

KAMARAJ
COLLEGE OF ENGINEERING & TECHNOLOGY



(An Autonomous Institution - AFFILIATED TO ANNA UNIVERSITY, CHENNAI)

S.P.G.Chidambara Nadar - C.Nagamalai Campus

S.P.G.C. Nagar, K.Vellakulam - 625 701 (Near VIRUDHUNAGAR).

DEPARTMENT OF ARTIFICIAL
INTELLIGENCE AND DATA SCIENCE

INTELLIX



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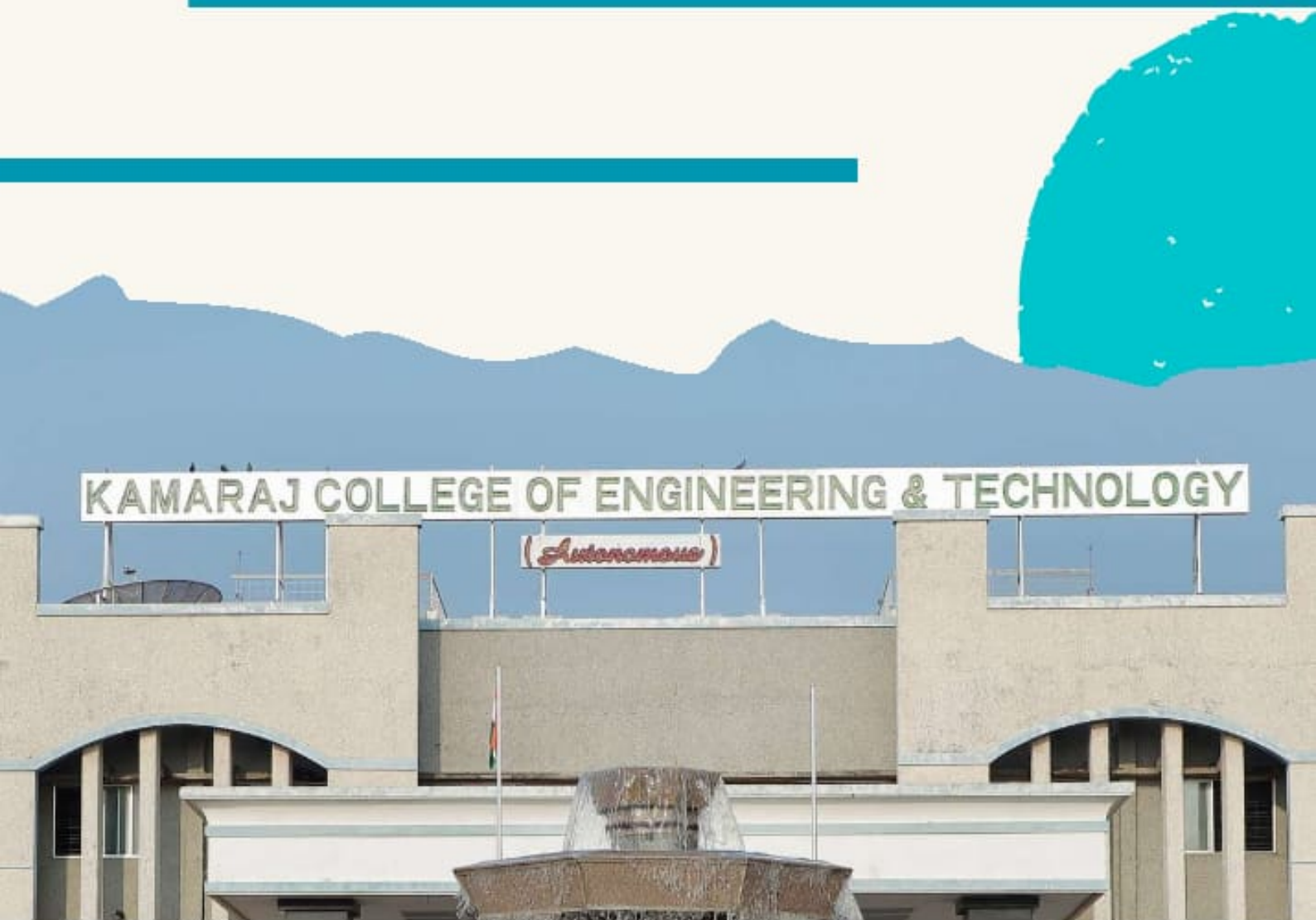
VISION OF THE INSTITUTION

To make this institution unique in its field of research and development activities in this part of the world.



MISSION OF THE INSTITUTION

To impart highly innovative and technical knowledge to the urban and underserved rural students through "Total Quality Education".



VISION & MISSION OF THE DEPARTMENT

VISION

To Make the Department of Artificial Intelligence and Data Science the unique of its kind in the field of Research and Development activities in this part of world.

Mission

To impart highly innovative and technical knowledge to the urban and unreachable rural student folks in Artificial Intelligence and Data Science through "Total Quality Education".



PROGRAM EDUCATIONAL OBJECTIVES (PEOs)

- PEO -1** Apply the basic engineering skills and domain knowledge for developing effective computing solutions to address various social issues.
- PEO -2** Able to have successful career in technical / managerial roles in multi-disciplinary environment.
- PEO -3** To confront the evolving technical challenges and problems in the areas of computing.

PROGRAM SPECIFIC OUTCOME (PSOs)

- PSO -1 Professional Skills:** To apply learned skills to build optimized solutions pertaining to Data Processing, Artificial Intelligence and Machine Learning
- PSO -2 Problem - Solving Skills:** To analyze data using domain knowledge to get insights and develop appropriate solutions

KNOWLEDGE AND ATTITUDE PROFILE (WK)

WK -1 A systematic, theory-based understanding of the natural sciences applicable to the discipline and awareness of relevant social sciences.

WK -2 Conceptually-based mathematics, numerical analysis, data analysis, statistics and formal aspects of computer and information science to support detailed analysis and modelling applicable to the discipline.

WK -3 A systematic, theory-based formulation of engineering fundamentals required in the engineering discipline.

WK -4 Engineering specialist knowledge that provides theoretical frameworks and bodies of knowledge for the accepted practice areas in the engineering discipline; much is at the forefront of the discipline.

WK -5

Knowledge, including efficient resource use, environmental impacts, whole-life cost, re-use of resources, net zero carbon, and similar concepts, that supports engineering design and operations in a practice area.

WK -6

Knowledge of engineering practice (technology) in the practice areas in the engineering discipline.

WK -7

Knowledge of the role of engineering in society and identified issues in engineering practice in the discipline, such as the professional responsibility of an engineer to public safety and sustainable development.

WK -8

Engagement with selected knowledge in the current research literature of the discipline, awareness of the power of critical thinking and creative approaches to evaluate emerging issues.

WK -9

Ethics, inclusive behaviour and conduct. Knowledge of professional ethics, responsibilities, and norms of engineering practice. Awareness of the need for diversity by reason of ethnicity, gender, age, physical ability etc. with mutual understanding and respect, and of inclusive attitudes.

PROGRAM OUTCOMES(POS)

Engineering graduates will be able to

- PO -1** **Engineering Knowledge:** Apply knowledge of mathematics, natural science, computing, engineering fundamentals and an engineering specialization as specified in WK1 to WK4 respectively to develop to the solution of complex engineering problems.

- PO -2** **Problem Analysis:** Identify, formulate, review research literature and analyze complex engineering problems reaching substantiated conclusions with consideration for sustainable development (WK1 to WK4).

- PO -3** **Design/Development of Solutions:** Design creative solutions for complex engineering problems and design/develop systems/components/processes to meet identified needs with consideration for the public health and safety, whole-life cost, net zero carbon, culture, society and environment as required (WK5).

- PO -4** **Conduct Investigations of Complex Problems:** Conduct investigations of complex engineering problems using research-based knowledge including design of experiments, modelling, analysis & interpretation of data to provide valid conclusions. (WK8).

PO -5

Engineering Tool Usage: Create, select and apply appropriate techniques, resources and modern engineering & IT tools, including prediction and modelling recognizing their limitations to solve complex engineering problems (WK2 and WK6).

PO -6

The Engineer and The World: Analyze and evaluate societal and environmental aspects while solving complex engineering problems for its impact on sustainability with reference to economy, health, safety, legal framework, culture and environment. (WK1, WK5, and WK7).

PO -7

Ethics: Apply ethical principles and commit to professional ethics, human values, diversity and inclusion; adhere to national & international laws (WK9).

PO -8

Individual and Collaborative Team work: Function effectively as an individual, and as a member or leader in diverse/multi-disciplinary teams.

PO -9

Communication: Communicate effectively and inclusively within the engineering community and society at large, such as being able to comprehend and write effective reports and design documentation, make effective presentations considering cultural, language, and learning differences.

PO -10

Project Management and Finance: Apply knowledge and understanding of engineering management principles and economic decision-making and apply these to one's own work, as a member and leader in a team, and to manage projects and in multidisciplinary environments.

PO -11

Life-Long Learning: Recognize the need for, and have the preparation and ability for i) independent and life-long learning ii) adaptability to new and emerging technologies and iii) critical thinking in the broadest context of technological change (WK8).

ABOUT THE DEPARTMENT



The Department of **Artificial Intelligence and Data Science** (ADS) was established in the year 2020 with an intake of 60 students at Kamaraj College of Engineering and Technology with the goal of providing advanced education and research opportunities in the rapidly evolving fields of artificial intelligence (AI) and data science. The department provides a four-year B.Tech. programme in Artificial Intelligence and Data Science. Now with an revised intake of 120 students per year, our department remains a forerunner in imparting innovative and technical knowledge. This department is committed to delivering a comprehensive curriculum that includes both theoretical foundations and practical applications of AI and data science. It aims to foster an environment of innovation and excellence, supported by state-of-the-art infrastructure and experienced faculty.



'Built by humans.
Driven by dreams.'

VINO.R.C
22UAD024

AI and Robotics

AI unlocks new realms of creativity generating art, music, & stories.

It inspires and collaborates with us in imagining the unimaginable.



AKASH.R
22UAD044

The Ethics of AI

Navigating AI's impact, we consider bias, privacy, and accountability.

Balancing innovation with responsibility, we ask:

How do we ensure AI benefits all?



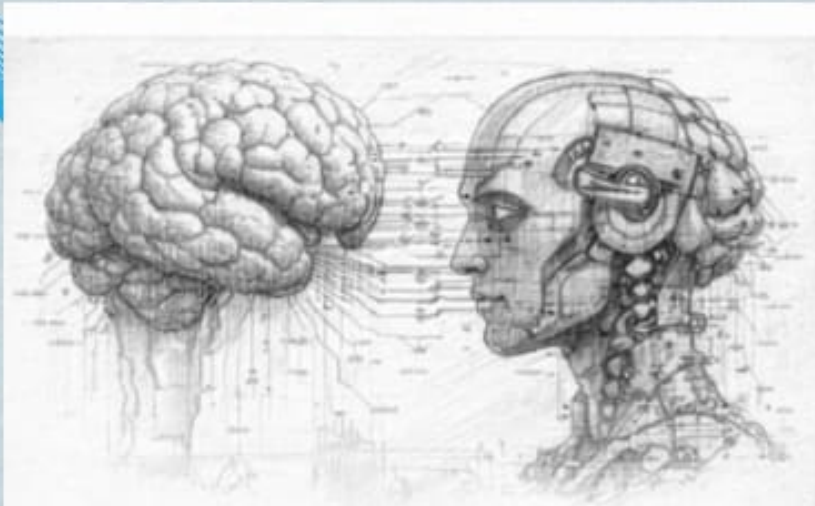
AKSHAYA.K.S
22UAD027



The line between human and machine is fading.

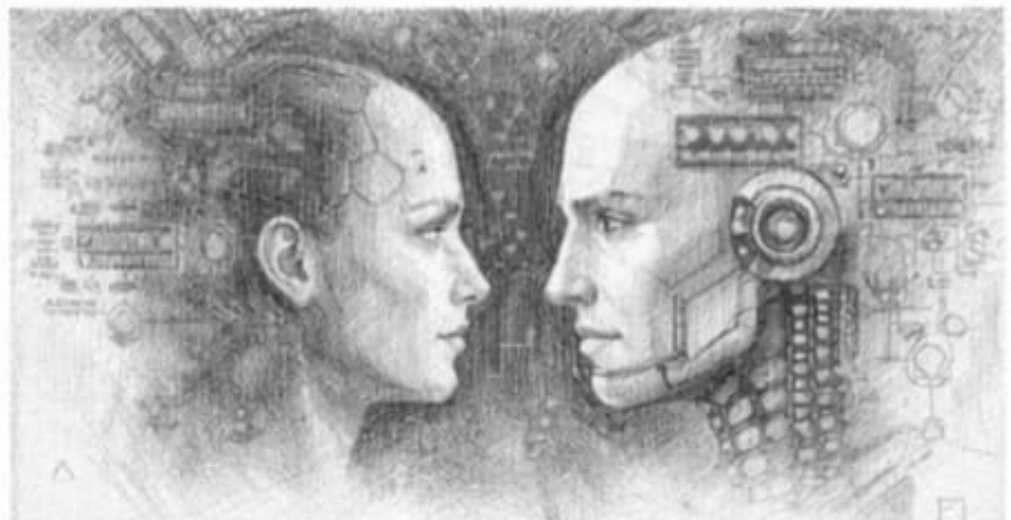
JAI AKASH.R
22UAD022

KNOWLEDGE ENRICHMENT



Collaboration empowers intelligence.

AKASH.R
22UAD044



*Understanding the future,
one algorithm at a time.*

VINO.R.C
22UAD024

AI for Accessibility

AI breaks down barriers, aiding those with disabilities through speech recognition, vision aids, and smart assistance, creating a more inclusive world.



GEETHAN.S
22UAD032

AI in Art & Design

AI generates new art, assists in design, and fuels creative inspiration. It collaborates with artists, blending technology with imagination.



VAISHNAVIS
22UAD037

EVENTS ORGANIZED

ASSOCIATION DETAILS

S.NO	DATE	EVENT DETAILS	NAME OF THE RESOURCE PERSON	NO OF STUDENTS PARTICIPATED
1	30.07.2025	A seminar titled "From Campus to Career: Making Smart Choices After Graduation"	Mr. K. Ashok Kumar, B.Tech., alumnus of the 2020-2024 batch	58
2	02.08.2025	The Role of AI in Shaping Tomorrow's Technology	Mr. M.K. Nhiranjan from Clustrex.	58
3	01.08.2025	External Academic Audit	Dr. S. Manoj Kumar, Professor and Head (C&D), Department of CSE, KPR Institute of Engineering and Technology	58
4	28.08.2025	Organized the event "Empowering Organizations with Business Intelligence Solutions"	Mr. R. Saravanakumar, Managing Director of Sentersoft Technologies, as the resource person.	170
5	09-09-2025	Organized a Skill Development Course Webinar on "Prompt Engineering"	Prof. Dr. S G Srivani Iyengar Professor & HOD Department of Electrical & Electronics RV College of Engineering India	58
6	24-09-2025	From Raw Data to Smart Algorithms: Fundamentals of Machine Learning	Dr. Golden Julie, Assistant Professor, Department of CSE , Anna University, Tirunelveli Region	127
7	10-09-2025 To 11-09-2025	National Level Hackathon "INNOVANZA 2K25"	Mr. Harish, Senior Application Developer And Mr. Cibi Hariharan, Co-Founder of Jungaroo Learning, Bangalore	71

FACULTY ACHIVEMENTS RESEARCH DATA

JOURNAL REVIEWED BY FACULTY MEMBERS

S.NO	Date	Name of the faculty	Organizing Institution	Name of the Programme
1	28-10-2025	Dr.R.Aghila	Springer Nature	Springer Journal
2	08-09-2025	Dr.R.Aghila	Springer Nature	Springer Nature – Signal, Image and Video Processing.

PATENT & COPYRIGHT PUBLISHED / FILED

S.NO	Name of the faculty	Project title	Project prosposal/copyright	Date
1	Mr.P.Praveen Kumar , Mrs. J. Mary Varsha, Mrs. S. Saraswathi, Mrs. N.Gajalakshmi, Mrs. S. Maria Sobana	AI-Powered Real-Time Diagnostic System for UPI Payment Failures	Patent Filled	29-09-2025

FACULTY PRESENTED AS A KEYNOTE SPEAKER

S.NO	Name of the faculty	Conference title	Acted as	Month & Year
1	Dr.P.Praveen Kumar Associate Professor-ADS	4th International Conference on Advances in Science, Engineering and Technology (ICASET-2025), New Delhi on July 2025	Keynote Speaker	July 2025
2	Dr.R.Aghila Professor -ADS	4th International Conference on Advances in Science, Engineering and Technology (ICASET-2025), New Delhi on July 2025	Keynote Speaker	July 2025
3	Mrs.J.Mary Varsha Assistant Professor -ADS	4th International Conference on Advances in Science, Engineering and Technology (ICASET-2025) New Delhi on July 2025	National Advisory Committee	July 2025
4	Mrs.S.Mohana Priya Assistant Professor ADS	4th International Conference on Advances in Science, Engineering and Technology (ICASET-2025) New Delhi on July 2025	National Advisory Committee	July 2025
5	Mrs.S.Nithya Assistant Professor -ADS	4th International Conference on Advances in Science, Engineering and Technology (ICASET-2025) New Delhi on July 2025	Keynote Speaker	July 2025

FACULTY ACTED AS A RESOURCE PERSON

S.No	Name of the faculty	Name of the Programme	Organizing Institution	Date
1	Dr.P.Praveen Kumar	one-day workshop on "Smart Data Handling"	Vivekananda College, Tiruvedakam	29-09-2025

PATENT GRANTED BY FACULTY MEMBERS

S.No	Name of the Applicant	Name of the Inventor(s)	Title of the IPR	Application no
1	Dr.S.Balaji	Dr.S.Balaji, Dr.S.Joe Patrick Gnanaraj	IOT-ENABLED ELECTRIC- VEHICLE CHARGING STATION WITH SOLAR INTEGRATION	457271-001
2	Dr.P. Praveen Kumar	Dr. Solaimuthu Chandrakasan, Dr. Pappaiah Jesu Antony Alphonse, Dr. Nedunchezhian Natarajan, Dr. Murugesan Ramasamy, Dr. Yeddula Venkatrmana Reddy, Dr. Praveen Kumar Premkamal, Mr. Tamal Sarkar, Mrs. Nivedita Sudhanva Desai	Advanced Dashboard Touchscreen Device for Vehicles	6460407
			AI-Powered Real-Time Diagnostic System for UPI Payment Failures	20254109 3300
3	Ms.K.Rajalakshmi	K.Sudhaa Shree, K. Madhu Bala, K.Sakthi Shivani,Ms.P.Mahalakshmi, Dr.E.Vakaimalar,Ms.R.Saranya Priyadharshini,Ms.K.Rajalakshmi Ms.G.Nivetha,Ms.K.Kartheeswar	Agricultural Macinery using IoT	202541057 902 A
4	Mrs.Mohanappriya	Dr.Golden Julie Eanoch, Dr.Indra Navaroj Gnanaprakasam, Dr.Kavitha Margret Mansingh , Mohanappriya Sankaran , Ram prasath Selvamani , Dr.Harold Robinson Yesudha	Machine Learning based security device for cloud computing	6473977
5	Mrs.J.Mary Varsha	Mrs.J.Mary Varsha,Mr.Noor Mohammed. S,Krishnaveni,A,Abisha .G,Sherin Princy. J,Dr.S.Ponmani Raj,S,	Framework for Real TimePatient Risk Stratification Using EHR and IOT Data	202541085 868

FACULTY DEVELOPMENT PROGRAM

FDP & STTP Attended by Faculty members

S.NO	Name of the Faculty as Resource Person	Name of the Programme	Date	Organizing Institution	Location
1	Mrs.J.Mary Varsha	Recent Trends in Next-Gen AI Automation	08-12-2025 To 12-12-2025	St.Joseph's College of Engineering and Technology	Chennai
		Generative AI in Academia: Foundation to Frontiers	16-06-2025 To 20-06-2025	Sathyabama Institute of Science and Technology	Chennai
2	Mrs.N.Gajalakshmi	Keynote speaker in Multi-Disciplinary Research studies and Education	22-05-2025 to 23-05-2025	SEGI-University	Malaysia
		Empowering Educators with Generative AI and DL	07-04-2025 To 09-04-2025	K.L.N College of Engineering, Madurai	Sivagangai
		Next-Gen Sustainability: Exploring Industry 5.0's Potential	08-12-2025 To 13-12-2025	AICTE Training and Learning Academy	India
		Defensive AI: Deep Learning in Cyber Security	18-08-2025 To 23-08-2025	AICTE Training and Learning Academy	India
		AI Enhanced Educational Technologies	22-12-2025	Sree Sowdambika college of Engineering	Aruppukotai

3	Mrs.S.Nithya	Generative AI & Foundation Modules: Beyond Traditional Deep Learning	19-02-2026	Bharath Niketan Engineering College	Theni
		Quantum Computing& amp; Advanced Technologies-Session Speaker	15-11-2025	ICASET	Delhi
		Secure and Explainable Generative AI for Medical IoT Data Analytics	25-08-2025 To 30-08-2025	AICTE Training and Learning Academy	India
4	Dr.P.Praveen Kumar	Smart Data Handling	29-09-2025	Vivekananda College	Virudhunagar
		Emerging Trends in Data Science and Cloud Computing	24-02-2025 to 25-02-2025	St.Thomas College	Thrissur
		Applications Of Large Language Models(LLMS) and Retrieval Augmented Generation(RAG)	28-10-2025	Kongunadu College Of Engineering and Technology	Trichy
5	Ms. Rajalakshmi. K	Bridging Circuits and Intelligence: Why ECE needs AI for the Future	13-10-2025	Solamalai College of Engineering and Technology	Madurai

Faculty ACTED as a Resource person

S.No	Name of the faculty	Name of the Programme	Organizing Institution	Date
1	Mrs.Nithya. S	Quantum Computing & amp; Advanced Technologies-Session Speaker	ICASET	15-11-2025
2	Ms. Rajalakshmi. K	Bridging Circuits and Intelligence: Why ECE needs AI for the Future	Solamalai College of Engineering and Technology	13-10-2025

FACULTY ACHIEVEMENTS RESEARCH DATA

Journal Publications by Faculty members

S.NO	Name of the faculty with Co-Authors	Title of the Paper	Title of the Journal	Vol. No., Issue No., Page No., Month & Year
1	Dr.R.Aghila -Prof/ADS Dr.S.Rathnamala,Dr.Aghila Rajagopal,M.Arunachalam,V. Dhanasekaran	GI Bleeding in WCE Images Using E-ORB and ME-Deep CAPSNET	International Journal of Environmental Science	Vol.11 No.7s,2025
2	Dr.S. Balaji Dr.S. Balaji,K. Perachi	IoT-driven smart grid monitoring with enhanced energy routing and advanced encryption techniques	Ain Shams Engineering Journal	103656
3	Mrs.K.Rajalakshmi Rajalakshmi K, Palanivel Rajan S	An Enhanced Measurement of Epicardial Fat Segmentation and Severity Classification using Modified U-Net and FOA-guided XGBoost	Measurement Science Review	93-99
4	Dr.P.Praveen Kumar Vakaimalar Elamaran, Ramya R, Anandh A, Praveen Kumar Prem Kamal, Deepa Priya V	An Enhanced Edge PreservingTechnique for Multifocus Image Fusion	Journal of Theoretical and Applied Information Technology	9006 -9017

MEMBERSHIP IN PROFESSIONAL BODIES

S.NO	Name of the faculty member	Name of the Professional Society /Body at National and International Level	Name of the Grade/ Level/Position	Month & Year
1	Dr.R.Aghila –Prof	Institute for Educational Research and Publication	Professional Member-1606379	17th July 2025
2	Dr.P.Praveen Kumar-ASP	Indian Society for Technical Education	Life Member-LM59518	July 2025
3	Mrs.N.Gajalakshmi-AP	Institute for Educational Research and Publication	Professional Member-45112553	July 2025
4	Mr.K.Muthulakshmi-AP	Indian Society for Technical Education	Life Member-LM80118	16th August 2025
5	Mrs.S.Nithya	Institute for Educational Research and Publication	Professional Member-16195770	8th July 2025
6	Mrs.K.Rajalakshmi.-AP	Indian Society for Technical Education	Life Member-LM132166	September 2025

Seed Money Project Proposal

S.NO	Name of the faculty mentor	Names of the students	Title of the Proposal	Proposed Budget
1	Dr.P.Praveen Kumar ASP/ADS, Mr.P.G.Siva Sharma Karthick AP/ADS	R.C.Vino , R.Jai Akash , K.Naga Harish Kumar	Evaluation and grading of text-based assessments by using AI model	Rs,5,00,000/-

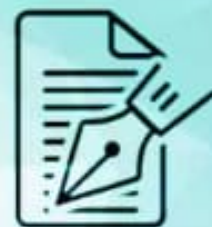
INAE CEE Mentorship Program

S.NO	PI name	Project title	Name of the Funding agency	Duration of the project	Proposed Budget
1	Mrs.S.Nithya	INAE Infosys Program	CEEE Mentorship Program	15-06-2025 To 27-06-2025	Rs.50,000/-

EXTRA & CO-CURRICULAR ACTIVITIES

S.NO	YEAR	DATE	NAME OF THE STUDENTS	EVENT NAME	COLLEGE NAME	PRIZE
1	II ND YEAR	27/07/2025	S.H. RUJUTHA VEMANTHANI	SILAMBAM	KAMARAJ COLLEGE OF ENGINEERING AND TECHNOLOGY	OVERALL TROPHY
2		14/08/2025	R. VINESH	PAINTING EVENT		THIRD PRIZE
3		12/09/2025	PAVITHRAN S	LEADERS MAZE		FIRST PRIZE
4		12/09/2025	A. HARIVISHNU	PITCHER PERFECT		SECOND PRIZE
5		12/09/2025	V. BALA YOGHI	PITCHER PERFECT		SECOND PRIZE
6		14/09/2025	VIGNESH R	JAYCEE CARNIVAL		FIRST PRIZE
7		21/09/2025	SURJITH P	HOCKEY TOURNAMENT		THIRD PRIZE
8		25/09/2025	A. HARIVISHNU	PITCHER PERFECT		FIRST PRIZE
9		12/09/2025	K. RAM KUMAR K. MAHEETHARAN	LEADERS MAZE		SECOND PRIZE

Editorial Team



Chief Editor

Dr.R.RAMYA, HoD/ADS

Magazine In-charge

Mrs.J.Mary Varsha, AP/ADS

Student Member

Mr.R.AKASH - IV ADS

Mr.A.Syed Nazumudeen -IV ADS

Mr.V.Hariharan-III ADS

Mr.V.R.S.Selva Kumar-III ADS

Ms.N.Nithya Priya-II ADS

Mr.A.Yogeshwaran-II ADS