achievement.

PLACEMENT DETAILS

S.NO	REGISTER NUMBER	NAME OF THE STUDENT	PLACEMENT (OR) HIGHER STUDY	OFFER-1
1	23401695	ABDULVADUTH S	PLACEMENT	ROYAL ENFILED
2	23401696	DAYANAND S V	PLACEMENT	ROYAL ENFILED
3	23401697	DEEPA SHANKARI S	PLACEMENT	ROYAL ENFILED
4	23401699	ELANGO VAN M	PLACEMENT	INDOSHELL
5	23401700	GOKUL P	PLACEMENT	ROYAL ENFILED
6	23401701	GOKULA KANNAN S	PLACEMENT	INDOSHELL
7	23401702	GOKULABHARATHI S	PLACEMENT	ROYAL ENFILED
8	23401703	GOPALAKRISHNAN M	PLACEMENT	INDOSHELL
9	23401704	GOWTHAM M	PLACEMENT	PRICOL
10	23401705	HARIESH P	PLACEMENT	BOGRWARNER
11	23401706	HARIHARAN C	PLACEMENT	BOGRWARNER
12	23401707	JAYAPRAKASH S	PLACEMENT	ROYAL ENFILED
13	23401709	KAVIYARASU K	PLACEMENT	BOGRWARNER
14	23401710	KOMESH R	PLACEMENT	CENTUM ELECTRONICS
15	23401712	LAVANYA S	PLACEMENT	ROYAL ENFILED
16	23401713	LOGESH S	PLACEMENT	RAPID TECH
17	23401714	MADHAN S	PLACEMENT	INDOSHELL
18	23401715	MADUPRASANTH K	PLACEMENT	INDOSHELL
19	23401716	MAGIDISWARAN D	HIGHER STUDY	
20	23401717	MATHANKUMAR M	PLACEMENT	INDOSHELL
21	23401718	MEGASRI M	PLACEMENT	ROYAL ENFILED
22	23401720	NANDHAKUMARAN V	PLACEMENT	PRICOL
23	23401721	NAVEEN K L	PLACEMENT	PRICOL
24	23401722	NAVEEN S	PLACEMENT	PRICOL
25	23401723	NITYAPRIYAN P T	PLACEMENT	INDOSHELL
26	23401724	PARAMASIVAM M	PLACEMENT	PRICOL
27	23401726	PATHANSALI G A	PLACEMENT	INDOSHELL
28	23401727	PAVITHRAN M	PLACEMENT	PRICOL
29	23401728	PUGAZHENTHI V	PLACEMENT	INDOSHELL
30	23401729	RAMESH A	PLACEMENT	BOGRWARNER
31	23401730	RAMKUMAR A	PLACEMENT	INDOSHELL
32	23401731	RASHWANTH T D	PLACEMENT	ROYAL ENFILED
33	23401733	ROHITH S	HIGHER STUDY	
34	23401734	SAKTHIVEL P	PLACEMENT	LGB

35	23401735	SANDHIYA S	PLACEMENT	ROYAL ENFILED
36	23401736	SANJAI M	PLACEMENT	LGB
37	23401737	SATHYAMMA K	PLACEMENT	TATA ELECTRONICS
38	23401738	SUBOSE P JA	PLACEMENT	CENTUM ELECTRONICS
39	23401739	SUGANKUMAR K	PLACEMENT	PRICOL
40	23401740	TWISHAA P T	PLACEMENT	ROYAL ENFILED
41	23401741	VIGNESH S	PLACEMENT	ROYAL ENFILED
42	23401742	VIJAYAKUMAR M	PLACEMENT	PRICOL
43	23401743	VIJAYKUMAR A	PLACEMENT	PRICOL
44	23490943	JANA K	PLACEMENT	ROYAL ENFILED
45	23490944	KARNISHA N	PLACEMENT	ROYAL ENFILED
46	23490945	KOWSALYA C	PLACEMENT	ROYAL ENFILED
47	23490946	MATHESH C	PLACEMENT	ROYAL ENFILED
48	23490947	MURALIPRASATH M	PLACEMENT	LGB
49	23490948	PRASANTH V	PLACEMENT	ROYAL ENFILED

Sl.No	Roll No.	Name of Student	Event	Name of the Institute	Prize/Participation
1	221AEC401	S.ABDUL.VADUTH	PROJECT PROJENTATION	NACHMUTHU POLYTEHCHNIC COLLEGE	PARTICIPATION
2	221AEC401	S.ABDUL.VADUTH	NAN MUTHALVAN HACKATHON	VI MYCRO SYSTEMS PVT LTD	PARTICIPATION
3	221AEC402	V.DAYANAND	NAN MUTHALVAN HACKATHON	VI MYCRO SYSTEMS PVT LTD	PARTICIPATION
4	221AEC422	D.MAGIDISWARAN	NAN MUTHALVAN HACKATHON	VI MYCRO SYSTEMS PVT LTD	PARTICIPATION
5	231AEC462	N.KARNISHA	NAN MUTHALVAN HACKATHON	VI MYCRO SYSTEMS PVT LTD	PARTICIPATION
6	231AEC463	C.KOWSALYA	NAN MUTHALVAN HACKATHON	VI MYCRO SYSTEMS PVT LTD	PARTICIPATION
7	231AEC446	P.T.TWISHA	NAN MUTHALVAN HACKATHON	VI MYCRO SYSTEMS PVT LTD	PARTICIPATION
8	221AEC439	S.ROHITH	NAN MUTHALVAN HACKATHON	VI MYCRO SYSTEMS PVT LTD	PARTICIPATION
9	231AEC461	K.JANA	NAN MUTHALVAN HACKATHON	VI MYCRO SYSTEMS PVT LTD	PARTICIPATION
10	221AEC416	R.KOMESH	NAN MUTHALVAN HACKATHON	VI MYCRO SYSTEMS PVT LTD	PARTICIPATION
11	221AEC411	P.HARISH	NAN MUTHALVAN HACKATHON	VI MYCRO SYSTEMS PVT LTD	PARTICIPATION
12	221AEC415	K.KAVIYARASU	NAN MUTHALVAN HACKATHON	VI MYCRO SYSTEMS PVT LTD	PARTICIPATION
13	231AEC464	C.MATHESH	NAN MUTHALVAN HACKATHON	VI MYCRO SYSTEMS PVT LTD	PARTICIPATION
14	221AEC401	S.ABDUL.VADUTH	STATE LEVEL SYMPOSIUM	SAKTHI POLYTECHNIC COLLEGE DEPARTMENT OF COMPUTER ENGINEERING	I PRIZE

15	221AEC401	S.ABDUL.VADUTH	PROJECT PROSENTATION	SAKTHI POLYTECHNIC COLLEGE DEPARTMENT OF METALLURGY	I PRIZE
16	221AEC401	S.ABDUL.VADUTH	PROJECT PROSENTATION	SAKTHI POLYTECHNIC COLLEGE DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGG.	I PRIZE
17	221AEC40121	S.ABDUL.VADUTH	QUIZ	SAKTHI POLYTECHNIC COLLEGE DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGG.	SECOND
18	221AEC446	P.T.TWISHA	BALL BADMINTEN	IPAA DIVISIONAL TOURNAMENT	I PRICE
19	221AEC446	P.T.TWISHA	BALL BADMINTEN	IPAA DIVISIONAL TOURNAMENT	WINNER
20	221AEC446	P.T.TWISHA	BALL BADMINTEN	IPAA DIVISIONAL TOURNAMENT	RUNNER





GOVERNMENT OF TAMIL NADU
DIRECTORATE OF TECHNICAL EDUCATION
INTER POLYTECHNIC ATHLETIC ASSOCIATION
TAMIL NADU - PUDUCHERRY

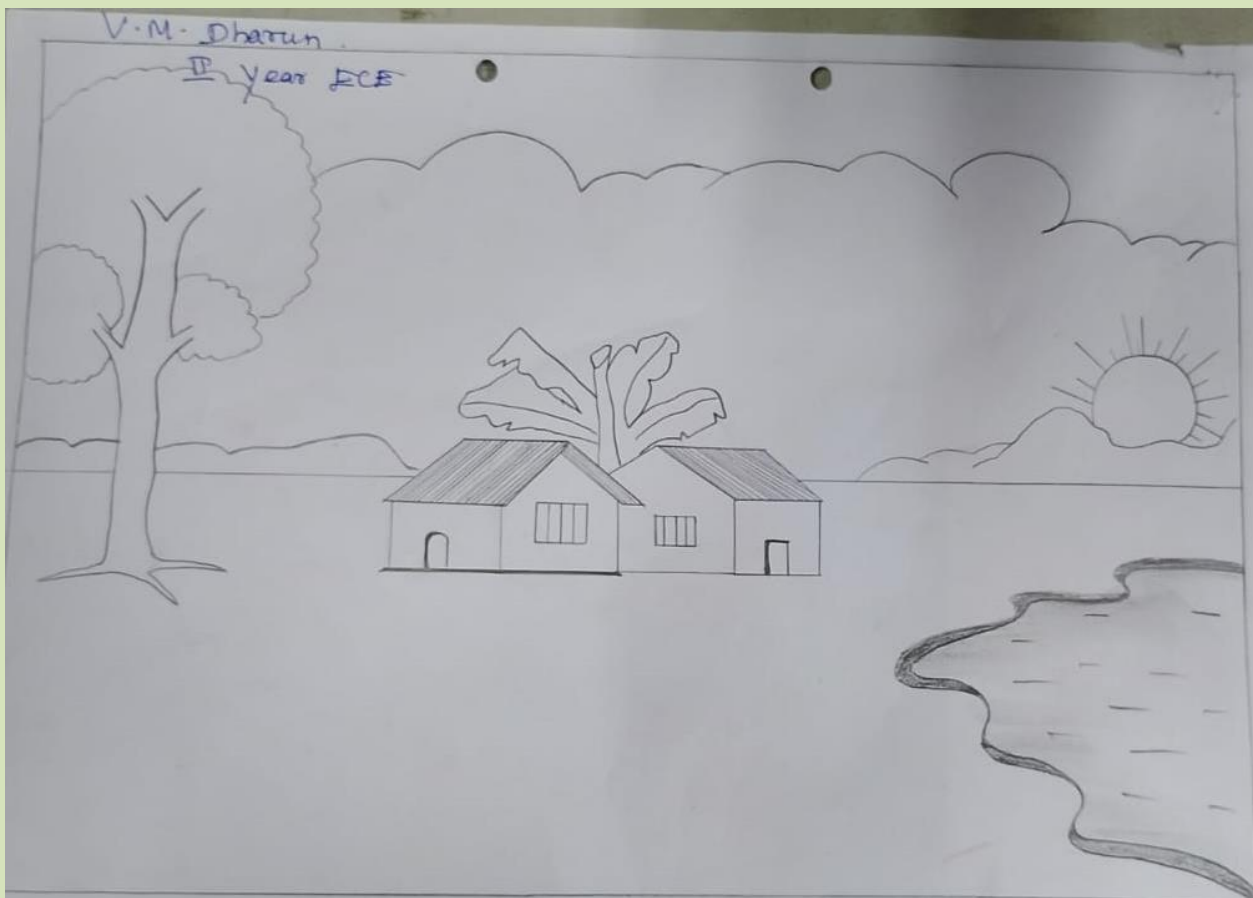
IPAA STATE TOURNAMENT FOR WOMEN 2023 - 2024
CERTIFICATE FOR MERIT Certificate No. 244

This is to certify that Selvi. TWISHAA . P.T Year & Branch II/ECE
Register No./Roll No. 23401740 Date of Birth 06.01.2005 of
SHAKTI POLYTECHNIC COLLEGE was a member of BALL BADMINTON
Team who were RUNNER Position in the IPAA State level Tournament for the
Year 2023-2024 held SRI RAGAVENDRA PTC on 16.6.17.02.2024


Secretary IPAA & Physical Director
K. Murali
Sri Ragavendra Polytechnic College,
Kamarupalayam - 638 183


President IPAA & Principal
Dr. S. Vijayakumar
Sri Ragavendra Polytechnic College,
Kamarupalayam - 638 183


Commissioner of Technical Education
K. Veera Raghava Rao I.A.S.,
Directorate of Technical Education,
Chennai - 600 025



B. poornika

II ECE

நவீனத்

துன்பம் நேரும் சமயத்தில்
அதை கண்டு சிரிக்கப்
படுகிறீர்கள்...
அதுவே... அத்துன்பத்தை
வெடும் வாளாகி விடும்...

மதிப்புடன் வாழ்ந்த
மனிதனுக்கு நேரும்
அவமானம் மரணத்தை
விடக் கொடுமையானது...

எப்போதும் கர்வத்துடன்
இரு. இந்நிக யாகும் யாருக்கும்
சலைந்தவர்கள் அல்ல!!

ARTICLE

Flexible and Wearable Electronics: The Future of Smart Devices

Flexible and wearable electronics are transforming the way people interact with technology. Unlike conventional electronic devices built on rigid circuit boards, flexible electronics are made using lightweight, bendable materials that can fold, stretch, and adapt to different shapes. These innovations are driving the next generation of smart devices that are more comfortable, portable, and efficient.

Wearable electronics include smartwatches, fitness bands, smart glasses, health-monitoring patches, and smart clothing. These devices use advanced sensors to collect real-time information such as heart rate, body temperature, blood oxygen levels, physical activity, and sleep patterns. The data is transmitted through wireless technologies like Bluetooth, Wi-Fi, and 5G, enabling users to monitor their health and stay connected anytime and anywhere.

One of the most significant applications of wearable electronics is in healthcare. Wearable medical devices help doctors monitor patients remotely, detect health issues at an early stage, and improve treatment outcomes. Patients with chronic diseases can be monitored continuously without frequent hospital visits, making healthcare more accessible and efficient.

Beyond healthcare, flexible electronics are making a significant impact in consumer electronics, sports, defense, and industrial automation. Foldable smartphones, flexible displays, electronic skin (e-skin), and intelligent textiles are becoming increasingly popular. In industries, wearable devices improve worker safety by monitoring environmental conditions and providing real-time alerts in hazardous situations.

The rapid advancement of **Artificial Intelligence (AI), the Internet of Things (IoT), and Edge Computing** has further enhanced the capabilities of wearable devices. These technologies enable devices to analyze data instantly, provide personalized recommendations, and support intelligent decision-making with minimal power consumption.

Despite their enormous potential, challenges such as battery life, durability, data security, and manufacturing costs remain. Researchers are developing flexible batteries, biodegradable materials, and energy-efficient electronic components to make wearable devices more reliable, sustainable, and affordable.

For **Electronics and Communication Engineering (ECE)** students, flexible and wearable electronics offer exciting opportunities in embedded systems, biomedical electronics, sensor technology, wireless communication, and product design. As the demand for smart and connected devices continues to grow, this field is expected to create numerous career opportunities and drive future technological innovations.

Flexible and wearable electronics are shaping the future of personalized technology by making devices smarter, more comfortable, and seamlessly integrated into daily life. As research and innovation continue, these technologies will play a vital role in creating a healthier, safer, and more connected world.

M.K.SUBRAMANIAN

WORKSHOP INSTRUCTOR/ECE

நன்றியுரை

"எங்கள் துறை செய்திமடலை வாசித்தமைக்கு மனமார்ந்த நன்றி. உங்கள் ஆதரவும் ஊக்கமும் எங்களை மேலும் சிறந்த செய்திமடல்களை வழங்கத் தூண்டுகிறது."

இறுதி கையொப்பம் (Newsletter Closing)

அன்புடன்,
ஆசிரியர் குழு (Editorial Board)
மின்னணுவியல் மற்றும் தகவல் தொடர்பியல் துறை
கல்வியாண்டு : 2024-2025

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