Paper Title	Page No
In-Heal: Intelligent Healthcare Architecture using AI-based Priority Scheduling Mechani	1
Study of Learners Behaviour in virtual learning environment using Process Mining	7
Machine Learning Model for Numeral Recognition	13
Optimal Location of PMU Using Simplex Linear Programming	18
Fuzzy Logic Based Inverter Controller for Stand-Alone Operation of PV/Battery System	24
Dynamically Adaptive Gain Super Twisting Sliding Mode Control for Extending the range	30
A Linting tool without a compiler in it	36
Forecasting of Transportation cost for Logistics data	40
Raspberry Pi Vehicle Gateway System with Image Processing based Authorization Detec	46
Modelling of High Voltage- High Frequency DC-DC Converter for Transmitter Application	51
A Cognitive Framework to detect AUD patients from EEG signal using Hybrid Super Lear	56
Novel Algorithms for Efficient Design and Operation of Multi-SIM UE in 5G and Beyond	62
Smart Multipurpose Agricultural Robot	68
An Improved Equivalent Circuit Parameter Representation of Lithium Ion Batteries Usin	74
An Intelligent Data Status Manager in Heterogeneous Enterprise Landscapes for Ensurir	
Profit Maximization Scheme in IoT assisted mist Computing Healthcare Environment us	84
Optimal Radio Resource Allocation in Small Cells for a Massive IoT Network: An mMTC I	90
Analyzing and Processing of Astronomical Images using Deep Learning Techniques	94
Prototype of Home Based Multi-Channel Wearable Wireless Fetal ECG Monitoring Syste	100
Player Rating Correlation Prediction Using Machine Learning	104
Comparative Analysis of Compact Microring Resonator Architectures for Tunable Optica	109
Optimal Positioning of Macro Base Station: An Approach to Ensure Optimal Coverage of	114
Detection of Volatile Organic Compounds in Fabricated MEMS Cantilever Sensor	118
Safety for HER: A systematic approach with coalescence of technology and citizens	124
A COMPARATIVE STUDY ON PREDICTION OF PM2.5 LEVEL USING OPTIMIZATION TECHN	130
Benchmarking Transformer-Based Transcription on Embedded GPUs for Space Applicat	136
Design of Metasurface inspired Millimeter Wave Antenna for 5G Applications	142
Predictive Technique To Improve Classification On Continuous System Deployment	147
Ring cavity widely tunable continuous wave Ytterbium-doped double-clad fiber laser	151
Document Retrieval Through Cover Density Ranking	154
Field Portable 400 W Continuous-Wave Fiber Laser Source for Ordnance Disposal	159
Radar Cross Section Analysis of Multi-layered Resistive Material based Planar/Conformation	
Causal Analysis of Carnatic Music Compositions	167
Novel Hiring Process using Machine Learning and Natural Language Processing	173
Photonic Crystal Based Bio-Sensor using Rhombic Ring Resonator for Cancer Cell Detect	
Implementation of Peak Demand Reduction on a Distribution Feeder using Python-Ope	
A Multiband CPW-Fed Flexible Frequency and Radiation Pattern Reconfigurable Antenn	
Impact of Reordered ATPG Test Patterns on the Aging of the Digital Circuits	193
Agrosquad – An IoT based precision agriculture using UAV and low-power soil multi-ser	
Dual-Band Circularly Polarized Fractal Slit Boundary Microstrip Antenna for ISM Band A	205
Analysis of a Compact X-Band Metamaterial Absorber	210
Double Layer Absorber with Resistor Loaded Square Loop with Trapezium Sides and Jer	

Computation of minimum noise requirement at Analog to Digital Converter in Radar red	219
Design and Development of PWM based Solar Hybrid Charge Controller	224
Optimized switching techniques for Multilevel Inverter with Reduced number of switch	230
Towards Intelligent Compression of Hyperspectral Imagery	236
Role of Substrate on SAW Filter Performance and Comparative Analysis	242
Analysis of High Field effect Mobility in Carbon Nanotube FETs(CNTFETs)	247
Comparative Analysis of Different channel Materials of Multiple Gate FET	251
EFFICIENT DIGITAL IMPLEMENTATION OF QUADRATURE DEMODULATOR FOR RADAR R	256
Fail-Safe Neural Network Inference Accelerator	261
Automated Detection of Malaria implemented by Deep Learning in Pytorch	265
Thermal Analysis of Biological Tissues Exposed To Electromagnetic Fields by Using Penn	270
Determination of Electrical Values of Tissue Equivalent Liquids Prepared for 900 MHz Fr	276
Wavelet-based Interference Perception and Reduction Approach for NB and CW RFI on	282
Identity Verification Using Age Progression & Machine Learning	288
BEV Detection and Localisation using Semantic Segmentation in Autonomous Car Drivin	294
Ultrathin Polarization Insensitive TerahertzMetamaterial Absorber	300
Impact Analysis of RPL Attacks on 6LoWPAN based Internet of Things network	304
Athletic Run Based Optimization: A novel method for the integration of DGs and shunt	309
Evolving Embryonic Cell for Combinational Circuits using Cartesian Genetic Programmin	315
Novel Application of Gradient-Based Optimizer for tuning a Fuzzy-PIDD2 controller for L	321
Air-Aura (Adaptive Lighting Solutions and Sensors for Sustainable and Covid proof Aviat	327
FPGA Implementation of a Face Recognition System	333
Machine Learning Models for Aircraft Tail Performance & Degradation Predictions	338
Design and Implementation of Encoder/Decoder Quantum Circuits using Decimal to Bin	344
Designing and Implementation Quantum Half Subtractor and Full Subtractor Using IBM	349
SEIR Epidemiology Modelling with Restricted Mobilities in COVID-19	353
A Novel Architecture and Design of FPGA based Space-borne AIS Receiver	358
Dynamic analysis of split-shaft microturbine for stand-alone and grid-connected mode 🤇	364
AUTOMATED ASSESSMENT OF THE ELECTROCARDIOGRAM AIDED PULSE TRANSIT TIME	370
Random Decision Forest approach for Mitigating SQL Injection Attacks	375
SMART ASSISTIVE TECHNOLOGY BASED COMMUNICATION AND LEARNING FOR SPASTIC	380
Predicting the Cattle Production Parameters Through Deep Learning Approach: A Revie	386
Using InterCloudFramework to migrate application and data between two public clouds	392
Natural Scene Text Localization and Removal: Deep Learning and Navier-Stokes Inpainti	398
INTELLIGENT RFID BASED LIBRARY MANAGEMENT SYSTEM	403
Temporal based Network Packet Anomaly Detection using Machine Learning	409
Investigation of Diode Clamped Multilevel Inverter Using Multicarrier PWM Techniques	415
Performance Evaluation of Mobile Edge Computing using 5G Networks	421
Volume measurement for Silos	427
Automated System for Detection of Suspicious Activity in Examination Hall	432
Rapid Detection of Brain Lesions using Biosensor Based 2D Photonic Crystal	437
Spectral Efficiency Optimization and Analysis of Time Switching-Based, Energy Harvestir	443
A Novel Superstrate for Low RCS Antenna	448
Differential Frequency-Reconfigurable Rectifier for Efficient Microwave Energy Harvesti	453
A Conceptual Framework for Knowledge Aided Passive Radar System	458

INDDICA: A On-Device Real Time Method for Background Noise Removal from Speech S	464
Compact Metasurface Loaded Multi-Layer Antenna for 3.5 GHz Airborne Applications	470
Methodology for An Innovative and Efficient Diagnostics of Electric Locomotive	474
Detection of point source of carbon dioxide using hyperspectral imaging sensor	480
Radiomics Features Analysis From Lung Cancer Using CT Images	485
Coarsely Discretized Huygens' Metasurface: Manipulating EM Waves with Simplicity	490
Efficient Mapping of Graphic Software on DSP	496
A Novel Strategy with Multiple Models to Improve Performance of Adaptive Iterative Le	500
Charge Pump with Low Current Mismatch for PLL Applications	506
HBlogRec: A Hybridized Cognitive Knowledge Scheme for Blog Recommendation infusin	510
Millimeter-Wave Antenna Using Dipole and Loop Modes for Enhanced Bandwidth	516
Adaptable Microwave Sensitivity Time Control for Radars using FPGA	520
TraFic – A Systematic Low Overhead Code Coverage Tool for Embedded Systems	525
Smart vehicle monitoring for detecting anomalies on CAN bus	531
A MUX based Latch Technique for the detection of Hardware Trojan using Path Delay A	537
Empirical Performance Analysis of Speech Based Age Classification	541
Comparison of Containerization and Virtualization in Cloud Architectures	546
Superdense Coding Through Repeaterless Hybrid Network of Depolarizing Quantum Co	551
"An Automated Social Distance Monitoring & Alarm System based on Human Structure	557
Priority based Discrete time Dynamic Routing Algorithm for Emergency Evacuation	562
A Survey on data security challenges in multi cloud environment	568
A Non-invasive Estimation Technique to Determine Dielectric Properties of Multilayer H	573
Modeling and Analysis of Average Torque Control Strategy on Switched Reluctance Mot	577
Novel 5G and B5G Network Architecture and Protocol for Multi SIM Devices	583
A method to boost throughput in 5G and 4G mobiles using MultiSIM subscription on th	589
Lung Cancer Types Prediction Using Machine Learning Approach	595
Opto-Acoustic Multimodal System to Delineate Adjacent Normal from Breast Biopsy Ca	601
An optimized Paging prediction model over a cell in wireless network for efficient resou	605
Thermal Aware Power Save Policy For Hot And Cold Jobs	611
Channel Model for Indian Regional Navigation Satellite System (IRNSS) using Mixture of	618
Non-Contact Temperature Detector and Face Mask Detector, Attendance Updation Sys	623
A narrow band UHF filter bank using SAW TCRFs	627
A Machine learning based approach for detection of Tumor	631
A Deep Learning Model for Detecting PPE to Minimize Risk at Construction Sites	636
Nonlinear Frequency Modulated Waveform Optimization for a Cooperative Radar-Com	642
Dynamic Characterization and Phenomenological Modelling of Customizable Pneumatid	648
Computer Vision Approach for the detection of Thrombocytopenia from Microscopic Bl	654
A sequencing circuit to provide power up/down sequence to multiple outputs of a dc-d	659
High-Squint SAR Data Generation and Processing with Validation on Real Data	664
Parameter Estimation and Imaging of SAR Ground Moving Target using AGFS	670
Performance analysis of EGFET pH sensor	676
Synthetic Vertebral Column Fracture Image Generation by Deep Convolution Generativ	681
Metapod: Accessible Hardening of Docker Containers for Enhanced Security	685
Power Density level Analysis for large power aperture Radars	691
Efficient way of Non-GBR, High Latency GTP-U Packet Transmission in 4G and 5G Netwo	695

A Polarization-Insensitive Switchable Filter using Meandered AFSS for WiFi/WiMAX App	699
AI Based Automatic Crop Disease Detection System	703
Novel Algorithm to Recover the Lost CDR Information by Control and User Planes Separ	709
Recent Technology Trends in Satellite Communication Subsystems	715
ION/IOFF Improvement for No Junction Surrounding Gate TFET with different high-k va	720
A Graph Mining Approach to Detect Sandwich Calls	725
Experimental And Numerical Studies on Mechanical Resonance of Piezoelectric Hemisp	731
Radar Environment Simulator for on-board injection of simulated targets for Airborne R	736
Modelling and Control of Dynamical Ball and Beam System Using SA Tuned PIDA and PI	742
IoT Network Based Analysis of Variations in Particulate Matter due to COVID-19 Lockdo	748
Automation in Agricultural Field using Decentralised Framework	754
Voltage Regulation of Smart Distribution Network using Sensitivity Analysis based DG p	760
Contingency Ranking for Voltage Stability in Power System	766
End to End COVID-19 Public Screening System	770
SPEECH EMOTIONAL RECOGNITION USING CNN ALGORITHM	777
High-Frequency and Low-Latency DSP Architecture for Information Matrix Fusion	782
Pest and Disease Detection from Plant Leaves using Enhanced AlexNet Model	788
Experimental Study of 24GHz Sense2Gol Pulse Radar Sensor for Human Vital Sign Meas	793
A Wideband Slotted Monopole Antenna for EW and CR Applications	798
Experimental Evaluation of a Multi-domain Routing in SDN and its Inter-operability with	802
A Technique of Designing Low Leakage Latch-Type Sense Amplifier in Nanometer Tech	808
Question Answering Chatbot using Deep Learning with NLP	813
Performance study of electrohydrodynamic thruster under the influence of external ma	819
RTL to GDSII of Harvard Structure RISC Processor	825
Generation of True Random Numbers using Entropy Sources Present within Portable Co	829
Design and Implementation of a Compact DC-DC Converter for powering FPGAs	835
Condition Assessment of High Voltage Insulator using Convolutional Neural Network	841
Wireless Sensor Networks for Optimisation of Search and Rescue Management in Flood	847
Analysis of FMCW-Radar signals to extract vital-sign information	853
METHOD OF CONFIGURING LABCAR BASED ON IOT	859
Indian Sign Language Recognition Using Random Forest Classifier	863
An implementation of 3D Angle-only tracking schemes for Airborne Radars	869
MIME: Mutual Information Minimizer for Selection of Categorical Features	875
A 16 QAM ROF SYSTEM BASED ON POLARIZATION MODULATOR	878
From Informal System Requirements to Formal Software Specifications - An Experience	883
A Dual-Transmission Band Rasorber with Miniaturized Unit Cell Geometry	889
LSTM-Based prediction of water quality parameters system in backwaters	894
Signal Generation and Continuous Tracking with Signal Attribute Variations using Softw	900
An In-Depth Analysis of RFID Versus Barcode Scanning for Tactile Learning	906
Novel Packaging Approach for Thick Film Based Gas Sensors and Associated Aspects	911
A Fully Integrated, High Speed, Motion Controller Hardware Accelerator for Autonomo	915
Enhanced VoLTE Meidum Access Control Scheduling Algorithm for eMTC Devices	921
Breast Histopathological Image Classification Using Deep Learning	926
A Hybrid Cluster-Classifier model for Carnatic Raga Classification	932
CFAR Detection of Extended Targets for Medium Resolution Surveillance Radars	938

Location Privacy-Preserving Mechanism - A Data-Driven Approach	944
A Novel Error Correction Code with Reduced Memory Utilization and Increased Accurad	950
Differences in the spatial integration of discrete/continuous spectral signals	956
Leveraging towards Privacy-preserving using Federated Machine Learning for Healthcar	962
Weight-Based Exploration for Unmanned Aerial Teams Searching for Multiple Survivors	968
Denoising and Baseline Correction Prospects of Laser Induced Plasma Spectra acquired	974
Detection and Localization of Targets Using Millimeter Wave Radars: An Experimental S	978
A Survey on Machine Learning Algorithms for Applications in Cognitive Radio Networks	984
Fast Obstacle Avoidance Motion in Small Quadcopter operation in a Cluttered Environm	990
Automatic Optical Inspection System for wiring harness using Computer Vision	996
Common Spatial Pattern Based Data Augmentation Technique for Decoding Imagined S	1001
Real-time Violence Activity Detection Using Deep Neural Networks in a CCTV camera	1001
Feature Selection on MRI Data for Improved Classification of Alzheimer Disease	1000
Evaluating the Applicability of Analytical Models for Silicone Tube Mckibben Actuators t	1012
State of Health Estimation of Lithium Ion Batteries using Recurrent Neural Network and	1010
Design and Analysis of Rib Waveguide Bragg Grating for Multiplexed Biosensing Applica	1024
Design, modeling and simulation of micromechanical suspension system for the detecti	1030
A Pilot Study on Wearable Nasal Patch sensor for assessment of breathing parameters	1035
Performance analysis of Forward Error Correcting Codes in a Visible Light Communication	1041
Brain-Computer Interface for Quadcopter Morphology Manipulation	1040
Multiple Target Detection using Sigma Delta-STAP in the Presence of Airborne Clutter	1051
A Novel Fire Detection Method using CNN	1055
Reliable Edge Service for IoT Home Environment	1061
Combating Full-duplex Active Eavesdropping using Friendly Jammer with Intelligent Opt	1008
Hy-BTree: An efficient Tree based topology for FPGA based NoC implementation	1072
Behaviour Modelling of Satellites for Space Situational Awareness using Time Series An	1078
Efficient Human-Quality Kannada TTS using Transfer Learning on NVIDIA's Tacotron2	1084
Design of Antenna Array Architecture with Large Inter Element Spacing and Low Grating	1090
KannadaPado: Mobile-based recognition and cross-lingual transcription of camera capt	11090
Voice Controlled Object Grasping Robotic Arm for Visually Impaired Disabled Veterans	1102
Dry waste segregation using seamless integration of deep learning and industrial machi	1107
Content based Surgical Video Retrieval via Multi-Deep Features Fusion	1120
Neuromarketing using EEG Signals and Eye-tracking	1125
MPSoC FPGA-Based Radar Warning Receiver	1129
Towards the development of a table-top system for tumour delineation using electro-th	1135
Ensemble learning as a prerogative method of predicting mortality of patients with card	1140
Distributed Mission and Data Management System for Airborne Maritime Surveillance	1145
Deep Learning based detection of Diabetic Retinopathy from Inexpensive fundus imagir	1150
Design of Optical Fiber Goniometer Having Physiotherapeutic Application for Measuren	1156
Fixed Subarray Beamforming Architectures for sub-Nyquist Phased array Radars	1162
Evolution of 3D images from 2D images	1168
Design of Experiments for optimizing and selectivity study of mems sensor array based	1173
Implementation of 32-bit RISC Microprocessor on ZedBoard	1178
Forecast of Covid-19 Using Deep Learning	1184
Analysis of different photoactive materials and its optical effects on Organic Photo Dete	1189

Human Activity Recognition Using Elliptical and Archimedean R-Vine Copulas with Mult	1193
Krrushikar: Design and Development of a Seed Sowing Planter Bot and a Smart Greenho	1199
Frequency Domain Features Based Atrial Fibrillation Detection Using Machine Learning	1205
ShardCons - A Sharding Based Consensus Algorithm for Blockchain	1211
Nanotoxicity: Analyzing Toxic Nature of Nanomaterials using Computational Modelling	1217
Performance Benchmarking Frameworks for Distributed Ledger Technologies	1222
Designing of PSO Tuned PID Controller for Ball Balancer Arrangement and Comparative	1227
Path Planning Scheme for Collision Avoidance in Unmanned Aerial Vehicle Traffic Mana	1232
Collision Prevention in a Cross road Scenario in Vehicular Networks	1237