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St. Joseph's Group of Institutions
OMR, Chennai - 119



DEPARTMENT OF ECE

LIST OF PATENTS PUBLISHED (2024-25)

S.NO.	Name of the Inventor	Country & Patent No.	Title	Date of Filing	Date of Publication	Status
1.	Dr B Victoria Jancee	Indian Patent: 202441052074	Internet Of Things Based Smart Traffic Signal Monitoring and Controlling System For City	08-07-2024	19/07/2024	Published
2.		202441068113 A	IoT-Enabled Smart City Traffic Management System	10-09-2024	20/09/2024	Published
3.		Indian Patent: 20254101374 A	Intelligent Lymphedema Management Smart Compression Garments Enhanced With IoT Sensors And Machine Learning	18-02-2025	07-03-2025	Published
4.		202541013727 A	Optimizing Industrial Plants Using IoT-Enabled Condition Monitoring And Asset Tracking With Wireless Sensor Networks	18-02-2025	07-03-2025	Published
5.	Dr.S.Aghalya	Indian Patent: 202441052075	FPGA Based Traffic Signal Monitoring System For Safety	08-07-2024	19/07/2024	Published
6.		202441068111 A	Wearable IoT Bands For Stress Regulation With Adaptive Machine Learning Techniques	10.09.2024	20.09.2024	Published
7.		202441068106 A	Cloud-Enhanced Smart Vaccination: Real-Time Optimization And Proactive	10.09.2024	20/09/2024	Published

S.NO.	Name of the Inventor	Country& Patent No.	Title	Date of Filing	Date of Publication	Status
			Surveillance For Intelligent			
8.	Dr.P.Ezhilarasi	202411059239 A	Virtual Reality Training Environment For Corporate Skill Development And Management	06/08/2024	23/08/2024	Published
9.		202541015705A	Automated Defence System in Aircraft using Deep Learning	23/02/2025	07/03/2025	Published
10.	Dr.S.Rajeshkannan	202411071636A	Automated Compliance and Accreditation Management System for Education Institutions	23.09.2024	11.10.2024	Published
11.		202541021752 A	AI Powered Predictive Maintenance System for Electric Vehicles	11.03.2025	21.03.2025	Published
12.	Dr.A.M.Balamurugan	Indian Patent: 202541009275 A	Slope Analysis in Channel Flow for Various Fluids	04-02-2025	14/02/2025	Published
13.		Indian Patent:202541015707 A	Autonomous Iot-Based Water Monitoring and Management System for Industrial, Agricultural, And Urban Applications	23.02.2025	07.03.2025	Published
14.		202541015703 A	Smart Integrated Drowsiness Detection And Intelligent Vehicle Safety System For Accident Prevention	23.02.2025	07.03.2025	Published
15.	Dr.R.Niruban	202441048099 A	Transformer Architecture-Based Natural Language Processing For Contextual Real-Time Language Translation	22/06/2024	28/06/2024	Published
16.		202441061911 A	Multi-Modal Energy Harvesting Device Utilizing Ambient Vibrations, Thermal Gradients, And Radio Frequency Signals	14/08/2024	23/08/2024	Published
17.		202441069131 A	Encrypted Federated Learning Framework for Collaborative Model Training with Privacy Guarantees	12-09-2024	20/09/2024	Published
18.	G D Vignesh	202441056097 A	A Multi-Agent Ai System For Collaborative Music Composition And Performance	23/7/24	2-8-24	Published

S.NO.	Name of the Inventor	Country& Patent No.	Title	Date of Filing	Date of Publication	Status
19.		202441070039 A	Iot Enabled Edge Computing System For Smart Agriculture Applications	16/09/2024	20/09/2024	Published
20.		202421082991 A	Automated Network Slicing In 6G Networks Using Reinforcement Learning	29/10/2024	29/11/2024	Published
21.		202441077600 A	Detecting And Classifying Fraudulent SMS And Email With A Robust Machine Learning Approach	14/10/2024	25/10/2024	Published
22.		202541024377 A	Artificial Intelligence-Driven System For Contextual Understanding And Translation of English Idioms And Phrases	19/03/2025	28/03/2025	Published
23.	P.Elaveni	202441071055	Edge Computing Platform For Low-Latency IoT Applications	20/09/2024	6/10/2024	Published
24.						
25.	P.Thenmozhi	202441050789	Artificial Intelligence An IOT-Based Smart Health Care System To Prevent And Detect All Types Of Heart Disease	3-7-2024	12-7-2024	Published
26.		Indian Patent 202541031350	Method For Analyzing Animal Behavior Patterns Using Machine Learning Algorithm	30.3.2025	11.4.2025	Published
27.		Indian Patent 202541020979	Method For Analyzing Historical Texts Using Natural Language Processing To Identify Cultural Trends	7.3.2025	21.3.25	Published
28.	Dr. D.Lakshmi	202441071518	Iot Based Eutrophication Monitoring System	21/9/2024	8-11-2024	Published
29.		202441092864 A	Deep Multiple Instance Learning For Automatic Detection Of Diabetic Retinopathy	27/11/2024	6-12-2024	Published
30.	Dr.J.Martin Leo Manickam	202541026553	Wearable Ultrasound Patch for Motion monitoring and secure key generation using Elliptic curve cryptography and machine learning	22/03/25	11.4.2025	Published
31.	Dr. S.Devipriya	202441072277	System And Method for Block-Chain Based Credibility Verification Of Internet Of Things (Iot) Entities	24/09/2024	2/11/2024	Published

S.NO.	Name of the Inventor	Country& Patent No.	Title	Date of Filing	Date of Publication	Status
32.	K.Jasmine Mystica	202441079635 A	Machine Learning-Driven Water Quality Monitoring Using Iot And Wireless Sensor Networks	20/10/2024	25/10/2024	Published
33.	G.Anitha	202441080017 A	Enhancing Mathematical Reasoning And Self-Efficacy With Problem-Based Learning, Contextual Teaching, And Machine Learning	21/10/2024	25/10/2024	Published
34.		Indian Patent : 202541005873	Impact-Activated Airbag System For Scaffold Worker Fall Protection	24-01-2025	16-02-2025	Published
35.		Indian Patent : 202541009415 A	Smart Helmet System For Real Time Hazard Detection In Mining Environments	05-02-2025	21-02-2025	Published
36.	R.Madhumitha	Indian Patent 202411036461	Exploring Machine Learning Approaches For Automated Covid-19 Detection And Forecasting	07-05-2024	02-08-2024	Published
37.		202441075603 A	Ai With Cloud Iot Based Hybrid Solar Seawater Desalination Machine	07-10-2024	18/10/2024	Published
38.	M.Angelin Ponrani	202441087983	A Predicting Cloudburst Events Using Machine Learning System	14/11/24	22/11/2024	Published
39.		202541005529	A Convolutional Neural Network-Based System For The Recognition And Voice Alert Of Traffic Sign Boards	23/01/2025	31/1/25	Published
40.		202411103124	System And Method for Automated Fact Verification And Source Authentication In Real-Time News Reporting	23/01/2025	21/02/2025	Published
41.		202511009610 A	IoT And Machine Learning-Based Fake Profile Detection On Social Networking Websites	05/02/2025	21/02/2025	Published
42.	Dr.S.Vinayagapriya	Indian Patent: 202441052101	Vehicle Safety System Using Ultrasonic Sensor	08-07-2024	19/07/2024	Published
43.		202541018584 Indian Patent	Smart IoT Window Automation System for Energy Conservation	6/1/2025	21/03/2025	Published

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44.		202441094439	Development of a Mobile-Based Hostel Location and Recommendation Chatbot System	21/8/2024	13/12/2024	Published
45.		Indian Patent 202411077074	The Impact Of Financial Statement Integration In Machine Learning For Stock Price Prediction	10/10/2024	25/04/2025	Published
46.	Dr.P.Latha	Indian Patent 202441073102	Automated Home Inventory Management Using Wireless Sensor Networks And Cloud Computing	27/09/2024	04/10/2024	Published
47.		Indian Patent 202441052089	Implementation Of Waste And Garbage Recycling Vending Machine	08/07/2024	19/07/2024	Published
48.		IN2023/051151	2x2 MIMO Antenna For 5g Communications	16.3.2023	19.9.2024	Published
49.	Dr.R.Avudaiammal	:202541028408	Smart Healthcare System for Early Disease Detection Using Machine Learning	26.3.25	25.4.25	Published
50.		202541034352	Internet of Things (IoT) based face recognition system and method for secure and remote authentication	8.4.25	09.05.2025	Published
51.		:202541034367	IoT-Based Agricultural Monitoring and Automation System	8.4.25	09.05.2025	Published
52.	Dr.G.Sivagurunathan	202441082993 A	A Method For Lightweight Identity Authentication Of Power Internet Of Things Sensing Terminals Using Edge Agents For Secure Ciphertext Decryption And Signature Verification	29/10/24	08-11-24	Published
53.	Dr.M.Suresh	202441042650	Quantum Cryptography for Secure Cloud Computing Applications	31/05/2024	14/06/2024	Published
54.		202441092074	Ai-Enhanced Continuous Integration And Deployment (Ci/Cd) Pipeline For Scalable Cloud-Native Applications	26-11-2025	29-11-2025	Published

S.NO.	Name of the Inventor	Country& Patent No.	Title	Date of Filing	Date of Publication	Status
55.		202441097862	Novel Metal-Organic Frameworks For Efficient Gas Storage And Separation	26-11-2025	29-11-2025	Published
56.	Mrs K.R Kayalvizhi	Indian Patent 202511006233 A	Big Data Framework For Predicting Infectious Diseases To Improve Healthcare By Discovering New Symptom Patterns	24/01/2025	28/02/2025	Published
57.		Indian Patent 202521025273	AI-Driven Deep Learning Model For Predictive Healthcare Diagnostics	20/03/2025	28/03/2025	Published
58.		202541006709	Nano Antennas For Wireless Energy Transfer And Communication	27/01/2025	27/01/2025	Published
59.	Dr. Sumithra Sofia	202521000288	AI-Based Signal Processing For Efficient Wireless Communication In Industrial Iot System	02-01-2025	31/01/2025	Published
60.		202431101905	Dynamic Resource Allocation System For Optimized Supply Chain	23/12/2024	23/12/2024	Published
61.		202421091931	Method And System For Automated Legal Research And Case Analysis	25/11/2024	20/12/2024	Published
62.	Dr. Simon Prabhu	202421091931	Method And System For Automated Legal Research And Case Analysis	25/11/2024	20/12/2024	Published
63.	Dr. Ramachandra Reddy	202441050317 A	Chrono-Semantic Weaving A System For Dynamic Narrative Generation With Self-Adjusting Timelines	01/07/2024	05/07/2024	Published
64.		202441096848 A	Smart Mirror System With Personalized Health Monitoring And Recommendations	07/12/2024	13/12/2024	Published

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LIST OF PATENTS PUBLISHED (2023-24)

S.No	Faculty Name	Status	Title
1	Dr. R. Niruban	Published	Ai Chatbots In Healthcare Automating Information Gathering For Improved Decision Making
2	Dr.G.Sivagurunathan,	Published	Automatic Prediction Of Corona Virus Using X-ray And Ct Scan
3	Dr.Shirley Selvan,	Published	Intelligent Safety System For Industry Machine Based On Embedded
4	Dr. S. Aghalya	Published	A Smart Portable Safety Gas Monitoring System For Drainage Based On Iot
5	Dr. P. Latha,	Published	Iot Enabled Device For Automatic Human Body Mass Index (Bmi) Measurement Using For Hospital
6	Dr. S. Vinayagapriya	Published	Fpga Based Smart Assist Virtual Do Ctors In Medic Apps With Basic M Edical In Formation Abo Ut&N Bsp;Th E&N Bsp;
7	Mrs. M. Angelin Ponrani	Published	Data Science Techniques In Machine Learning For Improved Lung Cancer Diagnosis And Classification
8	Dr. S. Rajesh Kannan	Published	Deep Learning Techniques To Analyse And Predict The Electric Vehicles Penetration In Automotive Market
			Micro Level Power Management System
			Vehicle
9	Dr. P. Ezhilarasi	Published	Micro Level Power Management System
			Design Thinking Based Deep Learning Models For Early And Accurate Detection Of Hip Cancer
10	Dr. J. Martin Leo Manickam	Published	Physiological Value-Based Implanted Medical Device Security System
11	Dr. B Victoria Jancee	Published	Automated Technology To Ensure The Cleanliness Of Garbage Management And Classification Of Dry And Wet
12	Dr. K Ramachandra Reddy	Published	Identifying The Language Present In Text Or Image Using Visual Features Training Model
13	Dr A.M.Balamurugan	Published	Soil Stabilization Using Sawdust And Stone dust
14	Mrs. P. Thenmozhi	Published	Image Processing Based Intelligent Robotic Car For Agricultural Ploughing Using Block Chain Technology
15	Dr.M. Suresh	Published	Iot-Based Automation For The Purpose Of Monitoring Temperature And Vibration In Processes And Preventing Accidents
16	Mr. Gd Vignesh	Published	Ai-Driven Statistical Analysis Of Social Media Data For Enhanced Event Promotion And Audience Interaction
17	Dr.J.Sivakumar,	Published	Enhancing Misinformation Detection with Ensemble Learning
			Intelligent Image Processing System For Adaptive Traffic Light Control

18	Dr. D.Lakshmi	Published	Automatic Medical Dispenser With Dynamic Tele-monitoring In Rural Areas
19	Mrs. S.Devipriya	Published	Advance Techniques For Railway Collision Avoidance Systems
20	Mrs. P. Elaveni	Published	Integration Of Memory-Reliant Learning Techniques For Comprehensive Evaluation And Forecasting Of Air Quality In India
21	Mrs G.Anitha,	Published	An Automated Treatment Recommendation System Based On Patient -Specific Health Data And Ai Algorithms
22	Mrs Jasmine Mystica K,	Published	Predictive Analysis Of Stock Market Trends Using Ai And Machine Learning Techniques
23	Dr. Avudaiammal R	Published	Deep Learning-Based Image Segmentation And Classification For Medical Diagnostics In Radiology Imaging
24	Mr. M. Lingeshwaran	Published	Next-Generation Telecommunication Network Infrastructure For Low-Latency Data Transmission
25	Mrs E.Malarvizhi	Published	High Secure Communication Using FPGA Based System For Bank Locker Monitoring System Study On Rainfall And Water Quality In Chembarambakkam Area

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LIST OF PATENTS PUBLISHED (2022-23)

S.No	Faculty Name	Patents Published	Title
1	Dr.G.Sivagurunathan,	Published	IoT Based Sound Pollution Monitoring System
2	Dr.Pezhilarasi,	Published	Smart Mobile Phone Deposit Machine Using Iot& Artificial Intelligence
			Cost-Effective Multi-Purpose Ai Based Drone Using Smartphone
			An Integrated Circuit Cards With Embedded Technology
			A Servo Amplifier Control Device
3	Dr A.M.Balamurugan	Published	Smart Mobile Phone Deposit Machine Using IoT & Artificial Intelligence
			An Integrated Circuit Cards With Embedded Technology
4	Dr.S.Rajeshkannan,	Published	Smart Mobile Phone Deposit Machine Using IoT & Artificial Intelligence
			Cost-Effective Multi-Purpose Ai Based Drone
			An Automation Device For Cooling Towers
			An Integrated Circuit Cards With Embedded Technology
5	Dr.B.Vasudevan	Published	Smart Mobile Phone Deposit Machine Using IoT & Artificial Intelligence
6	Dr R Niruban	Published	Smart Watch For Construction Workers In Rural Areas
			Design And Implementation Of Smart Black Box System Using IoT
7	Mrs M.Angelin Ponrani	Published	Artificial Intelligence Bases Approach To Predict The Impact Of Breast Cancer Using The Algorithms Of WSN And Image Processing Techniques

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S.No	Faculty Name	Status	Title
1	Dr.S.Vinayagapriya	Published	An IoT Based Cattle Health Monitoring System
2	Mr.K.Venkatesan	Published	An IoT Based Cattle Health Monitoring System
3	Mrs.R.Madhumitha	Published	An IoT Based Cattle Health Monitoring System
4	Mrs.P.Elaveni	Published	An IoT Based Cattle Health Monitoring System
5	Dr.B.Victoria Jancee,	Published	An IoT Based Rain Water Quality Monitoring System
6	Dr.S.Aghalya	Published	An IoT Based Rain Water Quality Monitoring System
7	Dr.P.Latha,	Published	An IoT Based Rain Water Quality Monitoring System
8	Mrs. P.Thenmozhi	Published	An IoT Based Rain Water Quality Monitoring System
			An Advanced Novel Mechanized Borewell Rescue System
9	Dr.A.M.Balamurugan,	Published	Intelligent Smart Poly House Roof Top Irrigation Robot
10	Mrs G.Anitha,	Published	Intelligent Smart Poly House Roof Top Irrigation Robot
11	Mrs S.Devipriya,	Published	Intelligent Smart Poly House Roof Top Irrigation Robot
12	Mrs K.Jasmine Mystica	Published	Intelligent Smart Poly House Roof Top Irrigation Robot
13	Dr.D.Lakshmi,	Published	Brain Controlled Automated Wheel Chair For The Patients With Continuous Reading Of Brain Waves With The Help Of Brain To Computer Interface Technology
14	Dr.I.Johnsi Stella,	Published	Brain Controlled Automated Wheel Chair For The Patients With Continuous Reading Of Brain Waves With The Help Of Brain To Computer Interface Technology
15	Dr.Shirley Selvan,	Published	Brain Controlled Automated Wheel Chair For

			The Patients With Continuous Reading Of Brain Waves With The Help Of Brain To Computer Interface Technology
16	Mrs.E.Malarvizhi	Published	Brain Controlled Automated Wheel Chair For The Patients With Continuous Reading Of Brain Waves With The Help Of Brain To Computer Interface Technology
17	Mrs. Martin Leo Manickam J	Published	An Advanced Novel Mechanized Borewell Rescue System
18	Dr. Avudaiammal R	Published	An Advanced Novel Mechanized Borewell Rescue System
19	Mrs.M.Angelin Ponrani	Published	A Novel Method For Aircraft Pitch Control
20	Mr. Lingeshwaran M	Published	Design Of Novel Fractal Inspired Loop Elements Based 2.5-D Miniaturized Frequency Selective Surface
21	Dr.S. Rajeshkannan	Published	An External Display Module For Delivery Personnel To Tackle Climatic Barriers With Bike Crash Detection System