

### Patent Consolidation

Academic Year	2021-2022		2022-2023		2023-2024	2024-2025		
	Published	Grant	Published	Grant	Published	Grant	Published	Grant
Utility Patent	8	--	12	1	39	--	64	--
Design Patent	--	--	--	--	--	13	--	1
Total count	8		12	1	39	13	64	1
Grand total	8		13		52		65	

### Patent 2024-2025

S.No	Name of Faculties	Title of Patent	Date of Filing	Application No	Status
1	Dr. K. Mahendran	Optimization Of 6T SRAM Cell Delay Using Sleepy Keeper In Cadence Virtuoso 90 nm Technology	21-06-2024	202441047802 A	Published
2	Dr. K. Mahendran	Refractive Index Sensor-Based Multiband Terahertz Metamaterial Absorber	21-06-2024	202441047804 A	Published
3	Dr.K. Mahendran	Performance Measure Of Mimo Reva antenna For 5G Communication	21-06-2024	202441047807A	Published
4	Ms.K.Sakthi, Ms.Subashree V,Kannan R,Ms.G.Keerthiga	Smart Fitness Tracker Device	01-07-2024	406688-001	Grant
5	Dr Latha R	Area And Power Reduction In Array Multiplier Using Dual Stage Compressor Technique For Image Process	05-07-2024	202441048277A	Published
6	Dr.K.Gokulkannan, Dr. K. Michael Mahesh, Dr. S. Sathish Babu, Dr.U.Hari, Dr.C.Anna Palagan	Internet Of Things Based Civic Infrastructure Oversight And Control Platform	08-07-2024	202441051990A	Published
7	Dr.C Anna Palagan	Self-Learning And Self-Healing Software System For Autonomous Detection And Mitigation Of Cyber Attacks	10-07-2024	202441052751 A	Published

8	Ms.M.Karthiga, Ms.A.Anjaline Jayapraba	Improved Fruit Quality Detection Using Neural Networks	11-07-2024	202441052919A	Published
9	Dr Rajarajachozhan C	Generative Adversarial Network (Gan)-Based Synthetic Data Generation For Privacy Preserving Machine Learning	24-07-2024	202441056350 A	Published
10	Ms.A.Anjaline Jayapraba,C.Valviloni	Sun Tracking Solar Panel	26-07-2024	202441013684 A	Published
11	Ms. Bhanupriya P, Dr.C.Lakshmi, Dr.R.Hema	Scalable Deep Learning Solutions For Comprehensive Patient Health Monitoring	02-08-2024	202441055760 A	Published
12	Ms.G. Karthika	Bio-Inspired Neural Network Architecture For Real-Time Power Grid Optimization And Fault Detection	14-08-2024	202441061914 A	Published
13	Ms.R.Suguna Devi	IOT And Machine Learning Integrated Healthcare Solution For Predictive Medicine	16-08-2024	202441059103A	Published
14	Dr.M Thirumalai	Artificial Neural Network Based Vehicle Tracking System For Anti-Theft Application	16-08-2024	202441048276 A	Published
15	Dr.M Thirumalai	Deep Learning Based Energy Tracking System For Electric Vehicles	16-08-2024	202441062099 A	Published
16	Dr.M Thirumalai	Development Of Machine Learning Based Smart Electric Vehicle Battery Management System	16-08-2024	202441062097 A	Published
17	Dr.M Thirumalai	Novel Technique For Maintenance Of Solar Power Based Electric Vehicle Charging Booths	16-08-2024	202441062098 A	Published
18	Dr. K. Mahendran	Design Of Pentagonal Shaped Split Ring Resonator Based Patch Antenna For High-Speed Terahertz Applications	20-08-2024	202441062741 A	Published
19	Dr. K. Mahendran	Design Of Character Recognition System Using Tesseract Algorithm	20-08-2024	202441062740 A	Published
20	Dr. K. Mahendran	Design Of DRA MIMO Antenna For S-Band Wireless Communication	20-08-2024	202441062742 A	Published
21	Dr.M Thirumalai	Deep Learning And IOT Based Scalable Energy Management System For Smart Grids	20-08-2024	202441062602 A	Published
22	Ms.R.Suguna Devi	Precision Marketing With AI-Driven Customer Segmentation	30-08-2024	202441063680A	Published
23	Dr.K.Gokulkannan	AI-Enhanced Drone System For Noise Pollution Detection In Smart Cities	31-08-2024	202441075095 A	Published
24	Dr.Kalaivani.C.T	Foreign Object Debris On The Airport Runways Using CNN Based Model	13-09-2024	202341061554 A	Published

25	Dr.Kalaivani.C.T	Underwater Image Noise Cancellation Using GAN-CLAHE & NBSP;Deep Learning	13-09-2024	202341061556 A	Published
26	Dr.Thirumalai M	A Autonomous Electric Truck Integrated With Solar Power	19-09-2024	202441070816 A	Published
27	Dr.S.Dhandapani	System For Object Detection And Tracking Using Deep Learning	01-10-2024	202441074101 A	Published
28	Dr.K.Gokulkannan	Drone Based Pipeline Inspection And Leak Detection System	01-10-2024	202441075094A	Published
29	Dr.M.Thirumalai	Introduce The Virtual Power Plant For electrical Vehicle Charging Station	04-10-2024	202441075074 A	Published
30	Dr P Baraneedharan	Method And System For Melanoma Detection Utilizing & NBSP;Neural Network Image Processing	10-10-2024	202441080240 A	Published
31	Dr P Baraneedharan	One Step Hydrothermal Method For Synthesizing Widely Dispersed Zn-SNO2 Nanoparticles On N-Doped	10-10-2024	202441080242 A	Published
32	Dr P Baraneedharan	Patterned Knock Detection For Smart Door Access Control	10-10-2024	202441080243 A	Published
33	Dr P Baraneedharan	Non-Enzymatic Multicomponent Detection Of Dopamine, Cholesterol, And Glucose Using ZnSNo2 Nanoparticles	10-10-2024	202441080245 A	Published
34	Dr P Baraneedharan	System And Method For Power Efficiency Using Thermoelectric Modules (TEM) And Wireless Sensor Network	10-10-2024	202441082088 A	Published
35	Dr P Baraneedharan	Enhanced Security System For RFID-Based Authentication Of Pharmaceutical Products	10-10-2024	202441082093 A	Published
36	Dr P Baraneedharan	Deployment Of An Arduino-Powered Heart Rate Monitoring Device	10-10-2024	202441082104 A	Published
37	Ms.Arunkumar K	Cardless ATM With Dual-Layer Biometric Security	18-10-2024	202441079239A	Published
38	Dr.M.Thirumalai	Energy Management System For Electric Boat Charging	18-10-2024	202441079226 A	Published
39	Dr. K. Mahendran	Novel Neural Network Classification Of Maternal Fetal Ultrasound Planes Through Optimized Feature Selection	22-10-2024	202441080248 A	Published
40	Dr. K. Mahendran	Advanced End To End System For New Age Farmers Using Machine Learning	22-10-2024	202441080237 A	Published
41	Dr. K. Mahendran	Focused Tunneling Approximation In Single Electron Transistor Design For Next-Generation Set CMOS	22-10-2024	202441080247 A	Published
42	Dr. K. Mahendran	Stream LIT-Powered Comprehensive Health Analysis And Disease Prediction System	22-10-2024	202441080246 A	Published
43	Dr. K. Mahendran	Secure And Efficient Data Management In Fog-Enabled IOT Networks	28-10-2024	202441082096 A	Published

44	Dr. K. Mahendran	Photonics And Optoelectronics: A Synergistic Approach To Modern Communication Systems	28-10-2024	202441082092 A	Published
45	Dr. K. Mahendran	Advanced Smart Helmet With Alcohol Detection And Engine Lock For Enhanced Rider Safety	28-10-2024	202441082090 A	Published
46	Dr.M.Thirumalai	Smart Demand Response System For Commercial Buildings	29-10-2024	202441082668A	Published
47	Dr.M.Thirumalai	AI-Driven Smart Grid Energy Trading platform	29-10-2024	202441082656A	Published
48	Dr.M.Thirumalai	Self - Healing Microgrid Technology	29-10-2024	202441082657A	Published
49	Dr. M. Sowmiya Manoj	Arduino Uno Based Voice Output Meter For Visually Impaired Persons	04-11-2024	202441084036 A	Published
50	Dr. M. Sowmiya Manoj	Design And Analysis Of Heart Attack Prediction System Using Machine Learning Algorithm	04-11-2024	202441084035 A	Published
51	Dr.M.Thirumalai	Decentralized Charging Network For Electric Vehicles	22-11-2024	202441090763A	Published
52	Dr.M.Thirumalai	Multi-Functional Electric Vehicle Battery swap Stations	22-11-2024	202441090765A	Published
53	Dr.M.Thirumalai	Enhanced Grid Fault Detection System using AI	22-11-2024	202441090767A	Published
54	Ms.Arokia Nerling Rasoni G	A Deep Learning Framework For Detecting AI Generated Images	22-11-2024	202441089016	Published
55	Ms.Arokia Nerling Rasoni G	System to prevent wild animal and guard crop	22-11-2024	202441076018	Published
56	Dr. S. Sathish Babu, Indhumathi K	AI-Integrated Smart Medical Diagnosis Chair-SMACR	10-12-2024	202441097556A	Published
57	Dr.M.Thirumalai	Hybrid Renewable Energy-Powered Water Desalination System	13-12-2024	202441098649A	Published
58	Dr.M.Thirumalai	Modular Renewable Energy System For Disaster Resilience	13-12-2024	202441098650A	Published
59	Dr.M.Thirumalai	Energy Harvesting Payment for Urban Areas	20-12-2024	202441101311A	Published
60	Dr.M.Thirumalai	Automated Energy Optimization System for Industrial Processes	20-12-2024	202441101316A	Published
61	Dr.M.Thirumalai	Distributed Panel Array with Block Chain for Peer-to-Peer Energy Trading	20-01-2025	202541004452A	Published
62	Dr.M.Thirumalai	Smart Energy Grids with Predictive Maintenance Features	21-01-2025	202541004450A	Published
63	Dr.M.Thirumalai	Energy Efficient HVAC System Integrated with Renewable Sources	20-01-2025	202541004445A	Published
64	Dr.K.Gokulkannan	Drone Communication using AI Enhanced Wireless Networks	29-01-2025	202541007222A	Published
65	Dr.K.Gokulkannan	Drone based Crop Helath Monitoring Using Image Processing	30-01-2025	202541007231A	Published

### Patent 2023-2024

<u>S.No</u>	<u>Name of Faculties</u>	<u>Title of Patent</u>	<u>Date of Filing</u>	<u>Application No</u>	<u>Status</u>
1	Dr.K.Indhumathi	Vehicle To Vehicle Communication Between Multiple Vehicles Using Lora For Emergency Vehicle Alerting	21-07-2023	202341050621	Published
2	Dr.K.Indhumathi	CPW Based Hinge Shaped Resonator With Kapton Substrate For Breast Cancer Detection On Phase Change	21-07-2023	202341050614	Published
3	Dr.Kanagamalliga.S	A System To Detect Human Motion In Surveillance Videos	08-08-2023	202341053144	Published
4	Dr.Kanagamalliga.S	A System For People Counting In Crowded Video Sequences	08-08-2023	202341053152	Published
5	Dr.K.Chanthirasekaran	Privacy And Data Protection In IOT-Driven Mobile Internet Systems	11-08-2023	202341054166	Published
6	Dr.M.Sowmiya Manoj, Mr.G.Gandhimathinathan	Affordable Signal Detection For Healthcare Applications	16-08-2023	202341054895	Published
7	Dr. P. Vinayagam	Modernizing Air Pollution Monitoring System Using IOT And Machine Learning	18-08-2023	202341039385	Published
8	Dr.Kanagamalliga.S	A System For Multiple Objects Tracking In Video Scences	21-08-2023	202341055894	Published
9	Dr.Kanagamalliga.S	Empowering Accurate Breast Cancer Classification Through Advanced Neural Networks	21-08-2023	202341055897	Published
10	Mr. Srinivasan C, Dr. Sheeba Joice C	Hybrid Energy Source Systems For Electric Vehicles	30-08-2023	202341058199	Published
11	Ms.Padma Priya K	Arduino Based Real Time Food Detectionsystem	04-09-2023	202341059101	Published
12	Ms.G.Keerthiga, Ms.K.Sakthi, Mr.R Kannan, Dr.R.Vinod Kumar	IOT And Machine Learning Based Wireless Sensor Network	12-09-2023	202341061395	Published
13	Dr.Jaya T, Dr.K.Chanthirasekaran	Design And Implementation Of A Machine Learning Based Decision support System For Sustainable Agriculture Using IOT Technologies	22-09-2023	202341063872	Published
14	Dr.Sheeba Joice C, Mr.Srinivasan C	IOT Based Portable Chamber For Smart Agriculture	25-09-2023	395999-001	Grant
15	D.Jaya T	Machine Learning Based Health Monitoring Wearable Device	27-09-2023	6315481	Grant

16	Dr.Kanagamalliga S	Vertical Façade Solar Panel Installation Apparatus For High Rise Structures	03-10-2023	396524-001	Grant
17	Dr.Vanitha.M, Mrs.Hemamalini.A, Mr.Arunkumar.K	Engine Control B Unit With An Efficient Cooling System	09-10-2023	397142-001	Grant
18	Dr.Navaneethan S	Smart Stapler With The Digital Display	11-10-2023	202341068194	Published
19	Dr.Navaneethan S,Mr. Mr.Arunkumar.K	Human Eye Pupil Detection System For Ophthalmology Devices	12-10-2023	202341068674	Published
20	Dr.M.Selvi	Data Storage And Optical Computing Utilizing New Optically Stimulated Luminescence (OSL) Phosphors	25-10-2023	202341072218	Published
21	Ms.Immaculate Joy, Mr.Srinivasan C	Neuro vital Monitoring Helmet For Patients	15-11-2023	396526-001	Grant
22	Dr.S.Dhandapani	Method For Real-Time Image Enhancement Using Machine Learning Algorithms	01-01-2024	202441074100	Published
23	Ms.T.Archana,Dr.Srigit ha S Nath	IOT Enabled Microwave Baking Appliance	30-01-2024	406005-001	Grant
24	Ms.Rohini M, Dr.Kalaivani.C.T	Coagulation Analysis Device For Anticoagulant Therapy	08-02-2024	406931-001	Grant
25	Dr. K. Mahendran	Embedded Systems Incorporated Gaming Console	10-02-2024	406647-001	Grant
26	Dr.K.Chanthirasekaran, Dr Jaya T	IOT And ML Based Elderly Support System For Independence In Daily Life	11-02-2024	202441009109	Published
27	Dr.Jaya T Dr.K.Chanthirasekaran	System And Method For Detecting Health Anomalies Using IOT Sensors And Machine Learning	11-02-2024	202441009110	Published
28	Dr.Kanagamalliga.S, Dr.Srigitha S Nath	Blockchain-Security Paradigm For Healthcare IOT Devices	21-02-2024	202441012225	Published
29	Dr.S.Kanagamalliga	Advanced Robust Object Recognition System For Surveillance Applications	21-02-2024	202441012234	Published
30	Dr Kanagamalliga.S, Mr.Arasa Kumar	Machine Learning Based Biopsy Device To Detect Breast Cancer	21-02-2024	408297-001	Grant
31	Dr.S.Kanagamalliga	Artificial Intelligence Based Brain Tumor Detection Device	21-02-2024	408301-001	Grant
32	Dr.Asha.S, Dr.Sugitha.N	Auto Tuned Microwave Backhaul Antenna	21-02-2024	406343-001	Grant
33	Dr.Jaya T Dr.Nirmaladevi,Dr.Raji Pandurangan	Embedded Controller Powered Water Quality Assessment Unit	22-02-2024	408396-001	Grant
34	Dr Jaya T	AI Powered IOT Based Soil Health Monitoring System	23-02-2024	408433-001	Grant
35	Ms.A.Anjaline Jayapraba	Plant Monitoring Using IOT	26-02-2024	202441013680	Published

36	Dr.M.Vanitha	Smart Fuel ATM	07-03-2024	202441016285	Published
37	Dr.M.Vanitha	Medical Wastes Diposal Robo-Medrob	07-03-2024	202441016286	Published
38	Dr. K. Mahendran	Beamspace Channel Estimation In Mmwave-Massive Mimo Environments Using Neural Networks	07-03-2024	202441016131	Published
39	Dr. K. Mahendran	Intelligent Security System For Victimized Area Using Predictive Intelligence Sensor And Camera	07-03-2024	202441016126	Published
40	Dr.S.Navaneethan	The Human Eye Pupil Detection System Using Bat Optimized Deep Learning Architecture	07-03-2024	202441016460	Published
41	Dr. K. Mahendran	Polyethylene Terephthalate & NBSP;(PET) Substrate Triangular Patch Antenna For Wireless Medical Device	07-03-2024	202441016130	Published
42	Dr P Baraneedharan	Development Of Nitrogen-Doped Partly Exfoliated Carbon Nanotubes With Exceptional Surface Area	11-03-2024	202441017436	Published
43	Ms.Padma Priya K	Design And Development Of Underwater Sensor networks Utilizing Acoustic Waves And Mini ROVS	11-03-2024	202441017194	Published
44	Ms.Padma Priya K	Real Time Ammonia Monitoring In Public restrooms	11-03-2024	202441017195	Published
45	Dr P Baraneedharan	Enhanced UV Absorption In Fe <sub>2</sub> O <sub>3</sub> /ZnO Nanocomposites Induced By Ag Nanoparticles	12-03-2024	202441017805	Published
46	Dr P Baraneedharan	Transmutation Of N-Type SnO <sub>2</sub> Nanostructures To P-Type By Zinc Ion Dopant	12-03-2024	202441017645	Published
47	Mr.Arasa Kumar R	Artificial Intelligence With Machine Learning Based Online Examination Monitoring System	15-03-2024	202441014946	Published
48	Dr. Sheeba Joice C, Ms.S.Hitha Shanthini	Prevention Of Sink Hole Attack Using Machine Learning	04-04-2024	202441027879	Published
49	Dr. Sheeba Joice C, Ms.Jenisha C	Deep Learning Based Haze Removal For Autonomous Vehicles Perception Systems	04-04-2024	202441027857	Published
50	Ms.M.Rohini	Arduinio Based Real Time Food Detction System	23-04-2024	202341059101	Published
51	Dr.M.Sowmya Manoj	Efficient Prediction Of Crime Hospots Using Deep Learning Approaehs	15-05-2024	202441038099	Published
52	Mr.K.Arunkumar	Prediction Of Stator Slot Size Variation In Industrial Drives Using Wavelet Transform And Machine	22-05-2024	202441039880	Published

Patent 2022-2023

S.No	Name of Faculties	Title of Patent	Date of Filing	Application No	Status
1	Dr. S. Navaneethan, Ms. Arokia Nerling Rasoni G	Data science, AI, ML algorithms Based Paddy/Disease Avoidance system using DNN and Image Processing approach	29-06-2022	202241037444	Published
2	Dr. A. Saranya, Dr. S. Imran Hussain, Dr. P. Baraneedharan	Portable Spectrometry Analysis Kit For Testing Nano Solutions	05-01-2023	202341001986	Published
3	Dr. P. Baraneedharan, Dr. S. Imran Hussain, Dr. A. Saranya	Artificial Intelligence Based IOT Robotic Vehicle For Slurry Cleaning	05-01-2023	202341001091	Published
4	Dr. S. Imran Hussain, Dr. A. Saranya, Dr. P. Baraneedharan	AI Based Portable Electrometric Analysis Kit For Testing Nano - Solutions	09-01-2023	202341001719	Published
5	Mr. Srinivasan C, Dr. Srigitha S. Nath, Dr. Sheeba Joice C, Dr. M. Selvi, Dr. M. Vanitha, Dr. C.T. Kalaivani, Mr. Vigneshwaran R, Ms. Kamala Priya M, Mr. Thulasiragavan P V, Ms. Evangeline Priyaa S	IOT Based Embedded System For Vegetable Cultivation	09-02-2023	202341008343	Published
6	Mr. Srinivasan C, Dr. Srigitha S. Nath, Dr. Sheeba Joice C, Dr. M. Selvi, Dr. M. Vanitha, Dr. C.T. Kalaivani, Mr. Vigneshwaran R, Ms. Kamala Priya M, Mr. Thulasiragavan P V, Ms. Evangeline Priyaa S	IOT Based Embedded System For Vegetable Cultivation	09-02-2023	202341008343	Grant



7	Dr.Jeffin Gracewell	Design Of Power Board For Intruder Detection Via Drills	09-02-2023	202341008296	Published
8	Dr.Dhandapani ,R Jagadeshwaran	Modulation Technique Having Constellation Points Integrated With Elliptical Conic Sections For Reducing	09-02-2023	202341008233	Published
9	Ms.Deepa Lakshmi,S Praveen Kumar,Dr. T Aravind,G Dinesh Ram,S Ramya,D Lingaraja,T K Srinivasan	Paper Microfluidic And Lateral Flow Immunoassay Technique Based Kit For Detection Of TSH	26-02-2023	202341013022	Published
10	Dr.R Jennie Bharathi,Ms.G.Keerthiga,Dr.R Vinod Kumar,Mr.R Kannan,Ms.K.Sakthi	System And Device For Fall Detection And Prevention	04-03-2023	202341014652	Published
11	Dr. Kanagamalliga S,Dr. Renugadevi R	System For Smart Garbage Bin For Power Generation	10-03-2023	202341016194	Published
12	Dr.S.Navaneethan	Smart Belt For Students' Safety	10-03-2023	202341016196	Published
13	Dr. Kanagamalliga S,Dr. Vinayagam P,Dr. Latha R	System For Solar Powered Smart Wheelchair	15-03-2023	202341017565	Published

Patent 2021-2022

<u>S.No</u>	<u>Name of Faculties</u>	<u>Title of Patent</u>	<u>Date of Filing</u>	<u>Application No</u>	<u>Status</u>
1	Dr.S.PraveenKumar Dr.Aravind	Microfluidic blood cell separation and detection kit for point of care diagnosis	03-12-2021	202141056273	Published
2	Dr.S.PraveenKumar Dr.Aravind	A novel fabrication approach of testosterone meter kit for hormone level detection	17-12-2021	202141058885	Published
3	Dr.S.PraveenKumar Dr.Aravind Dr.SrigithaSNath	Fabrication of paper based microfluidic device for lipid profile analysis	17-12-2021	202141058975	Published
4	Dr.S.Praveenkumar Dr.SrigithaSNath	Automated prediction of chronic obstructive pulmonary disease using deep learning based scampi	17-12-2021	202141059096	Published
5	Dr.S.PraveenKumar Dr.Aravind	Force controlled electrothermally activated micro/gripper for bio/manipulation	21-12-2021	202141059793	Published
6	Dr.K.Indhumathi	IOT based Intelligent Wheelchair for disabled persons	21-12-2021	202141059797	Published
7	Dr. T Aravind, Ms A Hemamalini, Dr K Mithra	Enhanced efficiency and guaranteed quality for 5G network using cognitive FEMTO techniques	22-12-2021	20214059997	Published
8	Dr.K.Indhumathi Dr.Srigitha S Nath	Design of RFID resonator on Pyrex glass	15-05-2022	202241027926	Published