

2019 IEEE International Conference on System, Computation, Automation and Networking (ICSCAN 2019)

**Pondicherry, India
29 – 30 March 2019**

Pages 1-516



**IEEE Catalog Number: CFP19O90-POD
ISBN: 978-1-7281-1526-9**

**Copyright © 2019 by the Institute of Electrical and Electronics Engineers, Inc.
All Rights Reserved**

Copyright and Reprint Permissions: Abstracting is permitted with credit to the source. Libraries are permitted to photocopy beyond the limit of U.S. copyright law for private use of patrons those articles in this volume that carry a code at the bottom of the first page, provided the per-copy fee indicated in the code is paid through Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923.

For other copying, reprint or republication permission, write to IEEE Copyrights Manager, IEEE Service Center, 445 Hoes Lane, Piscataway, NJ 08854. All rights reserved.

****** This is a print representation of what appears in the IEEE Digital Library. Some format issues inherent in the e-media version may also appear in this print version.***

IEEE Catalog Number:	CFP19O90-POD
ISBN (Print-On-Demand):	978-1-7281-1526-9
ISBN (Online):	978-1-7281-1525-2

Additional Copies of This Publication Are Available From:

Curran Associates, Inc
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: (845) 758-0400
Fax: (845) 758-2633
E-mail: curran@proceedings.com
Web: www.proceedings.com

CURRAN ASSOCIATES INC.
proceedings
.com

TABLE OF CONTENTS

TINGE WITHIN THE FRINGE.....	1
<i>M. Shanmugam ; V. Prasanna Venkatesan ; R. Abinaya ; E. Udayasri ; C. Sharanya</i>	
HIGH GAIN DC-DC CONVERTER BASED ON HYBRID SWITCHED-INDUCTOR TOPOLOGY FOR PV APPLICATION.....	6
<i>Gagandeep Singh ; Shalki Srivastava ; Radhika Lalwani ; Nilanjan Tewari ; M. Prabhakar</i>	
RESEARCH OPPORTUNITIES ON VIRTUAL REALITY AND AUGMENTED REALITY: A SURVEY.....	12
<i>M. Shanmugam ; M. Sudha ; K. Lavitha ; V. Prasanna Venkatesan ; R. Keerthana</i>	
REVIEW OF CREDIT CARD FRAUD DETECTION TECHNIQUES	18
<i>Vvyom Shah ; Parin Shah ; Harshit Shetty ; Kamal Mistry</i>	
“MINIMIZING PENALTY IN INDUSTRIAL POWER CONSUMPTION BY USING APFC UNIT”: A REVIEW.....	25
<i>Anuja Vijay Patil ; Pooja Balkrishna Dhuri ; Prachi Prakash Kushe ; Pratibha Ashok Mondkar ; Suraj Acharekar</i>	
RECOMMENDING WEB SERVICE BY PREDICTING QUALITY OF SERVICE USING HIDDEN MARKOV MODEL.....	30
<i>M. Thirumaran ; T. Kalaivani ; S. Karishma</i>	
A STUDY TO UNDERSTAND MALWARE BEHAVIOR THROUGH MALWARE ANALYSIS.....	35
<i>Om Prakash Samantray ; Satya Narayan Tripathy ; Susanta Kumar Das</i>	
FUEL LEVEL DETECTOR.....	40
<i>Aldan Sequeira ; Naman Koul ; Ankush Kumar ; Edlyn Wessely ; Gejo George ; Poonam Chakraborty</i>	
ANALYSIS OF STOCKS BY THE USE OF CLUSTERING AND CLASSIFICATION ALGORITHMS	45
<i>Kshititi Mehta ; Siddhant Modi ; Calvin Tomy ; Artika Singh</i>	
IOT BASED HEART DISEASE PREDICTION AND DIAGNOSIS MODEL FOR HEALTHCARE USING MACHINE LEARNING MODELS	50
<i>M. Ganesan ; N. Sivakumar</i>	
AN INVESTIGATION OF META HEURISTIC ALGORITHMS APPLIED ON CAPACITATED VEHICLE ROUTING PROBLEM.....	55
<i>G. Shanmugasundaram ; N. Thilagavathi ; S. Ramya ; K. Kanimozhi</i>	
AN AGENT BASED RESOURCE PROVISION FOR IOT THROUGH MACHINE LEARNING IN FOG COMPUTING	61
<i>A. S. Gowri ; P. Shanthi Bala</i>	
RELIABLE SUPPLIER SELECTION AND ORDER ALLOCATION MODEL FOR MANAGING RISKS : A SIMULATION-BASED OPTIMIZATION APPROACH.....	66
<i>C. R. Vishnu ; Sangeetha P. Das ; R. Sridharan</i>	
SINGLE STAGE DUAL BOOST INVERTER WITH HALF CYCLE MODULATION SCHEME FOR PV SYSTEM APPLICATIONS	73
<i>R. Priya ; R. Valli ; P. L. Santhana Krishnan</i>	
GDALR: AN EFFICIENT MODEL DUPLICATION ATTACK ON BLACK BOX MACHINE LEARNING MODELS	81
<i>Nikhil Joshi ; Rewanth Tammana</i>	
SMART MONITORING OF AGRICULTURAL FIELD AND CONTROLLING OF WATER PUMP USING INTERNET OF THINGS.....	87
<i>M. Suresh ; S. Ashok ; S. Arun Kumar ; Puppala Sairam</i>	
TRIBAL WELFARE APPLICATION: A SYSTEM TO CONNECT LOCAL ARTISANS & AGENCIES OF MOTA	92
<i>S. Uthayashangar ; S Sowmiya ; K Dheebhika ; V Swagatha</i>	
PIPELINE GAS LEAKAGE DETECTION AND LOCATION IDENTIFICATION SYSTEM.....	98
<i>M. Pajany ; A. Hemalatha</i>	
D'WORLD: BLOOD DONATION APP USING ANDROID	104
<i>A. Meiapane ; K. Logavignesh ; R. Prasanna ; T. Sakthivel</i>	
A COMPACT MICROSTRIP-FED MIMO ANTENNA FOR 2.4 GHZ APPLICATIONS	109
<i>S. Nishandhi ; G. Nagarajan ; Vankayala Chethan Prakash</i>	
RECURRENCE AND NON-RECURRENCE PREDICTION OF UTERUS CANCER USING BIG DATA.....	114
<i>Malarvizhi. N. ; Dhanya. S.</i>	

LINEAR PREDICTOR COEFFICIENT, POWER SPECTRAL ANALYSIS AND TWO-LAYER FEED FORWARD NETWORK FOR BANGLA SPEECH RECOGNITION.....	117
<i>Md. Shafiqul Alam Chowdhury ; Md. Farukuzzaman Khan</i>	
A REVIEW OF SECURITY CHALLENGES IN HOME AUTOMATION SYSTEMS	123
<i>Aditya Chakraborti ; Aastha Jain ; Siddarth Menon ; Krishna Samdani</i>	
DESIGN OF A COMPACT MIMO ANTENNA FOR LTE APPLICATION.....	129
<i>S. Sivaranjani ; M. Thachayani</i>	
APPLYING M-MUTATION OPERATOR IN GENETIC ALGORITHM TO SOLVE PERMUTATION PROBLEMS.....	134
<i>Devasenathipathi N. Mudaliar ; Niles K Modi</i>	
PERFORMANCE EVALUATION OF ENSEMBLE BASED COLLABORATIVE FILTERING RECOMMENDER SYSTEM.....	139
<i>P. Venil ; G. Vinodhini ; R. Suban</i>	
A STUDY OF PREDICTION MODELS FOR FOOTBALL PLAYER VALUATIONS BY QUANTIFYING STATISTICAL AND ECONOMIC ATTRIBUTES FOR THE GLOBAL TRANSFER MARKET	144
<i>Dibyanshu Patnaik ; Harsh Praharaj ; Kartikeya Prakash ; Krishna Samdani</i>	
PERFORMANCE EVALUATION OF ENERGY EFFICIENT MAC PROTOCOL FOR WIRELESS BODY AREA NETWORK	151
<i>Pradha S. Ezhil ; Ka Selvaradjou</i>	
BRAIN TUMOR SEGMENTATION AND CLASSIFICATION USING SELF ORGANIZING MAP	158
<i>D. Saraswathi ; B. Lakshmi Priya ; R. Punitha Lakshmi</i>	
DETECTION AND CLASSIFICATION OF GROUNDNUT LEAF DISEASES USING KNN CLASSIFIER	163
<i>M. P. Vaishnnave ; K. Suganya Devi ; P. Srinivasan ; G. Arut Perum Jothi</i>	
BIOMECHANICAL SPORTS ANALYSIS USING INERTIAL MEASUREMENT UNIT	168
<i>S. Vijay Ananth ; Ayush Patawari ; K. Sundari ; Raghavi ; Likitha ; S. Arivalagan</i>	
ADVANCED MULTILEVEL INVERTER TECHNIQUES FOR PV APPLICATIONS WITH REDUCED SWITCHING DEVICES AND THD WITH VOLTAGE BALANCING	173
<i>R. Priya ; R. Valli</i>	
PERSPECTIVE ANALYSIS OF DIGITAL VOTING SYSTEMS	180
<i>G. Shanmugasundaram ; A. Kalaimathy ; M. Johnvee ; S. Pavithra</i>	
BINARY INTERACTIVE SEARCH BASED FACELIFT FEATURE SELECTION METHOD FOR HOUSEHOLD CLASSIFICATION DATA ON SMART ELECTRICITY METER DATA.....	186
<i>M. Suresh ; M. S. Anbarasi</i>	
A SURVEY ON THEFT SURVEILLANCE AND DETECTION TECHNOLOGIES.....	192
<i>N. Kalaiselvi ; G. Shanmugasundaram ; P Arutselvi. ; N Kowsalya.</i>	
A SURVEY ON WOMEN SAFETY DEVICE USING IOT	198
<i>R. Ramachandiran ; L. Dhanya ; M. Shalini</i>	
RESOURCE ALLOCATION BASED ON HYBRID WATER FILLING ALGORITHM FOR ENERGY EFFICIENCY ENHANCEMENT IN COGNITIVE RADIO NETWORKS	204
<i>P. Shyamala Bharathi ; M. Balasaraswathi ; M. Jayekumar ; S. Padmapriya</i>	
A SURVEY ON QOS AWARE GLOBAL OPTIMIZATION FOR DYNAMIC WEB SERVICE COMPOSITION.....	212
<i>N. Arunachalam ; A. Amuthan</i>	
PREDICTING SMART DISTANCE TILL EMPTY FOR SOLAR VEHICLE USERS	218
<i>S. Jayamoorthy ; A. Aravindhana ; V. Hariharan ; B. Pandhalarajan</i>	
QPSO BASED LOAD BALANCING MECHANISM IN CLOUD ENVIRONMENT	223
<i>P. Sivakumar ; S. Kalaiyarasi ; S. Shilpa ; D. Swetha</i>	
EFFICIENT GROUP DATA SHARING IN CLOUD ENVIRONMENT USING HONEY ENCRYPTION	229
<i>S. Uthayashangar ; P. Dhamini ; M. Mahalakshmi ; V. Mangayarkarasi</i>	
LIVER SEGMENTATION USING WEIGHTED CONTRAST BASED CHAN-VESE METHOD.....	232
<i>B. Lakshmi Priya ; D. Saraswathi ; R. Punitha Lakshmi</i>	
A STUDY ON MACHINE LEARNING ENABLED IOT DEVICES FOR MEDICAL ASSISTANCE	237
<i>Gauri Tawde ; Yash Choksi ; Roshan Singh ; Krishna Samdani</i>	
STUDY ON MACHINE LEARNING TECHNIQUES IN FINANCIAL MARKETS.....	243
<i>Prakhar Vats ; Krishna Samdani</i>	
A SURVEY ON SPECKLE REMOVAL FOR OPTICAL COHERENCE TOMOGRAPHY IMAGES.....	248
<i>Ramachandiran R. ; Gayathri K. ; Ishwariya A. ; Roopa G.</i>	

OBSERVATION-BASED POSTURAL ASSESSMENT OF WASTE SORTING TASKS.....	253
<i>A. Ajay Vishnu ; K. Shashank Siddaveeraiah ; K. Venkata Rahul ; S. Nirmal ; Priyanka Thalor ; Salma Sultana ; Francis J. Emmatty ; Vinay V. Panicker</i>	
NEURAL NETWORKS AND COLLABORATIVE FILTERING	259
<i>Neelika Chakrabarti ; Sheona Das</i>	
HETEROGENEOUS DEEP NEURAL NETWORK FOR HEALTHCARE USING METRIC LEARNING.....	263
<i>N. Poonguzhali ; Kagne Raveena Rajendra ; T. Mageswari ; T. Pavithra</i>	
SECURING DATA AND REDUCING THE TIME TRAFFIC USING AES ENCRYPTION WITH DUAL CLOUD	267
<i>P. Sivakumar ; M. Nandhakumar ; R. Jayaraj ; A. Sakthi Kumaran</i>	
ROBUST H-INFINITY CONTROLLER FOR TWO DEGREE OF FREEDOM HELICOPTER	272
<i>B. Ashok Kumar ; S. Gayathri ; S. Surendhar ; S. Senthilrani ; R. Jeyabharathi</i>	
CONTROL OF FOUR TANK SYSTEM USING MODEL PREDICTIVE CONTROLLER	277
<i>B. Ashok Kumar ; R. Jeyabharathi ; S. Surendhar ; S. Senthilrani ; S. Gayathri</i>	
A COMPARATIVE STUDY OF IOT TECHNOLOGY IN PRECISION AGRICULTURE	282
<i>Immanuel Zion Ramdinthara ; P Shanthi Bala</i>	
A REVIEW OF STOCK MARKET PREDICTION USING NEURAL NETWORKS.....	287
<i>Aditya Menon ; Shivali Singh ; Hardik Parekh</i>	
EFFICIENT QUERY PROCESSING WITH LOGICAL INDEXING FOR SPATIAL AND TEMPORAL DATA IN GEOSPATIAL ENVIRONMENT	293
<i>P. Manju Bala ; S. Hemamalini</i>	
AUTOMATED ATTENDANCE SYSTEMS USING FACE RECOGNITION BY K-MEANS ALGORITHMS	299
<i>N Palanivel ; S Aswinkumar ; J Balaji</i>	
DESIGN & ISOLATION REDUCTION OF CIRCLE INSERTED MIMO ANTENNA	307
<i>K. Vasu Babu ; B. Anuradha</i>	
A STUDY ON IOT BASED SMART STREET LIGHT SYSTEMS	312
<i>P. Arjun ; S. Stephenraj ; N. Naveen Kumar ; K. Naveen Kumar</i>	
PLANT DISEASE ANALYSIS USING IMAGE PROCESSING IN MATLAB.....	319
<i>Hari Krishnan ; K. Priyadharshini ; M. Gowsic ; N. Mahesh ; S. Vijayananth ; P. Sudhakar</i>	
LEARNING AND DEVELOPMENT CENTER TRAINING CALENDAR APPLICATION.....	322
<i>K. Rajasundari ; V. K. Keerthi Mathi</i>	
NAVIGATION SYSTEM FOR THE VISUALLY CHALLENGED USING INTERNET OF THINGS.....	327
<i>I. Varalakshmi ; S. Kumarakrishnan</i>	
QOS AND SUM RATE MAXIMIZATION IN HETEROGENEOUS MASSIVE MIMO NETWORK.....	331
<i>Surender Ragunathan ; P. Dananjayan</i>	
CYBER-SPACE AND ITS MENACES	335
<i>R. Sujeetha ; Himanshu Das ; Tanish Dhelawat ; Mohammad Tanveer</i>	
SMART DUMPSTER MONITORING SYSTEM USING EFFICIENT ROUTE FINDING ALGORITHM	340
<i>I. Varalakshmi ; S. Sivaraj ; R. Sharath ; N. Ajeeth Kumar</i>	
ANALYSIS OF DIFFERENT MEASURES TO DETECT DRIVER STATES: A REVIEW	345
<i>Suganiya Murugan ; Jerritta Selvaraj ; Arun Sahayadhas</i>	
A COMPARATIVE STUDY ON DIFFERENT MEASURES TO IDENTIFY DRIVER STATES	351
<i>S. Pradeep Kumar ; Jerritta Selvaraj ; Arun Sahayadhas</i>	
VIRTUAL MACHINE CONSOLIDATION FRAMEWORK FOR ENERGY AND PERFORMANCE EFFICIENT CLOUD DATA CENTERS	356
<i>Ranjini A. Arockia ; S. Arun</i>	
CHATBOT AND BULLYFREE CHAT	363
<i>V. Selvi ; S. Saranya ; K. Chidida ; R. Abarna</i>	
DETECTION OF LUNG CANCER USING SVM CLASSIFIER AND KNN ALGORITHM.....	368
<i>R. Sathishkumar ; K. Kalaiarasan ; A. Prabhakaran ; M. Aravind</i>	
IDENTIFICATION OF BREAST CANCER USING THE DECISION TREE ALGORITHM	375
<i>P. Sathiyarayanan ; S Pavithra. ; M Sai Saranya. ; M Makeswari.</i>	
MULTINET: EFFICIENT UTILIZATION OF MULTIPLE NETWORKS	381
<i>Kavita Jhajahria ; Ginika Mahajan</i>	
DACTYLOSCOPY BASED GENDER CLASSIFICATION USING MACHINE LEARNING	388
<i>V. Rekha ; S Gurupriya ; S Gayadhri ; S Sowmya</i>	
IDENTIFICATION OF MALWARE USING CNN AND BIO-INSPIRED TECHNIQUE	393
<i>N. Poonguzhali Poonguzhali ; T. Rajakamalam ; S. Uma ; R. Manju</i>	

LEAF DISEASE DETECTION AND FERTILIZER SUGGESTION	398
<i>R Indumathi. ; N Saagari. ; V Thejuswini. ; R Swarnareka.</i>	
STUDY ON PERSON FOLLOWING DRONE WITH LAN ESTABLISHMENT	405
<i>S. Lourdes Dinesh ; P. Pradeep ; B. Vasudevan</i>	
CASHNET-15:AN OPTIMIZED CASHEW NUT GRADING USING DEEP CNN AND DATA AUGMENTATION	410
<i>A. Sivaranjani ; S. Senthilrani ; B. Ashokumar ; A. Senthil Murugan</i>	
CLUSTER HEAD SELECTION USING DISTANCE AND RESIDUAL ENERGY FOR VANET	415
<i>M. Lavanya ; S. Preethi ; G. Sri Nivetha ; R. K. Santhia</i>	
TWO DIMENSIONAL PHOTONIC CRYSTAL BASED BIO SENSOR FOR CANCER CELL DETECTION	421
<i>A. Sundhar ; R. Valli ; S. Robinson ; A. Abinayaa ; C. Sivabharathy</i>	
COMPARISON OF FIBER OPTIC SENSORS BASED ON FBG – A REVIEW	424
<i>S. Mohamed Nizar ; B. Elizabeth Caroline</i>	
PERFORMANCE ANALYSIS AND COMPARISON OF VARIOUS OPTICAL SOURCES WITH OPTICAL SOLITON.....	430
<i>B. Elizabeth Caroline ; M. Margarat ; V. Gunaseeli ; M. Keerthana</i>	
EFFECTIVE DETECTION OF DIABETIC RETINOPATHY FROM HUMAN RETINAL FUNDUS IMAGES USING MODIFIED FCM AND IWPSO	437
<i>D. Palani ; K. Venkatalakshmi ; A. Reshma Jabeen ; V. M. Arun Bharath Ram</i>	
IOT BASED AUTOMATION OF ELECTRICITY CONSUMPTION IN SMARTHOMES	442
<i>D. Mohanapriya ; R. Reshma ; D. Priyadharshini ; Swathi Vinod</i>	
BIO-INSPIRED UNDERWATER UNDULATORY MOTION BY USING POLYPYRROLE BIMORPH ACTUATOR.....	448
<i>Samir Kumar Panda ; Dibakar Bandopadhyia</i>	
TOXIC ENVIRONMENT MONITORING USING SENSORS BASED ON ARDUINO	454
<i>R. Rajalakshmi ; J. Vidhya</i>	
IMPROVISATION ON NIO BASED THIN FILM SOLAR CELL CONVERSION EFFICIENCY BY THE ADDITION OF DOPANTS	460
<i>M. Rohit Reddy ; M. Pavankumar ; U. Anitha ; G. D. Anbarasi Jebaselvi ; A. M. Kamalan Kirubaharan</i>	
PREVENTION OF DECUBITUS ULCER: A SIMPLE BLOOD FLOW EQUALIZING BED	466
<i>S. Padmapriya ; M. Jayekumar ; S. Gowshameed ; K. Punithavathi</i>	
STUDENT ATTENDANCE MONITORING SYSTEM USING IMAGE PROCESSING	471
<i>S. Matilda ; K. Shahin</i>	
PERFORMANCE EVALUATION OF SMART INTELLIGENT CIRCUIT BREAKER	475
<i>K. Sedhuraman ; A. Venkadesan ; K Dhivagar ; M Mugesh</i>	
A PROGRESSIVE INTRUSION DETECTION SYSTEM THROUGH EVENT PROCESSING: CHALLENGES AND MOTIVATION	479
<i>S. Sandosh ; V. Govindasamy ; G. Akila ; K. Deepasangavy ; S. Femidhabegam ; B. Sowmiya</i>	
COMPLEX EVENT PROCESSING OVER INTRUSION DETECTION SYSTEM: A COMPREHENSIVE DISCUSSION	486
<i>S. Sandosh ; V. Govindasamy ; G. Akila ; A. Jeraldine ; D. Mithunkala ; V. Mohannakasturi</i>	
A LOCATION RECOMMENDATION BASED ON USER REVIEWS USING CART.....	492
<i>V. Janani ; Lubin Balasubramanian ; G. Sasikala ; G. Vidhya ; T. Kowsalya</i>	
PEF FRAMEWORK FOR DAY TO DAY CLIENT ACCEPTANCE TESTING.....	499
<i>N. Sowri Raja Pillai ; R. Rani Hemamalini ; K. Kamurunnissabee ; M. Jananii ; J. Kiruthiga</i>	
SATELLITE IMAGE CLASSIFICATION USING SELF ORGANIZING MAP AND ENSEMBLE CLASSIFIERS.....	505
<i>N. Sowri Raja Pillai ; R. Ranihemamalini ; G. Agila ; N. Pavithra</i>	
AUTHENTICATING CLUSTER HEAD AND DETECTING MALICIOUS NODE IN VANET USING FEEDBACK	510
<i>S. Pariselvam ; Anbarasi ; G. Anubama ; G. Sankavi</i>	
PERFORMANCE ANALYSIS OF HUB BLDC MOTOR USING FINITE ELEMENT ANALYSIS.....	517
<i>S. Rajkumar ; C. Shanmuga Sundaram ; K. Sedhuraman ; D. Muruganandhan</i>	
RUBICRYPT: IMAGE SCRAMBLING ENCRYPTION SYSTEM BASED ON RUBIK’S CUBE CONFIGURATION	522
<i>Joffin Joy ; Litty Koshy</i>	
INVESTIGATING THE PERFORMANCE OF MICROSTRIP PATCH ANTENNA WITH PHOTONIC CRYSTAL ON DIFFERENT SUBSTRATE	530
<i>D. Sathish Kumar ; P. Prithika ; B. Elizabeth Caroline</i>	

ENCRYPTED CLOUD BASED PERSONAL HEALTH RECORD MANAGEMENT USING DES SCHEME	535
<i>S. Pariselvam ; M. Swarnamukhi</i>	
PARAMETER MONITORING AND FUNCTIONALITY CONTROL IN AUTOMOBILES USING RASPBERRY PI	541
<i>T. Yathavi ; B. Akshaya ; Andrew Surya Prakash S. ; G. Meshach ; A. Shruthi</i>	
AVERAGE POWER BASED CLASSIFICATION OF RESPIRATORY SOUNDS USING SVM CLASSIFIER	547
<i>S. Jayalakshmy ; S. Rithika ; S. Rajasri</i>	
ONLINE REHABILITATION TOOL FOR IDENTIFYING LEARNING DISABILITIES	552
<i>A Devi ; S Sreya Prakash ; D Abinaya</i>	
SPECTRUM SHARING TECHNIQUES IN COGNITIVE RADIO NETWORKS – A SURVEY	556
<i>A. Sharmila ; P. Dananjayan</i>	
ENERGY EFFICIENCY IN COGNITIVE WIRELESS SENSOR NETWORK USING DSDV PROTOCOL	560
<i>R Keerthiga ; S Kalpana ; M Gomathi</i>	
DEVELOPMENT OF A MECHANISM TO DOCK A ROBOTIC SELF-TRANSFER DEVICE TO A WHEELCHAIR	566
<i>N. Shashank Shivakumar ; V. Shreyaas Viishvak ; R. B. K. Ashok ; R. Hari Krishnan</i>	
FEATURE BASED CLASSIFICATION OF RETINAL BLOOD VESSELS USING MULTIFRACTAL TECHNIQUE	571
<i>M Ramadevi ; M Sakthisri ; N. Sri Madhaava Raja</i>	
ENERGY EFFICIENT RSSI BASED LOW ENERGY NODE UTILIZATION ROUTING IN MANET	574
<i>S. Pariselvam ; M. Manikandan ; P. Praveenkumar ; R. Vinothvarma</i>	
IOT BASED SMART GARBAGE MONITORING SYSTEM USING ZIGBEE	580
<i>V. Aswin Raaju ; J. Mappillai Meeran ; M. Sasidharan ; K. Premkumar</i>	
RANDOM FOREST ALGORITHM FOR THE PREDICTION OF DIABETES	587
<i>K. Vijiyakumar ; B. Lavanya ; I. Nirmala ; S. Sofia Caroline</i>	
PROTOTYPE DESIGN FOR ENERGY CONSUMPTION IN SMART HOME USING IOT	592
<i>K. Premkumar ; K. Gokila Devi ; B. Jamuna ; G. Priyadharshini</i>	
SUM RATE ANALYSIS UNDER LOS AND NLOS CONDITIONS FOR A DISTRIBUTED INDOOR MASSIVE MIMO SYSTEM	598
<i>Vankayala Chethan Prakash ; Nagarajan Ganessan ; Arunmozhi Sinouvassane</i>	
PREDICTION OF DIABETES PATIENT STAGE USING ONTOLOGY BASED MACHINE LEARNING SYSTEM	602
<i>V. Swathi Lakshmi ; V. Nithya ; K. Sripriya ; C. Preethi ; K. Logeshwari</i>	
DETECTION, MONITORING AND TRACKING OF SURVIVORS UNDER CRITICAL CONDITION USING RASPBERRY-PI	606
<i>R. Vithiya ; S. Karthika ; G. Sharmila</i>	
COMPARE THE ACCURACY OF DIFFERENT CLASSIFIERS USING BREAST CANCER IN BIG DATA	611
<i>K. Vijiya Kumar ; R. Kowsalya ; V. Pritheba ; S. Rajeswari ; G. Shruthee</i>	
PREDICTION OF CHRONIC DISEASE BY MACHINE LEARNING	615
<i>P. Anandajayam ; S. Aravindkumar ; P. Arun ; A. Ajith</i>	
CORONARY HEART DISEASE PREDICTIVE DECISION SCHEME USING BIG DATA AND RNN	621
<i>P. Anandajayam ; C. Krishnakoumar ; S. Vikneshvaran ; B. Suryanarayan</i>	
DIGI-SHEET: ANALYSIS OF PATIENT DISEASE DATA BY INSPECTING THE HEALTH STATUS	627
<i>A. Meiappane ; Shantanu Bhowmick ; P Shiva Shankar ; V Vasanth Raj</i>	
PERFORMANCE ANALYSIS OF GFDM SYSTEM USING LDGT FOR VARYING WINDOW	632
<i>S Mohanraj ; P Dananjayan</i>	
DESIGN AND IMPLEMENTATION OF POWER EFFICIENT ENCODER FOR TRANSITION REDUCTION IN OFF-CHIP BUSES USING ADAPTIVE BUS ENCODING TECHNIQUE	636
<i>A. Sundhar ; R. Valli ; J. Navajothy ; Patta Bhyravaswamy ; S. Sivapriitha</i>	
COMPREHENSIVE SVM BASED INDIAN SIGN LANGUAGE RECOGNITION	642
<i>K. Revanth ; N. Sri Madhava Raja</i>	
HIGH GAIN MICROSTRIP-FED PATCH ANTENNA USING PERIODIC DIELECTRIC SUBSTRATE	646
<i>G. Idayachandran ; E. Ramassamy ; M. Sivaraj ; V. Rajesh</i>	

ANALYSIS OF DRAWBACKS IN 802.X AND SIGNIFICANT METHODOLOGIES ON DATA RECOVERY	650
<i>S. Vijay Ananth ; Likhitha Varma ; K Sundari ; Meghana Koduru ; G. Shree Charan ; Nibi Maouriyam</i>	
RETINAL VASCULATURE SEGMENTATION AND ANALYSIS USING HEURISTIC APPROACH	659
<i>T. D. Varsha Shree ; M. Sakthisri ; N. Sri Madhava Raja</i>	
INTELLIGENT CONTROL AND MONITORING OF ELECTRICAL OUTLETS AND APPLIANCES USING IOT	663
<i>R Muthunagai ; D Muruganandhan ; K Sedhuraman ; Rishabh Raghunath</i>	
EXAMINATION OF 2D CARDIAC MRI USING SOFTCOMPUTING ASSISTED SCHEME.....	667
<i>S. Arunmozhi ; Hong Lin ; V. Rajinikanth</i>	
ABCD RULE IMPLEMENTATION FOR THE SKIN MELANOMA ASSESMENT – A STUDY	671
<i>V. Rajinikanth ; N. Sri Madhava Raja ; S. Arunmozhi</i>	
AN HYBRID WAVELET BASED SFTA TECHNIQUE FOR CONTENT BASED MRI BRAIN IMAGE RETRIEVAL.....	675
<i>G. Sharmila ; S. Karthika ; R. Vithiya</i>	
A SYSTEMATIC STUDY ON DISEASE RECOGNITION, CATEGORIZATION, AND QUANTIFICATION IN AGRICULTURAL PLANTS USING IMAGE PROCESSING	682
<i>R. Sudhesh ; V. Nagalakshmi ; A Amirthasaravanan</i>	
IMPROVEMENT OF ENERGY STORAGE IN LITHIUM POLYMER BATTERY WITH NANO COMPOSITE MATERIAL (ZRO2).....	687
<i>D. Muruganandhan ; R. Muthunagai ; S. Rajkumar</i>	
INTELLIGENT CONTROL AND MONITORING OF ELECTRICAL OUTLETS AND APPLIANCES USING IOT	695
<i>R Muthunagai. ; D Muruganandhan. ; K Sedhuraman. ; Rishabh Raghunath</i>	
A NOVEL ENERGY EFFICIENT CLUSTERING TECHNIQUE FOR MOBILE WIRELESS SENSOR NETWORKS.....	699
<i>G. Kadiravan ; A. Sariga ; P. Sujatha</i>	
SIMULATION OF PIEZOELECTRIC COMPOSITE MEMS ULTRASONIC TRANSDUCER FOR LEVEL MONITORING	705
<i>Deepti Suresh ; Dheebtha Lakshmi ; N. Sri Madhava Raja</i>	
IMC CONTROLLER FOR A CLASS OF HIGHER ORDER OVERDAMPED SYSTEMS APPROXIMATED AS LOWER ORDER INTEGER AND NON-INTEGER MODELS USING GENETIC ALGORITHM	711
<i>K. Baskar ; S. Arivalagan ; P. Sudhakar ; D. Seshathiri ; R. Saravanan ; S. Mohan</i>	
AUTOMATION OF MANUAL FIXING AXLE ARM BUSH INTO THE ABS SLEEVE AND ENSURING SAFETY TO THE WORKERS.....	720
<i>J. Jayakumar ; K. Rajakumaran ; B. Radjaram</i>	
DESIGN OF POWERED WHEELCHAIR FOR A DIFFERENTLY ABLED PERSON.....	731
<i>S. Naresh ; R. Arunkumar ; I. Suriya ; T. Vinodh ; B. Radjaram</i>	
DESIGN AND FABRICATION OF FLUIDIZED BED INCINERATOR	744
<i>B. Z. Jawahar ; V. Naresh ; R. Prithiviraj ; C. Vignesh ; J. Sugumaran</i>	
PSO BASED CLUSTERING APPROACH FOR MOBILE WIRELESS SENSOR NETWORK.....	754
<i>G. Kadiravan ; P. Sujatha</i>	
WIELD BLOCKCHAIN TECHNOLOGYTO FORTIFY SMART WALLET	759
<i>M. Malathi ; S. Pavithra ; S. Preakshanashree ; S. Praveen Kumar ; N. Tamilarashan</i>	
MULTI DEPOT VEHICLE ROUTING PROBLEM USING ODV EV BASED GENETIC ALGORITHM	766
<i>R Ramachandiran ; R Ramapraha ; Joseph K. Suresh</i>	
CLASSIFICATION OF EPILEPTIC ENCEPHALOGRAM SIGNALS USING AREA OF OCTAGON	772
<i>R. Krishnaprasanna ; V. Vijayabaskar</i>	
REAL TIME EMBEDDED SYSTEM FOR AUTOMOBILE AUTOMATION	779
<i>Siva V. G. Kumar ; M. Vadivel ; Usthulamuri Penchalaiah ; P. Ganesan ; T. Somassoundaram</i>	
A COMPREHENSIVE REVIEW ON STRESS DETECTION TECHNIQUES.....	785
<i>G. Shanmugasundaram ; S. Yazhini ; E. Hemapratha ; S. Nithya</i>	
A COMPREHENSIVE REVIEW OF CONVOLUTIONAL NEURAL NETWORK BASED IMAGE ENHANCEMENT TECHNIQUES	791
<i>Katyani Singh ; Avi Seth ; Harshit Singh Sandhu ; Krishna Samdani</i>	
IOT ENABLED FOREST FIRE DETECTION AND EARLY WARNING SYSTEM	797
<i>A. Divya ; T. Kavithanjali ; P. Dharshini</i>	

DETECTING AND ANALYSING THE QUALITY OF AIR USING LOW COST SENSORS TO REDUCE AIR POLLUTION IN URBAN AREAS.....	802
<i>A. Divya ; R. Kiruthika ; D. Gayathri</i>	
ELIMINATION OF CHAOS IN BOTH INTEGER AND FRACTIONAL ORDER SINGLE-MACHINE-INFINITE-BUS POWER SYSTEM USING LYAPUNOV BASED CONTROLLER.....	807
<i>Swagat Kumar Panda ; Praveen Kumar Dewangan ; Deepak Kumar Lal</i>	
THE SOURCE OF GROWING KNOWLEDGE BY COGNITIVE ARTIFICIAL INTELLIGENCE.....	813
<i>R. Shiva Shankar ; N. Deshai ; K. V. S. S Murthy ; Vmnsavkr Gupta</i>	
A DEVELOPED TASK ALLOTMENTS POLICY FOR APACHE HADOOP EXECUTING IN THE PUBLIC CLOUDS	819
<i>N. Deshai ; R. Shiva Shankar ; K. Sravani ; D. Ravibabu</i>	
A SURVEY ON IMPROVED PSO ROUTING AND CLUSTERING IN WSN	823
<i>N. Kumaratharan ; N. Padmapriya ; A. Dharani</i>	
AUTOMATIC CAR PARKING SYSTEM USING RASPBERRY-PI WITH CLOUD STORAGE ENVIRONMENT	828
<i>R Aswini. ; T Archana.</i>	
CONVOLUTIONAL NEURAL NETWORK WITH AN OPTIMIZED BACKPROPAGATION TECHNIQUE.....	833
<i>A. Agnes Lydia ; F. Sagayaraj Francis</i>	
LISA-LIFE SAVER.....	838
<i>P. Iyappan ; B. Nanthinidevi ; P. Nivedha ; V. Sayoojya</i>	
VOICE CONTROLLED DOOR LOCK SYSTEM USING MATLAB AND ARDUINO	844
<i>L. David William Raj ; K. Santhosh ; S. Subash ; C. Sujin ; P. Tharun</i>	
DIGITIZED EXAM PAPER EVALUATION.....	850
<i>R Rajesh. ; R Kanimozhi.</i>	
MULTISLOT RECTANGULAR PATCH ANTENNA WITH DEFECTED GROUND STRUCTURE FOR UWB WIRELESS APPLICATIONS.....	855
<i>S. Sivagnanam ; E. Gnanamanoharan ; P. Kailasapathi</i>	
PERFORMANCE INVESTIGATION OF HEXAGRAM INVERTER FOR HIGH POWER APPLICATIONS	860
<i>G. Renuka Devi ; P. Rajesh ; S. Sathish ; S. Sivaraman ; S Mohammad Fayaz</i>	
A REVIEW ON DIMENSION BASED PARKING SYSTEM	868
<i>G. Shanmugasundaram ; T. Vigneswari ; R. Abinaya ; V. Jane Nemisha ; M. Monisha</i>	
SMART METER DATA ANALYTICS USING PARTICLE SWARM OPTIMIZATION.....	873
<i>M. Suresh ; M. S. Anbarasi ; R. Jayasre ; C. Shivani ; P. Sowmiya</i>	
INTELLIGENT SAFETY INFORMATION DISSEMINATION SCHEME FOR V2V COMMUNICATION IN VANETS	878
<i>Ramesh B. Koti ; Mahabaleshwar S. Kakkasageri</i>	
DESIGN AND IMPLEMENTATION OF A HAND MOVEMENT CONTROLLED ROBOTIC VEHICLE WITH WIRELESS LIVE STREAMING FEATURE	884
<i>Md. R. Raihan ; R. Hasan ; F. Arifin ; S. Nashif ; M. R. Haider</i>	
HYBRID MODEL FOR WEB APPLICATION VULNERABILITY ASSESSMENT USING DECISION TREE AND BAYESIAN BELIEF NETWORK	890
<i>M. Thirumaran ; A. Moshika ; R. Padmanaban</i>	
SURVEY OF COGNITIVE ASSISTED LIVING AMBIENT SYSTEM USING AMBIENT INTELLIGENCE AS A COMPANION	897
<i>Mo. Ramkumar ; S. Sarah Catharin ; D. Nivetha</i>	
A REVIEW ON BIG DATA PRACTICES IN HEALTHCARE	902
<i>Chinmay Shah ; Maruf Shaikh ; Dhruvesh Shah ; Krishna Samdani</i>	
PERFORMANCE EVALUATION OF CHIRP SPREAD SPECTRUM AS USED IN LORA PHYSICAL LAYER.....	908
<i>Aiju Thomas ; N V Eldhose</i>	
PERFORMANCE ANALYSIS OF STORAGE WAREHOUSES IN A FOOD GRAIN SUPPLY CHAIN USING DATA ENVELOPMENT ANALYSIS	914
<i>Akash Karande ; Ajay Krishna ; R. Jayasurya ; Gokul Gopan ; M. Vishnu Gopinath ; Sachin Kumar ; K. P. Anoop ; Vinay V. Panicker ; G. Varaprasad</i>	
HOME AUTOMATION USING SMART MIRROR.....	918
<i>P. Mathivanan ; G. Anbarasan ; A. Sakthivel ; G. Selvam</i>	
SMART ELECTRICITY METER ON REAL TIME PRICE FORECASTING AND MONITORING SYSTEM.....	922
<i>V. Sakthi Aravind ; M. S. Anbarasi ; P Maragathavalli ; M. Suresh ; M. Suresh</i>	

FRAMEWORK FOR MULTIPLE USER ACCEPTANCE TESTING TO AVOID CHAOS.....	927
<i>N. Sowri Raja Pillai ; R. Rani Hemamalini ; V. Padmavathy ; Nasrin S.</i>	
Z-SOURCE MULTILEVEL INVERTER BASED AFLC PV SYSTEM.....	933
<i>D. Balaji ; R. Goutham Govind Raju ; N. P. Subramaniam</i>	
AN INSPECTIVE STUDY ON DYNAMIC ROLE-CENTRIC RBAC MODELS.....	939
<i>A Suganthy ; V. Prasanna Venkatesan</i>	
INSTANTANEOUS ARTICULATE SEEKER FOR CRYPTOGRAPHIC CLOUD STORAGE	945
<i>D. Mohanapriya ; V. Nandhini ; A. Ramyha ; T. Vijayasanthi</i>	
ELEGANT WAY OF DESIGNING PRINTED CIRCUIT BOARD VIA MULTILAYER TECHNIQUE USING ULTIBOARD 12.0	951
<i>L. David William Raj ; K. Roja ; J. Sasi Theresa ; M. Sathyavani ; M. Sumithra</i>	
A FEATURE REDUCTION INTRUSION DETECTION SYSTEM USING GENETIC ALGORITHM	956
<i>A Punitha ; S Vinodha ; R Karthika ; R Deepika</i>	
SECURITY ANALYTICS FOR HETEROGENEOUS WEB.....	963
<i>R. Padmanaban ; M. Thirumaran ; Victoria Sanjana ; A. Moshika</i>	
ENERGY EFFICIENT MARKOV PREDICTION BASED OPPORTUNISTIC ROUTING (EEMPOR) FOR WIRELESS SENSOR NETWORKS.....	969
<i>S. Nagadivya ; R. Manoharan</i>	
MANON-AN INSIGHTFUL APPROACH TO INSISTENCE INDICATOR BY USING DATA ANALYTICS.....	975
<i>V. S Shruthi ; B. Subhiksha ; S. Hariniperiyanayagi</i>	
DESIGN AND ANALYSIS OF A MESH-BASED ADAPTIVE WIRELESS NETWORK-ON CHIPS ARCHITECTURE WITH IRREGULAR NETWORK ROUTING	980
<i>Poovendran R ; Billclinton. S ; Darshan. R ; Dinakar. R ; Fazil. M</i>	
IMPORTANCE OF DARK DATA AND ITS APPLICATIONS	986
<i>Kinjal Munot ; Nishi Mehta ; Sakshi Mishra ; Binny Khanna</i>	
A COMPARATIVE STUDY OF ANTHROPOMETRIC MEASURES AND ITS SIGNIFICANCE ON DIVERSE APPLICATIONS.....	992
<i>E. Thamizhselvi ; V. Geetha</i>	
COLLEGE FEES TRANSACTION USING HASH FUNCTIONS OF BLOCKCHAIN MODEL.....	999
<i>R. Aswini ; K. Kiruba</i>	
AUTOMATED IRRIGATION SYSTEM.....	1005
<i>G. Shanmugasundaram ; Krishna K. Prasanth ; G. Magesh ; B. Sriram</i>	
DESIGN AN ENERGY-EFFICIENT WIRELESS ROUTERS WITH DBM NOC ARCHITECTURE TO MINIMIZE THE COMMUNICATION LATENCY	1011
<i>R. Poovendran ; K. Appurvan ; M. Densinghdaniel ; M. Dinesh ; K. Harish</i>	
DESIGN AND ANALYSIS OF A MESH-BASED ADAPTIVE WIRELESS NETWORK-ON CHIPS ARCHITECTURE WITH IRREGULAR NETWORK ROUTING	1017
<i>R Poovendran ; S Billclinton. ; R Darshan. ; R Dinakar. ; M Fazil.</i>	
AN EFFECTIVE CHARGE PLASMA BASED SEMI-SUPERJUNCTION MOSFET.....	1023
<i>Ajeet Singh Lowanshi ; Onika Parmar ; Anshul Gupta ; Alok Naugarhiya</i>	
ENHANCED SHORTENED UNIFORM RESOURCE LOCATOR BASED ON PHISHING AND MALWARE DETECTION ALGORITHM-A SECURE MODEL	1028
<i>P. Iyappan ; R. Muthaiya Ram ; R. Barani ; S. Kumarakrishnan</i>	
REVIEW OF BLOCKCHAIN ENABLED DECENTRALIZED ENERGY TRADING MECHANISMS	1034
<i>Aditya Saliyan ; Shlok Shah ; Jaineel Shah ; Krishna Samdani</i>	
SURVEY ON PREDICTION OF SMARTPHONE VIRALITY USING TWITTER ANALYTICS	1041
<i>B S Pavan Prasad ; R S Punith ; R Aravindhan ; Rushikesh Kulkarni ; Antara Roy Choudhury</i>	
MEASURING THE WATER QUALITY IN BORE WELL USING SENSORS AND ALERTING SYSTEM.....	1046
<i>S. Jayalakshmi ; P. Hemalatha</i>	
MONITORING OF SOLAR PANEL BASED ON IOT.....	1050
<i>D Saravanan ; T Lingeswaran</i>	
ANALYSIS AND IMPLEMENTATION OF FLEXIBLE MICROSTRIP ANTENNA OF SOFT SUBSTRATES WITH DIFFERENT FEEDING TECHNIQUES FOR ISM BAND	1055
<i>I. Rexiline Sheeba ; T. Jayanthi</i>	
Author Index	