

DEPARTMENT OF
ELECTRONICS AND COMMUNICATION ENGINEERING

PUBLICATIONS

Journals | Conferences | Book Chapters

Consolidated List of Publications

	CAY m1 2024 - 2025
Paper Published in National / International Journal	14
Papers published in National Conference	06
Papers published in International Conference	40
Book / Book Chapter Published	10

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

INTERNATIONAL JOURNALS for 2024-2025:

Sl. No	Title of the Paper	Name of the Authors	Name of the Journal	Vol, Issue, pp, Year /ISSN	Indexing / UGC /Scopus/ SCI
1	A Niche Quantum Ant Colony Multifaceted Routing Algorithm for WSN-based IoT Networks in the Emerging Quantum Industry	P. Suseendhar, Capt. Dr.K.P. Sridhar	Journal of Internet Services and Information Security	Vol 14, No.4, pp 418-435 ISSN: 2182-2069,2024	SCIE
2	A Novel CPW-Fed Flexible Antenna with Circular Polarization for Enhanced Vehicular Communication Systems	Rajesh Kumar D , Vaithianathan Venkatesan , Raja Periyasamy, B. Rubini , Ragunath G , Om Prakash Kumar , Shweta Vincen	Results in Engineering	Vol. 25, ISSN: 2590-1230 February (2025)	SCI
3	Unmasking Deception Harnessing Noise Cancellation for Digital Image Forgery Detection Using Feature-Map Convolutional Neural Networks	Dr.S.Dhivya	International Journal of Sensors, Wireless Communications and Control	Vol 15, No .2, pp 184 – 199, ISSN 2210-3287, 2025:	SCOPUS
4	Study of digital image processing technology and the applications of that technology(Accepted)	Dr.S.Dhivya	International Journal of Science, Mathematics and Technology Learning	Accepted	SCOPUS
5	Free Space Optics Transmission Enabled by PAM-4 Signals: Performance Evaluation Under Indian Weather Conditions	V. Vaithianathan P. Raja Sathya Selvaraj Sinnasamy R.Gayathri B. Vasudevan	Internet Technology Letters	Vol 8, No. 2, pp 126, ISSN: 2476 - 1508	ESCI
6	Energy efficient clustering and sink mobility protocol using hybrid Golden Jackal and improved whale optimization algorithm for improving network longevity in WSNs	S. B. Lenin R. Sugumar J. S. Adeline Johnsana N. Tamilarasan R. Nathiya	China Communications	Vol 22, No 3, pp. 16-25 March 2025, ISSN: 1050- 3293	SCIE

Sl. No	Title of the Paper	Name of the Authors	Name of the Journal	Vol, Issue, pp, Year /ISSN	Indexing / UGC /Scopus/ SCI
7	One-sided Schmitt Trigger-based 11T Carbon Nanotube Field Effect Transistor - based Static Random-Access Memory cell for Modern IoT Embedded Devices at 32 nm technology	Jayanthi et.al., Periyasamy Raja	International Journal of Numerical Modelling: Electronic Networks, Devices and Fields	Vol 38, No. 2, pp 1-23 March 2025 ISSN: 1099-1204	Web of Science
8	Dual Wideband Highly Isolated MIMO Diversity Antenna For Industry 5.0 Femto Cell Wireless Terminals	T.Deepa P Raja N Saranya	IETE Journal of Research	April 2025 ISSN: 0974-780X	Web of Science
9	A resilient, high-performance, low-power 11T CNTFET SRAM cell for IoT implementations	Jayanthi S, Raja P, M Pushpa, S Subhashini, U Jeethika	Physica Scripta	Vol 100, No 5, pp 1-25 April 2025 ISSN: 1402-4896	SCIE
10	Reconfigurable Radiation Pattern MIMO Antenna for Indoor 5G and WLAN Applications	T.Deepa et. al.,	Journal of Electrical Engineering & Technology	Accepted	SCIE
11	An effective of bio-inspired multiverse optimization based controller placement in software defined networks environment	Pradeesshma, T., Raju, R., Venkatachalapathy, V.S.K. , Raja.P	International Journal of Information Technology	Vol 17, pages 2035–2048, (2025)	Scopus
12	A Modified Approach to Optimize the Number of Controllers in SDN	T. Pradeesshma, R. Raju, V. S. K. Venkatachalapathy, P. Raja	International Journal of Science, Mathematics and Technology Learning	Vol 33, No. 1, 2025, ISSN: 2327-7971	Scopus
13	Energy-Efficient GNRFET-Based Ternary Full Adder for Next-Generation Integrated Circuits	J. Pradeep, R. Bhavithra	Journal of VLSI Circuits and Systems,	Vol. 7, No. 1, pp. 94–105, Jun. 2025 ISSN: 2582 - 1458	Scopus
14	Power quality disturbance identification using hybrid deep learning in renewable energy systems	P Mahendra Peruman	Scientific Reports	Vol 15, ISSN: 2045-2322 Nov 2025	SCI

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NATIONAL CONFERENCES for 2024-2025:

Sl. No	Title of the Paper	Name of the Authors	Name of the Conference	Year of publication	ISBN / ISSN	Publisher
1	A Literature Review on Real-Time Text Conversion for Accessibility in Public Spaces	Gayathri R	Fifth National Conference on Innovation in Information and Communication Technologies 2025 (NCIITC-2025)	15.02.2025	-	Conference Proceedings
2	Balancing Robustness and Transparency. A Survey of Digital Image Watermarking Techniques for Image and copyright security	Gayathri R	Fifth National Conference on Innovation in Information and Communication Technologies 2025 (NCIITC-2025)	15.02.2025	-	Conference Proceedings
3	A Comprehensive Study on Hybrid Methods for Spine Segmentation in CT Image	Gayathri R	NCICT'25 – 10th National Conference on Information and Communication Technologies	20.02.2025 to 21.02.2025	-	Conference Proceedings
4	Advancements in Quantifying Food Portion and Assessing Freshness: A Review of Computational Techniques	Gayathri R	Fifth National Conference on Innovation in Information and Communication Technologies 2025 (NCIITC-2025)	15.02.2025	-	Conference Proceedings
5	Utilizing Indium Tin Oxide Coating with Fresnel Lens Technology for Photovoltaic Panels to Optimize Solar Efficiency	Yuvaraj S	4 th National Conference on Recent Advances in Communicative Electronics	10.04.2025 to 11.04.2025	978 – 93-342-7374-4-8	Conference Proceedings
6	Design of a High-Performance Binary-to-Seven-Segment Decoder Using FPGA	R.Arthy	4 th National Conference on Recent Advances in Communicative Electronics	10.04.2025 to 11.04.2025	978 – 93-342-7374-4-8	Conference Proceedings

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INTERNATIONAL CONFERENCES for 2024-2025:

Sl. No	Title of the Paper	Name of the Authors	Name of the Conference	Year of publication	ISBN / ISSN	Publisher
1	Compact 8-Channel Phased Array Stepped Impedance RF coil for 9.4 Tesla Spinal Cord MRI	Saranya N, Raja P, Deepa T,	IEEE International Conference on Interdisciplinary Approaches in Technology and Management for Social Innovation	6 & 8 March 2025	979-8-3503-6053-0	IEEE
2	Graph Convolutional Neural Network-based Bone Marrow Classification	S.Yuvaraj	International Conference on Emerging Smart Computing and Informatics (ESCI)	5 – 7 March 2025	979-8-3315-1568-3.	IEEE
3	Smart Heat Recovery Ventilator (HRV) System with Dual Filtration for Optimal Indoor Air Quality	S. Soundararajan	Advanced Technologies and Sustainable Materials in Electronics, Signal Processing and Circuit Design (ICATSM'25)	12 & 13 March 2025	978-93-49019-01-0	Conference Proceedings
4	IoT and Machine Learning in Mountain Climbing Safety: A Survey of Climber Monitoring System	S. Mohanram	Advanced Technologies and Sustainable Materials in Electronics, Signal Processing and Circuit Design (ICATSM'25)	12 & 13 March 2025	978-93-49019-01-0	Conference Proceedings
5	Monitoring Teenagers Social Activities and Detection of Child Abuse using Video Footage	S. Mohanram	Advanced Technologies and Sustainable Materials in Electronics, Signal Processing and Circuit Design (ICATSM'25)	12 & 13 March 2025	978-93-49019-01-0	Conference Proceedings

Sl. No	Title of the Paper	Name of the Authors	Name of the Conference	Year of publication	ISBN / ISSN	Publisher
6	Fingerprint Authentication 2.0 A Study on Contactless Recognition for Secure Identification	A. Jayachitra	Advanced Technologies and Sustainable Materials in Electronics, Signal Processing and Circuit Design (ICATSM'25)	12 &13 March 2025	978-93-49019-01-0	Conference Proceedings
7	A Hybrid AI Approach for Detecting Harmful Online Interactions	V. Logisvary	Advanced Technologies and Sustainable Materials in Electronics, Signal Processing and Circuit Design (ICATSM'25)	12 &13 March 2025	978-93-49019-01-0	Conference Proceedings
8	Underwater Image Enhancement using UW-SRGAN Model	S. Soundararajan	Advanced Technologies and Sustainable Materials in Electronics, Signal Processing and Circuit Design (ICATSM'25)	12 &13 March 2025	978-93-49019-01-0	Conference Proceedings
9	Early Detection of Gastroparesis by Analyzing Dietary Intake using Electrogastrography Signal	S. Mohanram	Advanced Technologies and Sustainable Materials in Electronics, Signal Processing and Circuit Design (ICATSM'25)	12 &13 March 2025	978-93-49019-01-0	Conference Proceedings
10	Detection of Thyroid and Dysphonia Assessment using Non-Invasive Method with Electroglottogram Signal	S. Mohanram	Advanced Technologies and Sustainable Materials in Electronics, Signal Processing and Circuit Design (ICATSM'25)	12 &13 March 2025	978-93-49019-01-0	Conference Proceedings
11	IoT Driven system for Health Monitoring and Remote Patient Support	R.Priya, Madhumitha.S Valandinavathy.G Samraksheni S M	3 rd International conference on Innovative Trends in Engineering and Sciences(ICITES'25)	26 & 27 March 2025	-	Conference Proceedings
12	Sustainable Business Model for Industry 5.0:Merging Profitability with Environmental Responsibility	Logisvary V	Advanced Technologies and Sustainable Materials in Electronics, Signal Processing and Circuit Design (ICATSM'25)	12 &13 March 2025	978-93-49019-01-0	Conference Proceedings

Sl. No	Title of the Paper	Name of the Authors	Name of the Conference	Year of publication	ISBN / ISSN	Publisher
13	Reduced Hardware Utilization with Enhanced Error Reduction for Arcsine/Arc cosine Computation using CORDIC Algorithm with LUT	S. Dhivya	International Conference on 2025 Devices for Integrated Circuits (DevIC 2025)	5 & 6 April 2025	-	IEEE
14	A Performance Analysis Survey of Routing Protocols in the Internet of Things	Dr. Vankayala Chethan Prakash	11th International Conference on Latest Trends in Science, Engineering and Technology, 2025.	26 April 2025	-	Conference Proceedings
15	Performance Analysis of Dual Polarized Planar Antenna	K.Jambulingam	11th International Conference on Latest Trends in Science, Engineering and Technology (ICLTSET'25),	26 April 2025	-	Conference Proceedings
16	Flexible Metasurface-Loaded RF Coil for 3T MRI Articular Cartilage Imaging	Saranya N Raja P	International Conference in Advances in Power, Signal, and Information Technology in ITER	23 – 25 May 2025	979-8-3315-2989-5	IEEE
17	Cost-Effective Optimization of Renewable Energy Systems with Hybrid Atomic Orbital and Binary Light Spectrum Algorithms	P. Suseendhar	IEEE 3rd International Conference on Data Science and Information System (ICDSIS - 2025)	16 & 17 May 2025	979-8-3315-4265-8	IEEE
18	Multiband Modified CSRR Antenna for Wireless Applications	T.Deepa	International Conference on Radio Frequency Communication and Networks (RFCoN-2025)	19&20 May 2025	979-8-3315-1316-0	IEEE
19	Soundscape Identification of Endangered Bird Species using Bidirectional Long short term Memory	R.Vijayarani	International Conference on smart technologies communication and Robotics IEEE -STCR-2025	9 & 10 May 2025	979-8-3503-5753-0	IEEE
20	Lora Based Remote Monitoring Emergency System For Underground Miners	Suseendhar P P.S. Krishna Priya Dr.J.Pradeep	IEEE International Conference on Emerging Technologies in Engineering Applications (ICETEA-2025)	5 & 6 June 2025	979-8-3315-1485-3	IEEE

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21	A Smart Urine Analysis Device For Diabetic Patients	S. Mohanram S.B.Lenin	IEEE International Conference on Emerging Technologies in Engineering Applications (ICETEA-2025)	5 & 6 June 2025	979-8-3315-1485-3	IEEE
22	Regenerative Dual Charging System for Vehicle	Raja P	IEEE International Conference on Emerging Technologies in Engineering Applications (ICETEA-2025)	5 & 6 June 2025	979-8-3315-1485-3/25	IEEE
23	Continuous Energy Generative Solar Panel Using Infrared Technology	Raja P	IEEE International Conference on Emerging Technologies in Engineering Applications (ICETEA-2025)	5 & 6 June 2025	979-8-3315-1485-3/25	IEEE
24	Integrating Depression Detection System: Face Speech and Text Analysis using Machine Learning	Raja P	IEEE International Conference on Emerging Technologies in Engineering Applications (ICETEA-2025)	5 & 6 June 2025	979-8-3315-1485-3	IEEE
25	Low-Power Non-Volatile Flip-Flop Design Using Nand-Spin Logic for Energy-Efficient Systems	J Pradeep	IEEE International Conference on Emerging Technologies in Engineering Applications (ICETEA-2025)	5 & 6 June 2025	979-8-3315-1485-3/25	IEEE
26	Multiband Wi-Fi and Wi-Max Antenna for IOT Applications	T.Deepa	IEEE International Conference on Emerging Technologies in Engineering Applications (ICETEA-2025)	5 & 6 June 2025	979-8-3315-1485-3/25	IEEE
27	A Python Programmed Resnet-50 Cnn Designed For Low Light Image Enhancement	S Ganesan	IEEE International Conference on Emerging Technologies in Engineering Applications (ICETEA-2025)	5 & 6 June 2025	979-8-3315-1485-3/25	IEEE
28	A CQ Algorithmic Approach To Stealthy Steganography For Concealing Patient's Medical Data	R.Gayathri Vandhana M.S	IEEE International Conference on Emerging Technologies in Engineering Applications (ICETEA-2025)	5 & 6 June 2025	979-8-3315-1485-3/25	IEEE

Sl. No	Title of the Paper	Name of the Authors	Name of the Conference	Year of publication	ISBN / ISSN	Publisher
29	Smart Traffic Alert System For Mountainous Regions	Navaneetha Krishnan V.M R.Kurinjimalar	IEEE International Conference on Emerging Technologies in Engineering Applications (ICETEA-2025)	5 & 6 June 2025	979-8-3315-1485-3/25	IEEE
30	Design of a Highly Stable and Robust 9t SRAM Cell Using CNTFET for Low Power Smart Device Applications	S Jayanthi Raja P	IEEE International Conference on Emerging Technologies in Engineering Applications (ICETEA-2025)	5 & 6 June 2025	979-8-3315-1485-3/25	IEEE
31	Frequency-Adaptive Low-Light Image Enhancement Using Laplacian Pyramid and Blending Scheme	R.Kurinjimalar J Pradeep M Hari Krishnan	IEEE International Conference on Emerging Technologies in Engineering Applications (ICETEA-2025)	5 & 6 June 2025	979-8-3315-1485-3/25	IEEE
32	Enhanced Cervical Dilation Assessment Using CNN ResNet 50 with Inception Module	R.Kurinjimalar	11th International Conference on Communication and Signal Processing (ICCSP),	5 & 7 June 2025	978-1-6654-5736-1	IEEE
33	Segmentation Method Of Deterministic Feature Clustering For Identification Of Brain Tumor Using Hybrid CNN	R.Kurinjimalar	11th International Conference on Communication and Signal Processing (ICCSP),	5 & 7 June 2025	978-1-6654-5736-1	IEEE
34	QNN-IDS: A Quantum Neural Network Framework for Intelligent Intrusion Detection	S Yuvaraj	9th International Conference on I-SMAC (IoT in Social, Mobile, Analytics and Cloud) I-SMAC 2025	8,9 & 10 October 2025	2768-0673	IEEE
35	Cooperative Game-Theoretic Inverse Reinforcement Learning for Smart Grid Scheduling	Dr.Vankayala Chethan Prakash, Mr.R.Sivakumar,	2nd International Conference on Artificial Intelligence and Emerging Technologies 2.0 (AISUMMIT 2025)	19,20 & 21 November 2025	979-8-3315-5379-1	IEEE
36	A Novel Deep Learning Framework for Autonomous Classification of Diabetic Maculopathy Using Subtle Features	S.Anbarasi Sugashini V Punitha A	4th International Conference on Automation, Computing and Renewable Systems (ICACRS 2025)	10, 11 & 12 December 2025	979-8-3315-4886-5	IEEE

Sl. No	Title of the Paper	Name of the Authors	Name of the Conference	Year of publication	ISBN / ISSN	Publisher
37	Design and Analysis of Flexible Antenna for Millimeter Wave for 6G Applications	Saranya N Raja P Deepa T	3rd International Conference on Emerging Research in Computational Science (ICERCS'25)	11,12& 13 December 2025	979-8-3315-4790-5	IEEE
38	Miniaturised Sub 6-GHz and Millimeter Frequency Band Integrated Antenna for 5G Portable Devices with Isolation Enhancement	T Deepa Saranya N Raja P	3rd International Conference on Emerging Research in Computational Science (ICERCS'25)	11,12& 13 December 2025	979-8-3315-4790-5	IEEE
39	Elliptical Radiator Based Super-Wide Band Antenna for Modern Satellite Communication	T Deepa Saranya N	3rd International Conference on Emerging Research in Computational Science (ICERCS'25)	11.12.2025 to 13.12.2025	979-8-3315-4790-5	IEEE
40	Autonomous Vehicle Detection and Classification using Feature Mapping in Generative Adversarial Network	Dr.R.Kalaiyarsan	International Conference on Artificial Intelligence and Secure Data Analytics (ICAISDA-2025).	29 & 30 December 2025	1951-6851	Springer



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BOOK/BOOK CHAPTER FOR 2024-2025

Sl.No	Title of Book / Book Chapter	Name of the Authors	ISBN / ISSN	Publisher
1	Machine Learning	S.Dhivya	9789362609083	Charulatha Publications
2	A Novel Tri-Layered Security Protocol For Enhancing IoT Networks Security	N.Saranya P. Raja	1552-6283	IGI Global Publishing
3	Enhanced Oil Spill Segmentation from SAR Images utilising Mask R-CNN, HRNET, AND SWIN Transformer	R. Kalaiyaran	1552-6283	IGI Global Publishing
4	Design and Analysis of a High-Gain Bidirectional DC-DC converter for Electric Vehicle Systems Incorporating Regenerative Braking and Battery Charging	R. Kalaiyaran	1552-6283	IGI Global Publishing
5	Fingerprint Recognition Utilizing Vein Patterns through a Modified Deep Forest Algorithm	R. Kalaiyaran	1552-6283	IGI Global Publishing
6	A Wide Survey on e-collaboration with Artificial Intelligence, Machine Learning and the Internet of Things	Preetha. A	1552-6283	IGI Global Publishing
7	Industry 5.0 and the Circular Economy: Designing a Sustainable Future	V.Logisvary	Accepted	Nova Science Publisher
8	Next-Generation Recommendation Systems :Illustrating the enabling technologies and tools	Vankayala Chethan Prakash	Accepted	Wiley publishers

9	Blockchain Beyond Borders: Ethical Challenges and Regulatory Solutions Chapter 13 Preserving Patient Privacy: How Blockchain Transforms Healthcare Data Management	R.Gayathri	978-1-0364-4973- 5	Cambridge Scholars Publishing
10	Analytics-Driven Classroom: Digital Experiments and Learning Analytics	Dr.S.Dhivya	Accepted	CRC Press (Taylor & Francis Group)