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St. JOSEPH'S COLLEGE OF ENGINEERING

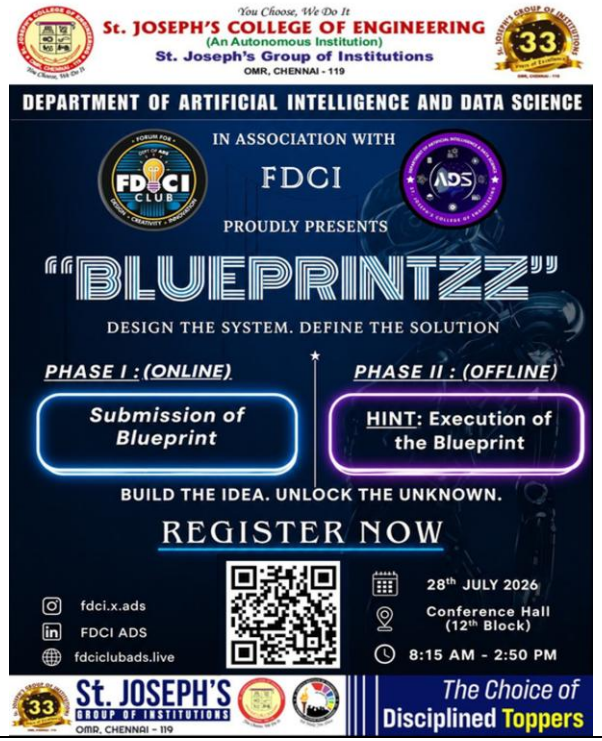
(An Autonomous Institution)

St. Joseph's Group of Institutions

OMR, CHENNAI - 119

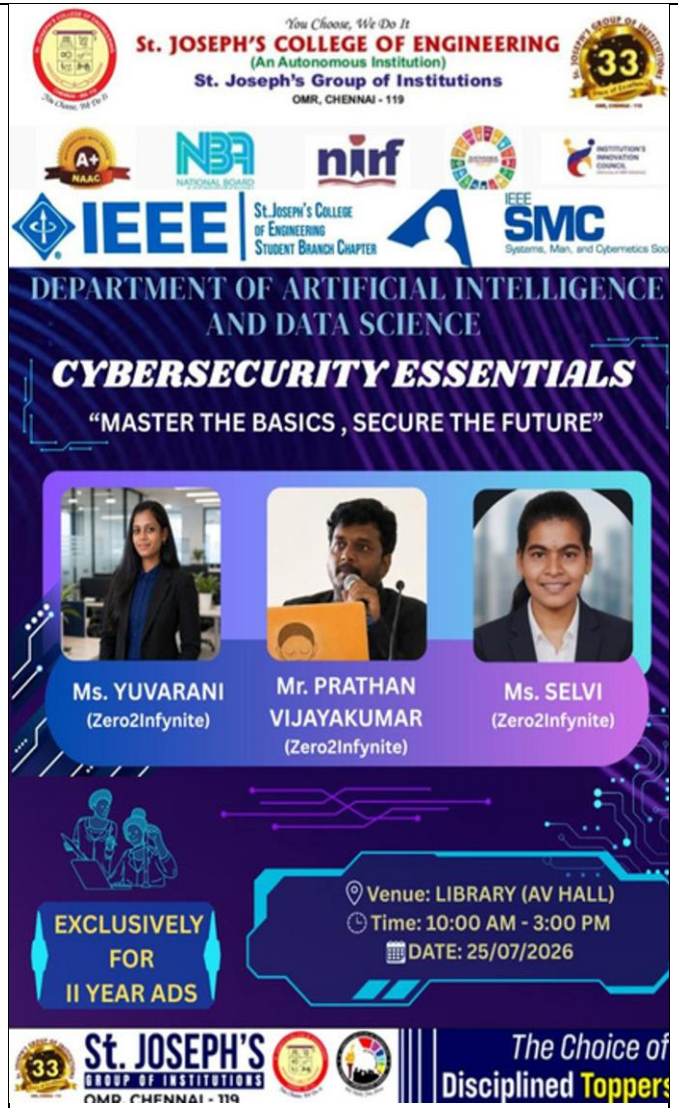
JULY 2026

DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND DATA SCIENCE

S.No.	Title of the Events and Photographs	Details of the Event
1.	**ADS CLUB ACTIVITY** 	The Department of Artificial Intelligence and Data Science, St. Joseph's College of Engineering, in association with the Forum for Design, Creativity and Innovation (FDCI) Club, successfully organized "BLUEPRINTZZ – Design the System. Define the Solution" on 28 July 2026 at the Conference Hall (12th Block). The event was conducted in two phases: Phase I (Online) involved the submission of innovative system blueprints, while Phase II (Offline) focused on the execution and demonstration of the proposed solutions. Students enthusiastically participated by designing, developing, and presenting innovative AI-based prototypes to address real-world challenges.

2.	**FDP/WORKSHOP/CONFERENCE/HACKATHON (ATTENDED /ORGANIZED)** 	Mr. Renish Soundhra S (IV ADS) and Ms. Pavithra J (IV ADS) of the Department of Artificial Intelligence and Data Science, along with their team, brought laurels to the institution by securing Fourth Prize in HACKINDIA 2026 – 24 Hours Software Hackathon, organized at St. Joseph's Institute of Technology on 4th and 5th July 2026. Competing against talented participants from various institutions, the team showcased exceptional technical skills and innovation through their project titled "Stateful AI Agents with Dynamic UI." Their outstanding performance earned them a cash prize of ₹6,000 in recognition of their creative solution and teamwork. The Management, Principal, Head of the Department, faculty members, and students of the Department of Artificial Intelligence and Data Science extend their heartfelt congratulations to the achievers and wish them continued success in their future academic, research, and professional endeavors.

Mr. Janish Andrin J., a IV Year Artificial Intelligence and Data Science student, brought laurels to the department by securing the Third Prize in CTF 3.0 – WAR GAMES, a cybersecurity hackathon organized by the OWASP Sathyabama Student Chapter as part of the five-day "Hack The Planet" cybersecurity event held at Nexus Hub, Sathyabama Institute of Science and Technology on 8 July 2026. Competing as a team alongside Mr. Chris Noble A. from the Department of Computer Science and Engineering, the students demonstrated exceptional cybersecurity and problem-solving skills.

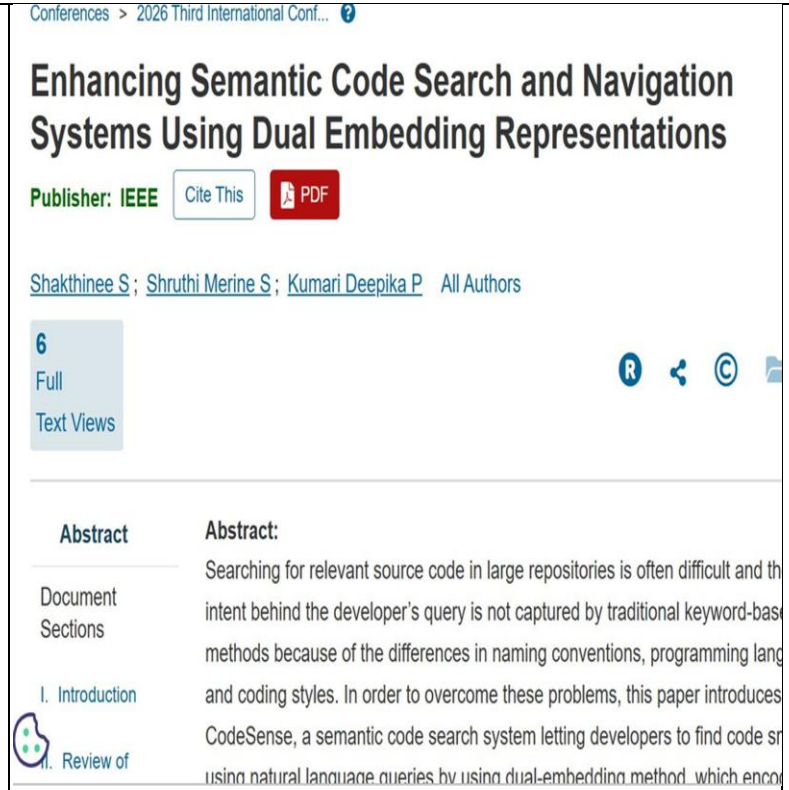


The Department of Artificial Intelligence and Data Science, St. Joseph's College of Engineering, in association with the IEEE Student Branch Chapter and IEEE Systems, Man, and Cybernetics (SMC) Society, successfully organized a one-day workshop on "Cybersecurity Essentials – Master the Basics, Secure the Future" on 25 July 2026 at the AV Hall, Central Library. The programme was conducted exclusively for the II Year ADS students with the objective of creating awareness about the growing importance of cybersecurity in the digital era. The workshop was led by industry experts Mr. Prathan Vijayakumar, Ms. Yuvarani, and Ms. Selvi from Zero2Infynite, who delivered insightful sessions on cyber threats, ethical hacking concepts, phishing attacks, password security, malware, network protection, and safe online practices.

		The Department of Artificial Intelligence and Data Science, in association with the IEEE Student Branch Chapter and IEEE Systems, and Cybernetics Society, organized a guest lecture titled “AI in Cybersecurity – Proactive Protection Powered by AI” on 18th July 2026. The session was delivered by Mr. Prathan Vijayakumar (Zero2Infynite), along with Ms. Selvi and Mr. Manoj, who shared valuable insights into the growing importance of cybersecurity and the challenges posed by modern cyberattacks. The speakers highlighted how Artificial Intelligence is transforming cybersecurity through intelligent threat detection, automated response, and enhanced protection of confidential data, digital assets, and user privacy.
3.	**VALUE ADDED COURSES**	he Department of Artificial Intelligence and Data Science, in association with IEEE Student Branch Chapter and the IEEE Systems, Man, and Cybernetics (SMC) Society, St. Joseph's College of Engineering,

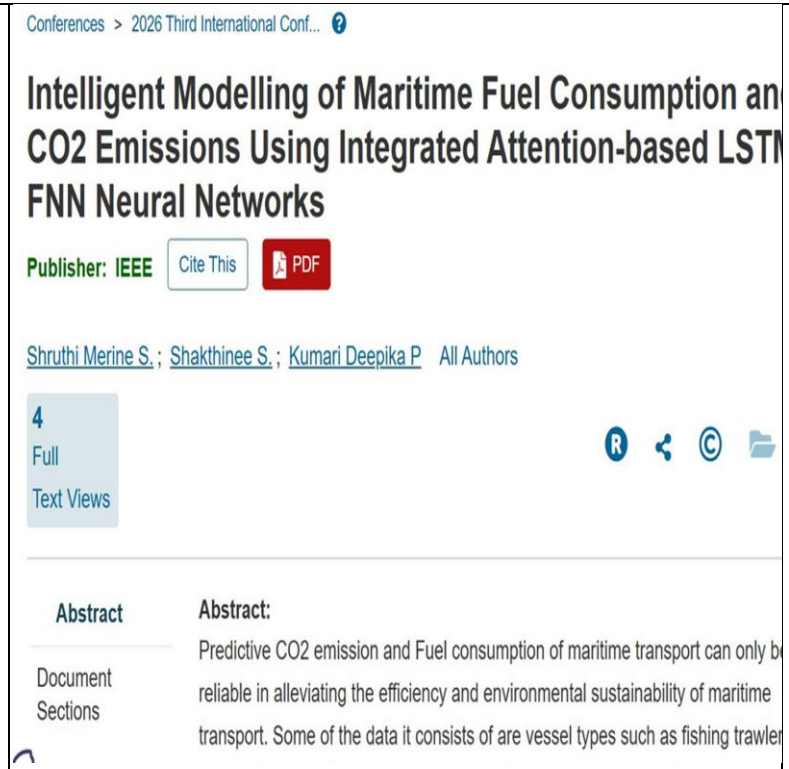
		organized a career guidance session titled "Career Compass: Navigating the Journey to Employment – Skills as Your Compass, Success as Your Destination" on 20 July 2026 for second-year Artificial Intelligence and Data Science students. The session was delivered by Mr. Khaleel Rehman, Founder & CEO, Action DnA, and Mrs. Vidhya, Director, Action DnA, who shared valuable insights on career planning and employability skills. The speakers provided practical guidance on resume building, interview techniques, body language, and professional communication, while highlighting the importance of confidence, continuous learning, and industry readiness. The interactive session motivated students to strengthen their personal and professional competencies, preparing them to confidently navigate the path from academics to successful careers.

4.	**STUDENT ACHIEVEMENTS/COMPETITION ATTENDED BY STUDENTS** 	Ms. Sahana Saravanan, and Mr. Pragadeeswar J of II Year ADS (Batch 2025–2029) on being selected as Campus Ambassadors for Quantum Collective Global (QC). This achievement recognizes their leadership potential, communication skills, and commitment to fostering innovation and professional development among students. As Campus Ambassadors, they will actively engage in promoting technology-driven initiatives, organizing student-focused events, and building connections between academia and industry. The accomplishment also highlights the department's continuous efforts to encourage students to participate in prestigious national and global programs that enhance their professional growth.
5.	STAFF CONFERENCE PRESENTATION and PATENT PUBLISHED	



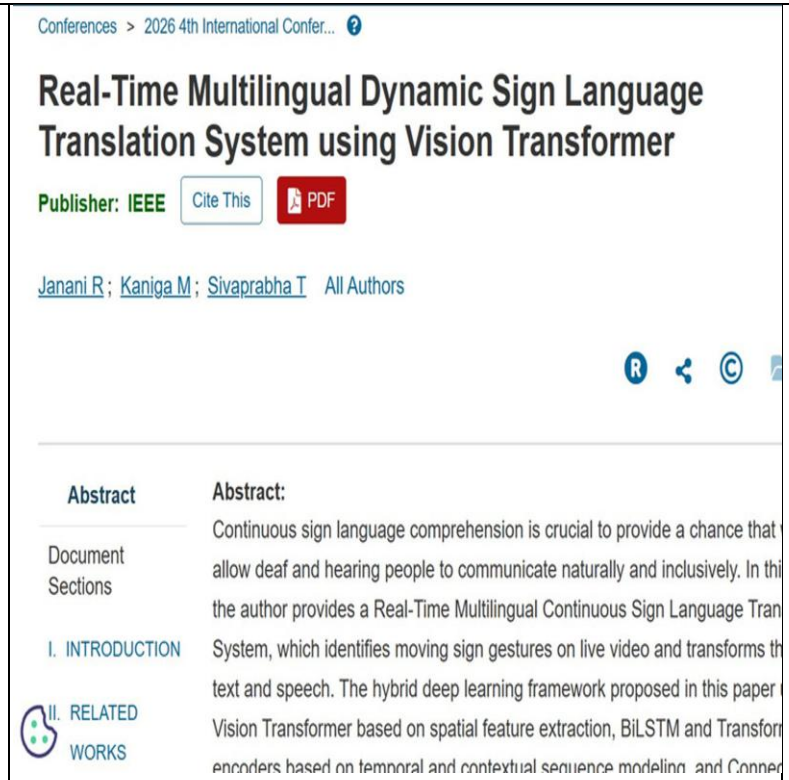
The Department of Artificial Intelligence and Data Science, St. Joseph's College of Engineering is proud to announce that students Shakthinee S. and Shruthi Merine S., along with faculty member Mrs. P. Kumari Deepika, have successfully published a research paper titled "Enhancing Semantic Code Search and Navigation Systems Using Dual Embedding Representations." The paper has been indexed in Scopus, marking a significant academic achievement.

The Department of Artificial Intelligence and Data Science, St. Joseph's College of Shruthi Merine S. and Shakthinee S., along with faculty member



Mrs. P. Kumari Deepika, on the successful publication of their research paper titled "Intelligent Modelling of Maritime Fuel Consumption and CO_2 Emissions Using Integrated Attention-based LSTM-FNN Neural Networks." The paper has been published by IEEE and indexed in Scopus, signifying its quality and global academic recognition.

Janani R. and Kaniga M., along with their faculty member Ms. T. Sivaprabha, Assistant Professor, Department of Artificial Intelligence and Data Science, St. Joseph's College of Engineering, have successfully published a research paper titled "Real-Time Multilingual Dynamic Sign Language Translation System using Vision Transformer" in the prestigious IEEE Xplore Digital Library. The paper presents an innovative AI-powered multilingual sign language translation system that leverages Vision Transformer and deep learning techniques to convert sign language gestures into text and speech, thereby enabling effective communication for the hearing-impaired community.



Conferences > 2026 4th International Confer...

Real-Time Multilingual Dynamic Sign Language Translation System using Vision Transformer

Publisher: IEEE | Cite This | PDF

Janani R ; Kaniga M ; Sivaprabha T All Authors

Abstract

Document Sections

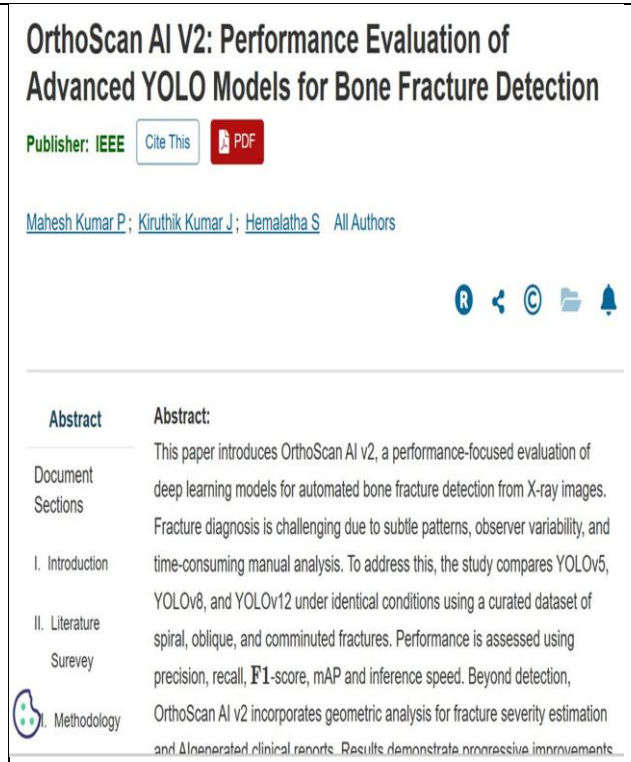
I. INTRODUCTION

II. RELATED WORKS

Abstract:

Continuous sign language comprehension is crucial to provide a chance that allow deaf and hearing people to communicate naturally and inclusively. In thi the author provides a Real-Time Multilingual Continuous Sign Language Tran System, which identifies moving sign gestures on live video and transforms th text and speech. The hybrid deep learning framework proposed in this paper Vision Transformer based on spatial feature extraction, BiLSTM and Transfor encoders based on temporal and contextual sequence modeling, and Connec

Dr. S. Hemalatha, have successfully published their research paper titled "OrthoScan AI V2: Performance Evaluation of Advanced YOLO Models for Bone Fracture Detection" in an IEEE publication. The paper presents a performance evaluation of advanced YOLO-based deep learning models for automated bone fracture detection from X-ray images, demonstrating the potential of artificial intelligence in enhancing medical diagnosis and clinical decision-making.



OrthoScan AI V2: Performance Evaluation of Advanced YOLO Models for Bone Fracture Detection

Publisher: IEEE Cite This PDF

Mahesh Kumar P ; Kiruthik Kumar J ; Hemalatha S All Authors

Abstract

Document Sections

I. Introduction

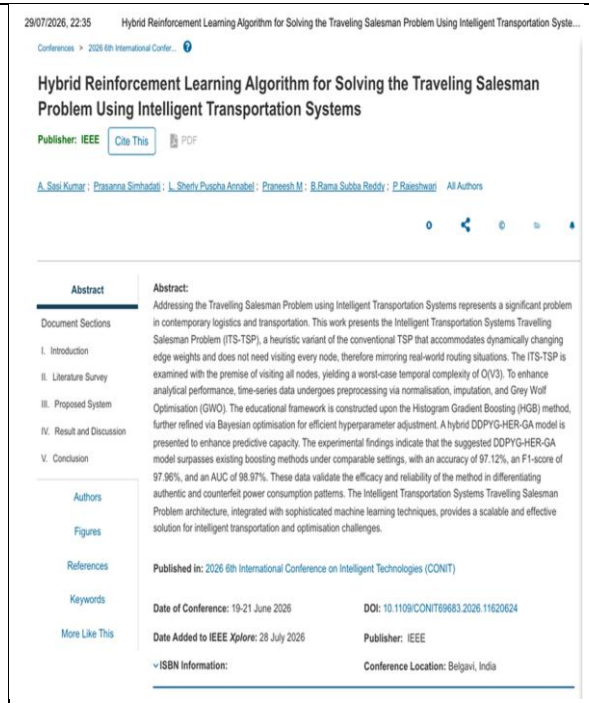
II. Literature Surevey

III. Methodology

Abstract:

This paper introduces OrthoScan AI v2, a performance-focused evaluation of deep learning models for automated bone fracture detection from X-ray images. Fracture diagnosis is challenging due to subtle patterns, observer variability, and time-consuming manual analysis. To address this, the study compares YOLOv5, YOLOv8, and YOLOv12 under identical conditions using a curated dataset of spiral, oblique, and comminuted fractures. Performance is assessed using precision, recall, F1-score, mAP and inference speed. Beyond detection, OrthoScan AI v2 incorporates geometric analysis for fracture severity estimation and AI-generated clinical reports. Results demonstrate progressive improvements

Dr. L. Sherly Pushpa Annabel, Professor , Department of Artificial Intelligence and Data Science, St. Joseph's College of Engineering, has successfully published her research paper titled "Hybrid Reinforcement Learning Algorithm for Solving the Traveling Salesman Problem Using Intelligent Transportation Systems" in the Proceedings of the 6th International Conference on Intelligent Technologies (CONIT 2026), published by IEEE and indexed in the IEEE Xplore Digital Library. The research presents an innovative hybrid reinforcement learning approach for optimizing the Traveling Salesman Problem (TSP) in intelligent transportation systems, enhancing route optimization and decision-making for smart mobility applications. This significant achievement reflects .



29/07/2026, 22:35 Hybrid Reinforcement Learning Algorithm for Solving the Traveling Salesman Problem Using Intelligent Transportation Syste...

Conferences > 2026 6th International Confer...

Hybrid Reinforcement Learning Algorithm for Solving the Traveling Salesman Problem Using Intelligent Transportation Systems

Publisher: IEEE | Cite This | PDF

A. Sasi Kumar ; Prasanna Simhadati ; L. Sherly Puspha Annabel ; Praneesh M ; B.Rama Subba Reddy ; P.Raieshwari All Authors

0

Abstract

Document Sections

I. Introduction

II. Literature Survey

III. Proposed System

IV. Result and Discussion

V. Conclusion

Authors

Figures

References

Keywords

More Like This

Abstract:

Addressing the Travelling Salesman Problem using Intelligent Transportation Systems represents a significant problem in contemporary logistics and transportation. This work presents the Intelligent Transportation Systems Travelling Salesman Problem (ITS-TSP), a heuristic variant of the conventional TSP that accommodates dynamically changing edge weights and does not need visiting every node, therefore mirroring real-world routing situations. The ITS-TSP is examined with the premise of visiting all nodes, yielding a worst-case temporal complexity of O(V3). To enhance analytical performance, time-series data undergoes preprocessing via normalisation, imputation, and Grey Wolf Optimisation (GWO). The educational framework is constructed upon the Histogram Gradient Boosting (HGB) method, further refined via Bayesian optimisation for efficient hyperparameter adjustment. A hybrid DDPYG-HER-GA model is presented to enhance predictive capacity. The experimental findings indicate that the suggested DDPYG-HER-GA model surpasses existing boosting methods under comparable settings, with an accuracy of 97.12%, an F1-score of 97.96%, and an AUC of 98.97%. These data validate the efficacy and reliability of the method in differentiating authentic and counterfeit power consumption patterns. The Intelligent Transportation Systems Travelling Salesman Problem architecture, integrated with sophisticated machine learning techniques, provides a scalable and effective solution for intelligent transportation and optimisation challenges.

Published in: 2026 6th International Conference on Intelligent Technologies (CONIT)

Date of Conference: 19-21 June 2026

DOI: 10.1109/CONIT69683.2026.11620624

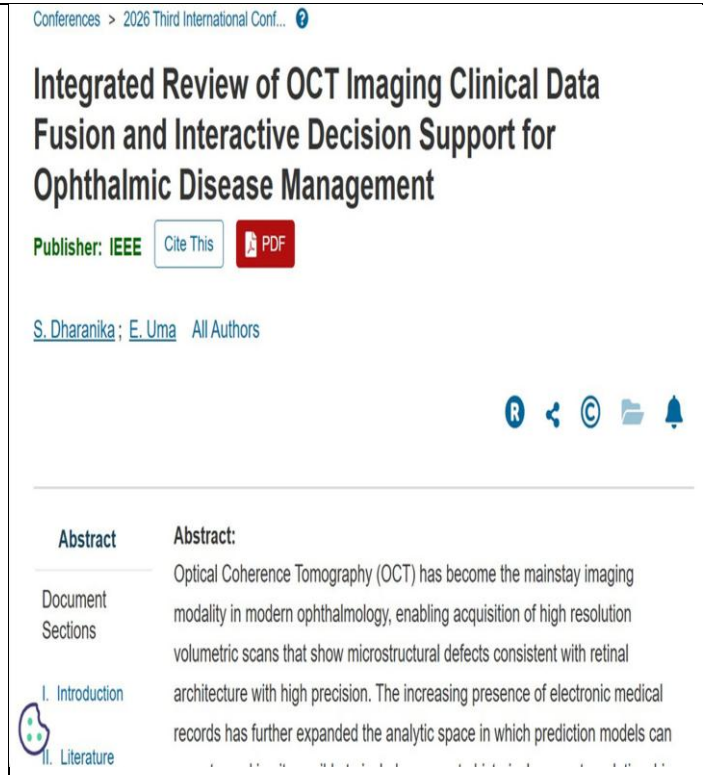
Date Added to IEEE *Xplore*: 28 July 2026

Publisher: IEEE

ISBN Information:

Conference Location: Belgavi, India

Ms. S. Dharanika has successfully published her research paper titled "Integrated Review of OCT Imaging Clinical Data Fusion and Interactive Decision Support for Ophthalmic Disease Management" in the IEEE Conference Proceedings. The paper presents a comprehensive review of Optical Coherence Tomography (OCT) imaging integrated with clinical data fusion and interactive decision support systems to improve the diagnosis and management of ophthalmic diseases.



Conferences > 2026 Third International Conf...

Integrated Review of OCT Imaging Clinical Data Fusion and Interactive Decision Support for Ophthalmic Disease Management

Publisher: IEEE Cite This PDF

S. Dharanika ; E. Uma All Authors

Abstract

Document Sections

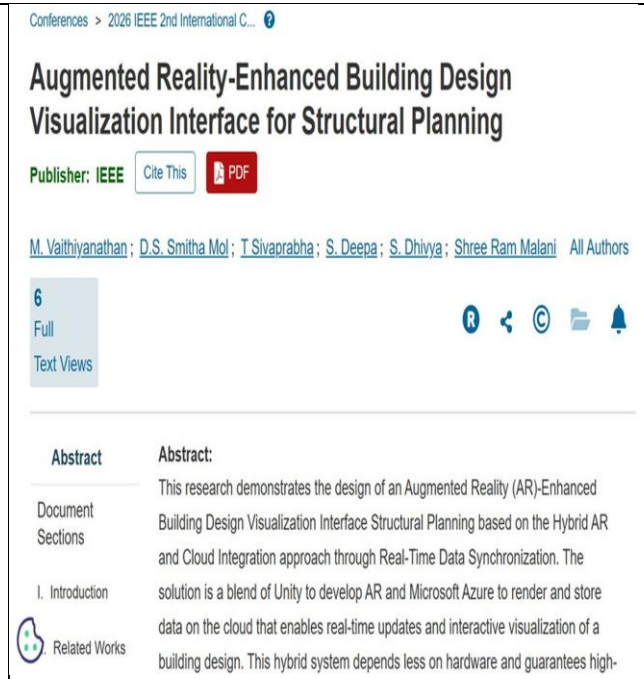
I. Introduction

II. Literature

Abstract:

Optical Coherence Tomography (OCT) has become the mainstay imaging modality in modern ophthalmology, enabling acquisition of high resolution volumetric scans that show microstructural defects consistent with retinal architecture with high precision. The increasing presence of electronic medical records has further expanded the analytic space in which prediction models can

Ms. T. Sivaprabha has published her research paper titled "Augmented Reality-Enhanced Building Design Visualization Interface for Structural Planning" in the 2026 IEEE 2nd International Conference proceedings, published by IEEE. The research presents an innovative Augmented Reality (AR)-based visualization interface integrated with cloud technologies to support real-time building design visualization and structural planning. The proposed framework enhances interactive visualization,



Conferences > 2026 IEEE 2nd International C...

Augmented Reality-Enhanced Building Design Visualization Interface for Structural Planning

Publisher: IEEE Cite This PDF

M. Vaithiyanathan ; D.S. Smitha Mol ; T Sivaprabha ; S. Deepa ; S. Dhivya ; Shree Ram Malani All Authors

6 Full Text Views

Abstract

Document Sections

I. Introduction

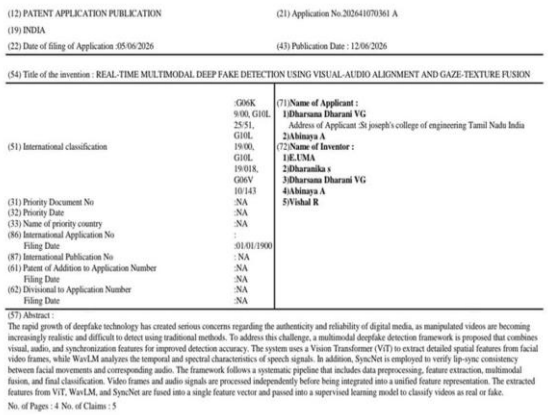
Related Works

Abstract:

This research demonstrates the design of an Augmented Reality (AR)-Enhanced Building Design Visualization Interface Structural Planning based on the Hybrid AR and Cloud Integration approach through Real-Time Data Synchronization. The solution is a blend of Unity to develop AR and Microsoft Azure to render and store data on the cloud that enables real-time updates and interactive visualization of a building design. This hybrid system depends less on hardware and guarantees high-

enables real-time data synchronization, and contributes to advancements in smart construction and digital engineering.

Ms. S. Dharanika has achieved a remarkable research milestone with the publication of her Indian patent titled "Real-Time Multimodal Deep Fake Detection Using Visual-Audio Alignment and Gaze-Texture Fusion." The patent application (Application No. 202641070361 A)



(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :05/06/2026

(21) Application No.202641070361 A
(43) Publication Date : 12/06/2026

(54) Title of the invention : REAL-TIME MULTIMODAL DEEP FAKE DETECTION USING VISUAL-AUDIO ALIGNMENT AND GAZE-TEXTURE FUSION

(51) International classification :G06K 9/00, G10L 25/51, G10L 19/00, G10L 19/018, G06V 10/143

(31) Priority Document No :NA
(32) Priority Date :NA
(33) Name of priority country :NA
(86) International Application No :
Filing Date :01/01/1900
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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5)Vishal R

(57) Abstract :
The rapid growth of deepfake technology has created serious concerns regarding the authenticity and reliability of digital media, as manipulated videos are becoming increasingly realistic and difficult to detect using traditional methods. To address this challenge, a multimodal deepfake detection framework is proposed that combines visual, audio, and synchronization features for improved detection accuracy. The system uses a Vision Transformer (ViT) to extract detailed spatial features from facial video frames, while WavLM analyzes the temporal and spectral characteristics of speech signals. In addition, SyncNet is employed to verify lip-sync consistency between facial movements and corresponding audio. The framework follows a systematic pipeline that includes data preprocessing, feature extraction, multimodal fusion, and final classification. Video frames and audio signals are processed independently before being integrated into a unified feature representation. The extracted features from ViT, WavLM, and SyncNet are fused into a single feature vector and passed into a supervised learning model to classify videos as real or fake.
No. of Pages : 4 No. of Claims : 5

was filed on 5 June 2026 and officially published on 12 June 2026. The invention presents an innovative artificial intelligence-based framework that combines visual and audio analysis techniques to accurately detect deepfake content, thereby enhancing digital media authentication and cybersecurity. ble smart farming solutions. The Management, Principal, faculty members, and students of St. Joseph's College of Engineering congratulate Mr. B. Arunmozhikalanchiam on this achievement and wish him continued success in his research endeavors.

Ms. Dharani R, faculty member of the Department of Artificial Intelligence and Data Science, has successfully published an Indian Patent titled "Artificial Intelligence-

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :12/07/2026

(21) Application No.202641085252 A
(43) Publication Date : 17/07/2026

(54) Title of the invention : ARTIFICIAL INTELLIGENCE-BASED SYSTEM FOR AUTOMATED FACULTY CANDIDATE SHORTLISTING AND INTERVIEW RECOMMENDATION IN HIGHER EDUCATION

(51) International classification :G06N 20/00, G06V 30/10, G06Q 10/10, G06V 30/413, G06V 30/414
(31) Priority Document No :NA
(32) Priority Date :NA
(33) Name of priority country :NA
(86) International Application No :
Filing Date :01/01/1900
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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3)Dr D Saravanakumar
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7)Dr. B. Usharani
8)Dr. Madhuchhanda Nayak
9)Alisha Hashmi
10)Anvesh Perada
11)Ullal Akshatha Nayak
12)Dr. Sreekanth Rallapalli
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5)Dharani R
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8)Dr. Madhuchhanda Nayak
9)Alisha Hashmi
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12)Dr. Sreekanth Rallapalli

(57) Abstract :
This invention presents an Artificial Intelligence-Based System for the automated shortlisting of faculty candidates and interview recommendations in higher education, incorporating Artificial Intelligence (AI), Machine Learning (ML), Natural Language Processing (NLP), and Optical Character Recognition (OCR) to streamline and improve the faculty recruitment process. The method allows candidates to submit applications via an online recruitment site, where resumes, academic certificates, teaching experience, research papers, patents, professional certifications, awards, and other supporting documents are gathered and evaluated. The system employs OCR and NLP techniques to extract and preprocess pertinent information, which is then assessed by machine learning algorithms according to established recruitment criteria, encompassing academic qualifications, teaching experience, research accomplishments, publications, patents, certifications, industrial experience, and institution-specific policies. The method calculates a candidate appropriateness score, ranks candidates, and categorises them as Interview Recommended, Waitlisted, Further Review Required, or Not Eligible. An Explainable Artificial Intelligence (XAI) module offers clear justifications for each recommendation, whereas an interview management module automates the scheduling and notifications of interviews. The system perpetually enhances its predictive precision using adaptive learning, utilising historical recruitment results and interviewer evaluations. The suggested innovation markedly decreases manual screening efforts, shortens recruitment duration, increases transparency, mitigates selection bias, promotes decision accuracy, and facilitates efficient, objective, and data-driven faculty recruitment in higher education institutions. FIG.1
No. of Pages : 11 No. of Claims : 10

The Patent Office Journal No. 29/2026 Dated 17/07/2026 88510

Based System for Automated Faculty Candidate Shortlisting and Interview Recommendation in Higher Education." The patent application was published in the Patent Office Journal on 17 July 2026 (Application No. 202641085252 A). The innovation presents an AI-driven framework that leverages Artificial Intelligence (AI), Machine Learning (ML), Natural Language Processing (NLP), and Optical Character Recognition (OCR) to automate faculty recruitment by analyzing resumes, academic credentials, research publications, patents, certifications, awards, and other supporting documents.

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :12/07/2026

(21) Application No.202641085260 A
(43) Publication Date : 17/07/2026

(54) Title of the invention : AI-Enabled Autonomous Dark Factory Management System with Intelligent Production Optimization

(51) International classification	:G05B 19/418, G06N 20/00, G06Q 50/04, G06Q 10/06, G06N 3/08
(31) Priority Document No	:NA
(32) Priority Date	:NA
(33) Name of priority country	:NA
(86) International Application No Filing Date	: :01/01/1900
(87) International Publication No	: NA
(61) Patent of Addition to Application Number Filing Date	:NA :NA
(62) Divisional to Application Number Filing Date	:NA :NA

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7)Hemasilviavinothini S
8)M.Sowjanya
9)Dr.C.Rajeshkumar
10)S.Janaki Ramudu
11)T.Nancy Lydia
12)Dr.Aravind B

(72)**Name of Inventor :**
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4)K.Vinodh Kumar
5)S. ANITHA
6)A.Jenifer Nirosha
7)Hemasilviavinothini S
8)M.Sowjanya
9)Dr.C.Rajeshkumar
10)S.Janaki Ramudu
11)T.Nancy Lydia
12)Dr.Aravind B

(57) Abstract :
The present invention relates to an Artificial Intelligence (AI)-enabled autonomous dark factory management system for intelligent production optimization in advanced manufacturing environments. The invention integrates Industrial Internet of Things (IIoT) devices, edge computing, cloud computing, digital twin technology, autonomous robotic systems, machine learning, deep learning, reinforcement learning, and intelligent analytics into a unified manufacturing management platform. The system continuously acqu real-time data from production equipment, environmental sensors, robotic workstations, automated guided vehicles, programmable logic controllers, and quality inspection units. The acquired data are processed using an AI-based decision engine that autonomousl performs production scheduling, machine resource allocation, predictive maintenance, energy optimization, inventory management, quality inspection, and workflow coordination without continuous human intervention. A digital twin continuously replicates the physical production environment to simulate operational scenarios, predict equipment behavior, optimize manufacturing parameters and validate production strategies before deployment. Computer vision models automatically detect manufacturing defects and initi corrective actions, while reinforcement learning algorithms dynamically optimize production sequences based on machine availabil production demand, material flow, and energy consumption. The invention further includes a closed-loop feedback mechanism that continuously retrains AI models using operational data, thereby improving production efficiency and decision accuracy over time. T proposed autonomous management system significantly improves Overall Equipment Effectiveness (OEE), reduces manufacturing downtime, minimizes operational costs, enhances production flexibility, improves product quality, reduces energy consumption, an supports sustainable Industry 4.0 and Industry 5.0 manufacturing environments. The invention is applicable to automotive, aerospa electronics, semiconductor, pharmaceutical, food processing, textile, and other highly automated industrial sectors.

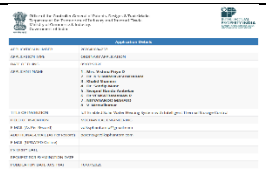
No. of Pages : 9 No. of Claims : 6

The Patent Office Journal No. 29/2026 Dated 17/07/2026 885

Mr. K. Vinoth Kumar, along with his co-inventors, has successfully published a patent titled "AI-Enabled Autonomous Dark Factory Management System with Intelligent Production Optimization" in the Indian Patent Office Journal. The patent application (Application No. 202641085260 A) was published on 17 July 2026, marking a significant milestone in innovative research and technological advancement. The invention presents an AI-driven autonomous factory management system that integrates the Internet of Things (IoT), edge computing, cloud computing, digital twin technology, robotics.

DEPARTMENT OF ARTIFICAL INTELLIGENCE AND MACHINE LEARNING

Sl. No.	Photographs Captured During Event	Corresponding remarks in regarding the status of activity execution
1.	**Dr. Ancy S** **Published Patent** 	**Title of Innovation :** A Machine Learning-Assisted Low-Power VLSI Framework for Real-Time Embedded System.
2.	**Mr. Nirmalkumar V** **Published Patent** 	**Title of Innovation :** Innovations in High-Density Lithium-Ion Batteries and Efficient Wireless Power Transfer Systems for EVs.
3.	**Mr. Nirmalkumar V** **Published Patent**	**Title of Innovation :** IoT-Enabled Solar Water Heating System with Intelligent Thermal Storage Control.

		
4.	**Ms. Kiruba Wesley** **Published Patent** 	**Title of Innovation :** Sketch2App: An MCP-Driven Agentic Multimodal System for Converting Hand-Drawn Diagrams into Full-Stack Applications using VLM-Based Code Synthesis.

DEPARTMENT OF BIOTECHNOLOGY

S.No.	Title of the Events and Photographs	Details of the Event
1.	**STUDENT ACHIEVEMENTS** **A copy of proof**	Our Department proudly congratulates Ms. P. Prathipa Sriji (Batch 2023–2027) on securing a placement offer as a UI/UX Designer at Iron Valley Solutions LLP, Chennai, with an annual CTC of ₹3.5 LPA. We congratulate her on this well-deserved achievement and wish her continued success and excellence in all her future endeavors.
2.	**ALUMINI MEET**	The Department of Biotechnology organized an Alumni Interaction on 13 July 2026. The session was delivered by our distinguished alumna, Ms. K. Yazhini, who is pursuing her MS in Clinical Microbiology at RMIT University, Melbourne,

	A copy of proof	Australia. She provided detailed guidance on overseas education opportunities, the role of educational consultancies, preparation of an effective Statement of Purpose (SOP), and strategies for interview preparation. The event was successfully coordinated by the Alumni Coordinator, Dr. S. Justin Packia Jacob.
3.	**GUEST LECTURE**	The Department of Biotechnology organized a Guest Lecture on 31 July 2026. The session was conducted by Ms. Preetha Shanmuganathan, Indian Representative of Radboad University, BEYON Education. The event was successfully coordinated by Dr. S. Justin Packia Jacob.

4.	**WORKSHOP** **A copy of proof**	The Department of Biotechnology organized a DST-WISE KIRAN supported workshop for our students on "CO_2 Sequestration: Bridging Research and Sustainable Solutions" on 22 July 2026. The session was delivered by Ms. Mohanapriya P, DST-WISE Fellow and Research Scholar under the mentorship of Dr. M. Chamundeeswari
5.	**NGO VISIT**	

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Our second year, third year and final year students of Biotechnology have visited John De Britto Old Age Home, Kovalam, Faith Home, Porur and St. Vincent's House Orphanage, Thiruporur, on 9th , 16th and 7th July 2026 as a part of their NGO Visit.

These outreach activities fostered humanitarian values, enhanced students' interpersonal and leadership skills, and reflected the institution's commitment to promoting social responsibility, compassion, and meaningful community engagement among students**.**

6.	**INDUSTRIAL VISIT** **A copy of proof**	On 14th July 2026 our third-year students visited Modern Bakers Pvt Ltd, Madhavaram. Our second year and final year students have visited Thirumala Milk Products Pvt Ltd, Mathuranthagam and on 20th and 23rd July 2026. These industrial visits bridged the gap between classroom learning and industrial practice, enabling students to understand real-time manufacturing operations, and the application of biotechnology principles in the food and dairy industries.
7.	**RESOURCE PERSON**	Dr. G. Baskar, Professor, Department of Biotechnology, served as a Resource Person at SIMATS on 23 July 2026. He delivered an expert talk on "Emerging Trends and Industrial Innovations in Biotechnology for Sustainable Environmental Management".

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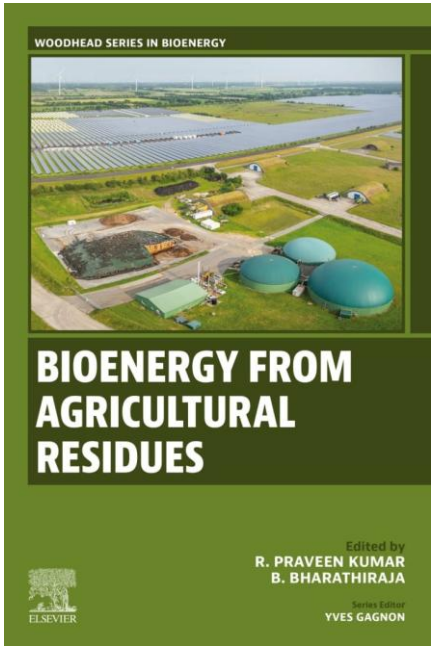
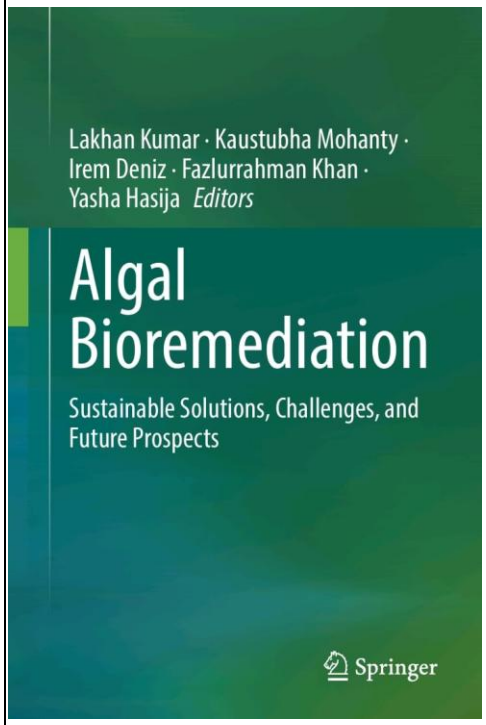
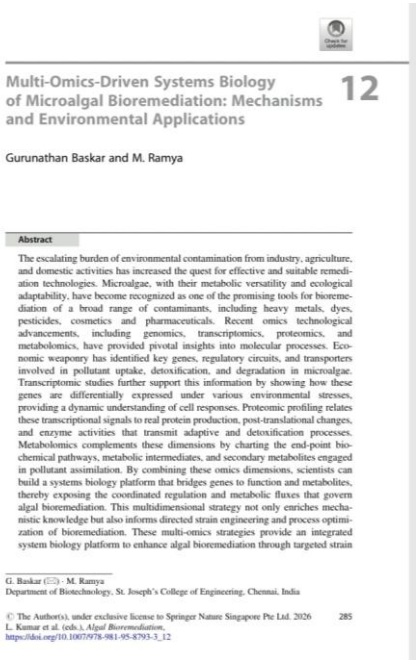
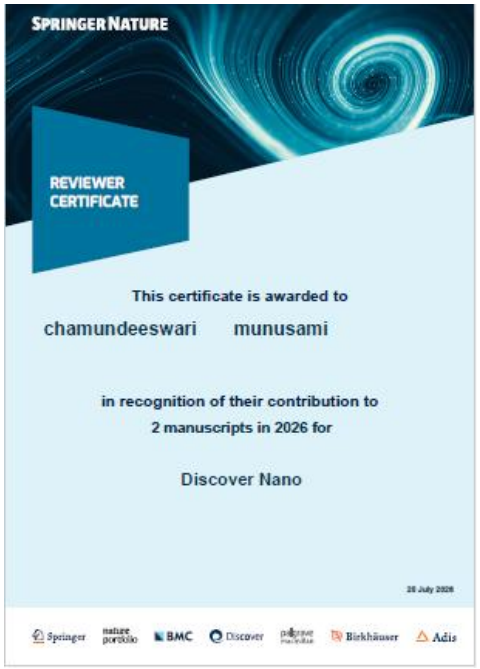
8.	**BOOK CHAPTERS**  **A copy of proof**	Dr. G. Baskar, Department of Biotechnology, published a book chapter entitled "Policy and Economic Considerations for Bioenergy from Agricultural Residues" in the book "Bioenergy from Agricultural Residues" by Elsevier publishers.

	  **A copy of proof**	Dr. G. Baskar, Department of Biotechnology, published a book chapter entitled "Multi omics driven systems biology on microalgae bioremediation – Mechanisms and Environmental Applications" in the book "Algal Bioremediation- Sustainable Solutions, Challenges and Future Prospects" by Springer Publishers.
9.	**INDUSTRY INTERACTION BY FACULTY** 	Dr. M. Chamundeeswari from Department of Biotechnology has visited Quantum hub (IITM-C-DOT Samgnya) on 04th of July 2026 to witness the live demonstration on Quantum Key Distribution Kit.

	   A copy of proof	Ms. J. Jenstina has visited Idhayam Oil Industry and QA/QC Testing Laboratory, Virudhunagar, to connect with Biotechnology based industry on 25th July 2026. The interaction resulted in prospects for paid internships, QA/QC placement opportunities for Biotechnology students, and future collaboration through MoU and consultancy projects.
10.	**PAPER PUBLISHED BY FACULY**	Dr. M. Chamundeeswari, Department of Biotechnology, published a research paper entitled "Novel nanostructured gallic acid-chitosan nanoparticle: A new approach towards multifunctional applications" in the journal Chemical Papers.

	Chemical Papers https://doi.org/10.1007/s11696-026-05268-5 ORIGINAL PAPER **Novel nanostructured gallic acid-chitosan nanoparticles: a new approach towards multifunctional applications** T. Muthukumar[1,2] · B. Parimalam[3] · M. Chamundeeswari[4] · R. Mary Nancy Flora[5] Received: 11 December 2025 / Accepted: 28 June 2026 © The Author(s), under exclusive licence to the Institute of Chemistry, Slovak Academy of Sciences 2026 **Abstract** The multifunctional potential of gallic acid-loaded chitosan nanoparticles (GA-CNPs), synthesized via the Ionic Gelation method, are systematically investigated in this study. This simple, biocompatible technique crosslinks biopolymer such as chitosan with counterions in mild conditions, allowing for controlled particle size, efficient drug encapsulation, and long-term release. The UV–visible spectra reveals that there is a small blue shift from 270 to 260 nm, which confirms the formation of GA-CNPs. The SAED pattern and XRD measured at 2θ for GA-CNPs show the corresponding peaks at 12°, 15.6° and 22.5° and confirms that the nanoparticles are amorphous in nature. FT-IR analysis showed that there is a bonding between gallic acid and the chitosan nanoparticles. HR-TEM analysis revealed spherical nanoparticles with a core particle size of 80–200 nm, while DLS measurements showed a hydrodynamic diameter of 470 nm due to the hydration layer and surface-bound PEG stabilization. The nanoparticles exhibited a moderate polydispersity index (PDI=0.28±0.04) and a positive zeta potential (+32.4±2.1 mV), confirming good colloidal stability. EDAX pattern confirms the formation of GA-CNPs with no impurities by owing the peaks for N, C, O and P elements alone. The Box-Behnken Design of Response Surface Methodology was used to optimize nanoparticle synthesis, and the results were very similar to the characterization data. ANOVA analysis revealed significant antibacterial, anticancer, and biocompatibility activities at $p < 0.05$, supporting the characterization results. Thus, the results suggest that the prepared GA-CNPs have shown good antibacterial and anticancer activity with minimal quantity, along with their good Bio and Haemocompatibilty property which was proved through their biological evaluation studies. **Keywords** Chitosan · Biocompatibility · Lung cancer · Gallic acid · Anticancer · Antibacterial **A copy of proof**	
11.	**REVIEWER CERTIFICATE BY FACULTY**	Dr. M. Chamundeeswari from Department of Biotechnology has served as a Reviewer for a research manuscript in the journal Discover Nano. In recognition of her valuable contribution to the peer-review process, a reviewer certificate was awarded for the month of July 2026.

	 **A copy of proof**	
12.	**FDP ATTENDED BY FACULTY** 	Dr. B. Sangeetha, Ms. Anli Dino A, Dr. Mu. Poornimaa and M. S. Vinitha from the Department of Biotechnology participated in the 5 days FDP entitled "Transformation of ideas to Publications" from 29th

	A copy of proof **A copy of proof** **A copy of proof**	June – 3rd July, 2026.

NEW PRINCE SHRI BHAVANI COLLEGE OF ENGINEERING & TECHNOLOGY

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

Tambaram – Velachery Main Road, Santhosapuram, Chennai – 600 073, Tamil Nadu, India.

CERTIFICATE

OF PARTICIPATION

This is to certify that

Anli Dine A

of St. Joseph's college of Engineering, OMR, Chennai

has participated in the FIVE DAY NATIONAL LEVEL FACULTY DEVELOPMENT PROGRAM

on

"TRANSFORMATION OF IDEAS TO PUBLICATION: RESEARCH PAPER WRITING, THESIS WRITING, VISUALIZATION AND DISSEMINATION"

organised by the Department of Electrical and Electronics Engineering, New Prince Shri Bhavani College of Engineering & Technology, Chennai, from 29 June 2026 to 03 July 2026.

Dr. T. SARAVANAN, Principal, New Prince Shri Bhavani College of Engineering & Technology

COMMITTED TO EXCELLENCE IN EDUCATION AND RESEARCH

Dr. R. VENKATASUBRAMANIAN, Professor & Head, Department of Electrical and Electronics Engineering

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Poornimaa Mu

of St. Joseph's College of Engineering

has participated in the FIVE DAY NATIONAL LEVEL FACULTY DEVELOPMENT PROGRAM

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CERTIFICATE

OF PARTICIPATION

FIVE DAYS FDP

This is to certify that

S.VINITHA

of *St.Joseph's College of Engineering*

has participated in the FIVE DAY NATIONAL LEVEL FACULTY DEVELOPMENT PROGRAM

on

"TRANSFORMATION OF IDEAS TO PUBLICATION: RESEARCH PAPER WRITING, THESIS WRITING, VISUALIZATION AND DISSEMINATION"

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Professor & Head
Department of Electrical and Electronics Engineering

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DEPARTMENT OF CHEMICAL ENGINEERING

S.No.	Title of the Events and Photographs	Details of the Event
	PLACEMENTS	The Department of Chemical Engineering proudly celebrates a remarkable placement achievement as three final-year students of the **2023–2027** batch have secured core engineering placements at **Miene Electric Pvt. Ltd**. through the campus recruitment process. The selected students—**Aathikesavan R., Abishek R., and Sharan Deepak V. V.—**have been offered the position of Electrochemistry Intern with a six-month paid internship carrying a monthly stipend of **₹10,000**. Based on successful completion of the internship, they will be eligible for a full-time employment package of **₹6 LPA (CTC**). This achievement reflects the department's continued commitment to producing industry-ready chemical engineers through quality education, practical exposure, and strong industry interaction. Placement Excellence: Chemical Engineering Students Land Core Roles
2.	**STUDENT ACHIEVEMENT – MAKE-A-THON 4.0**	The Department of Chemical Engineering, proudly celebrated the outstanding achievement of its students at **MAKE-A-THON 4.0,** held on 18–19 July 2026 at St. Joseph's College of Engineering, OMR, Chennai. Three innovative student teams emerged as Winners, securing a cash prize of **₹3,000** for their creative and practical engineering solutions. The winning teams were **Farm Tech Innovators – R. S. Sasmita, J. Kaushikka, S. Rakshana, and M. Dayana Devi; Jal Mithra – S. Sindhukavi, S. Yashvanth, K. S. Waseela Fathima, S. A. Adlin Jose, A. Shyam Krithik, and C. Joel George; and Grain Guards – A. S. J. Pothi Karthikeyan, A. G. Gokulalakshmi, and M. Anantha Kumari.** The students showcased innovation, teamwork, and problem-solving skills while

		addressing challenges in agriculture, water management, and food safety**.**
3.	**INDUSTRIAL VISITS**	The Department of Chemical Engineering organized a series of industrial visits on **17 July 2026 for II Year, III Year, and IV Year students** to provide practical exposure to industrial operations, manufacturing processes, and environmental management practices. The **II Year students visited Saurashtra Cement Ltd. – Plant Division, Gummidipoondi,** where they observed raw material processing, clinker production, grinding operations, quality control, and industrial safety practices. **The III Year students visited Ultramarine & Pigments Ltd., SIPCOT Industrial Complex, Vanapadi,** gaining insights into pigment manufacturing, specialty chemical production, process control, quality assurance, and sustainable industrial practices. **The IV Year students visited the Ranitec Common Effluent Treatment Plant (CETP), Ranipet, where they studied preliminary, primary, biological,** tertiary, and Zero Liquid Discharge (ZLD) treatment units, including RO, MEE, and crystallization systems.

4.	**NGO OUTREACH PROGRAMMES**	The Department of Chemical Engineering, organized a series of **NGO outreach programmes** during July 2026, providing students with meaningful opportunities to serve society and develop compassion beyond the classroom. The III Year students visited **Manasu Mental Health Charity Home, Trisulam, on 11 July 2026**, followed by the **IV Year students on 16 July 2026**. During both visits, students donated essential provisions and participated in interactive activities including games, music, dance, and conversations. The Home In-charge addressed the students on mental health awareness, kindness, and social responsibility. Continuing the department's commitment to community engagement, the II Year students visited **Visharanthi Home, Palavakkam, on 28 July 2026**. They spent time with the elderly residents through friendly interactions and recreational activities, learning the values of empathy, respect, and service**.**

5.	**STUDENT ACHIEVEMENT**	The Department of Chemical Engineering proudly congratulates **Ms. Sindhukavi S, a III Year** B.Tech Chemical Engineering student, for being recognized as an **NPTEL Believer for the January–April 2026 session.** The recognition is awarded by NPTEL–SWAYAM, IIT Madras to learners who consistently demonstrate dedication to online learning by successfully completing multiple NPTEL certification courses. **Ms. Viniyaa S, a III Year** B.Tech. Chemical Engineering student, was also recognized as an **NPTEL Believer** for the January–April 2026 session, reflecting her dedication to self-learning and academic excellence. **Mr. Susindhiran S, a IV Year** B.Tech. Chemical Engineering student, participated in the Interaction with **NPTEL Stars event** organized by NPTEL, IIT Madras on 10 July 2026. The event provided an opportunity to interact with academicians, NPTEL coordinators, and fellow achievers**.**

6.	**STAFF ACHIEVEMENT**	**Dr. S. Vinod Kumar, Associate Professor**, Head of the Department has published two research papers in the **international journal Journal of Polymer & Composites.** The articles focus on sustainable polymeric materials for environmental remediation and value-added utilization of agricultural waste. **Dr. R. Sivaranjanee, Assistant Professor**, has achieved a significant research milestone with the publication of an Indian Patent Application titled "**Quantum-Inspired Analog Signal Processor for Ultra-Low Latency Computing"** in The Patent Office Journal (31 July 2026). As one of the inventors, she contributed to the development of an analog signal processing system designed for ultra-low latency, reduced power consumption, and high computational efficiency. The publication and patent-related achievements highlight the department's research, innovation, and intellectual property development activities.

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

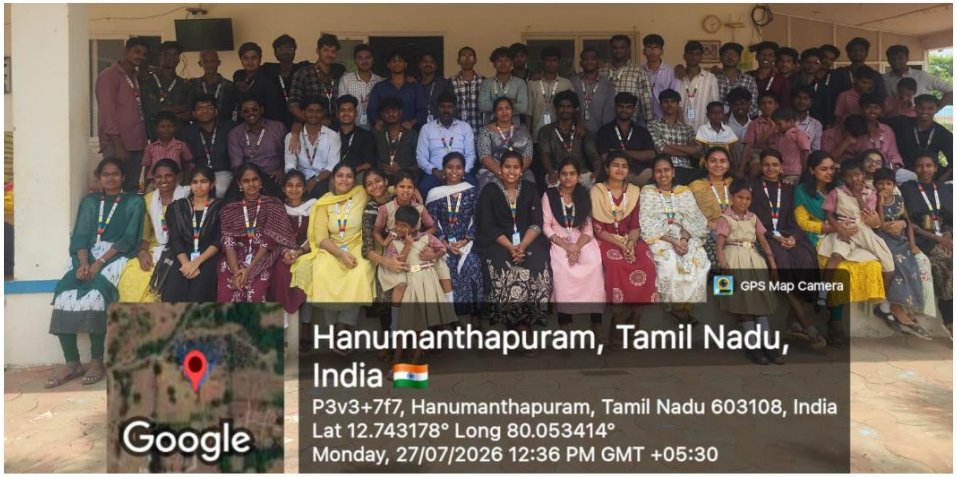
Sl. No.		Description
1	**Career Guidance Program**	**Date** : 29.07.2026 **Venue** : Saint Vincent Palloti Matriculation Hr. Sec. School, Pallavaram **Nature of Event** : Outreach – Career Guidance Programme Participants : School students; Faculty Coordinators – Ms. K. Sudha, Ms. L. Steffina Morin, Ms. R. Sinduja Objective : • Organized in association with the St. Joseph's ACM Student Chapter to support school-level career awareness. • Bridge the gap between school education and career readiness by exposing younger students to real-world opportunities. • Make career planning more accessible and relatable through interactive engagement. Outcome : • School students learned the latest trends in Technology & AI and explored the fundamentals of Data Science. • Enhanced logical thinking and problem-solving skills among participants. Students gained valuable career guidance and higher education insights, helping them make informed career choices.

Sl. No.	Unlocking Opportunities	Description
2		**Date** : 20.07.2026, 1:15 PM – 2:15 PM **Venue** : Conference Hall, XII Block **Nature of Event:** Soft Skills Seminar **Participants:** III Year CSE students; Resource Persons – Mrs. Vidhya (Director, Action DnA), Mr. Khaleel Rehman (Founder & CEO, Action DnA) **Objective :** • Prepare III Year students for the professional workplace ahead of the placement season. • Build student confidence in resume building, interviewing, and professional presentation. **Outcome:** • Students gained practical insights covering resume building, interview skills, and body language. • Enhanced employability and professional presentation skills among participants.

Sl. No.	AI Career Accelerator	Description
3		**Date** : 18.07.2026, 8:00 AM **Venue** : Conference Hall, XII Block **Nature of Event :** Invited Talk **Participants** : CSE students; Chief Guest – Mr. Pulidevan Prabakaran, Chief Marketing Officer, PenCap Institute **Objective :** • Organized in association with The Institution of Engineers (India), Kancheepuram Local Centre, to expose students to careers in Artificial Intelligence. • Help students understand the rapidly evolving AI landscape and prepare with the technical and professional skills required for AI-driven careers. • Inspire students to pursue further learning in AI. **Outcome :** • Students gained insight into the latest AI trends and their influence across industries. • Students learned about career opportunities and strategies to prepare for AI-driven careers.

Sl. No.	NGO Visit	Description
4	**IV Year (Sections B & D)**	**Date** : 27.07.2026 **Venue** : Faith Home, Porur (IV-B); Maria Home for the Aged, St. Thomas Mount (IV-D) **Nature of Event:** Social Outreach – NGO Visit **Participants:** IV Year CSE, Sections B & D **Objective:** • Instill empathy, community awareness, and civic responsibility among students as part of the department's social responsibility initiatives. **Outcome:** • IV-B section engaged with residents at Faith Home, Porur; IV-D section spent time with elderly residents at Maria Home for the Aged. • Promoted empathy and social responsibility among students.

Sl. No.	NGO Visit	Description
5	**IV Year (Sections A & C)**	**Date** : 27.07.2026 **Venue** : St. Vincent House – Anbu Illam, Thirukazhukundram (IV-A); Little Flock Children Home (IV-C) **Nature of Event :** Social Outreach – NGO Visit **Participants:** IV Year CSE, Sections A & C **Objective :** • Extend the department's community outreach efforts and cultivate a sense of service among students. **Outcome :** • IV-A section spent time with residents at St. Vincent House – Anbu Illam; IV-C section engaged with children at Little Flock Children Home. • Strengthened students' sense of social service and community engagement.



Sl. No.	NGO Visit	Description
6	**III Year (Sections B, E & A)**	**Date** : 16.07.2026 **Venue** : St. Vincent Children's Home, Thirukazhukundram (III-B); Little Flock Children Home (III-E); Annai Fathima Child Welfare Centre, Karapakkam (III-A) **Nature of Event :** Social Outreach – NGO Visit **Participants:** III Year CSE, Sections A, B & E **Objective :** • Foster social awareness among III Year students through structured NGO visits across multiple sections. **Outcome :** • III-B engaged with children at St. Vincent Children's Home; III-E contributed time and support at Little Flock Children Home; III-A extended outreach at Annai Fathima Child Welfare Centre

Sl. No.	NGO Visit	Description
7	**III Year (Sections C & D)**	**Date** : 16.07.2026 **Venue** : CSI Mahimai Illam Residential School, Chengalpattu (III-C); Our Lady's Queen Ship Home, Koothavakkam (III-D) **Nature of Event :** Social Outreach – NGO Visit **Participants :** III Year CSE, Sections C & D **Objective :** • Continue the department's ongoing effort to instill values of empathy and community service among III Year students. **Outcome :** • III-C section visited CSI Mahimai Illam Residential School; III-D section engaged with residents at Our Lady's Queen Ship Home. • Reinforced values of empathy and community

		service, extending the department's structured NGO outreach programme.

Sl. No.	NGO Visit	Description
8	**II Year (Sections D & C)**	**Date** : 21.07.2026 **Venue** : Annai Fathima Child Care, Karapakkam (II-D); St. Vincent School, Oragadam, Thiruporur (II-C) **Nature of Event :** Social Outreach – NGO Visit **Participants:** II Year CSE, Sections C & D **Objective :** • Provide II Year students with early exposure to community service and social responsibility. **Outcome :** • II-D section visited Annai Fathima Child Care; II-C section visited St. Vincent School, Oragadam. • Reflected the department's consistent effort to build socially conscious engineers from the early years of their academic journey.

Sl. No.	NGO Visit	Description
9	**II Year (Sections B & A)**	**Date** : 28.07.2026 **Venue** : St. Vincent School, Oragadam, Thiruporur (II-B); Anbu Thondu Nilayam, Chengalpattu (II-A) **Nature of Event :** Social Outreach – NGO Visit **Participants:** II Year CSE, Sections A & B **Objective :** • Complete the department's NGO outreach initiative for II Year students for the month of July 2026. **Outcome :** • II-B section visited St. Vincent School, Oragadam; II-A section visited Anbu Thondu Nilayam, Chengalpattu. • Reinforced social responsibility across all II Year sections.

DEPARTMENT OF MECHANICAL ENGINEERING

Sl No	Name of the Activity	Remarks
1	**Faculty Achievements**	➢ Dr. Vaddi Seshagiri Rao, Professor & Principal from the Department of Mechanical Engineering Published an article titled "Investigating the Mechanical Properties and Microstructure of AA 7074 Composites with Silicon Nitride Reinforcement", a Web of Science (ESCI) Indexed Journal on 23rd July 2026. ➢ Mr. N. Sathishkumar, Assistant Professor, has published a research paper titled “Influence of Heat Treatment and Deep Cryogenic Exposure on the Properties of Laser Powder Bed Fusion-Fabricated Aluminium Alloy” in the SCIE-indexed, Anna University Annexure I journal, Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering. ➢ Mr. N. Sathishkumar, Assistant Professor, has published a research paper titled “Microstructure and Surface Roughness Analysis of AA6061–Mild Steel Coatings Produced by Friction Surfacing” in the ESCI-indexed journal Engineering Research Express, published by IOP Publishing.

		➢ Mr. N. Sathishkumar, Assistant Professor, has served as a reviewer for the reputed International Journal of Elastomers & Plastics, published by SAGE Journals. The journal is SCIE-indexed and listed in Anna University Annexure I. ➢ Mr. N. Sathishkumar, Assistant Professor, has served as a reviewer for the reputed international journal Composite Interfaces, published by Taylor & Francis. The journal is SCIE-indexed and listed in Anna University Annexure-I. ➢ Mr. Subramanian M (Research Scholar), Dr. Arunkumar N (Professor & Dean Industry Collaboration & IQAC) and Mr. T. Balasubramanian (Assistant Professor) from the Department of Mechanical Engineering have published an article titled "ALiBERT: Transformer-Based NLP and Hybrid Ensemble Learning Framework for Predicting Material Properties" in SCIE indexed journal, Arabian Journal of Science and Engineering (IF: 3.2, Q1 Journal, Anna University Annexure). DOI : 10.1007/s13369-026-11550-1 ➢ Dr.. M.Arun, Assistant Professor in department of Mechanical Engineering has authored a book titled "Innovative Materials, Composite Systems, and Applied Sciences" with ISBN: 978-81-999206-6-8, through SRR Publication. ➢ Mr. SANKARAN D, Assistant Professor from the Department of Mechatronics Engineering Published an article titled "Quantum-

		Inspired Feature Selection and Federated Intelligence for Predictive Geriatric Healthcare", a Scopus Indexed Journal on July 2026. DOI: 10.1109/IC2PCT68894.2026.11584337. .
2	 	➢ Dr. G. Ashwin Prabhu, Assistant Professor from the Department of Mechanical Engineering, St. Joseph's College of Engineering, Chennai, was invited to deliver a guest lecture on "Failure Theories: Concepts and Applications in Machine Design" at Velammal Institute of Technology as part of an academic expert lecture initiative. ➢ The expert session was well received by the students of III Year Mechanical and Mechatronics Engineering, enhancing their knowledge of advanced machine design principles and encouraging them to develop innovative approaches in core engineering fields
3	**Guest Lecture-1**	➢ On 29th July 2026, The Department of Mechanical Engineering organized a guest lecture on "Fundamentals of Laser Powder Bed

		Fusion Additive Manufacturing Process" for III-Year Mechanical Engineering students. The session was delivered by Dr. Senthilkumaran Kumaraguru, Associate Professor, IIITDM Kancheepuram. The lecture focused on the fundamental concepts of Laser Powder Bed Fusion (LPBF), advanced additive manufacturing techniques, industrial applications, and recent developments in precision engineering.
4	Guest Lecture-2 	➢ On 31st July 2026, The Department of Mechanical Engineering organized a guest lecture on "Offshore Wind Energy: Opportunities and Challenges for Mechanical Engineers" for IV-year Mechanical Engineering students. The session was delivered by Dr. K. Boopathi, Director & Division Head, National Institute of Wind Energy (NIWE).

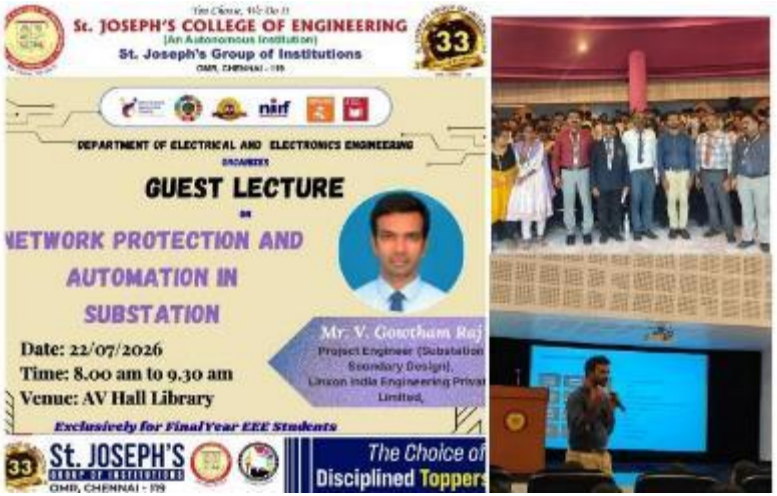
5		➢ On 31st July 2026, The Department of Mechanical Engineering organized a guest lecture on "Machine Design, Retrofitting, and Industrial Automation" for II-Year Mechanical Engineering students. The session was delivered by y Mr. P. Arun Subbaramani, BE, MBA, Managing Director, Guru Raaga Sai Solutions. The session focused on the latest developments in machine design, system improvement techniques, and automation technologies in the manufacturing sector.
6		➢ On 29th July 2026, the Department of Mechatronics Engineering organized a guest lecture on "AI Driven Industrial Automation" for II & III -Year Mechatronics Engineering students. The session was delivered by y Mr. Dinesh Kumar Manikam, Founder and CEO of READ Automation, Chennai . The session focused on the latest developments of AI in machine design, system improvement techniques, and automation technologies in the Engineering sector.
7	Industrial Visit	➢ On 16/07/2026, the III Year B.E. Mechanical Engineering – Sections A & B students visited Rishaba Industries LLP, where they gained practical exposure to modern manufacturing processes, production techniques, quality control systems, and industrial safety practices. ➢ On 17/07/2026, the II Year B.E. Mechanical Engineering – Sections A & B students visited Rishaba Industries LLP, providing them with valuable insights into shopfloor operations, manufacturing workflows, and real-world engineering applications. These visits

		strengthened the students' practical understanding and enhanced their industry readiness. ➢ On 13/07/2026, the IV Year B.E. Mechanical Engineering – Sections A & C students visited Thai Casting Ltd. as part of an industrial visit. During the visit, students gained hands-on exposure to the pressure die casting process, including die preparation, molten metal injection, solidification, product ejection, and quality inspection techniques. The visit enhanced their understanding of modern casting technologies, production efficiency, and industrial manufacturing practices. ➢ The II Year Mechatronics students visited Thaai Casting Pvt. Ltd. on 20/07/2026 to gain practical exposure to modern casting and manufacturing processes. They observed foundry operations, quality inspection methods, and industrial safety practices. The visit helped bridge the gap between classroom concepts and real-world manufacturing applications while enhancing their understanding of industrial production systems. ➢ On 16/07/2026, the III Year B.E. Mechatronics Engineering students visited Rishaba Industries LLP as part of an industrial visit. During the visit, they gained practical exposure to modern manufacturing processes, machining operations, quality control procedures, and industrial safety practices. The visit enhanced their understanding of

		real-world production systems and strengthened the connection between theoretical concepts and industrial applications
8	Alumni Mock interview	➢ On 01st August 2026, the Department of Mechanical & Mechatronics Engineering organized an Alumni Mock Interview session for III & IV Year Students. The session focused on how a student need to prepare for interview. Do & Don't on Resume Building and Non-formal Communication in interview panel. Total of 10 Alumni were invited from various sector like IT, ITE's Core company. Student had a nice interaction and cleared their doubts.
9.	Students acheivements	➢ Mr. J. B. Kailasham & Mr. Sheron Joseph (Batch 2022–2026) from the Department of Mechanical Engineering, Published an article titled "Brain-Computer Interfaces in Neurorehabilitation: Advancing Cognitive, Motor, and Sensory Recovery Through Adaptive Neurotechnology" in Scopus Indexed Book chapter "IGI Global Scientific Publishing", Under the Guidance of Dr. G. Ashwin Prabhu. ➢ Mr. Sharath Sanjeev V.V., final year mechanical Student has been selected as an Official Timekeeper for the 42nd Sub-Junior and 52nd Junior State Aquatic Championship – 2026, organized by the Tamil Nadu State Aquatic Association (TNSAA) at the SDAT Aquatic Complex, Velachery, Chennai. A National-level swimmer and Anna University Gold Medallist, he continues to bring pride to our institution through his outstanding achievements and contribution to

		sports. We congratulate him on this remarkable accomplishment and wish him continued success in his sporting career ➢ Third year Mechatronics students Bhaarath K, Jadadhish S V, Mohammed Arafath Ahmed F along with three chemical students has been awarded as winner in software category Rs 3000/- for the title " A Low - Cost IOT-Based smart grain storage monitoring and protecting system for reducing postharvest losses".
	 SANGAR VISHAL M KATHIRVEL RAJA L KARTHICK S	➢ We are delighted to announce that three final year B.E. Mechanical Engineering students have been successfully placed at Caterpillar Pvt. Ltd.: Karthick S Sangar Vishal M Kathirvel Raja L Congratulations to the students on this remarkable achievement. We wish them continued success and a bright future in their professional careers.
		➢ Our Drone Team ACES HIGH, comprising of Mechanical and Mechatronics students, participated in the two days workshop organized by SAEISS and Prathiyusha Engineering College on 25 and 26 July 2026. Students had a hands-on experience on Design and Build and Fly of Drone on their own.

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

Sl. No.	Photographs Captured During Events	Corresponding remarks (Minimum 300 words)
1.	**Guest Lecture**  **PIC: EVENT POSTER & PHOTO**	The Department of Electrical and Electronics Engineering organized a guest lecture on "Network Protection and Automation in Substations" on 22 July 2026, featuring Mr. V. Goutham Raj, Project Engineer (Substation Secondary Design), Linxon India Engineering Private Limited, as the resource person. The session provided valuable insights into the evolution of substations from conventional switching stations to intelligent digital hubs that ensure reliable, secure, and efficient power delivery. The speaker covered the fundamentals of substation protection, the need for automation in modern substations, protection devices and communication protocols, digital substations based on IEC 61850, and emerging trends and future challenges in power system automation. The session concluded with an interactive discussion, enabling students to gain practical knowledge of modern substation technologies and their applications in the evolving power sector.

2.	**Skill Development Workshop** **PIC: EVENT POSTER & PHOTO**	The Department of Electrical and Electronics Engineering, St. Joseph's College of Engineering, in association with **The Institution of Engineers** (India), Kancheepuram Local Centre, organized a One-Day Skill Development Workshop on **"T5 LED Light Assembly**" on **08 July 2026 at the AV Hall**. The Inaugural Address was delivered by Dr. Jayarama Pradeep, Professor and Head, Department of EEE, St. Joseph's College of Engineering. The Guest of Honour Address was delivered by Dr. S. Karthikeyan, FIE, Chairman, IE(I), Kancheepuram Local Centre. The workshop featured three technical sessions focusing on Artificial Intelligence in Smart LED Lighting Systems, AI-Based Smart LED Lighting Systems for Energy Conservation, and Neural Network Models for LED Brightness Optimization. The sessions were delivered by **Dr. R. Brindha and Dr. R. Rajarajeswari from SRM Institute of Science and Technology, and Dr. P. Anbarasan from St. Joseph's Institute of Technology.** The workshop concluded with certificate distribution, participant feedback, a group photograph, and a vote of thanks by R. Elanthirayan, FIE.

3.	**Industrial Visit** **PIC: EVENT PHOTO**	Our department organized industrial visit for the **II Year B.E. Electrical and Electronics Engineering students to the North Chennai Thermal Power Station (NCTPS), Athipattu**. On **13th July 2026, 'A' section students and on 17th July 2026, 'B' section students** visited the plant. The visit aimed to bridge the gap between theoretical knowledge and practical industrial applications by providing students with firsthand exposure to thermal power generation and electrical systems. Similarly for **III Year B.E. Electrical and Electronics Engineering students to the Integral Coach Factory (ICF) – Furnishing Division, Villivakkam,** Chennai. **A section students visited on 14th July 2026 and B section students on 17th July 2026**. Also for **IV Year B.E. Electrical and Electronics Engineering** students to **NLC India Limited (NLCIL), Neyveli** on **13th July 2026 for A section, 15th July 2026 for B section and 17th July 2026 for c section students**.
4.	**NGO Visit**	As part of the institutional outreach and social responsibility initiative, the students of **II Year A** visited **Maria Home for Aged**, St. Thomas Mount, Butt Road, Chennai, on **28 July 2026**. On **23 July 2026**, the students of **II Year B** visited **Faith Home, Porur, Chennai**. The visit aimed to instill compassion, empathy, and social awareness among students through meaningful interaction with the residents and by understanding the services provided by the NGO. On **16 July 2026**, the students of **III Year A** visited **Sakthi Aadharavu Illam, Madhuravoyal, Chennai**. On **20 July 2026**, the students of **III Year B** visited **Little Hearts, Panaiyur**

	 PIC: EVENT PHOTO	On **16 July 2026**, the students of **IV Year A** visited **Varam Old Age Home, Mahabalipuram**, On **28 July 2026**, the students of **IV Year B** visited **Queenship of Our Lady RC Convent**. On **27 July 2026**, the students of **IV Year C** visited **CSI Mahimai Illam, Chengalpattu**,
5.	**ISTE Activity**	The Department of Electrical and Electronics Engineering, St. Joseph's College of Engineering, through the St. Joseph's ISTE Student Chapter, in association with the Photonics Society, organized SPARKTECH – Renewable Energy Technologies on 14 July 2026. The programme witnessed the active participation of 30 students from II, III, and IV year EEE. The session delivered by Mr.R.Elanthirayan created awareness on renewable energy technologies, covering solar, wind, hydro, biomass, and geothermal energy and their applications in modern power systems. Recent advancements in energy storage, electric vehicles, smart grids, and sustainable engineering practices were also discussed. The interactive session enabled students to clarify their queries on

	 PIC: EVENT PHOTO	renewable energy projects, research opportunities, career prospects, and government initiatives. The event concluded with an engaging question-and-answer session, motivating students to explore innovative solutions for sustainable energy development.
6.	**Mentor Meeting** 	The Department of Electrical and Electronics Engineering organized Mentor Meeting I under the "NAVA 360° – Empowering Every Student Through Comprehensive Mentoring for Academic Success, Innovation, and Career Excellence" initiative on 24th July 2026 for second-, third-, and final-year students. The meeting focused on providing holistic guidance to enhance students' academic performance, research aptitude, innovation, and career readiness. Faculty mentors interacted with students to discuss academic progress, placement preparation, higher education opportunities, project development, paper publications, patent filing, and participation in technical competitions. Individual concerns and career aspirations were addressed, encouraging students to set clear academic and professional goals. The session strengthened the mentor–mentee relationship and motivated students to actively engage in continuous learning, skill development, and research-oriented activities for their overall growth and success.

	PIC: EVENT POSTER	
7.	**Alumni Talk** **PIC: EVENT POSTER**	The Department of Electrical and Electronics Engineering organized an Alumni Talk titled "From Campus to Zoho Corporation: A Real Placement Journey" on 21st July 2026 for final-year EEE students. The session was delivered by distinguished alumni Mr. V. Vishal, Technical Staff, Zoho Corporation, and Mr. Thinoj D. S., Software Developer, Zoho Corporation. They shared their inspiring placement journeys, highlighting the skills, preparation strategies, and interview experiences that helped them secure careers at Zoho. The speakers emphasized the importance of technical proficiency, problem-solving ability, continuous learning, and effective communication in achieving career success. They also provided practical guidance on placement preparation, industry expectations, and workplace culture in the software industry. The interactive session motivated students to confidently pursue their career goals and prepare effectively for campus recruitment opportunities.

8.	**Alumni Talk** **PIC: EVENT PHOTO**	The Department of Electrical and Electronics Engineering organized a series of career development activities for students on 25th July 2026 to enhance their employability and professional skills. The programme featured an alumni session on "Resume Building and Career in Quantum Computing" by **Mr. Velayudham T. N.**, who shared valuable insights on creating impactful resumes, emerging opportunities in quantum computing, and strategies for career growth in the technology sector. In addition, aptitude training, vocabulary enhancement, and group discussion sessions were conducted to strengthen students' communication, analytical, and problem-solving skills. The activities provided practical exposure to placement preparation and industry expectations while encouraging confidence and teamwork. Students actively participated in the interactive sessions, gaining practical tips on interview preparation, effective communication, and career planning. The alumni interaction inspired students to explore emerging technologies and develop industry-relevant competencies. The programme concluded with enthusiastic participation, equipping students with essential skills for successful campus placements and long-term professional growth.
9.	**Class Committee Meeting**	The first **Class Committee Meeting** for the academic year was conducted on **24/07/2026** to review the academic progress of the students, discuss issues related to teaching-learning practices, and strengthen communication between students and faculty. The meeting aimed to identify areas for improvement and ensure a conducive learning environment. Student representatives shared feedback regarding classroom teaching, laboratory facilities, course materials, and timetable management. Discussions also focused on maintaining discipline, improving attendance, encouraging participation in co-curricular and extracurricular activities, and preparing students for placement and higher studies. Students were motivated to make effective use of the

	 PIC: EVENT POSTER	available learning resources and actively participate in departmental initiatives
1	**IEEE activities**	IEEE WOMEN IN ENGINEERING AFFINITY GROUP ACTIVITY – 29th June 2026. LEADHER – WOMEN IN STEM: LEADERSHIP, GROWTH & GLOBAL OPPORTUNITIES. St. Joseph's College of Engineering (An Autonomous Institution), St. Joseph's Group of Institutions, OMR, Chennai – 119. The Department of EEE, IEEE St. Joseph's College of Engineering Student Branch Chapter (SBC60102), in association with IEEE Women in Engineering Affinity Group (SBA60101), celebrated IEEE WIE Day 2026 by organizing "LeadHer – Women in STEM: Leadership, Growth & Global Opportunities" on June 29, 2026, from 07:00 PM to 08:00 PM IST. Ms. Shashika Lokuliyana, Senior Lecturer at the Sri Lanka Institute of

	 PIC: EVENT POSTER	Information Technology (SLIIT), IEEE Senior Member, Chair (2026) of the IEEE WIE Affinity Group of Sri Lanka, and Women in Computing Chair (2025/26) of the IEEE Computer Society Sri Lanka Chapter, served as the resource person for the session. The speaker encouraged aspiring engineers to build leadership skills, embrace innovation, and contribute meaningfully to the engineering profession. The session concluded with an engaging interaction, motivating participants to leverage IEEE platforms for professional excellence and lifelong learning.
1	**IEEE activities** 	The IEEE Women in Engineering Affinity Group Activity titled "Engineering the Future – Future Technologies, Innovation & Career Opportunities for Engineers" was held on 3rd July 2026, organized by the Department of Electrical and Electronics Engineering at St. Joseph's College of Engineering, Chennai, in collaboration with the IEEE Student Branch Chapter (SBC67001) and the IEEE Women in Engineering Affinity Group (AG#67001). The session was delivered by Mr. Bhaskara Rallabandi, Chief Technology Advisor, BCS Fellow, IETE Fellow, IFIFCT Fellow, IEEE Senior Member, and Forbes Technology Council Member, who shared insights on emerging technologies, innovation, and career opportunities for engineers. His talk, "Future Technologies, Innovation & Career Opportunities for Engineers", included discussions on the evolution of connectivity from 5G to AI-native 6G, industry expectations, technological advancements, and the future engineering

	PIC: EVENT POSTER & PHOTO	landscape, followed by an interactive question-and-answer session with participants.
1	**IEEE activities** **PIC: EVENT POSTER & PHOTO**	The IEEE Women in Engineering Affinity Group organized an event on 7th July 2026 titled "The AI Era – How AI is Transforming Healthcare, Education and Society", hosted by the Department of Electrical and Electronics Engineering at St. Joseph's College of Engineering, Chennai. The session was delivered by Dr. D. Sudarvizhi, Associate Professor, Department of Biomedical Engineering, KPR Institute of Engineering and Technology, who discussed the transformative role of Artificial Intelligence across healthcare, education, and society, highlighting AI-driven innovations, ethical considerations, and responsible adoption of intelligent technologies to address real-world challenges. The webinar concluded with an engaging question-and-answer session that explored AI applications, future developments, and the broader societal impact of emerging intelligent systems.

1	**IEEE activities** **PIC: EVENT POSTER**	The IEEE Power Electronics Society organized an expert session on 28th June 2026 titled "Power Nexus – Optimization Method in Power Converters", hosted by the Department of Electrical and Electronics Engineering at St. Joseph's College of Engineering, Chennai, in association with the IEEE PELS Student Branch Chapter (SBC60101) and as part of the IEEE PELS Day 2026 Celebration. The session was delivered by Dr. Rand Al Mdanat, Senior Power Electronics Engineer at Ingeteam, Spain, and focused on optimization techniques in power converters, enhancing efficiency, addressing design trade-offs, and exploring renewable energy applications. Participants engaged in discussions on improving reliability, energy optimization, and practical applications, with interactive exchanges throughout the session, and were offered e-certificates for their participation.
1	**IEEE activities**	The IEEE Solid-State Circuits Society in collaboration with St. Joseph's College of Engineering, Chennai, organized a webinar on 6th July 2026 titled "Women in Circuits – Analog Mixed Signal Flow in EDA". The session, held from 6:30 PM to 7:30 PM, was delivered by Mrs. Sukanya S. Meher, AMS Staff Engineer at Synopsys, USA, who provided a comprehensive overview of analog and mixed-signal integrated circuit design using Electronic Design Automation (EDA) tools. She covered topics including design flow, simulation techniques, verification methodologies, and industry practices in semiconductor product development. The webinar concluded with an interactive question-and-answer session, enabling participants to gain valuable insights into semiconductor design, analog circuit development, and career opportunities in the VLSI industry.

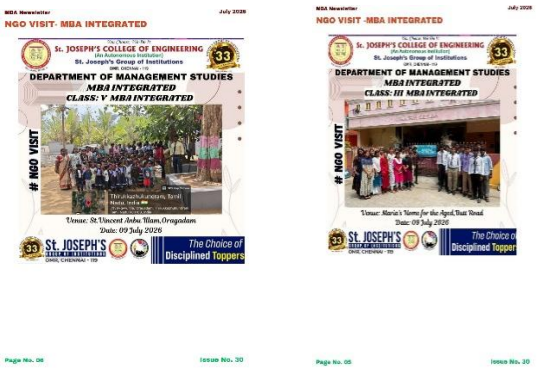
	 PIC: EVENT POSTER & PHOTO	
1	**IEEE activities**	The IEEE Solid-State Circuits Society in association with St. Joseph's College of Engineering, Chennai, organized a webinar on 18th July 2026 titled "Electronics Evolution – Low Power VLSI". The event, conducted by the Department of Electrical and Electronics Engineering along with the IEEE Student Branch Chapter and IEEE Solid-State Circuits Society SJCE SBC, featured Mr. Michael Arul Abel J. J., Analog-Mixed Signal Application Engineer at Cadence Design Systems, Bengaluru, as the resource person. The session, held from 6:00 PM to 7:00 PM IST, focused on designing energy-efficient integrated circuits for modern electronic systems, providing participants with insights into VLSI design methodologies, semiconductor technologies,

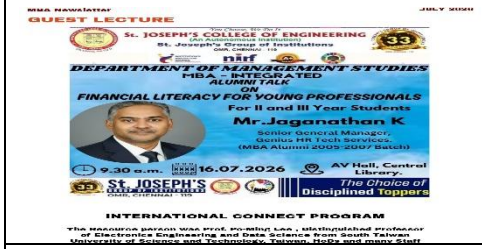
	 PIC: EVENT POSTER	and career opportunities in the VLSI industry. The webinar concluded with an interactive question-and-answer session, enhancing participants' knowledge of low-power VLSI design and its applications in advancing modern electronics.
1(	**Faculty Publication**	• Our faculty Dr.Jayarama Pradeep published an article titled "Stretchable Elastomer–PCM Composites with Bluetooth-Enabled Temperature Monitoring for Wearable Healthcare IoT Devices" in Journal of Polymer & Composites. & "Algal Biodiesel for Energy Security: Societal, Policy, and Engineering Perspectives with RCCI Engine Applications" in MSW Management Journal. • Our faculty Mr.Srianand Ganesh T published an article titled "Thermal and productivity enhancement of a double-slope solar still using beeswax phase change material and pelletized sphagnum moss wick" in Results in Engineering journal. & "Electromagnetic Radiation-Driven Plastic Degradation and Energy Recovery for Sustainable Waste Management" in Nature Environment and Pollution Technology Journal. • Our faculty Mr.K.Aravindhan published an article titled "Smart grid power management using Ai and blockchain-based electric vehicle

		integration optimized by metaheuristic algorithms" in Journal of Energy Storage • Our faculty Ms.S.Gomathi published an article titled "High gain solar-powered electric vehicle drive system using improved quasi-coupled inductor boost converter and advanced PI control" in International Journal of Electronics
1	PLACEMENT DETAILS FOR THE MONTH OF JULY 2026	**2022-2026 Batch** Total No of students placed = 126 Students Total No of Offers = 194 Offers Total No of Students (UG) = 171 Total No of Eligible Students (UG) = 147 (All Clear) % of students Placed (UG) = 126/147 = 74.1 % No of students having single offers = 74 No of students having Double offers = 41 No of students having Triple offers = 06 No of students having 4 offers = 05

DEPARTMENT OF MBA

GUEST LECTURE: 	**Resource Person:** Ms.Jasna KP, AVP-Head Kotak Life Insurance **Topic:** Winning Habits for Career Success **Students:** II / III /IV year MBA Int Students on 28/07/2026
INDUSTRIAL VISIT: 	**Place of Visit:** Lottee India Corporation, Thiruvallur Topic : Quality Management **Students Visited:** IV Year MBA Integrated
FACULTY PUBLICATIONS: 	Dr.R.Satish, HOD-MBA attended online FDP QUALITY DRIVEN WORKPLACE PRACTICES ORGANISED BY AU TVS CENTRE FOR QUALITY MANAGEMENT, ANNA UNIVERSITY From 13 to 17th July 2026.

NGO VISIT:  	III, IV & V YEAR MBA INTEGRATED Students Undergone NGO Visit ON 9TH JULY and 27th July 2026 (9.00AM-5.00PM) Exposure on old age home care & Importance of parental care
International Connect 	Dr. PO-MING-Lee from Southern Taiwan University addressed our faculty on Exploratory Data analysis and its implications with the support from Dean - International Connect Dr.Baskar sir to all the faculty of our college. The seminar aimed to: • Promote international academic collaboration. • Introduce participants to global trends in Open Source technologies. • Understand commercial engineering software applications. • Demonstrate Exploratory Data Analysis (EDA) techniques applicable to research. • Encourage interdisciplinary research. • Improve analytical skills among faculty and MBA students. • Foster opportunities for future academic collaboration.

GUEST LECTURE 	**Resource person:** Mr.JAGANATHAN K, Senior General Manager Genius HR Tech Services **Topic:** Financial Literacy for Young Professionals Venue: AV HALL LIBRARY For II & III Year MBA Integrated Students (16/7/26)
STARTUP SIMULATION CHALLENGE 	Final year MBA 2025-27 BATCH Students undergone seven days training on Simulation -Start up Challenge and got the exposure towards Experiential Learning DATE: JULY 20-28TH 2026 TIME : 8AM-3PM VENUE: MBA Studio

WORKSHOP

WORKSHOP

Workshop organized for IV & V year MBA Int Students by HDFC bank officials

DATE: 30-07-2026 TIME: 9.00AM-3PM

Topic :

Can you beat the Hacker ?

Cyber Fraud Awareness in Banking

Areas covered in Workshop:

Exposure to Cyber security in Banking

Security threats in Banking and RBI Initiatives

Importance of IT Act 2002 In Banking

How to measure Risk Management in Banking

WORKSHOP

MBA Final year Students

DATE: 30-07-2026 TIME: 9.00AM-3.00PM

Topic:

Career Job Readiness Program- Workshop organized for final year MBA Students by Business Toys

Areas covered in workshop:

Exposure in quick shortcuts on aptitude

How to present before interview

Exposure AI application in Business world today

How to crack 5 star rating in CJR Software and getting ready for placement as well for final year MBA and integrated MBA Students

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERINg

Events conducted:

The following events have been conducted during July 2026 at College Level

1. PLACEMENT ACTIVITIES	Report
a. ZOHO PLACEMENT MASTERCLASS	
	The Elite Alumni Placement Masterclass was conducted on 18 July 2026, featuring Mr. Saravanan G, Software Developer at ZOHO Corporation and an ECE alumnus. He shared industry insights on career opportunities, technical competencies, and expectations in product based companies. The session explained ZOHO's recruitment process, including aptitude tests, coding assessments, technical interviews, and HR rounds. Students gained practical guidance on resume building, project selection, placement preparation, and interview skills. The interactive masterclass enhanced students' career readiness and emphasized continuous learning, analytical thinking, and hands on problem solving.

b. ATS-FRIENDLY RESUME DEVELOPMENT	

Mr. Santhosh. M,
Programmer Analyst,
Cognizant

The session titled “Mastering ATS: Hands-on Resume Review and Optimization” was organized for III and IV Year students, led by Mr. Santhosh M, Programmer Analyst at Cognizant. The session focused on creating ATS friendly resumes through effective structuring, keyword placement, and highlighting technical achievements.

Live resume reviews and interactive discussions helped students identify common mistakes and tailor resumes to specific job roles.

The programme enhanced students’ resume writing skills, confidence, and readiness for internship and placement opportunities.

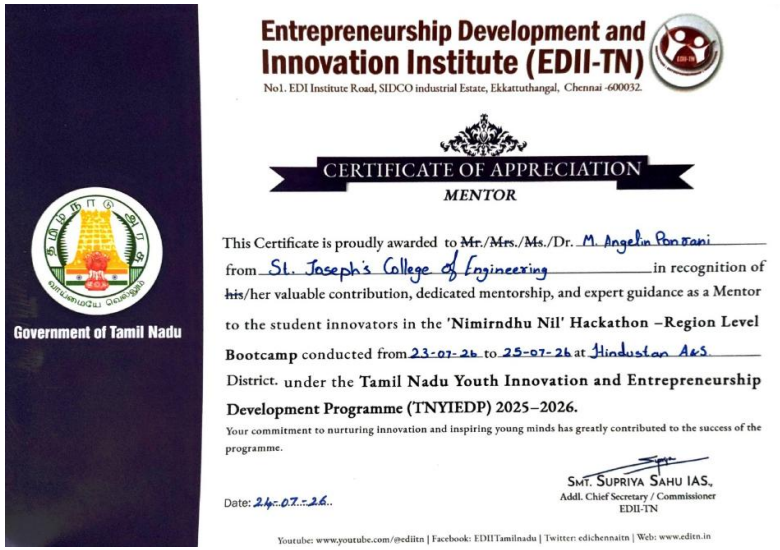
c. RECRUITMENT READINESS PROGRAM

The PEP–Semiconductor and VLSI Design Centre organized an online HCL VLSI Recruitment Readiness Program for registered PEP VLSI Batch 2027 students. HCL VLSI interns and alumni from the 2022–2026 batch shared recruitment experiences and industry insights. The sessions covered Verilog/RTL design, CMOS fundamentals, programming, aptitude, resume building, and interview techniques. The program bridged academic learning with industry expectations, enhancing students' technical knowledge and confidence for VLSI careers.

2. PROFESSIONAL SOCIETY ACTIVITIES	
a. IEEE-ELECTRONICS IN NUCLEAR TECHNOLOGY	
 SHRI SHAMBHU SEKHAR BISWAS, BHARATIYA NABHIKIYA VIDYUT NIGAM LIMITED (BHAVINI), DEPARTMENT OF ATOMIC ENERGY, KALPAKKAM.	A one-day IEEE workshop titled "Building the Future: Engineering Impact on Nuclear Development and Public Service Careers" was organized to highlight ECE's role in the nuclear sector. The session was led by Shri. Sitangshu Sekhar Biswas, Scientist at BHAVINI, Department of Atomic Energy, Kalpakkam. The workshop covered nuclear instrumentation, control and automation systems, reactor safety, and emerging nuclear technologies. The resource person highlighted career opportunities in the Department of Atomic Energy and public sector organizations. The interactive session enhanced students' technical knowledge and inspired them to contribute to national scientific and technological development.

b. ED CELL – FROM IDEA TO IMPACT	
 Mr. J. Rohit, **Director of Strategic** **Partnership, Nano Mech Labs,**	Spark Talk 1.0 – "Entrepreneurship Unplugged: From Idea to Impact" was organized to inspire students to embrace entrepreneurship and innovation. Mr. J. Rohit, Director of Strategic Partnership at Nano Mech Labs, shared industry experiences and practical startup insights. The session covered opportunity identification, business model development, market validation, and funding strategies. The programme encouraged students to overcome entrepreneurial challenges and transform innovative ideas into sustainable ventures.

STAFF ACHIEVEMENTS	
a. STAFF ACHIEVEMENTS	



Government of Tamil Nadu

Entrepreneurship Development and Innovation Institute (EDII-TN)

No1. EDI Institute Road, SIDCO industrial Estate, Ekkattuthangal, Chennai -600032.

CERTIFICATE OF APPRECIATION

MENTOR

This Certificate is proudly awarded to ~~Mr./Mrs./Ms.~~/Dr. M. Angelin Ponrani from St. Joseph's College of Engineering in recognition of ~~his~~/her valuable contribution, dedicated mentorship, and expert guidance as a Mentor to the student innovators in the **'Nimirndhu Nil' Hackathon –Region Level Bootcamp** conducted from 23-07-26 to 25-07-26 at Hindustan Aes District. under the **Tamil Nadu Youth Innovation and Entrepreneurship Development Programme (TNYIEDP) 2025–2026.**

Your commitment to nurturing innovation and inspiring young minds has greatly contributed to the success of the programme.

Date: 26.07.26.

SMT. SUPRIYA SAHU IAS.,
Addl. Chief Secretary / Commissioner
EDII-TN

Youtube: www.youtube.com/@ediitn | Facebook: EDIITamilnadu | Twitter: edichennaitn | Web: www.ediitn.in

Dr. M. Angelin Ponrani, Assistant Professor, Department of Electronics and Communication Engineering, St. Joseph's College of Engineering, was honored with a Certificate of Appreciation by the Entrepreneurship Development and Innovation Institute (EDII-TN), Government of Tamil Nadu, in recognition of her valuable contribution as a Mentor for the 'Nimirndhu Nil' Hackathon – Region Level Bootcamp conducted from 23rd to 25th July 2026 at Hindustan Institute of Technology and Science under the Tamil Nadu Youth Innovation and Entrepreneurship Development Programme (TNYIEDP) 2025–2026

2026 Kalinga Conference
on Communication & Computing
(KALINGACONF)

IEEE MADHYA PRADESH SECTION

24th – 26th July 2026

Certificate

This is to certify that Dr./Prof./Mr./Ms. G D Vignesh has presented paper entitled Reinforcement Learning-Based Antenna Beamforming for Cognitive Radio Networks in 2026 Kalinga Conference on Communication & Computing (KALINGACONF) during 24th to 26th July 2026.

Dr. Sandeep Gandhi
Registrar, Kalinga University

Dr. G. S. Tomar
Chairperson, IEEE Madhya Pradesh

Dr. Vijayalaxmi
General Chair
KALINGACONF 2026

Mr. G. D. Vignesh presented a research paper titled "Reinforcement Learning-Based Antenna Beamforming for Cognitive Radio Networks" at the 2026 Kalinga Conference on Communication & Computing (KALINGACONF). The conference was organized by Kalinga University with the IEEE Madhya Pradesh Section from 24–26 July 2026. The paper showcased using reinforcement learning to optimize antenna beamforming for efficient cognitive radio communication, reflecting the author's active research contributions to wireless communications, AI, and next-generation networking technologies.

b. PATENTS

	A patent application titled "Deep Learning Based Autonomous Monitoring System for Early Detection of Anomalies in Edge Devices" was published by the Indian Patent Office on 03 July 2026. Mr. G. D. Vignesh is one of the listed applicants and inventors of this published patent (Application No. 202641079455 A). The invention proposes a deep learning-based autonomous monitoring system for the early detection of anomalies in edge computing devices to improve system reliability and security. The patent application was filed on 27 June 2026 and published on 03 July 2026, demonstrating a collaborative innovation in intelligent edge computing.
6) PUBLICATIONS	

Journal Publications

1. G D Vignesh F, Faculty of ECE department has published a journal titled “Simulative Performance signature of advanced modified duobinary return to zero modulation techniques management with all optical doped fiber amplifiers in high-speed optical modulated systems” in 2026 Journal of optical Communications

2. Vignesh G.D., Hema Varshini K., Balamurugan A.M., Abinaya B.S., Assistant Professors, Department of ECE has presented a paper titled “Performance Analysis of RIS Assisted Next Generation 6G VANET Under Varying SNR and Element Spacing” in 2026 2nd International Conference on Intelligent systems and computational networks ICISCN.

DEPARTMENT OF PHYSICS AND MATHS

S. No.	Events	Remarks
1	**Collaborative Quality initiatives with other institutions**	1. Dr S. Kiruba and Dr. R. Stalin Mary, had conducted a school outreach program on the concept of "Applications of Mathematics in daily life & Problem solving, Physics behind every day phenomena" at MCC Matriculation Higher Secondary School, Tambaram on 17.07.26. 2. Dr. G. Senthil Murugan and Dr. S. Rajeshwari, had conducted a school outreach program on the concept of "Plan your Path: Practice your Passion" at Ever Green Matric. Hr. Sec. School, Thiruporur on 25.07.26. 3. Dr. M Elumalai and Dr. A. Asha had conducted a school outreach program on the concept of "Learn by Doing: Hands on with Maths and Physics" at Seventh-Day Adventist Matriculation Higher Secondary School, Kalpakkam on 24.07.26 4. Dr. P. Jayaprakash and Dr. R.V. Jaikumar had conducted a school outreach program on the concept of "Activity Based Learning in Physics and Mathematics" at St. Ann's Matric Hr. Sec. School, Melamiyur, on 24.07.26. 5. Dr S. Kiruba and Dr. P. Krishnan, had conducted a school outreach program on the concept of "STEM to Career: From Classroom to Profession" at L.E.F. Eden Matric. Hr. Sec. School,

		Ponneri on 24.07.26.
2	**Industrial Visits, Inplant Training, Internships**	1. Dr. R.V. Jaikumar, Dr. A. Babu, Dr. M. Siva, Dr. S. Rajeshwari & Dr. R. Stalin Mary had attended an Industry Internship on "Machine learning" at Approtech R & D solution (P) Ltd., Tambaram, from 23.06.26 to 07.07.26. 2. Dr. M. Elumalai, had attended an Industry Internship on "Machine learning" at JBB Softech Pvt. Ltd., Thirumazhisai.
4	**FDP/Workshop/Conference**	**Presented:** 1. Dr. A. Babu had presented a paper titled "Next-Generation Mathematical Sciences through Artificial Intelligence", at the A Six Days Faculty Developed program (Online mode)" Organized by "New Prince Shri Bhavani College of Engineering and Technology, Chennai" held between 29.06.26 and 04 .07.26. 2. Dr. K. Dhanaraj presented a paper titled "The Synergy of AI and Nanotechnology" at a guest talk organized by Velavar College of Arts and Science for Women, Tiruvannamalai, held on 22.07.2026. 3. Dr. K. Dhanaraj had presented a paper titled "- Rare Earth doped ZnO Nanomaterials for Advanced Water Treatment" Second International Conference on Green Chemistry & Nanotechnology: Health, Environment & Beyond organized by "Rbvrr Women's College Hydrabed" held on 24-7-26. **Attended:**

		1. Dr. R.V. Jaikumar had attended a 41'st Annual Conference of Ramanujan Mathematical Society Organised By - Manipal Institute of Technology-Bengaluru 2. Dr. P. Krishnan had attended a workshop “Emerging Materials for Energy Storage and Flexible Electronics” Organised by SRM Institute of Science & Technology - Kattankulathur 3. Dr. K. Manimekalai, Dr. A. Asha & Dr. M. Suganthi had attended a faculty development program (Online mode) titled “Next Generation Energy Technologies: Bridging Physics, Material Science and Innovations”, organized by “New Prince Shri Bhavani College of Engineering & Technology, Chennai” held between 13.07.26 and 18.07.26. 4. Dr. P. Shenbagarajan & Dr. P. Jayaprakash had attended a faculty development program (Online mode) titled “Interdisciplinary Innovations and Applications of Science in Engineering Education”, organized by “Aalim Muhammed Salegh College of Engineering, Avadi” held between 13.07.26 and 18.07.26. 5. Dr. N. Punitha, Dr. A. Mahalakshmi, Dr. S. Manikandan, Mr. S. Kaleel Mohamed Ibrahim, Dr. K. Manimekalai, Dr. A. Asha, Dr. S. Rama & Dr. M. Suganthi, had attended a faculty development program titled “Applications of Physics in Advanced Science and Technology”, organized by “Sathyabama Institute of Science and Technology, Chennai” held between 20.07.26 and 25.07.26. 6. Dr. S. Suresh had attended a workshop “Quantum Technology Spin Qubit Semiconductor

		Modeling & Simulation using "QTCAD" TCAD Software" organized by "Nanoacademic Technologies" held between 20.07.26 and 25.07.26.
9	**Awards/Prize won by students / Staff**	1. The Inter-School Competition was organized by Shikshaa Public School, Chennai with Dr. P. Krishnan as the Guest of Honour.
11	**Publications (only published) details**	**Journal Publications:** 1. Dr. P. Jayaprakash published a research article titled "Assessment of Health Risks of Adults and Children Due to Consumption of Uranium in Groundwater from Chengalpattu District, Tamil Nadu, India" in the Journal "Health Physics". DOI: 10.1097/HP.0000000000002157. 2. Dr. S. Rajeshwari published a research article titled "On Half Range Fourier Cosine and Sine Series of Octagonal Fuzzy Number" in the Journal " Springer Proceedings in Mathematics & Statistics". DOI: 10.1007/978-981-95-5891-9_26. 3. Dr. A. Asha published a research article titled "Synthesis, Structural, Spectral Studies, Solvent Effect & Anticancer Activity Potential of Substituted Tetrahydropyrimidinones Catalyzed Using Lipase Enzyme" in the Journal "Journal - Chemistry Select". DOI: 10.1002/slct.73873 **Patent Publications:** 1. Dr. M. Elumalai had published a patent titled "Intelligent Hybrid AI Algorithm for Real-Time Solution of Differential Equations in Engineering Applications" in the "Indian Patent Journal" Application Number: 202641077307, Date: 03.07.2026

		2. Dr. M. Elumalai had published a patent titled “A Computational System for Simulating Magnetohydrodynamic (MHD) and Relativistic Fluid Behaviour in High-Energy Environments" in the "Indian Patent Journal" Application Number: 202641077180, Date: 03.07.2026 3. Dr. M. Elumalai had published a patent titled “A System and Method for Integrating Fuzzy Probabilistic Computation in Real-Time AI Inference Engines" in the "Indian Patent Journal" Application Number: 202641077179, Date: 03.07.2026 4. Dr. A. Mahalakshmi had published a patent titled “Smart Nanostructured Materials for Selective Adsorption & Separation of Pollutants from Aqueous Solutions” in the "Indian Patent Journal" Application Number: 202641088613, Date: 21.07.2026 & patent titled “Method for Synthesizing Fluorine-Doped Tin Oxide Nanomaterials with Optimized Optical and Electrical Properties for Solar Energy Applications” in the "Indian Patent Journal" Application Number: 202641083247, Date: 07.07.2026 5. Dr. R. Stalin Mary had published a patent titled “IOT-Edge-Cloud Real-Time Optimization System for Logistics and Smart City Transportation Using Graph Theory and Machine Learning” in the "Indian Patent Journal" Application Number: 202621065047, Date: 22.07.2026 **Journal Reviewers** 1. Dr. M. Suganthi - Drug Delivery Letters 2. Dr. P. Krishnan - Internet Technology Letters - 2

		3. Dr. M. Elumalai - Asian Journal of Mathematics and Computer Research 4. Dr. S. Rajeshwari - Journal of Fuzzy Extension & Applications 5. Dr. S. Suresh - Journal of Composite Materials - 1 6. Dr. P. Jayaprakash – Journal of Applied Geophysics - 1 , ACS Applied Nano Materials – 1, Journal of the Indian Chemical Society - 1, Chemical Data Collections- 1 7. Dr. K. Dhanaraj - Discover Applied Sciences – 1, Nano Select - 1
13	**Other activities (if any)**	The department of Chemistry and English had conducted the following club activities. 1. Music club – 28.07.26

DEPARTMENT OF CHEMISTRY AND ENGLISH

Sl.No.	Events	Remarks
1	**Collabarative Quality initiatives with other institutions**	1. Dr. N.R. Rajagopalan, Dr. G. Balaraman had conducted a school outreach program on the concept of "Unlocking the future through Chemistry & Mathematics" at "Padma Subramaniam MHSS, Mangadu" on 30.07.26. 2. Dr. B. Subash, Mrs. P. Angeline Kiruba had conducted a school outreach program on the concept of "From Concepts to Career: Exploring Chemistry and Mathematics" at "AVG Vidhyalaya MHSS, Kovilambakkam" on 30.07.26.
2	**Industrial Visits,Inplant Training,Internships**	Dr. G. Balaraman, Mrs. P. Angelin Kiruba, Dr. K. Shriram had attended an Industry Internship on "Machine learning" at Approtech R & D solution (P) Ltd., Tambaram, from 23.06.26 to 07.07.26.
3	**Guest Lecture**	An expert talk session has been arranged by the department of Chemistry and English had been organized on the title of "IEEE Publication Guidelines – Explore, Research, Publish" by the resource person "Dr. Periasamy Pradeep R, IEEE Reviewer, Mentor EBSCO, Entrepreneur" on 31.07.26
4	**FDP/Workshop/Conference**	**Presented:** 1. Dr. A. Uma Devi had presented a paper titled "IoT enabled smart wearables

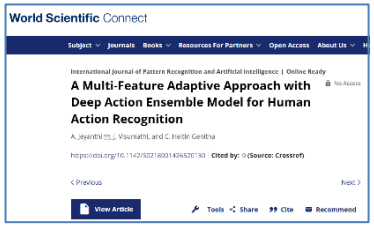
		for early detection of dehydration in elderly care facilities", at the International conference on Intelligence and Sustainable AI systems (Online mode)" Organised by " Politeknik Negeri Bali, Bukit Jimbaran, Kuta Selatan, Indonesia" held between 20.07.26 and 22.07.26. **Attended:** 1. Dr. G. Prabha had attended a faculty development program titled ": Emerging Paradigms in Chemical Sciences and Research", organized by "New Prince Shri Bhavani College of Engineering & Technology, Chennai" held between 06.07.26 and 11.07.26. 2. Dr. P. Saravanan, Dr. V. Swarnalatha, Dr. A. Uma Devi, Dr. G. Prabha had attended a faculty development program titled "Applications of Physics in Advanced Science and Technology", organized by "Sathyabama Institute of Science and Technology, Chennai" held between 20.07.26 and 25.07.26. 3. Dr. S. Pavaimalar had attended an International faculty development program titled "Palthurai nokkil Thamiziyal kalvi", organized by "A.M. Jain College, Meenambakkam, Chennai" held between 20.07.26 and 29.07.26. 4. Dr. S. Narendran had attended a faculty development program titled "Reimagining the sustainable development goals through Indian literature: Teaching, research and community engagement", organized by "SRM

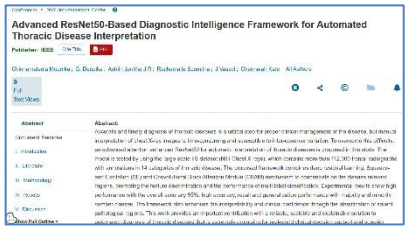
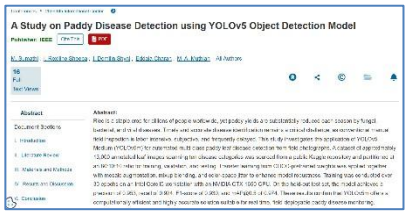
		Institute of Science and Technology, Kattankulathur" held between 22.07.26 and 30.07.26. 5. Dr. S. Suresh Babu had attended a faculty development program titled "Kanini Tamil and AI", organized by "Sacred Heart College, Thiruppattur." held between 27.07.26 and 31.07.26. 6. Dr. U. Venkateswara, Dr. K. Nanthitha, Dr. M. Vinothkumar, Dr. G. Arun had attended a faculty development program titled "Biding bytes and books: Harmonising AI, Digital Humanities, and Advanced ELT in English studies", organized by "New Prince Shri Bhavani College of Engineering and Technology, Chennai." held between 27.07.26 and 31.07.26. 7. Dr. P. Saravanan, Dr. V. Swarnalatha, Dr. A. Uma Devi, Dr. N.R. Rajagopalan, Dr. K. Jayamoorthy, Dr. B. Subash, Dr. G. Prabha, Dr. U. Venkateswara, Dr. G. Balaraman had attended a faculty development program titled "Recent advances in sustainable energy, automation and industry 5.0", organized by "Kings College of Engineering, Punalkulam." held between 27.07.26 and 31.07.26.
11	**Publications(only published) details**	**Journal Publications:** 1. Dr. P. Saravanan published a research article titled "Couplilng Solar light Photocatalysis with defect assisted charge separation in CuO – Fe2O3

		Nanocomposites for sustainable water treatment" in the Journal "Catalysis today". Doi: https://doi.org/10.1016/j.cattod.2026.115902 2. Dr. P. Saravanan published a research article titled "Graphene oxide-induced enhancement of mechanical, physical and thermal aging performance in EPDM / CIIR rubber composites" in the journal "Journal of Thermal Analysis and Calorimetry" Doi: https://doi.org/10.1016/j.rineng.2026.111523 3. Dr. B. Subash published a research article titled "One pot synthesis of pyridine-1,2,3- triazoles using erbium loaded copper oxide nano particles: In silico and biological investigation" in the journal "Journal of Molecular Structure". Doi: 10.1016/j.molstruc.2026.147019 4. Dr. G. Prabha published a research article titled "Phytofabrication of Chitosan-MgO nanocomposites: Evaluation of their antioxidant, antibacterial, anticancer, and zebrafish embryo biocompatibility properties" in the journal "Journal of Photochemistry & Photobiology , B : Biology" Doi: https://doi.org/10.1016/j.jphotobiol.2026.113504 **Patent Publications:**

		Dr. N.R. Rajagopalan had published a patent titled "Analysis of Jeffrey Fluid Transport in porous media under MHD Effects" in the "Indian Patent Journal" Application Number: .202641088612A, dt. 24.07.26 **Journal Reviewers** 1. Dr. N.R. Rajagopalan – Chemical Papers, American Journal of Applied and Industrial Chemistry 2. Dr. K. Jayamoorthy - Nano fabrication, Journal of Photochemistry & Photobiology Mini Reviews in Organic Chemistry, Inorganic Chemistry Communications 3. Dr. B. Subash - Next Materials , Chemical Physics Impact , Current Analytical Chemistry 4. Dr. G. Prabha - Research advances in Drug Delivery and formulations
13	**Other activities(if any)**	The department of Chemistry and English had conducted the following club activities. 1. English club – 28.07.26 2. Tamil Club – 30.07.26

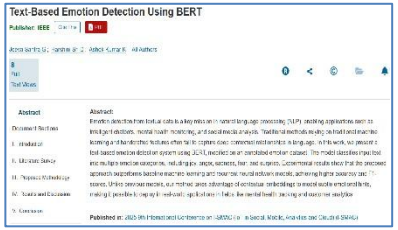
DEPARTMENT OF INFORMATION TECHNOLOGY

	Photographs Captured During Event/Screenshot	Corresponding remarks in regarding the status of activity execution
1.	 **Co-Author** **Dr. Heltin Genitha C,** published a scopus indexed paper	**Staff Publication** Jeyanthi A., Visumathi J.; **Heltin Genitha C.,** "A Multi-Feature Adaptive Approach with Deep Action Ensemble Model for Human Action Recognition", International Journal of Pattern Recognition and Artificial Intelligence Article 2026, Article number 2652013, ISSN 02180014" DOI: 10.1142/S0218001426520130, 19 July 2026 **Abstract** Human action recognition (HAR) has gained significant attention with the advancement of deep learning techniques; however, effectively capturing both spatial and temporal dynamics remains challenging. This study proposes a multi-feature adaptive deep ensemble (MF-ADE) framework for robust action recognition from video sequences. The model integrates four base learners, each combining a pre-trained convolutional neural network (CNN) (DenseNet201, MobileNetV2, Xception, and EfficientNetB7) for spatial feature extraction with a long short-term memory (LSTM) network for temporal modeling. The proposed framework is evaluated on three benchmark datasets — UCF101, HMDB-51, and Kinetics-700 — using accuracy, precision, recall, and F1-score. Experimental results demonstrate that MF-ADE achieves superior accuracies of 99%, 76%, and 88%, respectively, outperforming individual base models and conventional ensemble averaging. improved robustness under challenging conditions, including noise and illumination variations.

2.	 **Co-Author** **Ms. Ashlin Jenitha J R,** published a scopus indexed paper	C. Mounika, G. Deepika, **Ashlin Jenitha J R**, R. Susmitha, J. Vasavi and C. Kate, "Advanced ResNet50-Based Diagnostic Intelligence Framework for Automated Thoracic Disease Interpretation," 2026 3rd International Conference on Research Methodologies in Knowledge Management, Artificial Intelligence and Telecommunication Engineering (RMKMATE), Chennai, India, 2026, pp. 1-9, doi: 10.1109/RMKMATE69073.2026.11518671. **Abstract:** Accurate and timely diagnosis of thoracic diseases is a critical step for proper clinical management of the disease, but manual interpretation of chest X-ray images is time-consuming and susceptible to inter-observer variation. To overcome this difficulty, an advanced attention enhanced ResNet50 for automatic interpretation of thoracic diseases is proposed in this study. The proposed framework combines deep residual learning, Squeeze-and-Excitation (SE) and Convolutional Block Attention Module (CBAM) mechanism to concentrate on the disease relevant regions, promoting the feature discrimination and the performance of multi-label classification. Experimental results show high-performance with the overall accuracy 95%, high accuracy, recall and generalization performance with majority and minority number classes. The framework also enhances the interpretability and clinical confidence through the identification of salient pathological regions. This work provides an important contribution with a reliable, scalable and explainable solution to automated diagnosis of thoracic diseases that is extremely promising for real-world clinical decision support and superior patient care
3.	 **Co-Author** **Ms. I. Domilin Shyni,** published a scopus indexed paper	M. Sumathi, I. R. Sheeba, **I. Domilin Shyni**, E. Charan and M. A. Muthiah, "A Study on Paddy Disease Detection using YOLOv5 Object Detection Model," 2026 6th International Conference on Pervasive Computing and Social Networking (ICPCSN), Salem, India, 2026, pp. 939-944, doi: 10.1109/ICPCSN68523.2026.11543917. **Abstract:** Rice is a staple crop for billions of people worldwide, yet paddy yields are substantially reduced each season by fungal, bacterial, and viral diseases. Timely and accurate disease identification remains a critical challenge, as conventional manual field inspection is labor-intensive, subjective, and frequently delayed. This study investigates the application of YOLOv5 Medium (YOLOv5m) for automated multi-class paddy leaf disease detection from field photographs. A dataset of approximately 13,000 annotated leaf images spanning ten disease categories was sourced from a public Kaggle repository and partitioned at an 80:10:10 ratio for training, validation, and testing. Transfer learning from COCO-pretrained weights was applied together with mosaic augmentation, mixup blending, and color-space jitter to enhance model robustness. Training was conducted over 30 epochs on an Intel Core i5 workstation with an NVIDIA GTX 1650 GPU. On the held-out test set, the model achieved a precision of 0.953, recall of 0.924, F1-score of 0.930, and mAP@0.5 of 0.974. These results confirm that YOLOv5m offers a computationally efficient and highly accurate solution suitable for real-time, field-deployable paddy disease monitoring.

4.	 **Authors** **Arnold, Abinesh F. D.,** **Ms. Reethiga M,** **Dr. C. Heltin Genitha,** published a scopus indexed paper	**Arnold, Abinesh F. D., Reethiga M, C. Heltin Genitha**, "Multi-Modal Hybrid Attention-Based LSTM-CNN Framework for Real-Time Gold Price Forecasting", 2026 International Conference on Computer Networks and Inventive Communication Technologies (ICCNCT), Conference Paper, pp. 1648–1653, Electronic ISBN: 979-8-3315-9020-8, Conference date 11 May 2026 – 13 May 2026, Erode, India, DOI: 10.1109/ICCNCT68477.2026.11590615, Date Added to IEEE Xplore: 07 July 2026. **Abstract:** The international financial system relies heavily upon gold, both as a main source of investment and also as a hedge against unpredictable changes. The large demand for this specific asset along with its fluctuating price (based upon an ever-increasing number of variables) makes accurate forecasting a challenging issue; these variables are defined by future inflation rates, currency fluctuation rates, and changes in political landscapes. Traditionally, financial analysts utilize Linear Regression, Decision Tree, and Random Forest, derive inferences by interpreting complex transactional relationships. however, the aforementioned models typically under-represent the time-dependent nature of financial timeseries data. Our ML model/algorithm is a multi-modal hybrid deep learning model combining Convolutional Neural Networks (CNN) to extract static numerical sequences used for making decisions with Long Term (LSTM) Memory Networks. We conducted experimental evaluation in order to benchmark our multi-modal hybrid design against several traditional ensemble-classifiers; and observed that there was an average decrease of 4.5% in RMSE and an increase of 6.8% in R-Squared for our architecture compared to the other classifiers.

5.	 Explainable Deep Learning Framework for Drug–Target Interaction Prediction using Graph-Transformer Embeddings and Multi-Omics Integration **Authors** **Chris Glary C, Edina A,** **Dr. S. Sumathi,** published a scopus indexed paper	**Chris Glary C, Edina A, S. Sumathi,** "Explainable Deep Learning Framework for Drug–Target Interaction Prediction Using Graph-Transformer Embeddings and Multi-Omics Integration", 2026 International Conference on Computer Networks and Inventive Communication Technologies (ICCNCT), Conference Paper, pp. 1484–1490, Electronic ISBN: 979-8-3315-9020-8, Conference date 11 May 2026 – 13 May 2026, Erode, India, DOI: 10.1109/ICCNCT68477.2026.11590167, Date Added to IEEE Xplore: 07 July 2026. **Abstract:** Drug-target interaction (DTI) prediction is a vital aspect of computational drug discovery as it allows the identification of possible treatment candidates and the time and cost of experiment screens are minimized. Despite the recent success of deep learning techniques, most of the current models use only one modality of representation, or are black-box models with limited biological insight. To overcome these drawbacks, this paper suggests a hybrid deep learning model that includes the combination of graph neural networks to learn molecular structure and transformer-based encoders to learn protein sequences. A cross-interaction mechanism is employed to learn joint representations of drug–target pairs for binding affinity prediction. Besides this, explainable artificial intelligence (XAI) methods are also included to find influential substructures of molecules and protein residues, enhancing the transparency and reliability of models. The suggested framework is further tested on benchmark datasets, such as Davis and KIBA, to test its generalization ability. The outcomes of the experiments also show competitive predictive accuracy and significantly meaningful biological information, and suggest the future usefulness of the proposed method in making reliable computational drug discoveries.
6.	 Decentralized Import-Export Escrow Wallet Using Dual Key Authorization and Ethereum Smart Contracts **Authors** **J. Jemina, J. Jebilo Denisha,** **A. S. Hepsi Ajibah,** published a scopus indexed paper	**J. Jemina, J. Jebilo Denisha, A. S. Hepsi Ajibah,** "Decentralized Import-Export Escrow Wallet Using Dual-Key Authorization and Ethereum Smart Contracts", 2026 International Conference on Innovations in Emerging Technologies for Sustainable Development (ICIETSD), Conference Paper, pp. 1–6, Electronic ISBN: 979-8-3315-4823-0, Conference date 09 April 2026 – 10 April 2026, Pudukkottai, India, DOI: 10.1109/ICIETSD68684.2026.11584886, Date Added to IEEE Xplore: 07 July 2026. **Abstract:** This study has proposed a new transaction method for people, who don't trust one another to send secure money by using a decentralized escrow technology. The proposed protocol takes an escrow, a thirdparty smart contract to receive tokens before a transaction get completed. The tokens will be released by the escrow upon fulfilment of the payment requirements. Delivering the agreed-upon commodity or service and paying the associated payment are the obligations of each party to perform a transaction. It should not be possible for one side to pull out a bargain at the cost of the other. The Escrow may be provided with the necessary information by using the oracle pattern if the conditions of payment are contingent on external data, such as the time of product shipment. Once a smart contract's code is recorded on the blockchain, it cannot be changed. This guarantees the safety of the escrow feature.

7.	 **Authors** **Jeeva Santra G, Harshini Sri D, Mr. Ashok Kumar K,** published a scopus indexed paper	**Jeeva Santra G, Harshini Sri D, Ashok Kumar K,** "Text-Based Emotion Detection Using BERT", 2025 9th International Conference on I-SMAC (IoT in Social, Mobile, Analytics and Cloud) (I-SMAC), Conference Paper, pp. 1642–1647, Electronic ISBN: 979-8-3315-7473-4, Conference date 08 October 2025 – 10 October 2025, Kirtipur, Nepal, DOI: 10.1109/I-SMAC65734.2025.11597596, Date Added to IEEE Xplore: 15 July 2026. **Abstract:** Emotion detection from textual data is a key mission in natural language processing (NLP), enabling applications such as intelligent chatbots, mental health monitoring, and social media analysis. Traditional methods relying on traditional machine learning and handcrafted features often fail to capture deep contextual relationships in language. In this work, we present a text-based emotion detection system using BERT, modified on an annotated emotion dataset. The model classifies input text into multiple emotion categories, including joy, anger, sadness, fear, and surprise. Experimental results show that the proposed approach outperforms baseline machine learning and recurrent neural network models, achieving higher accuracy and F1-scores. Unlike previous models, our method takes advantage of contextual embeddings to model subtle emotional hints, making it possible to deploy in real-world applications in fields like mental health tracking and customer analytics
8.	 **Ms. Shoba Rajendran** Published an Indian Patent	**Patent Published** **Title of the invention:** A Machine Learning System for Autonomous Pattern Recognition and Classification **Name of Inventor:** 1. Dr. Sneha Prakash 2. Dr. Vincy Devi V K 3. Anjali Sankar 4. Sukrith Lal P S 5. Rintu Augustine 6. Dr. Pulla Sujarani 7. Kamalakkannan Somasundaram 8. Dr. A. Poongodi **9. Ms. Shoba Rajendran** 10. Kavitha Pachamuthu **Patent Application Number:** 202641074291 **Date of filing of Application:** 15/06/2026 **Publication Date:** 26/06/2026

9.

Sample FDP Certificate

Seminar/ FDP Attended by Faculty

S.No	Title of the topic	Name of the Staff	Conducted By	Date
1.	Future Intelligence Systems: VLSI Meets AI, Security and IoT Applications	Mrs.I.Domilin shyni	SRM institute of Science and Technology	01.07.2026 to 07.07.2026. (6 days)