



JERUSALEM COLLEGE OF ENGINEERING

(An Autonomous Institution, Affiliated to Anna University, Chennai)

Research Papers and Articles(2025- 2026)

S.No.	Department	Name of the author	Title of the paper	Title of the Journal/Conference
1	CS	Lilly Sheeba S	Tamil Handwritten Text Recognition using Deep Learning Technique	Electrical and Electronics Engineering (ICE3), International Conference
2	CS	S.Lilly Sheeba	Enhanced Heterogeneous Vehicular Networks with Intelligent Congestion Avoidance Mechanism Via Regularized Q-Value - Based Graph Generalized Neural Network Transformer	International Journal of Communication Systems(WILEY)
3	EEE	Dr.S.Vinod Ms.S.Rudhra	Enhancing Demand Responce and Energy Management in Multi-Micro Grid Systems with Renewable Energy Sources	Renewable Energy
4	EEE	Booma Nagarajan,Indira Damarla,	Analysis of a Seven-Level Asymmetric Inverter with a Cascaded H-Bridge Configuration	2025 2nd International Conference on Artificial Intelligence and Knowledge Discovery in Concurrent Engineering (ICECONF)
5	CS & BS	J Manoranjini, Malathy B, R Chitra Devi, J M Gnanasekar, Madhumitha G, Suhirtha MP	Fitness App: A customized workout recommendations based on the evaluation of the user's fitness objectives	Grenze International Journal of Engineering and Technology
6	CS & BS	Maya Eapen	Tamil Handwritten Text Recognition using Deep Learning Technique	IEEE wireless antenna and microwave symposium, WAMS
7	BME	J. Samuel Manoharan, B. Nivetha	Multi-task deep learning framework combining CNN: vision transformers and PSO for accurate diabetic retinopathy diagnosis and lesion localization	Scientific Reports
8	BME	J. Samuel Manoharan	Photonic crystal-based hexagonal patch antenna for enhanced terahertz communication applications	Discover Applied Science

	9	BME	Sofia Bobby J , Sheeja V Francis , Subha Ramya V , Annapoorani C L	Preliminary findings on a deep learning model using electroencephalogram for multi-level neuropathic pain detection in post-stroke patients	International Journal of Neuroscience
	10	BME	J Sofia Bobby, V Mythili, S. Purnima, C.L. Annapoorani, V. Subha Ramya, B.Nivetha	Resganet ++ with Locust-Kite Optimization Algorithm (LKOA): an enhanced model based on deep learning for monoaural speech enhancement	Network Modeling Analysis in Helath Informatics and Bioinformatics
	11	BME	Dr.R.Anitha	Time-Series Forecasting of Solar Power Generation Using RNN and IoT Data,	<u>2025 International Conference on Modern Sustainable Systems (CMSS)</u>
	12	BME	Dr.R.Anitha	MI Based Programming Tutor for Context Aware & Adaptive learning,	International Journal of Science, Mathematics and Technology Learning
	13	BME	Dr.R.Anitha	AI Frontier in Oral Cancer Detection for Early Diagnosis and Patient Outcomes Application	Electrical and Electronics Engineering (ICE3), International Conference
	14	BME	Dr.R.Anitha	Artificial Intelligence as a Catalyst for Sustainable Innovation in Oral and Maxillofacial Radiology-Review	Electrical and Electronics Engineering (ICE3), International Conference
	15	BME	Dr.R.Anitha	A Comprehensive Analysis of Wireless Power Transfer in Medical Electronics with a Focus on Sustainability	Electrical and Electronics Engineering (ICE3), International Conference
	16	BME	V.Subha Ramya	Investigation of Assessment Techniques for Analysis of Muscle Fatigue	2025 3rd DMIHER International Conference on Artificial Intelligence in Healthcare, Education and Industry (IDICAIHEI)
	17	BME	V.Subha Ramya	Stress Detection using Physiological Signals and Machine Learning	2026 Twelfth International Conference on Bio Signals, Images, and Instrumentation (ICBSII)
	18	BME	S. Purnima	Mask R-CNN-based Vehicle Speed Estimation for Enhancing Road Safety and Control	5th International Conference on Soft Computing for Security Applications (ICSCSA)
	19	BME	S. Purnima	Epileptic seizure forecasting using EEG with lightweight edge AI	International Conference on INformation Technology ENablers for Persons with Disability (INTEND 2.0), Institution of Electronics and Telecommunication Engineers (IETE) Chennai

	20	BME	S.Lavanya	Quantum Inspired sparse Bayesian learning framework for ultra reliable spectrumsensing in low SNR cognitive Radio Networks	International conference on smart Electronics and communication (ICOSEC 2025)
	21	BME	S.Lavanya	Miniaturized Wideband Rectangular Grid Array Antenna for High-Gain 5G Sub-6 GHz Communication	<u>2026 Third International Conference on Networking and Communications (ICNWC)</u>
	22	BME	S.Lavanya	Angularly Stable, Transparent and Flexible Modified Octagonal Shaped Frequency Selective Surface (FSS) for Sub-GHz 5G Applications	Indonesian Journal of Electrical Engineering and Informatics (IJEEI)
	23	ECE	Sofia Bobby J , Sheeja V Francis , Subha Ramya V , Annapoorani C L	Preliminary findings on a deep learning model using electroencephalogram for multi-level neuropathic pain detection in post-stroke patients	International Journal of Neuroscience
	24	ECE	T. Yuvaraj,R. Krishnamoorthy, S. Arun Mohit Bajaj, Vojtech Blazek , Lukas Prokop	Smart energy strategies for dynamic EV charging and renewable integration in distribution systems: A multi-objective optimization framework	Energy Strategy Reviews
	25	ECE	Venkat Koli,Merlin Sheeba G	A Miniaturized Four-Port MIMO Slotted Microstrip PatchArray Antenna Design With Reduced Mutual Couplingfor 5G Wireless Applications	ACES JOURNAL
	26	ECE	Naresh,Merlin Sheeba G	Efficient Recommender Systems via Co-Clustering-Based Collaborative Filtering	Informatica
	27	ECE	Bharath,Merlin Sheeba G	HybridCardioNet: A CNN-LSTM-Based Deep Learning Framework for ECG Signal Classification and Cardiac Anomaly Detection	Informatica
	28	ECE	Venkat Koli,Merlin Sheeba G	Bandwidth-Enhanced Microstrip Patch Antenna Configurations for Sub-6 GHz and mmWave 5G Applications	International Journal of Electrical and Electronics Research
	29	ECE	Sheeja V Francis, G. Merlin Sheeba, R. Malathy, B. Mahalakshmi, P. Priyadharshini, and M.A. Priyanka	Emergencies and Caregiver Communication using a Brain-Computer Interfacing Framework	International Conference on Modelling Strategies in Mathematics

	30	ECE	Venkat Koli, G. Merlin Sheeba	Bandwidth Enhancement of Micro Strip Patch Antenna to UWB Range for Wireless Applications	9TH International conference on micro-electronics, electromagnetics and telecommunications
	31	ECE	Krishna Reddy, G.Merlin Sheeba	Polar Coded spider Monkey Optimization - Based Partial Transmit Sequence MIMO-OFDM system for PAPR and BER Reduction	Advances in VLSI, Signal Processing and Wireless Communication. IEdTC 2023
	32	ECE	Balamuralitharan Balakrishnan Maria Leo Joseph, Ganesan Packyanathan, Merlin Sheeba ,A. Aranganathan	Efficient YCbCr-Based Deblocking for Compressed Images Using a Feed-Forward Deep Convolutional Neural Network	2025 International Conference on Engineering Innovations and Technologies (ICoEIT), Bhopal, India, 2025, pp. 637-643,
	33	ECE	S.Sampath Kumar Ganesan Packyanathan Maria Leo Joseph Gopukumar S T A. Aranganathan Merlin Sheeba G	PolluTrack: A Smart Machine Learning Approach for Air Quality Analysis and Classification,"	2025 5th IEEE International Conference on Applied Electromagnetics, Signal Processing, & Communication (AESPC), Bhubaneswar, India, 2025,
	34	ECE	Ganesan Packyanathan Maria Leo Joseph Jerry Alexander Gopukumar S T A. Aranganathan Merlin Sheeba G	A Performance-Based Comparison of Machine Learning Techniques for Smart Traffic Analysis and Classification	2025 5th IEEE International Conference on Applied Electromagnetics, Signal Processing, & Communication (AESPC)
	35	ECE	Ganesan Packyanathan,A. Aranganathan Merlin Sheeba G,Maria Leo Joseph,Gopukumar S T Sajiv . G	Chrominance based Skin Color Identification and Segmentation using YCbCr Color Model and Threshold Approach	2025 IEEE 3rd International Symposium on Sustainable Energy, Signal Processing and Cybersecurity (iSSSC)

	36	ECE	Santhosh G, Maria Leo Joseph, S. Sampath Kumar Gopukumar S T, A. Aranganathan Merlin Sheeba G	An Efficient LightGBM-Based Machine Learning Framework for Water Quality Assessment in Urban Environments	2025 IEEE 3rd International Symposium on Sustainable Energy, Signal Processing and Cybersecurity (iSSSC)
	37	ECE	B. Samyuktha, A. Jemima Havila Catherine, G. T. Bharathy	IoT driven meteorological conditions surveillance system	International Conference on Modelling Strategies in Mathematics
	38	ECE	S. A. Saranya; S. Bhavanisankari; G. T. Bharathy	UAV based autonomous delivery system	International Conference on Modelling Strategies in Mathematics
	39	ECE	G. T. Bharathy; T. Tamilselvi ; G. Kavitha	Hydroponics automation system using raspberry PI	International Conference on Modelling Strategies in Mathematics
	40	ECE	G. T. Bharathy ; K. Kavitha; R. Divya; J. Akalya; G. S. Neeranjana	Coal mining safety supervision and notifying system	International Conference on Modelling Strategies in Mathematics
	41	ECE	T. Tamilselvi; G. Kavitha; G. T. Bharathy	Analysis of automatic traffic management system	International Conference on Modelling Strategies in Mathematics
	42	ECE	T. Tamilselvi ; V. Rajendran; G. T. Bharathy	Cognitive network spectrum sensing using the Gaussian mixture model	International Conference on Modelling Strategies in Mathematics
	43	ECE	S. Bhavanisankari; G. T. Bharathy; S. A. Saranya	Analysis of creatine level using Crea Dongle	International Conference on Modelling Strategies in Mathematics
	44	ECE	Dr.G.T.Bharathy, Dr.T. Tamilselvi, Ms.S.A.Saranya	Artificial Intelligence Based Techniques for Cooperative Spectrum Sensing in Cognitive Radio Networks"	3rd Icaem 2026 International School of Technology and Sciences for Women, Rajamahendravaram, Andhra Pradesh, India,
	45	ECE	Dr.G.T.Bharathy, Ms.S.A. Saranya, Ms.Rakshana S, Mr. Victor Raj S, Ms. Yogashree S	A Li-Fi Based Safety Alert Communication System for Aircraft Cabins	2nd Congress on Intelligent Machines and Algorithms, CIMA 2026, at National Institute of Technology, Puducherry
	46	ECE	Dr. Bharathy G.T., Dr. Tamilselvi T., Ms. Raja Saranya K., Mr. Mithun Balaji R.M.	Hybrid Sliding Window Based Centralized Cooperative Spectrum Sensing in Cognitive Networks for 5G Wireless Systems	2nd Congress on Intelligent Machines and Algorithms, CIMA 2026, at National Institute of Technology, Puducherry
	47	CSE	Dr.D.Divya, C.Sivasankar, R. Pugalenth	Optimized Ensemble Highest Ranking Based Trio-Phased Intelligent Skin Cancer Detection: Contribution of Deep learning	Applied Soft Computing

	48	CSE	Dr.D.Divya, Pravin R Kshirsagar,Tan Kaun Tak, Quadri Noorulhasan Naveed	Automated Diagnosis of Parkinson's Disease from Electroencephalogram Signals Using Adaptive Dilated Convolution Capsule Network with Weighted Optimal Feature Fusion	Cybernetics and Systems
	49	CSE	J.Manoranjini, Malathy B,Chitra Devi, J M Gansekar, Madhumitha G, Suhirtha MP	Fitness App a Customized Workout Recommendations Based on the User's Fitness Objectives	Greze International Journal of Engineering and Technology
	50	CSE	Jagadish.A.Nannaware, Narendra G Patil, Dr.K. Prabhavathi,Dharani.M,Vadivel	Mathematical Foundations of Machine Learning for Audio-Visual Media Production: A Computational Approach	International Journal of Aquatic Research and Environmental studies
	51	AIML	Dr. D Parameswari	Analysis and Prediction of Radiation in Photovoltaic Systems Using Machine Learning	Premier Journal Of Science
	52	AIML	Dr. D. Parameswari	Machine Learning and Security Fake Email Detection and Intrusion Detction	International Conference for Emerging Technology (INCET)
	53	AIML	Dr. D. Parameswari	Detection and Classification of Faults in a Power System with Inverter Penetration Based on a Real-Time Machine Learning Application	Fourth International Conference on Smart Technologies, Communication and Robotics (STCR)
	54	AIML	Dr. D. Parameswari	Comparison of Machine Learning Methods for Fraudulent Transaction Classification	6th International Conference for Emerging Technology (INCET)
	55	AIML	Dr. D. Parameswari	Advancing Workforce Development: AI- Driven Personalized Virtual Job Training with IoT Integration and SVM-Based User Profiling	11th International Conference on Communication and Signal Processing (ICCSP)
	56	AIML	K.Srilekha	DeepSpectraNet A Dual-Stream CNN- Transformer Model for Hyperspectral Image Classifications	2025 5th International Conference on Evolutionary Computing and Mobile Sustainable Networks (ICECMSN)
	57	AIML	Ms.B S Berlin Jeba	AI-Driven Continuous Authentication for Strengthening Security and Scalable Analytics in IoT-based Digital Institutions	2026 International Conference on Smart Electronic Devices and Intelligent Systems (ICSEDIS)
	58	AIDS	Dr. M. S. Jeyalakshmi	Hybrid Fuzzy Neural Systems for Real Time Decision Making in Autonomus Vehicles	Journal of Machine and Computing
	59	AIDS	Dr. M. S. Jeyalakshmi	YOLOv8-Based Intelligent Traffic Recognition in Autonomus Driving	2025 World Skills Conference on Universal Data Analytics and Sciences Worlduas

	60	AIDS	Dr. M. S. Jeyalakshmi	IoT Based Sustainable Smart City Lighting and Data Transmission Through Integration of Solar-Powered LED Streetlights with VLC Technology	Journal of Optics India
	61	AIDS	Dr. P. Selvaraju	PanEmo: Decoding Emotions During Pandemic from Social Media Tweets Using Unsupervised Clustering Methods	Intelligent Computing and Communication
	62	AIDS	Dr. P. Selvaraju	Optimization of Hot Water and Pulsed Electric Field Treatment for Extending Shelf Life of Guava(Psidium Guajava L. cv. Allahabad Safeda) during Cold Storage	Journal of Industrial and Management Optimizations
	63	AIDS	Dr. P. Selvaraju	A Regularized Mixed Integer Linear Programming Framework with penalties for integrated workforce, subcontracting and production optimization	Journal of Industrial and Management Optimizations
	64	AIDS	Dr. P. Selvaraju	Benchmarking YOLO nano-architectures for real-time thermal Imaging: application to okra maturity grading on heterogeneous computing platforms	The Journal of Supercomputing
	65	AIDS	Dr. P. Selvaraju	Intelligent THz metasurface biosensor with AI-assisted multi-resonator design for peptide detection	The Journal of Supercomputing
	66	S&H	Dr.S.Jayakumar	Elucidation of microstructure and multifunctional properties of sol-gel synthesized $ZrFe_2O_5$ nanoparticles	Journal of Alloys and Compounds Communications
	67	S&H	Dr.S.Jayakumar	Recent Progress in 3D Bioprinting of Biomaterials for Wound Healing Applications: A Comprehensive Review	Regenerative Engineering and Translational Medicine
	68	S&H	Dr.S.Jayakumar	Effect of Si/Zr ratio on the catalytic behavior of Pt-Cu/Zr-SBA-15 in continuous methane dry reforming	Rsc Advances
	69	S&H	Dr.B.Anitha	Comparative Analysis of Al_2O_3 and HfO_2 -based BIOFETs for Biosensing Applications	IEEE
	70	S&H	Beula Shanthi Ammani Ammal	IoTdriven Medication safety systems in clinical pharmacy	International journal of drug delivery technology
	71	S&H	Beula Shanthi Ammani Ammal	IoT - Enabled disease detection and automated drug delivery system	International journal of drug delivery technology

	72	S&H	Beula Shanthi Ammani Ammal	Machine Learning Enabled IoT Framework for Early Diagnosis and Targeted Drug Delivery	International journal of drug delivery technology
	73	S&H	Beula Shanthi Ammani Ammal	Machine Learning Assisted Design and Simulation of Drug Delivery Mechanisms	International journal of drug delivery technology
	74	S&H	Beula Shanthi Ammani Ammal	Real-time in-situ ftir-electrochemical analysis of Charge storage processes in solar-integrated Supercapacitors with real-time stability Profiling	Oxidation Communications
	75	S&H	Beula Shanthi Ammani Ammal	A Physics- guided temporal convolutional learning with XG boost intergration for degradation-aware and robust electric vehicle range prediction	Scientific reports
	76	S&H	R. Vaithiyanathan	Synthesis and electrochemical analysis of a hierarchical Bi ₂ WO ₆ /TGO nanocomposite for hybrid symmetric supercapacitor applications	Journal of Power Sources
	77	S&H	N. John Jebarathinam	Synergistic photocatalysis using La ₂ O ₃ -NiFe ₂ O ₄ /g-C ₃ N ₄ nanocomposites: mechanistic insights and reusability in dye degradation	Applied Surface Science
	78	S&H	Dr.P. K. Kishore Kumar & Dr. S. Sangeetha	A Game-Theoretic Perspective on Soft Topology: Linking Banach-Mazur Games with Soft Spaces	International Journal of Applied Mathematics
	79	S&H	Dr.V.R. Pathmavathi	Similarity measures for Analyzing Medical Diagnostic Problems and Hamlet's Amenities with Intuitionistic fuzzy Set	International Journal of Aquatic Research and Environmental Studies
	80	S&H	Ms. Malarvizhi V	Perfect Equitable Palindromic Graph labeling: Theory, Applications, And Epidemic Modeling†	J. Appl. Math. & Informatics

	81	S&H	Mr. Narayanan L N & Ms. Malarvizhi V	Prime Cordial Labeling of Contact Networks: An Environmental Application to Epidemic Spread in Aquatic Populations	International Journal of Aquatic Research and Environmental Studies
	82	S&H	Dr.P. K. Kishore Kumar & Dr. S. Sangeetha	Mild Balanced Neutrosophic Graphs With Application	Neutrosophic Sets and Systems,
	83	S&H	Dr.P. K. Kishore Kumar	Emerging ozone generation strategies: mechanistic insights and application-driven developments	the Royal Society of Chemistry
	84	S&H	Dr.P. K. Kishore Kumar	Advanced Soft Topological Structures For Site Selection: Integrating Grill Topology And B#D-Axioms	International Journal of Applied Mathematics
	85	S&H	Dr. B. Senthil	Ethical Intelligence by Design: Bias Mitigation through Nature-Inspired Machine Learning	International Conference on Electrical, Control and Instrumentation Engineering (ICECIE)
	86	S&H	Dr.V.R. Pathmavathi	The Oretical Exploration of Dual Value Correlation Functions in Benchmarking Rural Health Resources and Epistemic Uncertainty in Clinical Information Behavior	Indian Journal of Information Sources and Services
	87	S&H	Mr. Narayanan L N , Ms. Malarvizhi V	GMJ coding techniques on Even felicitous labeling For six-star graph	International Journal of Computer Information Systems and Industrial Management Applications
	88	S&H	Dr.P. K. Kishore Kumar , Dr. S. Sangeetha	Modeling Human-Robot Interaction Using Soft Continuity Principles	International Journal of Applied Mathematics
	89	S&H	Dr.V. Sudhakar, Dr. P. Anuradha and Dr.B. Senthil	Super mean labeling: coding and epidemic Modeling with four-star graphs	International Journal of Applied Mathematics
	90	S&H	Mr. Muthuneelakandan K	The Mechanical Properties of Brass Alloy: A Review	Engineering Proceedings
	91	S&H	Dr.T.K. Kannan	Optimizing graphene- enhanced polycarbonate nanofibers for superior biomedical properties	Polimeros

	92	S&H	Dr.T.K. Kannan	Gaphane modified Polycarbonate nanofibers for biomedical applications: Enhancing Mechanical strength and biocompatability	Journal of biomedical research Part B: Applied biomaterials
	93	S&H	Mr.Arul Kumar B	Influence of higher concentrations of multi valued carbon nanotubes on the tensile and flexural performance of glass fiber reinforced polymers	Engineering reports