

TENCON 2019 – 2019 IEEE Region 10 Conference

**Kochi, India
17-20 October 2019**

Pages 1-613



**IEEE Catalog Number: CFP19TEN-POD
ISBN: 978-1-7281-1896-3**

**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:	CFP19TEN-POD
ISBN (Print-On-Demand):	978-1-7281-1896-3
ISBN (Online):	978-1-7281-1895-6
ISSN:	2159-3442

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

NON-PARAMETRIC LEARNING TECHNIQUE FOR ACTIVITY RECOGNITION IN ELDERLY PATIENTS	1
<i>Nimisha Ghosh ; Satyabrata Maity ; Krishanu Maity ; Sayantan Saha</i>	
ADVANCED FEATURE IDENTIFICATION TOWARDS RESEARCH ARTICLE RECOMMENDATION: A MACHINE LEARNING BASED APPROACH	7
<i>Arpita Chaudhuri ; Monalisa Sarma ; Debasis Samanta</i>	
MULTISURFACE PROXIMAL SVM BASED DECISION TREES FOR HEART DISEASE CLASSIFICATION	13
<i>Hrituraj Singh ; N. V. Navaneeth ; G. N. Pillai</i>	
AN INTRUSION DETECTION SYSTEM USING UNSUPERVISED FEATURE SELECTION	19
<i>Chanchal Suman ; Somanath Tripathy ; Sriparna Saha</i>	
GAUSSIAN PROCESS AUTO REGRESSION FOR VEHICLE CENTER COORDINATES TRAJECTORY PREDICTION	25
<i>Qun Lim ; Kritika Johari ; U-Xuan Tan</i>	
PREDICTION OF OVERALL SURVIVAL OF BRAIN TUMOR PATIENTS	31
<i>Rupal R. Agravat ; Mehul S. Raval</i>	
DEVELOPMENT OF A GUI-BASED OPERATION SYSTEM FOR BUILDING A 3D POINT CLOUD CLASSIFIER	36
<i>Yuta Tanifuji ; Kuniaki Kawabata ; Toshihide Hanari</i>	
WORKER SELECTION IN CROWD-SOURCED PLATFORMS USING NON-DOMINATED SORTING	41
<i>Sumit Mishra ; Akash Yadav ; Ashok Singh Sairam</i>	
AB INITIO THEORETICAL INVESTIGATION OF DOPANTS FOR ULTRAHIGH CONDUCTIVITIES IN SINGLE WALL CARBON NANOTUBES	46
<i>Md Latifur Rahman ; Md Hasibul Amin ; Ahmed Zubair</i>	
A MOLECULAR DYNAMICS STUDY OF THERMAL CONDUCTIVITY IN MONOLAYER GAN NANORIBBON	52
<i>Md. Asaduz Zaman Mamun ; Mehedi Hasan ; Nafis Mustakim ; Samia Subrina</i>	
PDMS MICROMACHINING FOR FLEXIBLE 3D MICRODEVICE REALIZATION USING KAPTON TAPE AS HARD MASK	57
<i>Niharika Mirji ; Sweetlana Mishra ; Debashis Maji</i>	
AN ARCHITECTURAL PARAMETRIC ANALYSIS FOR VERTICAL SUPER-THIN BODY (VSTB) MOSFET WITH DOUBLE MATERIAL GATE (DMG)	62
<i>Kuheli Roy Barman ; Srimanta Baishya</i>	
FABRICATION OF MICROFLUIDICS CHANNEL WITH BILAYER MO MASK AND GLASS BONDING USING CUSTOM DESIGN CLAMP	67
<i>J Niharika ; Sandeep Singh Chauhan ; Narendra Kumar ; Sushanta Dutta ; S. K. Manhas</i>	
THE IMPACT OF INTERFACE TRAPS (ACCEPTOR/DONOR) ON FE DS-SBTFT CHARACTERISTICS	73
<i>Puja Ghosh ; Brinda Bhowmick</i>	
BIAS STRESS INDUCED THRESHOLD VOLTAGE SHIFT IN BUCKLED THIN FILM TRANSISTORS	78
<i>Aswathi R Nair ; Venu Anand ; Sanjiv Sambandan</i>	
SYSTEM LEVEL DESIGN OF A NOVEL CMOS IMAGE SENSOR WITH HIGH DYNAMIC RANGE AND FILL FACTOR	82
<i>K Akshay ; Parvathy R Pillai ; B Bhuvan</i>	
TEMPERATURE DEPENDENCE OF PHOTOACOUSTIC SIGNAL FROM CONTRAST DYES AND ITS APPLICATION TO SIGNAL ENHANCEMENT IN STAINED SAMPLES	85
<i>Anjali Thomas ; Suheshkumar Singh Mayanglambam</i>	
K-WAVE TOOLBOX FOR STUDYING ELASTIC PROPERTY IN PHOTOACOUSTIC IMAGING	91
<i>Souradip Paul ; Sreehari Rajendran ; M. Suheshkumar Singh</i>	
WIENER FILTERING FOR DEBLURRING OF RECONSTRUCTED IMAGES IN PHOTOACOUSTIC TOMOGRAPHY WITH FINITE SIZE APODIZED TRANSDUCERS	96
<i>Pankaj Warbal ; Ravi Prakash ; Manojit Pramanik ; Ratan K. Saha</i>	
EXPLORING HIGH FREQUENCY PHOTOACOUSTIC METHOD FOR CHARACTERIZATION OF PATHOLOGICAL RED BLOOD CELLS	102
<i>Anuj Kaushik ; Ravi Prakash ; Ratan K. Saha</i>	

NOISE REDUCTION IN INHERENTLY LOW-SNR PLD-BASED PAT IMAGES	106
<i>C Sowmiya ; Arun K Thittai</i>	
POINT-OF-CARE FUNCTIONAL AND MOLECULAR IMAGING USING LED-BASED PHOTOACOUSTICS.....	109
<i>Mithun Kuniyil Ajith Singh ; Naoto Sato ; Fumiyouki Ichihashi ; Yoshiyuki Sankai</i>	
A SEMI-ANTHROPOMORPHIC BREAST PHANTOM WITH TUNABLE BLOOD OXYGENATION LEVELS FOR USE IN QUANTITATIVE PHOTOACOUSTICS	114
<i>Maura Dantuma ; Javier Ortega Julia ; Srirang Manohar</i>	
PHOTOACOUSTIC IMAGING ASSISTED RADIOFREQUENCY ABLATION: ILLUMINATION STRATEGIES AND PROSPECTS	118
<i>Kalloor Joseph Francis ; Elina Rascevska ; Srirang Manohar</i>	
SWIPT TECHNIQUES IN MULTI-TIER D2D NETWORKS FOR ENERGY EFFICIENCY	123
<i>Sreelakshmy K. R. ; Lillykutty Jacob</i>	
ON OPTIMIZING INFORMATION GATHERING IN SHANTY TOWN EMERGENCY RESPONSE.....	129
<i>Sarath Babu ; Priyanka Rathod ; B. S. Manoj</i>	
D-CARE: CONTEXT-AWARE REGULATION OF BACKOFF DELAY IN WIRELESS PERSONAL AREA NETWORKS.....	135
<i>Soumen Mouluk ; Kaushik Ray</i>	
ROBUST INCREMENTAL NONLINEAR CHANNEL ESTIMATION BASED ON SPLINE ADAPTIVE FILTERING	141
<i>Bishnu Prasad Mishra ; Annet Mary Wilson ; Trilochan Panigrahi</i>	
DESIGN AND ANALYSIS OF HIGHLY NON-LINEAR DISPERSION COMPENSATING PHOTONIC CRYSTAL FIBER USING SQUARE-LATTICE GEOMETRY	146
<i>Md. Mostafa Faruk ; Md. Abid Hossain ; Mahfuj Rahman ; Md. Sabuj Miah ; Shovasis Kumar Biswas</i>	
DEEP FADE EVENT'S PROBABILITY PERFORMANCE ANALYSIS OF NON-ORTHOGONAL MULTIPLE ACCESS SCHEME REALIZATION IN POWER DOMAIN.....	150
<i>B. Sainath</i>	
PERFORMANCE ESTIMATION OF THULIUM DOPED FIBER AMPLIFIERS IN S-BAND INCLUDING AMPLIFIED SPONTANEOUS EMISSION: ION-ION INTERACTION ANALYSIS	155
<i>Mohd Mansoor Khan ; Ramesh Kumar Sonkar</i>	
PACKET SCHEDULING IN MULTIHOP NETWORKS WITH INDIVIDUAL PACKET DELAY CONSTRAINTS	160
<i>Dony J. Muttath ; K. Premkumar</i>	
AN ADAPTIVE WIRELESS POWER TRANSFER SYSTEM WITH COMPACT RECEIVER	166
<i>Anuj Malik ; A. Alphones ; Basudeb Ghosh</i>	
PROBABILISTIC EVALUATION OF SYSTEM ADEQUACY WITH VARIATIONS IN LOAD DEMAND, RENEWABLE ENERGY AND GENERATOR TOPOLOGY.....	171
<i>Venkata Sai Aditya Gedda ; Vivek Mohan ; M Jisma</i>	
NEARLY CONSTANT SWITCHING FREQUENCY HYSTERESIS CURRENT CONTROLLER FOR MULTILEVEL INVERTER BASED STATCOM.....	176
<i>Athira Raju ; Elizabeth P Cheriyan ; Rijil Ramchand</i>	
DESIGN OF AN OPTIMAL TUNED SLIDING MODE CONTROLLED POWER SYSTEM STABILIZER FOR STABILITY ENHANCEMENT BY DAMPING THE LOW FREQUENCY OSCILLATIONS.....	181
<i>K. M Sreedivya ; P. Aruna Jeyanthi ; D. Devaraj</i>	
AN ADAPTIVE CURRENT CONTROL TECHNIQUE IN GRID-TIED PV SYSTEM WITH ACTIVE POWER FILTER FOR POWER QUALITY IMPROVEMENT	187
<i>Narendra Babu P. ; Ranga Babu Peesapati ; Gayadhar Panda</i>	
DESIGN OF SUPPLEMENTARY EXCITATION DAMPING CONTROLLER FOR MITIGATION OF SUBSYNCHRONOUS RESONANCE	192
<i>Jaychandran Padayasi ; Shashidhara Mecha Kotian</i>	
USE OF GRAPHENE IN COMBINATION WITH PLASMONIC METAL NANOPARTICLES TO ENHANCE THE OPTO-ELECTRONIC EFFICIENCY OF THIN-FILM SOLAR CELLS.....	197
<i>Washaka Mahdi ; Mustafa Mohammad Shaky ; Nahid Ibn Ashraf ; Fatema Fairouz ; Mustafa Habib Chowdhury</i>	
USE OF NOVEL HYBRID PLASMONIC NANOPARTICLE COMPLEXES TO INCREASE THE EFFICIENCY OF THIN-FILM SOLAR CELLS.....	203
<i>Mustafa Mohammad Shaky ; Mustafa Habib Chowdhury</i>	
A DESIGN OF A METAMATERIAL INTEGRATED TRIPLE BAND ANTENNA FOR WIRELESS APPLICATIONS	209
<i>Nipa Dhar ; Proma Dutta ; Muhammad Asad Rahman ; Md. Azad Hossain ; Ahmed Toaha Mobashsher</i>	

PERFORMANCE EVALUATION OF QUAD-RIDGED HORN ANTENNA IN VARIATION OF ITS RIDGE PROFILE	214
<i>Folin Oktafiani ; Effrina Yanti Hamid ; Achmad Munir</i>	
DESIGN OF CPS-FED VIVALDI ANTENNA FOR MICRO-DOPPLER RADAR APPLICATION.....	218
<i>Desi Budiastuti ; Fathul Muin ; Agatha Gracias ; Alvin Senjaya ; Fitri Yuli Zukifli</i>	
AXIAL RATIO ENHANCEMENT USING TRIANGULAR TRUNCATION OF X-BAND COMMUNICATION ANTENNA	222
<i>Farohaji Kurniawan ; Josaphat Tetuko Sri Sumantyo ; Gunawan Setyo Prabowo ; Yanuar Prabowo ; Yohandri ; Achmad Munir</i>	
A NOVEL NON-INVASIVE MICROWAVE TECHNIQUE FOR MONITORING SALINITY IN WATER	226
<i>Parul Mathur ; Amrita Thakur ; Robin Augustine ; Dhanesh G. Kurup</i>	
DUAL-BAND MIMO ANTENNA STRUCTURES WITH HIGH ISOLATION.....	230
<i>Anjali Chaudhari ; R. K. Gupta</i>	
EMC CONSIDERATIONS IN TRANSPONDER ANTENNA DESIGN FOR TACTICAL AUTOMATIC LANDING SYSTEMS	235
<i>Shu-Yu Lin ; Ming-Hsiang Cho ; Ming-Yung Lin ; Wen-Ying Hu ; Jwo-Shiun Sun</i>	
ANALYSIS OF GRAPHENE BASED PLANAR ANTENNAS FOR TERAHERTZ APPLICATION	238
<i>G. Boopalan ; V. Ramakrishna ; N. V. Jayanth ; Chittur K. Subramaniam</i>	
NUMERICAL STUDIES OF VANE-TYPE FISHNET METAMATERIAL STRUCTURE.....	242
<i>Purushothaman Narasimhan ; S. K. Ghosh</i>	
FEYNMAN MACHINE: A CORTICAL MACHINE INTELLIGENCE FOR PATH DETECTION IN ADVANCED DRIVER-ASSISTANCE SYSTEMS	246
<i>Irene Tenison ; Rahul P. Bharathan ; Don Kurian ; Jerin Sam Rajan ; Ahamed T. P. Inthias ; Shafeeqe K. Muhammedali</i>	
SAMS: AN IOT SOLUTION FOR ATTENDANCE MANAGEMENT IN UNIVERSITIES	251
<i>Gopinath Sittampalam ; Nagulan Ratnarajah</i>	
AGENT BASED FOG ARCHITECTURE USING NDN AND TRUST MANAGEMENT FOR IOT.....	257
<i>Sayed Erfan Arefin ; Tasnia Ashrafi Heya ; Amitabha Chakrabarty</i>	
AN NOVEL APPROACH IN DESIGNING A SECURITY WORKBENCH WITH DEEP LEARNING CAPABILITIES AND PROCESS AUTOMATION	263
<i>Senthilkumar Vijayakumar ; Kumar. S. P Gowtham ; Navneet Nigam ; Raj Vijay Raj Singh</i>	
SIRLC: SECURE INFORMATION RETRIEVAL USING LIGHTWEIGHT CRYPTOGRAPHY IN HIOT.....	269
<i>M G Padmashree ; Shahela Khanum ; J S Arunalatha ; K R Venugopal</i>	
IMPLEMENTATION OF VIRTUAL OPC ON CLOUD.....	274
<i>Bhavin Ingle ; Dayanand Ambawade ; Rachit Rathi ; Rajendra Sawant</i>	
SMART WEARABLE FOR EASY NAVIGATION.....	278
<i>Sahiti Vallamreddy ; Sanjana Rajeev ; Srividhya Radhakrishna</i>	
A DEEP INTRODUCTION TO AI BASED SOFTWARE DEFECT PREDICTION (SDP) AND ITS CURRENT CHALLENGES	284
<i>Mahesha Bangalore Ramalinga Pandit ; Nitin Varma</i>	
ENERGY EFFICIENT ARCHITECTURE OF FRWF-BASED DWT FOR WMSNS/IOT.....	291
<i>Mohd Tausif ; Imran Ali Khan ; Ekram Khan ; Mohd Hasan</i>	
SUB-BAND VECTOR QUANTIZED VARIATIONAL AUTOENCODER FOR SPECTRAL ENVELOPE QUANTIZATION.....	296
<i>Tanasan Srikotr ; Kazunori Mano</i>	
EMOTION RECOGNITION FROM AUDIO, DIMENSIONAL AND DISCRETE CATEGORIZATION USING CNNs.....	301
<i>Rohan Rajak ; Rajib Mall</i>	
SINGLE IMAGE SUPER-RESOLUTION TECHNIQUE USING PRECISION LEARNING OF LOW RESOLUTION IMAGES.....	306
<i>Amritha Abdul Salam ; Manjunatha Mahadevappa</i>	
INTERPOLATED BAND-PASS METHOD BASED NARROW-BAND FIR FILTER : A PROSPECTIVE CANDIDATE IN FILTERED-OFDM TECHNIQUE FOR THE 5G CELLULAR NETWORK.....	311
<i>Subhabrata Roy ; Abhijit Chandra</i>	
FFT ARCHITECTURE FOR MOTION ESTIMATION USING PHASE CORRELATION.....	316
<i>Sabir K. A. Ahammed ; Charls Babu ; V. R. Ranjith ; M. Ummikrishnan ; Supriya Ummikrishnan ; K. J. Dhanaraj ; G. Sreelekha</i>	

AYURLEAF: A DEEP LEARNING APPROACH FOR CLASSIFICATION OF MEDICINAL PLANTS	321
<i>M. R. Dileep ; P. N. Pournami</i>	
CDNA MICROARRAY IMAGE ENHANCEMENT FOR EFFECTIVE GRIDDING OF SPOTS	326
<i>Steffy Maria Joseph ; P. S. Sathidevi</i>	
AN IMPROVED VARIABLE-STEP FXLMS FOR ACTIVE NOISE CONTROL IN HIGH-NOISE ENVIRONMENT	332
<i>Asutosh Kar ; Ankita Anand ; Banshidhar Majhi</i>	
AUTOMATIC SEGMENTATION OF PROSTATE FROM MULTIPARAMETRIC MR IMAGES USING HIDDEN FEATURES AND DEFORMABLE MODEL	338
<i>Prashant Ramesh Kharote ; Manoj S. Sankhe ; Deepak Patkar</i>	
DEEP LEARNED NUCLEUS FEATURES FOR BREAST CANCER HISTOPATHOLOGICAL IMAGE ANALYSIS BASED ON BELIEF THEORETICAL CLASSIFIER FUSION.....	344
<i>Kalpna George ; Shameer Faziludeen ; Praveen Sankaran ; Joseph K Paul</i>	
DEVELOPMENT OF A STROKE RISK ASSESSMENT MODEL FOR A SMALL POPULATION IN SOUTH KERALA USING LOGISTIC REGRESSION.....	350
<i>R S Jeena ; A Sukeshkumar</i>	
DICOM DEPTH IMAGE GENERATION USING GPGPU FOR FAST POSITION AND ORIENTATION ESTIMATION ON LIVER SURGERY SUPPORT SYSTEM	356
<i>Masanao Koeda ; Daiki Yano ; Takumi Mori ; Katsuhiko Onishi ; Hiroshi Noborio</i>	
EXPLORING CHALLENGES AND SOLUTION APPROACHES REGARDING WELLBEING OF FEMALE ROHINGYA COMMUNITY IN BANGLADESH.....	361
<i>Kimia Tuz Zaman ; Wordh Ul Hasan ; Lubaba Bazlul ; Tamanna Motahar ; Nova Ahmed</i>	
PREDICTION OF CORONARY HEART DISEASE USING SUPERVISED MACHINE LEARNING ALGORITHMS	367
<i>Divya Krishnani ; Anjali Kumari ; Akash Dewangan ; Aditya Singh ; Nenavath Srinivas Naik</i>	
AUTOMATED NOISE DETECTION AND CLASSIFICATION FOR UNSUPERVISED ECG ANALYSIS SYSTEMS USING CEEMD AND WAVELET PACKET DECOMPOSITION.....	373
<i>Samhitha Rachakonda ; R Mahesh</i>	
AN EFFICIENT MULTI-CLASS MI BASED BCI SCHEME USING STATISTICAL FUSION TECHNIQUES OF CLASSIFIERS	378
<i>Paula Sánchez López ; Helle K Iversen ; Sadasivan Puthusserypady</i>	
AUTOMATIC DETECTION OF CARDIAC ARRHYTHMIAS USING ENSEMBLE LEARNING.....	383
<i>Abdolrahman Peimankar ; Mona Jafar Jajroodi ; Sadasivan Puthusserypady</i>	
FUZZY ROUGH DISCERNIBILITY MATRIX BASED FEATURE SUBSET SELECTION WITH MAPREDUCE	389
<i>Neeli Lakshmi Pavani ; Pandu Sowkuntla ; K. Swarupa Rani ; P. S. V. S Sai Prasad</i>	
A PARALLEL AND DISTRIBUTED RADIAL BASIS FUNCTION NETWORK FOR BIG DATA ANALYTICS.....	395
<i>S. K. Kamaruddin ; Vadlamani Ravi</i>	
DOLAR: DOUBLE LAYER ROUTING FOR BUFFERLESS MESH NETWORK-ON-CHIP	400
<i>Rose George Kunthara ; K Neethu ; Rekha K James ; Simi Zerine Sleeba ; John Jose</i>	
ULTRA-FAST 3D GPGPU REGION EXTRACTIONS FOR ANATOMY SEGMENTATION	406
<i>Jose George ; N S Mysoon ; Nixima Antony</i>	
GAUSSIAN MIXTURE REDUCTION METHODS USING SUPPORT VECTOR MACHINE.....	411
<i>Haruki Kazama ; Shuji Tsukiyama</i>	
IDENTIFICATION OF EPIGENETIC BIOMARKERS WITH THE USE OF GENE EXPRESSION AND DNA METHYLATION FOR BREAST CANCER SUBTYPES	417
<i>Indrajit Saha ; Somnath Rakshit ; Michal Wlasnowolski ; Dariusz Plewczynski</i>	
TIME AND SPACE EFFICIENT OPTIMAL PAIRWISE SEQUENCE ALIGNMENT USING GPU	423
<i>Ardhendu Sarkar ; Kinjal Ray ; Debaroti Chowdhury ; Kishan Sahu ; Solanki Kundu ; Surajeet Ghosh</i>	
SENTIMENT CLASSIFICATION OF INDIAN BANKS' CUSTOMER COMPLAINTS	429
<i>Gutha Jaya Krishna ; Vadlamani Ravi ; Bheemidi Vikram Reddy ; Mohammad Zaheeruddin ; Harshal Jaiswal ; P. Sai Ravi Teja ; Rohit Gavval</i>	
LIFTING-BASED FAST AND LOW MEMORY DWT COMPUTATION FOR IOT PLATFORM.....	435
<i>Mohd Tausif ; Ekram Khan ; Mohd Hasan</i>	
STRUCTURAL MRI BASED TEXTURE ANALYSIS OF CORPUS CALLOSUM IN PATIENTS WITH PROGRESSIVE SUPRANEUCLEAR PALSY	441
<i>Debanjali Bhattacharya ; Sunil Kumar Vengalil ; Neelam Sinha ; Jitender Saini ; Pramod Pal ; M. Sandhya</i>	
CONVOLUTIONAL NEURAL NETWORKS FOR NOISE CLASSIFICATION AND DENOISING OF IMAGES	447
<i>Dibakar Sil ; Arindam Dutta ; Aniruddha Chandra</i>	

SKELETON BASED FRONTAL GAIT RECOGNITION UTILIZING FOURIER DESCRIPTORS	452
<i>H S Manasa Gowri ; Manish Okade</i>	
ACTION BASED VIDEO SUMMARIZATION.....	457
<i>H Raksha ; G Namitha ; N Sejal</i>	
IMAGE DENOISING BASED ON NONSUBSAMPLED SHEARLET TRANSFORM DOMAIN LAPLACIAN MIXTURE MODEL AND BILATERAL FILTER AND ITS METHOD NOISE THRESHOLDING	463
<i>Hilly Gohain Baruah ; Vijay Kumar Nath ; Deepika Hazarika</i>	
A REGION-BASED LEVEL SET FORMULATION USING MACHINE LEARNING APPROACH IN MEDICAL IMAGE SEGMENTATION.....	470
<i>Soumen Biswas ; Ranjay Hazra ; Shitala Prasad</i>	
VIDEO SUMMARIZATION USING CONVOLUTIONAL NEURAL NETWORK AND RANDOM FOREST CLASSIFIER	476
<i>Madhu S. Nair ; Jesna Mohan</i>	
LOW-COMPLEXITY COMPRESSIVE SENSING-BASED SCALABLE IMAGE CODEC.....	481
<i>Mohammed Y. A. Hebah ; A A Moinuddin ; Ekram Khan</i>	
A NOVEL TEST COVERAGE METRIC FOR SAFETY-CRITICAL SOFTWARE	486
<i>Debashis Mukherjee</i>	
WEB SERVICE BASED CREDIT CARD FRAUD DETECTION BY APPLYING MACHINE LEARNING TECHNIQUES	492
<i>Debachudamani Prusti ; Santanu Kumar Rath</i>	
COLLABORATIVE FILTERING-BASED TEST CASE PRIORITIZATION AND REDUCTION FOR SOFTWARE PRODUCT-LINE TESTING.....	498
<i>Satendra Kumar ; Rajkumar ; Monika Rani</i>	
INTRODUCING A FUZZY MODEL FOR COST COGNIZANT SOFTWARE TEST CASE PRIORITIZATION.....	504
<i>Rajendrani Mukherjee ; K Sridhar Patnaik</i>	
NITRSCT: A SOFTWARE SECURITY TOOL FOR COLLECTION AND ANALYSIS OF KERNEL CALLS.....	510
<i>Pushkar Kishore ; Swadhin Kumar Barisal ; Shikhar Vaish</i>	
AUTOMATED SECURITY TESTING FRAMEWORK FOR VALIDATING CONTENT RIGHTS ON VIDEO STREAMING DEVICES	516
<i>Debasish Das</i>	
DESIGN AND EVALUATION OF A LIGHTWEIGHT SECURITY FRAMEWORK FOR IOT APPLICATIONS.....	522
<i>Krishna Prasad Satamraju ; B. Malarkodi</i>	
MACA-I: A MALWARE DETECTION TECHNIQUE USING MEMORY MANAGEMENT API CALL MINING	527
<i>K. V. Niranjan Sai ; B. Thanudas ; S. Sreelal ; Abhishek Chakraborty ; B. S. Manoj</i>	
A SURVEY OF ZERO-DAY MALWARE ATTACKS AND ITS DETECTION METHODOLOGY	533
<i>Kiran Radhakrishnan ; Rajeev R Menon ; Hiran V Nath</i>	
FAST AND POWER EFFICIENT SEC-DED AND SEC-DED-DAEC CODES IN IOT BASED WIRELESS SENSOR NETWORKS	540
<i>Sayan Tripathi ; Jhilam Jana ; Jagannath Samanta ; Jaydeb Bhaumik</i>	
SMART CANE FOR ASSISTING VISUALLY IMPAIRED PEOPLE.....	546
<i>A V Nandini ; Aniket Dwivedi ; Nilita Anil Kumar ; T S Ashwin ; V Vishnuvardhan ; Ram Mohana Reddy Guddeti</i>	
ADDRESSING FLOODING ATTACKS IN IPV6-BASED LOW POWER AND LOSSY NETWORKS.....	552
<i>Abhishek Verma ; Virender Ranga</i>	
DECAUTH: DECENTRALIZED AUTHENTICATION SCHEME FOR IOT DEVICE USING ETHEREUM BLOCKCHAIN	558
<i>Bhabendu K. Mohanta ; Anisha Sahoo ; Shibasis Patel ; Soumyashree S. Panda ; Debasish Jena ; Debasis Gountia</i>	
ENHANCED SCHEDULABILITY VIA MINIMAL ROUTING WITH MAPPING AND PRIORITY ASSIGNMENT FOR REAL-TIME NETWORK-ON-CHIP.....	564
<i>Ajay Khare ; Irene Anna Boben ; Santanu Chattopadhyay</i>	
PHOTOVOLTAIC-BASED WATER PUMPING SYSTEM USING BRUSHLESS DC MOTOR.....	569
<i>Swadhin Kumar Hota ; Kishore Ranjan Nayak ; Chandrashekhar N. Bhende</i>	
A STOCHASTIC APPROACH FOR THE STATE-WISE FORECAST OF WIND SPEED USING DISCRETE-TIME MARKOV CHAIN	575
<i>Mounika Yakasiri ; Joyce Avrel ; Swathi Sharma ; M Anuradha ; B. K Keshavan</i>	

STATECHART MODELS OF MPPT CONTROLLER FOR A PHOTO-VOLTAIC SYSTEM IN CO-SIMULATION ENVIRONMENT	581
<i>M. V. Pankaj Lahari ; K. Rama Sudha ; R. Vijaya Santhi</i>	
A MULTILAYER PERCEPTRON APPROACH TO TRACK MAXIMUM POWER IN WIND POWER GENERATION SYSTEMS.....	587
<i>Sahitya Tahiliani ; Siddarth Sreeni ; C. Balakrishna Moorthy</i>	
COMPARISON OF WIND TURBINE GENERATORS FOR ROOF-TOP WIND POWER: CASE STUDY, ISSUES AND CHALLENGES	592
<i>Anupam Sharma ; S. Sashidhar</i>	
HYBRID PV ARRAY CONFIGURATIONS FOR REDUCING THE MULTIPLE-PEAK POWER POINTS IN I-V AND P-V CHARACTERISTICS UNDER PARTIAL SHADING CONDITIONS.....	598
<i>Suneel Raju Pendem ; Vikash Varma Katru ; Suresh Mikkili</i>	
ONLINE PARAMETER IDENTIFICATION OF PMSG WIND TURBINE FOR OUTPUT POWER CONTROL.....	604
<i>Kosuke Takahashi ; Hidehito Matayoshi ; Tomonobu Senju ; Hiroshi Takahashi ; Abdul Motin Howlader</i>	
INVESTIGATION OF “KERIANG” FRUIT DYE APPLICATION ON THE PERFORMANCE OF DYE-SENSITIZED SOLAR CELL WITH ANATASE-RUTILE TiO₂ ELECTRODE	608
<i>N. Gomesh</i>	
NONLINEAR ADAPTIVE CONTROL OF AN AUTONOMOUS GROUND VEHICLE IN OBSTACLE RICH ENVIRONMENT: SOME EXPERIMENTAL RESULTS	614
<i>Praneeth Kumar Pedapati ; Santanu Kumar Pradhan ; Surendra Kumar</i>	
ATTITUDE CONTROL BY USING THE MOVEMENT OF CENTER OF GRAVITY FOR THE LEGGED AIR VEHICLE.....	620
<i>Takuya Seto ; Yoshiyuki Higashi</i>	
LQG CONTROLLER FOR LOAD RELIEF CONTROL OF A FLEXIBLE LAUNCH VEHICLE	626
<i>Ammu Prameela Nandakumar ; Lalu Seban ; Rajesh Joseph Abraham ; M V Dhekane</i>	
A DATA DRIVEN APPROACH TO IDENTIFY CONTINUOUS-TIME SYSTEMS WITH DEAD-TIME USING STEP INPUT.....	632
<i>Sudeep Sharma ; Prabin Kumar Padhy</i>	
HAMMERSTEIN MODELING OF BUCK CONVERTER USING RELAY FEEDBACK	637
<i>Trusna Meher ; Somanath Majhi ; Kasi Venkata Ramana</i>	
DESIGN OF A DYNAMIC BRAKE FORCE REGULATION STRATEGY FOR HEAVY COMMERCIAL ROAD VEHICLES	643
<i>Deepak Prakash Kumar ; Sidhanth Gupta ; Suganthan Suriyamoorthy ; Shankar C. Subramanian</i>	
GAZEBO - ROS - SIMULINK FRAMEWORK FOR HOVER CONTROL AND TRAJECTORY TRACKING OF CRAZYFLIE 2.0	649
<i>M. Nithya ; M. R. Rashmi</i>	
FORCE REBALANCE WITH MULTI-BIT SIGMA-DELTA IMPLEMENTED WITH FPGA FOR PRECISION RATE SENSOR	654
<i>George P. Rajesh ; C. K. Deepthy ; M. Mary Jermila ; K. P. Raghunath ; Vishnu N. Aparna</i>	
CURRENT CONVEYOR BASED NOVEL GYRATOR FILTER FOR BIOMEDICAL SENSOR APPLICATIONS.....	658
<i>P. S. Veerendranath ; Vivek Sharma ; Y. B. Nithin Kumar ; M. H. Vasantha ; Edoardo Bonizzoni</i>	
A DENSE U-NET ARCHITECTURE FOR MULTIPLE SCLEROSIS LESION SEGMENTATION	662
<i>Amish Kumar ; Oduri Narayana Murthy ; Shrish ; Palash Ghosal ; Amritendu Mukherjee ; Debashis Nandi</i>	
PERFORMANCE ANALYSIS OF OPTICAL MEMS BASED PRESSURE SENSOR USING RING RESONATORS STRUCTURE ON CIRCULAR DIAPHRAGM.....	668
<i>Anup M Upadhyaya ; Maneesh Srivastava ; Preeta Sharan ; T Srinivas</i>	
I-HOPE: DETECTION AND PREDICTION SYSTEM FOR POLYCYSTIC OVARY SYNDROME (PCOS) USING MACHINE LEARNING TECHNIQUES	673
<i>Amsy Denny ; Anita Raj ; Ashi Ashok ; C Maneesh Ram ; Remya George</i>	
ANALYSIS OF ELECTROMAGNETIC ACTUATION SYSTEM FOR DIFFERENT COIL TOPOLOGIES.....	679
<i>Pralay Chakrabarty ; Siddhanta Roy ; Roy Paily</i>	
A ROBUST ALGORITHM FOR AUTOMATED DETECTION OF OPTIC DISC IN RETINA OF PREMATURE INFANTS	684
<i>K. L. Nisha ; G. Sreelekha ; P. S. Sathidevi ; Poornima Mohanachandran ; Anand Vinekar</i>	
AN END-TO-END FRAMEWORK FOR AUTOMATIC DETECTION OF ATRIAL FIBRILLATION USING DEEP RESIDUAL LEARNING	690
<i>Deepankar Nankani ; Rashmi Dutta Baruah</i>	

THE IMPACT OF MANUALLY CONTROLLED PORTABLE DUODOPA PUMP ON LEVODOPA PHARMACOKINETICS AND PHARMACODYNAMICS	696
<i>M Pravika ; Jeevamma Jacob ; Joseph K Paul</i>	
DEVELOPMENT OF A SPEECH-ASSISTIVE DEVICE INTEGRATED IN AN ANDROID MOBILE APPLICATION FOR INDIVIDUALS WITH INCOMPLETE LOCKED-IN SYNDROME	702
<i>Alex M. Retona ; Angio Gabriel D. Santos ; Paolo Miguel C. Villegas ; Rosula S. J. Reyes</i>	
ENRICHING TEXTBOOKS BY QUESTION-ANSWERS USING CQA	707
<i>Shobhan Kumar ; Arun Chauhan</i>	
FUZZY MAPPING MODEL FOR CLASSIFICATION IN SUPERVISED LEARNING	715
<i>Angela Mathew ; Sangeetha Jamal</i>	
EMERGENCY MANAGEMENT USING SOCIAL NETWORKS	721
<i>Dolly Sharma ; Prerna ; Ranjit Kumar</i>	
MOBVQA: A MODALITY BASED MEDICAL IMAGE VISUAL QUESTION ANSWERING SYSTEM.....	727
<i>A Lubna ; Saidalavi Kalady ; A. Lijiya</i>	
OUT OF THE CLOSET: LEXICON BASED SENTIMENT ANALYSIS ON TWEETS ABOUT HOMOSEXUALITY	733
<i>Tanvi Anand ; Krithika Ramesh ; Sanjay Singh</i>	
KEYSTROKE BASED USER AUTHENTICATION USING MODIFIED DIFFERENTIAL EVOLUTION.....	739
<i>Gutha Jaya Krishna ; Vadlamani Ravi</i>	
DYNAMIC MODE DECOMPOSITION BASED FEATURE FOR IMAGE CLASSIFICATION.....	745
<i>K. Rahul-Vigneswaran ; S. Sachin-Kumar ; Neethu Mohan ; K. P. Soman</i>	
AN IMPROVED PROTEIN-PROTEIN DOCKING TECHNIQUE USING MULTILEVEL SCORING FUNCTION	751
<i>Sharon Sunny ; Deepesh Kataria ; P. B. Jayaraj</i>	
ECNN: ACTIVITY RECOGNITION USING ENSEMBLED CONVOLUTIONAL NEURAL NETWORKS.....	757
<i>Aprameyo Roy ; Deepak Mishra</i>	
OPTI-QIBDS NET: A QUANTUM-INSPIRED OPTIMIZED BI-DIRECTIONAL SELF-SUPERVISED NEURAL NETWORK ARCHITECTURE FOR AUTOMATIC BRAIN MR IMAGE SEGMENTATION	761
<i>Debanjan Konar ; Siddhartha Bhattacharyya ; Sandip Dey ; Bijaya Ketan Panigrahi</i>	
SEGMENTATION OF ROI IN MEDICAL IMAGES USING CNN- A COMPARATIVE STUDY	767
<i>S Sudha ; K B Jayanthi ; C Rajasekaran ; T Sunder</i>	
AN APPROACH FOR DESIGNING LOW COST DEEP NEURAL NETWORK BASED BIOMETRIC AUTHENTICATION MODEL FOR SMARTPHONE USER.....	772
<i>Basabi Chakraborty ; Kotaro Nakano ; Yoshitomo Tokoi ; Takako Hashimoto</i>	
FISH DETECTION AND TRACKING IN PISCICULTURE ENVIRONMENT USING DEEP INSTANCE SEGMENTATION.....	778
<i>C. S. Arvind ; R Prajwal ; Prithvi Narayana Bhat ; A Sreedevi ; K N Prabhudeva</i>	
MULTILINGUAL CYBER ABUSE DETECTION USING ADVANCED TRANSFORMER ARCHITECTURE.....	784
<i>Aditya Malte ; Pratik Ratadiya</i>	
SEMANTIC SCENE UNDERSTANDING IN UNSTRUCTURED ENVIRONMENT WITH DEEP CONVOLUTIONAL NEURAL NETWORK	790
<i>Bhakti Baheti ; Suhas Gajre ; Sanjay Talbar</i>	
DELHCA: DEEP TRANSFER LEARNING FOR HIGH-CONTENT ANALYSIS OF THE EFFECTS OF DRUGS ON IMMUNE CELLS	796
<i>Shaista Hussain ; Ankit Das ; Binh P. Nguyen ; Mardiana Marzuki ; Shuping Lin ; Arun Kumar ; Graham Wright ; Amit Singhal</i>	
AIFOOD: A LARGE SCALE FOOD IMAGES DATASET FOR INGREDIENT RECOGNITION	802
<i>Gwo Giun Lee ; Chin-Wei Huang ; Jia-Hong Chen ; Shih-Yu Chen ; Hsiu-Ling Chen</i>	
ON THE PERFORMANCE ANALYSIS OF EFFECTIVE CAPACITY OF DOUBLE SHADOWED κ-μ FADING CHANNELS.....	806
<i>Rupender Singh ; Meenakshi Rawat</i>	
SWITCHED AND SCALED SELECTION COMBINING IN SSK DF COOPERATIVE SYSTEM.....	811
<i>Nikky Sabu ; A. Ananth ; M. D. Selvaraj</i>	
KALMAN FILTER BASED CHANNEL TRACKING FOR PRECODED GFDM SYSTEMS.....	817
<i>Pratik Agrawal ; Kumar Appaiah</i>	

DISTRIBUTED DETECTION IN COGNITIVE RADIO NETWORKS WITH UNKNOWN PRIMARY USER'S TRAFFIC	823
<i>Sulthana Shams ; M. Santhoshkumar ; Dony J. Muttath ; K. Premkumar</i>	
ECABBO: ENERGY-EFFICIENT CLUSTERING ALGORITHM BASED ON BIOGEOGRAPHY OPTIMIZATION FOR WIRELESS SENSOR NETWORKS	828
<i>Purnima Nomosudro ; Jyoti Mehra ; Chandra Naik ; Shetty D Pushparaj</i>	
A GEVD BASED INTERFERENCE ALIGNMENT METHOD FOR UPLINK HETEROGENEOUS NETWORK UNDER IMPERFECT CSIT	835
<i>C. P. Najlah ; S. M. Sameer</i>	
BIT ERROR PROBABILITY ANALYSIS OF UFMC SYSTEMS WITH CARRIER FREQUENCY OFFSET	841
<i>Rajendran K V Nithya ; C P Najlah ; S M Sameer</i>	
AVERAGE SYMBOL ERROR PROBABILITY OF INTERFERENCE-LIMITED MULTIUSER HYBRID SATELLITE-TERRESTRIAL RELAY NETWORKS WITH OUTDATED CHANNEL STATE INFORMATION	846
<i>Vinay Bankey ; Prabhat K. Upadhyay</i>	
DOCUMENT IMAGE CLASSIFICATION: TOWARDS ASSISTING VISUALLY IMPAIRED	852
<i>K C Shahira ; A Lijiya</i>	
MONOPOLY USING REINFORCEMENT LEARNING	858
<i>Eduipuganti Arun ; Harikrishna Rajesh ; Debarka Chakrabarti ; Harikiran Cherala ; Koshy George</i>	
OBSTACLE DETECTION, DEPTH ESTIMATION AND WARNING SYSTEM FOR VISUALLY IMPAIRED PEOPLE	863
<i>K C Shahira ; Sagar Tripathy ; A Lijiya</i>	
DEEPAIR: AIR QUALITY PREDICTION USING DEEP NEURAL NETWORK	869
<i>Pratyush Singh ; T Lakshmi Narasimhan ; Chandra Shekar Lakshminarayanan</i>	
DATA BASED REWARD FORMULATION OF BELBIC FOR DC MOTOR POSITION CONTROL	874
<i>P. Ramesh ; N. Yadaiah</i>	
IMPROVED FUZZY CLUSTERING USING ENSEMBLE BASED DIFFERENTIAL EVOLUTION FOR REMOTE SENSING IMAGE	880
<i>Jnanendra Prasad Sarkar ; Indrajit Saha ; Ujjwal Maulik</i>	
HOW DEEP IS YOUR LAW? PREDICTING ASSOCIATIONS BETWEEN CASES IN PHILIPPINE JURISPRUDENCE	886
<i>Mygel Andrei Martija ; Jansen Domoguen ; Prospero Naval</i>	
GENETIC ALGORITHM AND CHAOTIC MAPS BASED VISUALLY MEANINGFUL IMAGE ENCRYPTION	892
<i>H R Vanamala ; Deeksha Nandur</i>	
METAHEURISTIC TECHNIQUES FOR CONTROLLER PLACEMENT IN SOFTWARE-DEFINED NETWORKS	897
<i>Sagarika Mohanty ; Prateekshya Priyadarshini ; Sampa Sahoo ; Bibhudatta Sahoo ; Srinivas Sethi</i>	
MITIGATING ADAPTIVE PRNU DENOISING IN CAMERA MODEL IDENTIFICATION: AN ANTI-COUNTER FORENSIC APPROACH	903
<i>Venkata Udaya Sameer ; Ruchira Naskar ; Sowjanya Modalavalasa</i>	
STUDY OF BLOCKCHAIN BASED DECENTRALIZED CONSENSUS ALGORITHMS	908
<i>Soumyashree S. Panda ; Bhabendu Kumar Mohanta ; Utkalika Satapathy ; Debasish Jena ; Debasis Gountia ; Tapas Kumar Patra</i>	
SHIFT AND ACCUMULATE CONVOLUTION PROCESSING UNIT	914
<i>Anakhi Hazarika ; Avinash Jain ; Soumyajit Poddar ; Hafizur Rahaman</i>	
A HIGH-THROUGHPUT FULLY DIGIT-SERIAL POLYNOMIAL BASIS FINITE FIELD $GF(2^M)$ MULTIPLIER FOR IOT APPLICATIONS	920
<i>Siva Ramakrishna Pillutla ; Lakshmi Boppana</i>	
AUTOMATIC LICENSE PLATE RECOGNITION SYSTEM FOR BANGLA LICENSE PLATES USING CONVOLUTIONAL NEURAL NETWORK	925
<i>Nazmus Saif ; Nazir Ahmed ; Sayem Pasha ; Md. Saif Khan Shahrin ; Md. Mahmudul Hasan ; Salekul Islam ; Abu Shafin Mohammad Mahdee Jameel</i>	
AUTOMATED PARKING SYSTEM IN SMART CAMPUS USING COMPUTER VISION TECHNIQUE	931
<i>Sayani Banerjee ; T S Ashwin ; Ram Mohana Reddy Guddeti</i>	
PREDICATE PROXIMITY IN FAILURE: AN MLP BASED FAULT LOCALIZATION APPROACH	936
<i>Arpita Dutta ; Rohit Sahay ; Pabitra Mitra ; Rajib Mall</i>	

INITIAL WEIGHTS OPTIMIZATION USING ENHANCED STEP SIZE FIREFLY ALGORITHM FOR FEED FORWARD NEURAL NETWORK APPLIED TO SPAM DETECTION	942
<i>E Elakkiya ; S Selvakumar</i>	
BLACKHOLE DETECTION IN 6LOWPAN BASED INTERNET OF THINGS: AN ANOMALY BASED APPROACH	947
<i>Himanshu B. Patel ; Devesh C. Jinwala</i>	
A NOVEL APPROACH TO VIDEO STEGANOGRAPHY USING A 3D CHAOTIC MAP	955
<i>Gurupungav Narayanan ; Rishika Narayanan ; Nihal Haneef ; Nagaratna B. Chittaragi ; Shashidar G. Koolagudi</i>	
COPY-MOVE FORGERY DETECTION USING SIFT AND GLCM-BASED TEXTURE ANALYSIS	960
<i>Mohita Chowdhury ; Hansal Shah ; Theekshna Kotian ; N Subbalakshmi ; S Sumam David</i>	
DEPTH ESTIMATED HISTORY IMAGE BASED APPEARANCE REPRESENTATION FOR HUMAN ACTION RECOGNITION	965
<i>Suraj Prakash Sahoo ; Samit Ari</i>	
WATERMARKING USING SMRT ON GRAYSCALE IMAGES AND ATTACK ANALYSIS	970
<i>Febina Ikkal ; R. Gopikakumari</i>	
ADAPTIVE SELF-CALIBRATION OF FISHEYE AND WIDE-ANGLE CAMERAS	976
<i>Vijay Kakani ; Hakil Kim</i>	
MINIMUM SPANNING TREE BASED CLUSTERING FOR HUMAN GAIT CLASSIFICATION	982
<i>Sonia Das ; Purnananda Hari Y. ; Sukadev Meher ; Upendra Kumar Sahoo</i>	
ACOUSTIC CORRELATES OF ASPIRATION IN FRICATIVES AND NASALS	986
<i>Saswati Rabha ; Priyankoo Sarmah ; S R Mahadeva Prasanna</i>	
EMOTION CONVERSION IN TELUGU USING CONSTRAINED VARIANCE GMM AND CONTINUOUS WAVELET TRANSFORM F_0	991
<i>Susmitha Vekkot ; Deepa Gupta</i>	
WIRELESS REAL-TIME METER DATA ACQUISITION SYSTEM	997
<i>Sidhartha Dodla ; Lagineeni Mahendra ; Katta Jaganmohan ; R. K. Senthil Kumar ; B. S. Bindhumadhava</i>	
A PRE-FILTERING BASED CURRENT CONTROL STRATEGY IN GRID-TIED PHOTOVOLTAIC SYSTEMS WITH ACTIVE POWER FILTER FOR HARMONIC MITIGATION	1003
<i>P Narendra Babu ; Ranga Babu Peesapati ; Gayadhar Panda</i>	
PERFORMANCE ANALYSIS OF PMSM BASED SOLAR WATER PUMPING SYSTEM INTERFACED AT AC BUS USING NOVEL CONTROL STRATEGY	1009
<i>Rutvij V Deshpande ; R. T. Ugale ; Saurabh Nikam</i>	
MULTI VOLTAGE MAGNITUDE DC MICRO GRID SYSTEM WITH RENEWABLE ENERGY INTERCONNECTION FOR OPTIMAL POWER CONSUMPTION OF LOADS	1014
<i>Zuhair Alqarni ; Johnson Asumadu ; Ibrahim Alsaduni</i>	
LOAD FREQUENCY CONTROL OF TWO INTERCONNECTED AREA HYBRID MICROGRID SYSTEM USING VARIOUS OPTIMIZATION FOR THE ROBUST CONTROLLER	1019
<i>Deepak Kumar Soni ; Rakesh Thapliyal ; Prakash Dwivedi</i>	
POLY-PHASE POWER FLOW ANALYSIS FOR UNBALANCED DISTRIBUTION SYSTEMS USING MODIFIED NODAL NEWTON'S ITERATIVE TECHNIQUE	1026
<i>Bharath Kumar Mukka ; C. Vjayanathi ; Veerabrahmam Bathini</i>	
FREQUENCY RESPONSE AND ITS IMPROVEMENT USING BESS IN A LOW INERTIA POWER SYSTEM	1031
<i>Md. Nahid Haque Shazon ; Hasin Mussayab Ahmed ; Zarin Tasnim ; Md. Ashikur Rahman ; Nahid-Al-Masood</i>	
CHAOTIC MAP BASED PRIVACY PRESERVATION USER AUTHENTICATION SCHEME FOR WBANS	1037
<i>Shreeya Swagatika Sahoo ; Sujata Mohanty</i>	
SCALABLE VENDOR INDEPENDENT SOFTWARE PLATFORM FOR PULSE SEQUENCE IMPLEMENTATION IN MRI	1043
<i>Mathew Nimmy ; S R Parvathy ; P S Subodh</i>	
TRABECULAR BONE TEXTURE CHARACTERIZATION USING REGULARIZATION DIMENSION AND BOX-COUNTING DIMENSION	1047
<i>Dhevendra Alagan Palanivel ; Sivakumaran Natarajan ; Sainarayanan Gopalakrishnan ; Rachid Jennane</i>	
TUMOR GROWTH MODELING AND ESTIMATION OF CHANGES WITH RESPECT TO CYTOTOXIC DRUGS	1053
<i>Bobbili Medha ; Durgam Chandana ; Veldandi Sowmya ; W. Wilfred Godfrey ; Gaurav Kaushal ; Joydip Dhar</i>	
DESIGN AND IMPLEMENTATION OF A SMART MEDICINE DISPENSER	1059
<i>Ajay Mathew ; John Paul ; Karthika Nair S. ; U. S. Sachin ; Srikanth Koncherry ; C. V. Raghu</i>	
A DEEP ADAPTIVE CONVOLUTIONAL NETWORK FOR BRAIN TUMOR SEGMENTATION FROM MULTIMODAL MR IMAGES	1065
<i>Palash Ghosal ; Shanmukha Reddy ; Charan Sai ; Vikas Pandey ; Jayasree Chakraborty ; Debashis Nandi</i>	

EXTRACTION OF ADVENTITIOUS SOUNDS FROM NOISY LUNG SOUND USING VMD-KLD AND VMD-JSD.....	1071
<i>Sonia Gupta ; Monika Agrawal ; Desh Deepak</i>	
MODEL ORDER REDUCTION OF FINITE ELEMENT MODEL OF PACEMAKER ELECTRODE.....	1076
<i>Shifali Kalra ; M. Nabi</i>	
EXPLORING NIGHT LIGHT AS PROXY FOR POVERTY AND INCOME INEQUALITY APPROXIMATION IN THAILAND.....	1082
<i>U. Dorji ; C. Siripanpornchana ; N. Surasvadi ; A. Plangprasopchok ; S. Thajchayapong</i>	
FACT - FINE GRAINED ASSESSMENT OF WEB PAGE CREDIBILITY.....	1088
<i>Shriyansh Agrawal ; Lalit Mohan Sanagavarapu ; Yr Reddy</i>	
DETECTION OF MOTOR DEFICITS IN CHILDREN WITH AUTISM SPECTRUM DISORDER USING FTT.....	1098
<i>Zaibunnisa L. H. Malik ; Pooja Raundale</i>	
TOOL WEAR HEALTH MONITORING WITH LIMITED DEGRADATION DATA	1103
<i>Ankit Das ; Feng Yang ; Mohd Salahuddin Habibullah ; Zhou Yu ; Farzam Farbiz</i>	
WORD DIFFICULTY PREDICTION USING CONVOLUTIONAL NEURAL NETWORKS	1109
<i>Arpan Basu ; Avishek Garain ; Sudip Kumar Naskar</i>	
FINDING CORRELATES OF CHILD MORTALITY IN INDONESIA USING 3 REGRESSION METHODS.....	1113
<i>Diana Stojanovic ; Takako Hashimoto ; Yukari Shiota</i>	
URBAN AIR QUALITY PREDICTION USING REGRESSION ANALYSIS.....	1118
<i>Soubhik Mahanta ; T. Ramakrishnuudu ; Rajat Raj Jha ; Niraj Tailor</i>	
DEVELOPMENT OF A NOVEL CONTROLLER FOR DC-DC BOOST CONVERTER FOR DC MICROGRID	1124
<i>Hiramnay Samanta ; Moumita Pramanik ; Abhijit Das ; Ankur Bhattacharjee ; Konika Das Bhattacharya ; Nirmal Kumar Deb ; Samarjit Sengupta ; Hiranmay Saha</i>	
CONTROL STRATEGIES FOR A HIGH EFFICIENCY FUEL CELL BASED CONVERTER - A COMPARISON	1130
<i>S. Vijaya Madhavi ; G. Tulasi Ram Das ; K. Ramalingeswara Prasad</i>	
STUDY OF A SOFT SWITCHED ISOLATED DC-DC BIDIRECTIONAL CONVERTER FOR ELECTRIC VEHICLES.....	1136
<i>Arundhati Parida ; Mukti Barai ; Kumar Raja Mothukuri</i>	
ISOLATED SWITCHED BOOST DC-DC CONVERTER WITH COUPLED INDUCTOR AND TRANSFORMER.....	1142
<i>Preenu Paul ; Babita R Jose ; T K Shahana ; Chikku Abraham ; Jimson Mathew</i>	
INVESTIGATION OF DC FAST CHARGING TOPOLOGIES FOR ELECTRIC VEHICLE CHARGING STATION (EVCS).....	1148
<i>S. Harika ; R. Seyezhai ; A. Jawahar</i>	
SCATTERING TRANSFORM INSPIRED FILTERBANK LEARNING FROM RAW SPEECH FOR BETTER ACOUSTIC MODELING.....	1154
<i>A Madhavaraj ; A G Ramakrishnan</i>	
EFFECTS OF MODIFYING THE INPUT FEATURES AND THE LOSS FUNCTION ON IMPROVING EMOTION CLASSIFICATION	1159
<i>Ram Krishna Pandey ; A G Ramakrishnan ; Souvik Karmakar</i>	
REDUCING UNINTENTIONAL SIGNAL BY SG-CONTACT DEVICES IN INTRA-BODY COMMUNICATION	1163
<i>Hiroki Tada ; Koki Yoshioka ; Mitsuru Shinagawa</i>	
PROBABILISTIC NODE SCHEDULING IN DENSE WIRELESS SENSOR NETWORKS	1169
<i>Aparna Vishwanath ; Raja Datta ; Ningrinla Marchang</i>	
DRONE ASSISTED NETWORK CODED CO-OPERATION	1174
<i>Pankaj Kumar ; Prabhleen Singh ; Sam Darshi ; Samar Shailendra</i>	
SURVIVABLE TRAFFIC GROOMING ROUTING AND SPECTRUM ASSIGNMENT IN FLEX-GRID OPTICAL NETWORK UNDER DYNAMIC MULTICAST TRAFFIC.....	1180
<i>Panchali Datta Choudhury ; Kanala Ishwarya Reddy ; Tanmay De</i>	
DISPERSION BEHAVIOR OF FUNDAMENTAL SUPERMODES IN HOMOGENEOUS STRONGLY COUPLED MULTICORE OPTICAL FIBERS FOR DIFFERENT CORE COUNTS AND LAYOUTS	1186
<i>Umar Farooque ; Dharmendra Kumar Singh ; Rakesh Ranjan</i>	
DECISION TREE BASED AIS STRATEGY FOR INTRUSION DETECTION IN MANET.....	1191
<i>Lincy Elizabeth Jim ; Jim Chacko</i>	

DATA DRIVEN DYNAMIC SENSOR SELECTION IN INTERNET OF THINGS	1196
<i>Aakash Vora ; Kevinkumar Amipara ; Samarth Modi ; Mukesh A. Zaveri</i>	
A BLOCKCHAIN-BASED APPROACH FOR USAGE BASED INSURANCE AND INCENTIVE IN ITS	1202
<i>Pranav Kumar Singh ; Roshan Singh ; Gwmsrang Muchahary ; Mridutpal Lahon ; Sukumar Nandi</i>	
A COMPACT WIDEBAND BANDPASS FILTER BASED ON FOLDED HIGH – LOW IMPEDANCE RESONATOR	1208
<i>Ami Iqubal ; P. Abdulla ; A. R. Anu ; U. Sam Kollannore</i>	
COMPACT KA BAND BIAS TEE NETWORK USING SUBSTRATE INTEGRATED COAXIAL LINE TECHNOLOGY	1212
<i>Saurabh Shukla ; Soumava Mukherjee</i>	
DESIGN OF LOW-POWER RECONFIGURABLE LOW-NOISE AMPLIFIER WITH ENHANCED LINEARITY	1216
<i>Rajani Bisht ; S. Qureshi</i>	
MILLIMETER WAVE DOUGHNUT SLOT MIMO ANTENNA FOR 5G APPLICATIONS	1220
<i>G M Amrutha ; T Sudha</i>	
A LOW POWER WIDEBAND LOW-NOISE AMPLIFIER WITH INPUT SERIES PEAKING AND G_M ENHANCEMENT FOR 0.5 – 3.5 GHZ APPLICATIONS	1225
<i>J. Pradeep ; S. Chrisben Gladson ; M. Bhaskar</i>	
DESIGN AND CHARACTERISATION OF SIMPLE PLANAR METAMATERIAL STRUCTURE WITH DOUBLE NEGATIVE PROPERTIES	1231
<i>Shiney Thankachan ; Binu Paul ; Anju Pradeep ; Remsha Moolat</i>	
A NOVEL TECHNIQUE FOR BEHAVIORAL MODELING OF MICROWAVE COMPONENTS BASED ON DELAY EXTRACTION	1236
<i>K Vrinda ; Dhanesh G. Kurup</i>	
SWISH ACTIVATION BASED DEEP NEURAL NETWORK PREDISTORTER FOR RF-PA	1239
<i>Girish Chandra Tripathi ; Meenakshi Rawat ; Karun Rawat</i>	
DESIGN OF A BROADBAND SIW BASED SHUNT SLOT ARRAY ANTENNA FOR X-BAND APPLICATIONS	1243
<i>Ratnesh Ranjan ; Jayanta Ghosh</i>	
MONGOOSE OS BASED AIR QUALITY MONITORING SYSTEM	1247
<i>Lakshmi Boppana ; K Lalasa ; S Vandana ; Ravi Kishore Kodali</i>	
IOT BASED SECURITY SYSTEM	1253
<i>Ravi Kishore Kodali ; Sasweth C. Rajanarayanan ; Anvesh Koganti ; Lakshmi Boppana</i>	
TOWARDS BEHAVIORAL PROFILING BASED ANOMALY DETECTION FOR SMART HOMES	1258
<i>M. Dilraj ; K. Nimmy ; Sriram Sankaran</i>	
RFID BASED VEHICLE EMISSION MONITORING AND NOTIFICATION SYSTEM	1264
<i>Lakshmi Boppana ; Shivangni Rani ; Ravi Kishore Kodali</i>	
IMPROVING THROUGHPUT AND ENERGY EFFICIENCY IN VEHICULAR AD-HOC NETWORKS USING INTERNET OF VEHICLES AND MOBILE FEMTO ACCESS POINTS	1270
<i>Debasis Das</i>	
A NOVEL SMART METER AUTHENTICATION SCHEME FOR SECURE SMART GRID COMMUNICATION	1275
<i>Pranali Bhanse ; Bharati Mishra ; Debasish Jena</i>	
GA-PSO: SERVICE ALLOCATION IN FOG COMPUTING ENVIRONMENT USING HYBRID BIO-INSPIRED ALGORITHM	1280
<i>Vinita Yadav ; B V Natesha ; Ram Mohana Reddy Guddeti</i>	
LOCATION PRIVACY USING DATA OBFUSCATION IN FOG COMPUTING	1286
<i>Chandan Naik ; M Siddhartha ; John Paul Martin ; K. Chandrasekaran</i>	
EMOTION RECOGNITION FROM RAW SPEECH USING WAVENET	1292
<i>Sandeep Kumar Pandey ; H. S. Shekhawat ; S. R. M. Prasanna</i>	
DEVELOPMENT OF LARGE ANNOTATED MUSIC DATASETS USING HMM BASED FORCED VITERBI ALIGNMENT	1298
<i>S. Johanan Joysingh ; P. Vijayalakshmi ; T. Nagarajan</i>	
LITERARY AND COLLOQUIAL DIALECT IDENTIFICATION FOR TAMIL USING ACOUSTIC FEATURES	1303
<i>M. Nanmalar ; P. Vijayalakshmi ; T. Nagarajan</i>	
HISTOGRAM MATCHING BASED OPTIMIZED ENERGY REDISTRIBUTION FOR NEAR END LISTENING ENHANCEMENT	1307
<i>T. Lavanya ; K. Mrinalini ; P. Vijayalakshmi ; T. Nagarajan</i>	

DETECTION OF VOWELS IN CONTINUOUS SPEECH USING VARIATION OF SHORT-TERM MAGNITUDE SPECTRA	1313
<i>Sarmila Garnaik ; Nagapuri Srinivas ; Gayadhar Pradhan ; Kabiraj Sethi</i>	
MULTI-LOUDSPEAKER RENDERING OF MUSICAL ENSEMBLE: ROLE OF TIMBRE IN SOURCE WIDTH PERCEPTION	1319
<i>S Arthi ; T V Sreenivas</i>	
STUDY ON THE IMPACT OF WINDOW FUNCTIONS IN GROUND CLUTTER SUPPRESSION IN ST RADAR SIGNAL SPECTRA	1324
<i>Mohan M C Neethu ; Titu Samson ; Binu Paul</i>	
DESIGN AND IMPLEMENTATION OF MAXIMALLY DECIMATED POLYPHASE FILTER BANK FOR POWER AND DELAY EFFICIENT DIGITAL HEARING AIDS	1329
<i>Sudhi Sudharman ; T. S. Bindiya</i>	
GESTURE CONTROLLED VOICE PICKUP : SPY EAR.....	1335
<i>Kedar Swami ; Bharadwaz Bhuma ; Semanto Mondal ; L Anjaneyulu</i>	
PERFORMANCE ANALYSIS OF DEEP LEARNING CNN IN CLASSIFICATION OF DEPRESSION EEG SIGNALS	1339
<i>P Sandheep ; S Vineeth ; Meljo Poullose ; D P Subha</i>	
DETECTION OF PATHOLOGICAL MYOPIA AND OPTIC DISC SEGMENTATION WITH DEEP CONVOLUTIONAL NEURAL NETWORKS.....	1345
<i>Ujjwal Baid ; Bhakti Baheti ; Prasad Dutande ; Sanjay Talbar</i>	
A STUDY ON THE PERFORMANCE OF SUPERVISED ALGORITHMS FOR CLASSIFICATION IN SENTIMENT ANALYSIS.....	1351
<i>P B Sunitha ; Shelbi Joseph ; P V Akhil</i>	
AN APPROACH TO DESIGN AND DEVELOP UX/UI FOR SMARTPHONE APPLICATIONS OF MINORITY ETHNIC GROUP	1357
<i>Tanvir Alam ; Md Montaser Hamid ; Md Forhad Rabbi</i>	
NATURAL GESTURES TO INTERACT WITH 3D VIRTUAL OBJECTS USING DEEP LEARNING FRAMEWORK	1363
<i>Suraj Tripathy ; Rohan Sahoo ; Ajaya Kumar Dash ; Debi Prosad Dogra</i>	
KEYSTROKE BASED USER IDENTIFICATION WITH XGBOOST	1369
<i>Gutha Jaya Krishna ; Harshal Jaiswal ; P. Sai Ravi Teja ; Vadlamani Ravi</i>	
A NOVEL QUTRIT BASED QUANTUM ANT COLONY OPTIMIZATION FOR MULTI-LEVEL THRESHOLDING	1375
<i>Siddhartha Bhattacharyya ; Sandip Dey ; Debanjan Konar</i>	
INFLUENCE-TIME-PROXIMITY DRIVEN LOCATIONS RECOMMENDATION MODEL: AN INTEGRATED APPROACH.....	1381
<i>Akash Gupta ; Neha Tandon ; Sonia Khetarpaul</i>	
EVENT-TRIGGERED INTEGRAL SLIDING MODE CONTROL.....	1387
<i>Asifa Yesmin ; Manas Kumar Bera</i>	
KINEMATIC ANALYSIS AND VALIDATION OF AN INDUSTRIAL ROBOT MANIPULATOR.....	1393
<i>Megha G Krishnan ; S Ashok</i>	
COMPLEMENTING SPEECH INTERACTION DESIGN WITH TOUCH FOR MULTI-ROBOT SYSTEMS	1400
<i>Kritika Johari ; Nipuni Karumpulli ; U-Xuan Tan</i>	
AUTONOMOUS TRASH COLLECTOR BASED ON OBJECT DETECTION USING DEEP NEURAL NETWORK	1406
<i>Shamima Hossain ; Bidya Debnath ; Adrita Anika ; Md. Junaed-Al-Hossain ; Sabyasachi Biswas ; Celia Shahnaz</i>	
ASYMPTOTIC STABILIZATION AND TRAJECTORY TRACKING OF 4 DOF BALL BALANCER USING LQR.....	1411
<i>J Farzana Pasha ; S J Mija</i>	
DIFFERENTIAL EVOLUTION BASED TDF-IMC SCHEME FOR LOAD FREQUENCY CONTROL OF SINGLE-AREA POWER SYSTEMS.....	1416
<i>Bheem Sonker ; Deepak Kumar ; Paulson Samuel</i>	
PROPORTIONAL LINEAR QUADRATIC REGULATOR BASED ROBUST MISSILE ROLL AUTOPILOT	1421
<i>Viswanath Devan ; T. S. Chandar</i>	
MODELING VISION UTILITY FOR SIDE-BY-SIDE NAVIGATION OF ROBOT-HUMAN PAIRS.....	1428
<i>Chandimal Jayawardena ; Praveen Kehelella ; Rajitha De Silva</i>	
CONTROL OF HEAVY ROAD VEHICLE PLATOONS INCORPORATING ACTUATION DYNAMICS	1434
<i>K. B. Devika ; Nithya Sridhar ; Venkata Ramani Shreya Yellapantula ; Shankar C. Subramanian</i>	

DESIGN OF A SUBSTRATE INTEGRATED COAXIAL LINE BASED DUAL BEAM 6X4 DOUBLE SLOT ANTENNA ARRAY FOR MILLIMETER WAVE APPLICATION	1440
<i>Naman Baghel ; Soumava Mukherjee</i>	
DESIGN OF A GRADED INDEX METASURFACE LENS FOR GAIN ENHANCEMENT OF RECTANGULAR DIELECTRIC RESONATOR ANTENNA	1444
<i>Anu Mohamed ; Chimmoy Saha ; Bincy Salim ; S Heera Krishna ; A. B Karthika ; V Megha ; Arijit Mitra ; S Raghavan</i>	
FDTD ANALYSIS FOR TE MODE RESONANT FREQUENCY OF ANISOTROPIC CIRCULAR DIELECTRIC RESONATOR	1448
<i>Hardi Nusantara ; Andriyan Bayu Suksmono ; Hepi Ludiyati ; Achmad Munir</i>	
RANDOM PHASE GRADIENT METASURFACE FOR BROADBAND RCS REDUCTION	1452
<i>Shraddha Choudhary ; Kirankumar R. Hiremath</i>	
ANCHOR-SHAPED SLOT ANTENNA WITH SUBSTRATE INTEGRATED WAVEGUIDE FOR V-BAND APPLICATIONS	1455
<i>T Shanmuganantham ; M Nanda Kumar</i>	
DESIGN OF A FSS BANDPASS FILTER FOR C-BAND APPLICATION WITH EQUIVALENT CIRCUIT MODEL	1459
<i>Mohd Salman Khan ; Somak Bhattacharyya</i>	
DESIGN OF POLARIZATION DEPENDENT PHASE GRADIENT METASURFACE REFLECTO-TRANSMITARRAY ANTENNA	1462
<i>Sharon Varghese ; Basudeb Ghosh</i>	
A CHIRP COMMUNICATION SYSTEM USING SAW-CHIRP DEVICES FOR MULTIBIT SYMBOL TRANSMISSION	1466
<i>Arijit Roy ; Harshal B. Nemade ; Ratnajit Bhattacharjee</i>	
SECRECY CAPACITY OF PHYSICAL LAYER OVER κ-μ /GAMMA COMPOSITE FADING CHANNEL	1472
<i>Rupender Singh ; Meenakshi Rawat</i>	
COMPUTING AND NETWORK RESOURCE MINIMIZATION PROBLEM FOR SERVICE FUNCTION CHAINING AGAINST MULTIPLE VNF FAILURES	1478
<i>Daiki Yamada ; Norihiko Shinomiya</i>	
A SIMULATED ANNEALING-BASED EFFICIENT FAILOVER MECHANISM FOR HIERARCHICAL SDN CONTROLLERS	1483
<i>Hsiao-Hu Hsieh ; Kuochen Wang</i>	
PAPR AND CCDF ANALYSIS OF SUPERIMPOSED TRAINING SEQUENCE-BASED MIMO-FBMC OQAM SYSTEMS	1489
<i>Radhashyam Patra ; Arunanshu Mahapatro ; Himanshu B. Mishra ; Prem Singh ; Sonali Panda</i>	
PREDICTIVE FLOW MODELING IN SOFTWARE DEFINED NETWORK	1494
<i>Abha Kumari ; Joydeep Chandra ; Ashok Singh Sairam</i>	
CONVERGENCE OF MASSIVEMIMO FREQUENCY SELECTIVE CHANNELS	1499
<i>Goli Srikanth ; Vijay Kumar Chakka ; Santosh Kumar</i>	
ANAMOLY DETECTION IN WIRELESS SENSOR NETWORKS	1504
<i>Arun P Shenoy ; P M Ameer</i>	
EVALUATION OF ELECTRIC FIELDS INSIDE THE STEEL REINFORCED CONCRETE BUILDING DUE TO A NEARBY LIGHTNING STRIKE TO GROUND	1509
<i>Vishwanath Hegde ; Vinoda Shivanand</i>	
COMPATIBILITY STUDY OF PAPER AND EPOXY WITH NATURAL ESTER- A SUBSTITUTE FOR TRANSFORMER MINERAL OIL	1514
<i>Joyce Jacob ; Uppu Navya Rashmika ; Archana Jha ; Chelli Divya Sai ; Katta Lakshmi Sai Sravani ; P Preetha</i>	
ELECTRIC FIELD STRESS OPTIMIZATION OF PERMITTIVITY GRADED SPACER IN UHVAC GAS INSULATED SYSTEM	1518
<i>Jacob P Varghese ; Avinash Nelson Asokan ; Subham Khatua ; P Preetha ; R Sunitha</i>	
BIDIRECTIONAL WIRELESS POWER TRANSFER USING SINGLE PHASE MATRIX CONVERTER FOR ELECTRIC VEHICLE APPLICATION	1523
<i>Bharat Vardani ; Narsa Reddy Tummuru</i>	
COMPARATIVE ANALYSIS OF DIFFERENT MODULATION TECHNIQUES FOR THREE LEVEL THREE PHASE T-TYPE NPC INVERTER	1529
<i>M. Sajitha ; J. Sandeep ; Rijil Ramchand</i>	
GRID CONNECTED MULTILEVEL SINGLE TO THREE PHASE POWER CONVERTER WITH IMPROVED PERFORMANCE	1535
<i>Anup Kumar ; M. V. Aware ; B. S. Umre ; Manoj A. Waghmare</i>	
A DUAL SWITCH NON-ISOLATED HIGH GAIN DC-DC CONVERTER	1541
<i>Motupalli Priyanka ; R Niranchana ; Vaibhav Gurjar ; Nilanjan Tewari ; V. T. Sreedevi</i>	

FAULT CLASSIFICATION IN THREE PHASE SELF-EXCITED INDUCTION GENERATORS USING DEEP NEURAL NETWORKS.....	1547
<i>Sohom Mukherjee ; Arindam Dutta ; Saradindu Ghosh</i>	
MINIMIZING COMMUNICATION COST FOR VIRTUAL MACHINE PLACEMENT IN CLOUD DATA CENTER	1553
<i>Kamalesh Karmakar ; Rajib K Das ; Sunirmal Khatua</i>	
FUZZY REINFORCEMENT LEARNING BASED MICROSERVICE ALLOCATION IN CLOUD COMPUTING ENVIRONMENTS	1559
<i>Christina Terese Joseph ; John Paul Martin ; K. Chandrasekaran ; A. Kandasamy</i>	
JAMURA: A CONVERSATIONAL SMART HOME ASSISTANT BUILT ON TELEGRAM AND GOOGLE DIALOGFLOW	1564
<i>Sanket Salvi ; V Geetha ; S Sowmya Kamath</i>	
ANTICOUNTERFEITING IN PHARMACEUTICAL SUPPLY CHAIN BY ESTABLISHING PROOF OF OWNERSHIP	1572
<i>Rohit Raj ; Nandini Rai ; Sonali Agarwal</i>	
TASOR: A TEMPERATURE-AWARE SEMI-PARTITIONED REAL-TIME SCHEDULER	1578
<i>Sanjay Moulik ; Zinea Das</i>	
ADDRESSING OUT-OF-ORDER ISSUE OF CONGESTION-AWARE ADAPTIVE ROUTING IN SUBNET BASED NOC	1584
<i>Tuhin Subhra Das ; Prasun Ghosal ; Arnab Nath</i>	
TEMPORAL DYNAMICS AND SPATIAL CONTENT IN IOT MALWARE DETECTION	1590
<i>Ramnath Kumar ; G Geethakumari</i>	
COMPRESSION WITH AUTHENTICATED ENCRYPTION FOR ENHANCED SECURITY ON DATA CENTRIC PRODUCTS.....	1596
<i>Neha Tiwari ; Bettahally N. Keshavamurthy</i>	
EFFICIENT HARDWARE IMPLEMENTATION OF SWITCHING MEDIAN FILTER FOR EXTRACTION OF EXTREMELY HIGH IMPULSE NOISE CORRUPTED IMAGES	1601
<i>Sushant Sadangi ; Satyakam Baraha ; Pradyut Kumar Biswal</i>	
AN ANALOG DESIGN OF 2D DCT PROCESSOR.....	1606
<i>U. Venkatesh ; M. Pavan Kumar ; R. Saketh ; Ch. Udaya Raghava Sai ; S. V. Krishna Naik ; K. J. Dhanaraj</i>	
IMPROVING KANNADA OCR USING A STROKE-BASED APPROACH	1611
<i>Edupuganti Arun ; J. Vinith ; Chakith Pattar ; Koshy George</i>	
AN APPROACH TO SPEED INVARIANT GAIT ANALYSIS FOR HUMAN RECOGNITION USING MUTUAL INFORMATION	1616
<i>R Anusha ; C D Jaidhar</i>	
DRIVER'S DROWSINESS DETECTION.....	1622
<i>Challa Yashwanth ; Jyoti Singh Kirar</i>	
COMBINING FEATURES AND ANCILLARY MEASURES FOR EXPLORING HEREDITARY TRENDS IN FINGERPRINTS.....	1626
<i>P. Naseeda ; S. M. Anzar</i>	
REMO: A FAST REGION-AND MORPHOLOGY-BASED SCENE TEXT DETECTOR	1632
<i>Chun Sing Tsang ; Yuan Ren Loke</i>	
DESIGN OF INTENT RECOGNITION SYSTEM IN A PROSTHETIC LEG FOR AUTOMATIC SWITCHING OF LOCOMOTION MODES.....	1638
<i>Quazi Mutasim Billah ; Lamiya Rahman ; Jannatul Adan ; A. H. M. Mostafa Kamal ; Md Kamrul Islam ; Celia Shahnaz ; Arik Subhana</i>	
FORK AND D/Y/D CONNECTED TRANSFORMER SUPPLIED 12-PULSE UNCONTROLLED CONVERTER FED RETROFIT VECTOR CONTROLLED INDUCTION MOTOR DRIVE: A COMPARATIVE STUDY	1643
<i>Aekamdeep Kaur ; Yugal Gupta ; Sumit Ghatak Choudhuri</i>	
MICROGRIDSTABILITY ENHANCEMENT BY USING COORDINATION OF SFCL, SMES AND DISTRIBUTED GENERATION UNITS WITH FUZZY LOGIC CONTROLLER.....	1649
<i>Dharani Lakshmi Devanga ; K Jithendra Gowd</i>	
DEVELOPMENT OF DEMAND SIDE MANAGEMENT STRATEGY FOR SMART RESIDENTIAL DISTRIBUTION SYSTEM EMBEDDED WITH EV LOAD	1655
<i>Jayababu Badugu ; Y. P. Obulesu ; Ch. Sai Babu</i>	
PATTERN RECOGNITION TOOL FOR DETECTION AND CLASSIFICATION OF POWER SYSTEM TRANSIENTS	1661
<i>M V Chilukuri ; Tan Sih Sin</i>	
VOCAL OPTIMIZED INTEGRATOR FOR CONSUMABLE ELECTRICITY	1667
<i>S. Bhagya ; Biby Thomas ; P. R. Arjun ; V. G. Sreena</i>	

MODELING SMART INVERTERS FOR HARDWARE-IN-THE-LOOP TESTS IN LOW-VOLTAGE DISTRIBUTION SYSTEMS.....	1672
<i>Taha Selim Ustun ; Mohd. Tauseef Khan ; S. M. Suhail Hussain</i>	
WIND POWER SMOOTHING USING FLYWHEEL ENERGY STORAGE SYSTEM WITH NONLINEAR CONTROLLER.....	1677
<i>M N Lavanya ; M Deepak</i>	
A FRAMEWORK FOR CITY WIDE ACTIVITY DATA RECORDER AND PROVIDING SECURED WAY TO FORENSIC USERS FOR INCIDENCE RESPONSE.....	1683
<i>Md Ezazul Islam ; Sabbir Ahmed</i>	
CLUSTER HEAD SELECTION IN WIRELESS SENSOR NETWORK USING BIO-INSPIRED ALGORITHM	1690
<i>Padmalaya Nayak ; K. Kavitha ; Nausheed Khan</i>	
DEEP CONVOLUTIONAL NEURAL NETWORK IN SMART ASSISTANT FOR BLINDS	1697
<i>Rashmi Kapoor ; M. Aruna Bharathi ; M. Sushama</i>	
LOW COST SMART REFRIGERATOR.....	1702
<i>Madhuri Bayya</i>	
MARKOV MODELLING BASED RELIABILITY EVALUATION OF UPFC INCORPORATED IEEE 9 BUS SYSTEM.....	1706
<i>E. Sreeshobha ; P. V. N. Prasad</i>	
AN APP BASED UNIFIED APPROACH TO ENHANCE LANGUAGE COMPREHENSION AND MATHEMATICAL REASONING ABILITY OF THE HEARING IMPAIRED USING CONTRAST WORDS.....	1711
<i>Sandipa Roy ; Arpan K Maiti ; Indira Ghosh ; Indranil Chatterjee ; Gopal K Basak ; Kuntal Ghosh</i>	
ENHANCING PERFORMANCE OF CRUTCHES IN CHALLENGING ENVIRONMENTS: PROPOSING AN ALTERNATIVE DESIGN AND ASSESSING THE EXPECTED IMPACT.....	1717
<i>Suzana Brown ; Achilles Vairis ; Ali M. Masoumifar ; Markos Petousis</i>	
MAKING ASSISTIVE DEVICES AFFORDABLE	1725
<i>Anil Prabhakar ; S Indulakshmi ; M Jeyaram ; A. R Stalin ; G. Kasthuri ; Prabha Ramanathan</i>	
TACTOGRAPH WITH LOW COST REFILLABLE FLUID CARTRIDGE SYSTEM.....	1731
<i>S. I. Ikram Khan ; A. Prabhakar</i>	
LICENSE PLATE TRACKING USING GRADIENT BASED SEGMENTATION	1737
<i>Gaurav Kumar ; Amal Barman ; Madhumita Pal</i>	
BIT RATE REDUCTION IN CELP CODERS BY APPLYING VOCAL TRACT FILTER SIMILARITY BEHAVIOUR	1741
<i>M. S. Arun Sankar ; P. S. Sathidevi</i>	
REMOVAL OF SPECKLE NOISE IN IMAGES THROUGH A HYBRID METHODOLOGY WITH APPLICATION IN OPTICAL COHERENCE TOMOGRAPHY (OCT) IMAGES.....	1746
<i>Karri Karthik ; Manjunatha Mahadevappa ; Krunal Patel</i>	
SINGLE IMAGE DEHAZING USING ADAPTIVE GAMMA CORRECTION METHOD	1752
<i>Sumit Kr. Yadav ; Kishor Sarawadekar</i>	
CHARACTERIZATION OF SPOKEN ENGLISH VOWELS USING TREE STRUCTURES.....	1758
<i>Parabattina Bhagath ; Pradip K Das</i>	
PHONEME BOUNDARY ANALYSIS USING GRAPHS.....	1764
<i>Parabattina Bhagath ; Pradip K. Das</i>	
NON-LINEAR FILTERING OF A PHASE TRACKING PROBLEM: REVISITED	1769
<i>Ravish H. Hirpara ; Shambhu N. Sharma</i>	
STATISTICAL FREQUENCY ESTIMATION TECHNIQUES FOR VIBRATING WIRE SENSOR SIGNALS	1774
<i>G Diwakar ; Lakshi Prosad Roy</i>	
CLASSIFICATION OF CATEGORICAL OBJECTS IN VENTRAL TEMPORAL CORTEX USING FMRI DATA	1778
<i>Sajjad Ahmed ; Mohammad Zavid Parvez</i>	
LUNG NODULE DETECTION FROM LOW DOSE CT SCAN USING OPTIMIZATION ON INTEL XEON AND CORE PROCESSORS WITH INTEL DISTRIBUTION OF OPENVINO TOOLKIT	1783
<i>Gina Mathew ; S. Sindhu Ramachandran ; V. S. Suchithra</i>	
PREDICTING VENTILATOR MODES TO MAINTAIN BLOOD OXYGEN SATURATION OF POST SURGICAL PATIENTS WITHIN DESIRED LIMIT USING WEIGHTED KNN CLASSIFICATION ALGORITHM	1789
<i>Sita Radhakrishnan ; Suresh G Nair ; Prasad Sreedhar G Jagath ; Johney Isaac</i>	
CONVOLUTIONAL NEURAL NETWORKS FOR CLASSIFYING SKIN LESIONS	1794
<i>Kiran Pai ; Anandi Giridharan</i>	

PIXEL-WISE SEGMENTATION OF RIGHT VENTRICLE OF HEART	1797
<i>Yaman Dang ; Deepak Anand ; Amit Sethi</i>	
SIGN LANGUAGES TO SPEECH CONVERSION PROTOTYPE USING THE SVM CLASSIFIER	1803
<i>Malli Mahesh Chandra ; S Rajkumar ; Lakshmi Sutha Kumar</i>	
CLASSIFICATION OF ALZHEIMER'S DISEASE, MILD COGNITIVE IMPAIRMENT, AND COGNITIVELY NORMAL BASED ON NEUROPSYCHOLOGICAL DATA VIA SUPERVISED LEARNING	1808
<i>Gwo Giun Lee ; Po-Wei Huang ; Yi-Ru Xie ; Ming-Chyi Pai</i>	
FABRICATION OF BACK TO BACK SCHOTTKY MICRO-DIODES USING SILVER NANOPARTICLE FILM AND ZINC OXIDE NANOWIRE MAT FOR BIOLOGICAL INTERACTIONS	1813
<i>Vimal Kumar Singh Yadav ; Siddhanta Roy ; Gayatri Natu ; Roy Paily</i>	
TIO₂ NANOWIRE/ GO THIN FILM HYBRID STRUCTURE FOR PHOTODETECTION APPLICATION	1818
<i>Prasenjit Deb ; Jay Chandra Dhar</i>	
FABRICATION AND ELECTRICAL CHARACTERIZATION OF CARBON NANOTUBE BASED ENZYME FIELD EFFECT TRANSISTOR FOR CHOLESTEROL DETECTION	1821
<i>Gaurav Keshwani ; Hiranya Ranjan Thakur ; Jiten Chandra Dutta</i>	
ANALYSIS OF STABLE, ENVIRONMENT FRIENDLY AND HIGHLY EFFICIENT PEROVSKITE SOLAR CELL	1825
<i>Kazi Barria Nine ; Md Forhad Hossain ; Shaikh Asif Mahmood</i>	
AN ALTERNATIVE APPROACH TO VOLTAGE DEPENDENT REDUCTION OF SCHOTTKY BARRIER HEIGHT MODELING IN TWO DIMENSIONAL MSM PHOTODETECTORS	1829
<i>Shakib Mustavee ; Abu Mohammad Saffat-Ee Huq ; Farseen Mannan Mohammedy ; Sumnoon Ahmed</i>	
SUBTHRESHOLD PERFORMANCE ANALYSIS OF DOUBLE-FIN MULTI-CHANNEL JUNCTIONLESS TRANSISTOR WITH SUBSTRATE BIAS EFFECTS	1834
<i>Balraj Singh ; Deepti Gola ; Satyabrata Jit</i>	
ANALYTICAL MODELING OF ANALOG/RF PARAMETERS FOR TRIGATE JUNCTIONLESS FIELD EFFECT TRANSISTOR INCORPORATING SUBSTRATE BIASING EFFECTS	1838
<i>Deepti Gola ; Balraj Singh ; Pramod Kumar Tiwari</i>	
POCKET ENGINEERED ELECTROSTATICALLY DOPED TUNNEL FIELD EFFECT TRANSISTOR	1842
<i>M. A. Raushan ; Naushad Alam ; M. J. Siddiqui</i>	
DESIGN OF MRAC BASED TCSC FOR DAMPING SUB-SYNCHRONOUS OSCILLATIONS IN SCIG BASED WIND FARM	1846
<i>K. C. Sindhu Thampatty</i>	
SMART DRIVE CONTROL USING IOT	1853
<i>Aravelli S L K Gopalamma ; R Srinu Naik</i>	
PARALLEL SPARSE LU FACTORIZATION OF POWER FLOW JACOBIAN USING GPU	1857
<i>R. Gnanavignesh ; U. Jayachandra Shenoy</i>	
SERVER MONITORING AND PRIORITY BASED AUTOMATIC LOAD SHEDDING ALGORITHM (SEMPALS)	1863
<i>Tuneer Bhattacharjee ; Anish Kumar Saha ; Senthil Prabu Ramalingam ; Prabhakar Karthikeyan Shanmugam ; Sanjeevikumar Padmanaban</i>	
DETERMINATION OF VOLTAGE CONTROL AREA BASED ON BUS COHERENCY USING SYNCHRONIZED PHASOR MEASUREMENTS	1869
<i>Fazle Kibriya ; Dinesh Kumar Mahto ; Anant Milan Khalkho ; Tarkeshwar Mahto ; Dasmanta Kumar Mohanta</i>	
DISTRIBUTION FEEDER PROTECTION USING UNCORRELATED SYMMETRICAL DOT PATTERNS	1875
<i>Mahmood Shaik ; Sandeep Kumar Yadav ; Abdul Gafoor Shaik</i>	
PREDICTIVE MODEL FOR CLASSIFICATION OF POWER SYSTEM FAULTS USING MACHINE LEARNING	1881
<i>Tilottama Goswami ; Uponika Barman Roy</i>	
INVESTIGATION ON DYNAMIC ECONOMIC DISPATCH PROBLEM OF MICRO GRID USING CUCKOO SEARCH ALGORITHM - GRID CONNECTED AND ISLANDED MODE	1886
<i>Jahanvi Singh ; Sneha Poddar ; Senthil Prabu Ramalingam ; Prabhakar Karthikeyan Shanmugam ; Akhtar Kalam</i>	
DESIGN AND ANALYSIS OF WIDEBAND NON-TRANSPARENT AND OPTICALLY TRANSPARENT MICROWAVE METAMATERIAL ABSORBERS	1892
<i>Kanwar Preet Kaur ; Trushit Upadhyaya</i>	
DESIGN OF FLEXIBLE AND HIGH GAIN AMC BASED PATCH ANTENNA FOR X-BAND APPLICATIONS	1898
<i>Amit Baran Dey ; Wasim Arif</i>	

DESIGN OF A NOVEL COMPACT BOWTIE ANTENNA AND ANALYSIS USING CHARACTERISTIC MODES	1903
<i>Jagadeesh Babu Kamili ; Amitabha Bhattacharya</i>	
DESIGN AND SIMULATION OF RADIAL REENTRANT CAVITIES FOR KA BAND VACUUM MICROWAVE DEVICES	1908
<i>M Santosh Kumar ; Chaitali Koley ; A. K. Bandyopadhyay ; Debashish Pal ; Santigopal Maity</i>	
BANDWIDTH ENHANCEMENT OF APERTURE COUPLED CYLINDRICAL DIELECTRIC RESONATOR ANTENNA USING MODIFIED FEED STRUCTURE	1910
<i>A. R Anu ; P Abdulla ; T. K Rekha ; Ami Iqubal ; U Sam Kollannore ; P. M. Jasmine</i>	
DESIGN OF 28 GHZ HIGH GAIN 5G MIMO ANTENNA ARRAY SYSTEM	1913
<i>Melvin C Jose ; S. Radha ; B S Sreeja ; Pratap Kumar</i>	
A PATTERN RECONFIGURABLE ANTENNA WITH SOFTWARE CONTROL FOR WIRELESS APPLICATION	1917
<i>Deeplaxmi Niture ; Bhushan Magar ; S. P. Mahajan</i>	
DESIGN AND NUMERICAL ANALYSIS OF TRI-BAND TERAHERTZ METAMATERIAL	1922
<i>A. Elakkiya ; S. Radha ; E. Manikandan ; B. S. Sreeja</i>	
MODIFIED SPARSE REPRESENTATION FOR ECG RECONSTRUCTION IN TELEMONITORING	1926
<i>Sushree Satvatee Swain ; Dipti Patra</i>	
AUTOMATIC PUPIL SEGMENTATION BASED ON CIRCULAR ACTIVE DISCS	1932
<i>J. R. Harish Kumar ; Kartik Teotia</i>	
A LOW COST HUMAN COMPUTER INTERFACE FOR DISABLED PEOPLE BASED ON EYE BLINK DETECTION USING BRAIN SIGNAL	1937
<i>Lamiya Rahman ; Jannatul Adan ; Quazi Mutasim Billah ; Md Kamrul Islam ; A. H. M Mostafa Kamal ; Sazzad Hossain ; Celia Shahnaz ; Arik Subhana</i>	
PHONOCARDIOGRAM HEARTBEAT SEGMENTATION AND AUTOREGRESSIVE MODELING FOR PERSON IDENTIFICATION	1942
<i>Imran Fahad ; Md Ashiqur Rahman Apu ; Abesh Ghosh ; Shaikh Anowarul Fattah</i>	
EFFICIENT FIR FILTERS FOR BIOMEDICAL SIGNALS	1947
<i>Niyam Marchon</i>	
ROBUST HEART RATE ESTIMATION FROM PPG SIGNALS WITH INTENSE MOTION ARTIFACTS USING CASCADE OF ADAPTIVE FILTER AND RECURRENT NEURAL NETWORK	1952
<i>Sayeed Shafayet Chowdhury ; Md. Shamim Hasan ; Ruhi Sharmin</i>	
SNR ANALYSIS OF APODIZATION FILTERS ON RAW DATA FOR MR IMAGE RECONSTRUCTION	1958
<i>S Sibi ; Thara S Pillai ; Pournami S Chandran ; P Devanand</i>	
GLOBAL AND SPATIALLY CONSTRAINED LOCAL ENTROPY-BASED FUZZY CLUSTERING ALGORITHM FOR SEGMENTATION OF 3D BRAIN MR IMAGE VOLUME WITH HIGH NOISE AND INTENSITY INHOMOGENEITY	1963
<i>Nabanita Mahata ; Jamuna Kanta Sing</i>	
CONSEQUENCE OF STRESS ON COGNITIVE PERFORMANCE: AN EEG AND HRV STUDY	1969
<i>Sachin Prathaban ; Vishal Sisodia ; Sadasivan Puthusserypady</i>	
COOPERATIVE COMMUNICATION UNDER NONLINEAR ENERGY HARVESTING MODEL AND INTERFERENCE SIGNAL	1975
<i>Binod Prasad ; Ratnajit Bhattacharjee ; Sanjay K. Bose</i>	
PERFORMANCE OF GSM AND GSM-SM OVER $\alpha - \mu$ FADING CHANNEL MODEL	1981
<i>Aayesha Khatoon ; Mohd Sharique</i>	
QRRP: A QUERY-DRIVEN RING ROUTING PROTOCOL FOR MOBILE SINK BASED WIRELESS SENSOR NETWORKS	1986
<i>Shubhra Jain ; K. K. Pattanaik ; Rahul Kumar Verma ; Anupam Shukla</i>	
DYNAMIC PSO BASED FUZZY CLUSTERING ALGORITHM FOR WSNS	1992
<i>Tanima Bhowmik ; Indrajit Banerjee</i>	
AN ENERGY EFFICIENT ROUTING PROTOCOL FOR SMALL WORLD WSN USING DIRECTIONAL ANTENNAS	1998
<i>V. Sreejith ; Poojan Parikh ; Arnav Goel</i>	
MULTIUSER/MIMO DOUBLY SELECTIVE FADING CHANNEL ESTIMATION USING TM TRAINING AND CE-BEM	2004
<i>A Chinnu Veeresh ; Sarthak Ghosh ; S. V. Hari Prasad ; M Soundarakumar ; Vipin Tyagi</i>	
NON-GAUSSIAN NOISE MODELS AND ASYMPTOTIC ANALYSIS OF BER OVER WEIBFULL FADING WITH IMPULSIVE NOISE	2009
<i>Umer Ashraf ; Gh. Rasool Begh</i>	

INFLUENCE OF STRUCTURAL DEVIATION IN A MICROSTRIP PATCH ANTENNA ON MILLIMETER WAVE PERFORMANCE	2018
<i>Naoki Takano ; Shokei Numamoto ; Mitsuru Shinagawa ; Atsushi Miki ; Hironori Imamura ; Kenji Sato ; Toshiaki Asahi</i>	
APPLICATION OF MACHINE LEARNING IN CREDIT RISK ASSESSMENT: A PRELUDE TO SMART BANKING.....	2023
<i>Syed Zamil Hasan Shoumo ; Mir Ishrak Maheer Dhruva ; Sazzad Hossain ; Nawab Haider Ghani ; Hossain Arif ; Samiul Islam</i>	
APPLICATION OF MACHINE LEARNING TECHNIQUES IN THE CONTEXT OF LIVESTOCK.....	2029
<i>Bhuiyan Mustafa Tawheed ; Syed Tahmid Masud ; Md. Shajedul Islam ; Hossain Arif ; Samiul Islam</i>	
CONCEPTUAL ANALYSIS OF INTERNET OF THINGS USE CASES IN BANKING DOMAIN	2034
<i>Hariharan Ramalingam ; V. Prasanna Venkatesan</i>	
ZERO KNOWLEDGE AUTHENTICATION FOR REUSE OF IPS IN RECONFIGURABLE PLATFORMS	2040
<i>Krishnendu Guha ; Debasri Saha ; Amlan Chakrabarti</i>	
ELECTRICAL STIMULATION AND ASSESSMENT OF THE INDUCED FORCE IN THE DENERVATED MUSCLE	2046
<i>Sahil Gera ; Naveen Gangadharan ; B P Navin ; George Tharion ; Prashanth H Chalageri ; Raji Thomas ; Suresh Devasahayam</i>	
DETECTION OF SINGLE-STRANDED DNA USING THE DIRAC VOLTAGE CHANGE OF GRAPHENE-BASED FETS	2051
<i>Jong Chang Yi ; Young June Kim ; Yi Young Kim ; Seok Lee ; Deok Ha Woo ; Chulki Kim</i>	
A MANY OBJECTIVE OPTIMIZATION BASED ENTITY MATCHING FRAMEWORK FOR BIBLIOGRAPHIC DATABASE.....	2054
<i>Sumit Mishra ; Sriparna Saha ; Samrat Mondal</i>	
A BI-LEVEL CASCADED ENSEMBLE FRAMEWORK FOR EFFECTIVE DISEASE DIAGNOSIS.....	2059
<i>Ramalingaswamy Cheruku ; Pradeep Kumar Nalluri ; Krishna Yogeshwar G. Gopi ; J. B. S. Charan ; V. Naga Sanketh ; Nareshkumar Reddy Beechu</i>	
MUSIC GENRE RECOGNITION USING RESIDUAL NEURAL NETWORKS	2063
<i>Dipjyoti Bisharad ; Rabul Hussain Laskar</i>	
HOW YOU SEE ME: UNDERSTANDING CONVOLUTIONAL NEURAL NETWORKS	2069
<i>Rohit Gandikota ; Deepak Mishra</i>	
SEGMENTATION OF CORONARY ARTERIES FROM CTA AXIAL SLICES USING DEEP LEARNING TECHNIQUES	2074
<i>P. Mirunalini ; C. Aravindan ; A. Thamizh Nambi ; S Poorvaja ; V Pooja Priya</i>	
DETECTING CODE SMELLS USING DEEP LEARNING	2081
<i>Ananta Kumar Das ; Shikhar Yadav ; Subhasish Dhal</i>	
POLYNOMIAL LEARNING RATE POLICY WITH WARM RESTART FOR DEEP NEURAL NETWORK.....	2087
<i>Purnendu Mishra ; Kishor Sarawadekar</i>	
DEEP RECURRENT ARCHITECTURE WITH ATTENTION FOR REMAINING USEFUL LIFE ESTIMATION	2093
<i>Ankit Das ; Shaista Hussain ; Feng Yang ; Mohd Salahuddin Habibullah ; Arun Kumar</i>	
DETECTION OF ADULTERATED PORK MEAT VIA COLOR AND CHEMICAL CHARACTERISTICS	2099
<i>Armil Monsura ; Alexa Ray Fernando ; Rafael Ventura ; Denise Antoinette Bañas ; Dorothy Joy De Castro ; John Michael Molleno ; Krystal Mae Denise Rama ; Eirron Carl Ramirez ; Benjamin Norbert Vitug</i>	
MOTH FLAME OPTIMIZATION ALGORITHM BASED OPTIMAL STRATEGIC BIDDING IN DEREGULATED ELECTRICITY MARKET	2105
<i>Abhilipsa Sahoo ; Prakash Kumar Hota</i>	
ELECTRIC LOAD DEMAND FORECASTING WITH RNN CELL GENERATED BY DARTS.....	2111
<i>G. M. Biju ; G. N. Pillai ; Jeevanand Seshadrinath</i>	
DETECTION OF HIGH IMPEDANCE FAULT USING MACHINE LEARNING TECHNIQUES.....	2117
<i>K. V. Shihabudheen ; Bijuna Kunju ; Imthias Ahammed ; Akshay Gururwarurappan ; Jibin Jose ; D. Keerthana ; P. B. Revathi</i>	
ANALYSIS OF A NESTED CONTROL CONFIGURATION FOR A NONLINEAR INTERCONNECTED POWER SYSTEM.....	2123
<i>Akhilesh Kumar Mishra ; Puneet Mishra</i>	
DEEP NEURAL NETWORK BASED HIERARCHICAL CONTROL OF RESIDENTIAL MICROGRID USING LSTM.....	2129
<i>Anu G Kumar ; M. R. Sindhu ; Sachin S Kumar</i>	

SVPWM BASED GENERALIZED SWITCHING SCHEMES FOR SEVEN LEVEL DCMLI INCLUDING OVER MODULATION OPERATION - FPGA IMPLEMENTATION.....	2135
<i>B. Sirisha ; P. Satish Kumar</i>	
IMAGE QUALITY ASSESSMENT, DENOISING AND COMPARATIVE ANALYSIS USING FILTERS FOR C-ARM X-RAY IMAGES	2143
<i>Snehal Yadav ; Saket Kulkarni ; Rashmika Patole</i>	
MULTIPLE EYE DISEASE DETECTION USING DEEP NEURAL NETWORK	2148
<i>Krishna Prasad ; P S Sajith ; M Neema ; Lakshmi Madhu ; P N Priya</i>	
ESTIMATION OF FUNCTIONAL CONNECTIVITY IN COGNITIVE IMPAIRED BRAIN USING NON-HOMOGENEOUS DYNAMIC BAYESIAN MODEL.....	2154
<i>J. Siva Ramakrishna ; Hariharan Ramasangu</i>	
CLASS-AB FREQUENCY MULTIPLICATION USING PARALLEL COUPLED LC QUADRATURE PHASE OSCILLATOR	2160
<i>K A Karthigeyan ; E Manikandan</i>	
SRAM CELL WITH BETTER READ AND WRITE STABILITY WITH MINIMUM AREA	2164
<i>B. Naresh Kumar Reddy ; K Sarangam ; T. Veeraiah ; Ramalingaswamy Cheruku</i>	
A LOW POWER MIXED SIGNAL FOREGROUND CALIBRATION TECHNIQUE OF A PIPELINE ADC USING A VARIABLE GAIN AMPLIFIER.....	2168
<i>Sounak Roy ; Shatadal Chatterjee</i>	
THREE NOVEL CONFIGURATIONS OF SECOND ORDER INVERSE BAND REJECT FILTER USING A SINGLE OPERATIONAL TRANSRESISTANCE AMPLIFIER.....	2173
<i>Subhasish Banerjee ; Shekhar Suman Borah ; Mourina Ghosh ; Pulak Mondal</i>	
CURRENT-MODE SIMO UNIVERSAL FILTER REALIZATION USING DUAL-X MULTI OUTPUT CURRENT CONVEYOR.....	2179
<i>Ashok Kumar ; Ajay Kumar Kushwaha ; Nikhil Chander</i>	
PERFORMANCE ANALYSIS OF PEROVSKITE AND QUATERNARY COMPOUND FOR X-RAY IMAGE DETECTORS	2184
<i>Syed Khaleduzzaman ; Sabyasachi Paul ; Shaikh Asif Mahmood</i>	
A DEEP NEURAL NETWORK AUGMENTED APPROACH FOR FIXED POLARITY AND-XOR NETWORK SYNTHESIS.....	2189
<i>Kaushik Khataua ; Hillol Maity ; Santanu Chattopadhyay ; Indranil Sengupta ; Girish Patankar ; Parthajit Bhattacharya</i>	
AN ALTERNATE, DISCRETE-TIME APPROACH TO THE ANALYSIS OF CONTINUOUS-TIME NEGATIVE FEEDBACK SYSTEMS	2194
<i>P. Anand ; B. Bhuvan</i>	
IMPROVED HARMONY SEARCH BASED OPTIMIZATION OF DROOP CONTROL PARAMETERS FOR LOAD SHARING IN DC MICROGRIDS	2199
<i>P. Monica ; M. Kowsalya</i>	
DESIGN AND DEVELOPMENT OF A NOVEL IOT BASED SMART METER FOR POWER QUALITY MONITORING IN SMART GRID INFRASTRUCTURE	2204
<i>G M Madhu ; C. Vyjayanthi ; Chirag N Modi</i>	
DESIGN METHODOLOGY FOR DEVELOPING A FUTURE-PROOF IEC 61850 BASED INTELLIGENT ELECTRONIC DEVICE	2210
<i>Sudeep Balan ; Joseph Mathew ; C S Lajitha ; L R Sreedhanya ; Vijaya Bhaskara Rao</i>	
DESIGN AND SMALL SIGNAL MODELLING OF BATTERY-SUPERCAPACITOR HESS FOR DC MICROGRID.....	2216
<i>C R Arunkumar ; Udaya Bhasker Manthati</i>	
GENERALIZED SELF-DISCHARGE MODEL FOR A SERIES OF SUPERCAPACITORS	2222
<i>Pankaj Saha ; Kakali Roy ; Praveen Nambisan ; Munnun Khanra</i>	
LOW SPEED ESTIMATION OF SENSORLESS DIRECT TORQUE CONTROLLED INDUCTION MOTOR DRIVE USING EXTENDED KALMAN FILTER WITH ADAPTIVE SPEED ADJUSTMENT TECHNIQUE.....	2227
<i>Mini Sujith ; C Saranya ; B. Hariram Satheesh ; M. N Dinesh</i>	
ON THE CORRELATION BETWEEN ELECTRICAL POWER AND WAVE CHARACTERISTICS FOR WAVE ENERGY CONVERTERS.....	2234
<i>Lamiya Rahman ; Janmatul Adan ; Nahid-Al-Masood</i>	
LIFE CYCLE ASSESSMENT OF NATURAL GAS AND HEAVY FUEL OIL POWER PLANTS IN BANGLADESH	2240
<i>Israt Tarannum ; Farseem Mannan Mohammedy</i>	
GENERALIZED PREDICTIVE CONTROL TUNING FOR DESIRED FREQUENCY DOMAIN SPECIFICATION	2245
<i>Kamakshi Manjari ; Somanath Majhi</i>	

MODEL LEARNING FOR ROBOTIC MANIPULATORS USING RECURRENT NEURAL NETWORKS.....	2251
<i>Rajarshi Mukhopadhyay ; Ritārtha Chaki ; Ashoke Sutradhar ; Paramita Chattopadhyay</i>	
META-COGNITIVE NEURAL NETWORKS FOR ADAPTIVE IDENTIFICATION AND CONTROL.....	2257
<i>Tarun Bhargav Sriram ; Manoj Surya Kashi ; Rashmi Ugarakhod ; Koshy George</i>	
ACHIEVING LEADER-FOLLOWER CONSENSUS WITH DELAY FOR COMPETITIVE-COOPERATIVE INTERACTIONS OF LINEAR MULTI-AGENT SYSTEMS: AN OUTPUT FEEDBACK CONTROL APPROACH.....	2262
<i>Sourav Bhowmick ; Bonty Halo ; Surajit Panja</i>	
A LINEARIZING ANALOG FRONT-END FOR SINE-COSINE SHAFT ENCODER.....	2270
<i>Nandapurkar Kishor Bhaskarrao ; Chandrika Sreekantan Anoop ; Pranab Kumar Dutta</i>	
STUDY AND NOISE ANALYSIS OF A LINEARIZING FRONT-END CIRCUIT FOR GMR SENSORS.....	2275
<i>Sagnik Dutta ; Tapabrata Sen ; C. S. Anoop</i>	
A LINEAR FRONT-END CIRCUIT FOR OFFSET-AFFECTED GROUNDED CAPACITIVE SENSORS.....	2280
<i>Raju Joarder ; C. S. Anoop</i>	
A SIMPLE DIGITAL INTERFACE CIRCUIT FOR GIANT MAGNETO-RESISTANCE SENSORS.....	2285
<i>K Elangovan ; Subham Saha ; C. S. Anoop</i>	
AUTOMATED DIAGNOSIS OF ATRIAL FIBRILLATION USING PRINCIPAL COMPONENT ANALYSIS-DISCRIMINANT ANALYSIS.....	2289
<i>Md. Asif Khan ; Kazi Asfaq Ahmed Ador ; Tanzilur Rahman</i>	
MUTUAL INFORMATION ANALYSIS ON MCI-AD EEG SIGNAL DURING RESTING AND TASK CONDITIONS.....	2295
<i>John T Nimmy ; D P Subha ; Ramshekhar N. Menon</i>	
EEG BASED SLEEP-AWAKE CLASSIFICATION USING SAMPLE ENTROPY AND BAND POWER RATIO.....	2300
<i>Gangadharan K Sagila ; A. P. Vinod</i>	
NAME FAMILIARITY DETECTION USING EEG-BASED BRAIN COMPUTER INTERFACE.....	2305
<i>Prasanna Venkatesan Ravindran ; A. P. Vinod</i>	
AN INTEGRATED DEEP LEARNING APPROACH TOWARDS AUTOMATIC EVALUATION OF KI-67 LABELING INDEX.....	2310
<i>S. Lakshmi ; Deepu Vijayaseenan ; David S. Sumam ; Saraswathy Sreeram ; Pooja K Suresh</i>	
CLASSIFICATION OF MOTOR IMAGERY HAND MOVEMENT DIRECTIONS FROM EEG EXTRACTED PHASE LOCKING VALUE FEATURES FOR BRAIN COMPUTER INTERFACES.....	2315
<i>Vk Benzy ; A. P. Vinod</i>	
EVALUATION OF A DISPLACEMENT-CURRENT BASED DRY-ELECTRODE ECG SCHEME AND HEART RATE MONITOR.....	2320
<i>Debottam Sukla ; K. E. Ajay Krishnan ; Denil V. Robinson ; C. S. Anoop</i>	
WEIGHTED BLOCK COMPRESSED SENSING FOR MULTICHANNEL FETAL ECG RECONSTRUCTION.....	2324
<i>Sushant Kumar ; Bhabesh Deka ; Sumit Datta</i>	
A SECURE ACCESS CONTROL MODEL FOR E-HEALTH CLOUD.....	2329
<i>Ashish Singh ; Umesh Chandra ; Shivesh Kumar ; Kakali Chatterjee</i>	
BLOCKCHAIN BASED DATA ACCESS CONTROL USING SMART CONTRACTS.....	2335
<i>Adya Kiran ; Samvid Dharanikota ; Annappa Basava</i>	
ADAPTIVE RED FOR FREEBSD: DESIGN, IMPLEMENTATION AND CHALLENGES.....	2340
<i>Archit Pandey ; Tarun Anand ; Mrigank Shah ; Mohit P. Tahiliani</i>	
DESIGN AND DEVELOPMENT OF LOW-COST WIRELESS SENSOR DEVICE FOR AIR QUALITY NETWORKS.....	2345
<i>Anamika Sharma ; Brijesh Mishra ; Ronak Sutaria ; Rajesh Zele</i>	
APPLICATION-ORIENTED LPWA NETWORK WITH A MOVING GATEWAY AND STATIONARY END-NODES.....	2351
<i>Kenta Kusuda ; Makoto Iwata</i>	
CLOUD BASED WEATHER STATION USING IOT DEVICES.....	2357
<i>Palak Kapoor ; Ferdous Ahmed Barbhuiya</i>	
DENTAL BIOMETRIC IDENTIFICATION SYSTEM USING AR MODEL.....	2363
<i>Mahroosh Bandy ; Ajaz Hussain Mir</i>	
DEEP CNN-BASED FEATURE EXTRACTOR FOR TARGET RECOGNITION IN THERMAL IMAGES.....	2370
<i>Aparna Akula ; H K Sardana</i>	

A NEW MULTIPLIER-FREE TRANSFORMATION FOR THE DESIGN OF HARDWARE EFFICIENT CIRCULARLY SYMMETRIC WIDEBAND 2D FILTERS	2376
<i>K. R. Sreelekha ; T. S. Bindiya</i>	
STAINING OF UNSTAINED HISTOLOGY USING STYLE TRANSFER WITH COLOUR-BASED SEGMENTATION	2382
<i>Aashutosh Ganesh ; Noel Rohan Vasanth ; A. S. Ramaswamy ; Koshy George</i>	
IMPLEMENTATION OF HIGH SPEED, LOW POWERMODIFIED VEDIC MULTIPLIER AND ITS APPLICATION IN LIFTING BASED DISCRETE WAVELET TRANSFORM	2387
<i>Krupa Desai ; Anand D. Darji ; Harikrishna M. Singapuri</i>	
AN APPROACH FOR MRIDANGA STROKE TRANSCRIPTION IN CARNATIC MUSIC USING HGCC	2392
<i>Swaroop G Vishnu ; Shashidar G Koolagudi</i>	
A FAST AND ACCURATE CLASS OF CARRIER RECOVERY SCHEMES	2398
<i>Joshua Peter Ebenezer ; P. Murali Krishna</i>	
ACCELERATING CLINICAL TRIAL DOCUMENTATION THROUGH HUMAN AIDED MEDICAL WRITING AUTOMATION SYSTEM	2403
<i>Sanjeev Manchanda ; Ashish Indani ; Mahesh Kshirsagar</i>	
FILIPINO BRAILLE ONE-CELL CONTRACTIONS RECOGNITION USING MACHINE VISION	2408
<i>Pocholo James M. Loresco ; Romano Q. Neyra</i>	
CAUSALITY: AN OVERLOOKED ASPECT IN ANOMALY DETECTION	2413
<i>Sushodhan Vaishampayan ; Girish K. Palshikar ; Manoj Apte ; Vahida Z. Attar</i>	
TLBO BASED DROOP OPTIMIZATION TECHNIQUE FOR DC MICROGRID	2418
<i>S. Chakradhar Reddy ; S. Muthukumari ; T. K. Sunil Kumar ; S. Kumaravel ; S. Kanagalakshmi</i>	
DESIGN AND PERFORMANCE ANALYSIS OF SIGE HETERO NANOTUBE JUNCTIONLESS FET	2424
<i>Anchal Thakur ; Rohit Dhiman</i>	
SOLAR DC HOMES: ENERGY FOR ALL	2428
<i>F Anshidha Rahman ; Roshan James ; Sareena Jose ; Saleel Ahmed ; M S Asif Mohammed ; K Bijuna Kunju</i>	
MICROGRID FOR SUSTAINABLE DEVELOPMENT OF REMOTE VILLAGES	2433
<i>P Brijesh ; K Jiju ; P. R Dhanesh ; Aby Joseph</i>	
DESIGN OF A HIGHLY ACCURATE DATA ACQUISITION DEVICE FOR THERMAL IMAGING BASED EARLY DETECTION OF BREAST CANCER	2439
<i>P Anupama ; G Rakesh ; S Jithin ; G Lekshmi ; B K Manju ; Binila Basheer</i>	
INDOOR ENVIRONMENT AIR QUALITY MONITORING AND ITS NOTIFICATION TO BUILDING OCCUPANTS	2444
<i>Himanshu Nigam ; Anil Kumar Saini ; Susmita Banerjee ; Anuj Kumar</i>	
A VIBROTACTILE SENSORY FEEDBACK SYSTEM FOR PROSTHETIC DEVICES	2449
<i>Llewellyn Dsa ; Priteem Ranjan Behera ; Kumari Priyanka ; Anil Nair</i>	
DYNAMIC APPROACH FOR LANE DETECTION USING GOOGLE STREET VIEW AND CNN	2454
<i>Rama Sai Mamidala ; Uday Uthkota ; Mahankali Bhavani Shankar ; A. Joseph Antony ; A. V. Narasimhadhan</i>	
IMPROVING HISTOPATHOLOGY CLASSIFICATION USING LEARNABLE PREPROCESSING	2460
<i>Viraf Patrawala ; Nikhil Cherian Kurian ; Amit Sethi</i>	
SMART CAP FOR ALZHEIMER PATIENTS USING DEEP LEARNING	2466
<i>Lakshmi Boppana ; Pragyaa Kumari ; Rohan Chidrewar ; Pavan Krishna Gadde</i>	
HYBRID COMPUTATIONAL INTELLIGENCE TECHNIQUE: ECZEMA DETECTION	2472
<i>Yash Kumar Arora ; Amish Tandon ; Rahul Nijhawan</i>	
SPEECH ENABLED VISUAL QUESTION ANSWERING USING LSTM AND CNN WITH REAL TIME IMAGE CAPTURING FOR ASSISTING THE VISUALLY IMPAIRED	2475
<i>Annapurna P. Patil ; Amrita Behera ; P Anusha ; Mitali Seth ; Prabhuling</i>	
PRACTICAL SIGNIFICANCE OF GA PARTCC IN MULTI-LABEL CLASSIFICATION	2481
<i>Annapurna P. Patil ; Annan Mohammed ; Greeshma Elachitaya ; Mridul Tiwary</i>	
MAGTRACK: DETECTING ROAD SURFACE CONDITION USING SMARTPHONE SENSORS AND MACHINE LEARNING	2485
<i>Meenu Rani Dey ; Utkalika Satapathy ; Pranali Bhanse ; Bhabendu Kr. Mohanta ; Debasish Jena</i>	
AUTOMATIC RADAR TARGET IDENTIFICATION USING RADAR CROSS SECTION FLUCTUATIONS AND RECURRENT NEURAL NETWORKS	2490
<i>Bharat Sehgal ; Hanumant Singh Shekhawat ; Sumit Kumar Jana</i>	
HOLISTIC AND COMPONENT-BASED APPROACHES IN FACIAL EXPRESSION RECOGNITION FOR PERFORMING ARTS	2496
<i>Manjeeta R. Kale ; Priti P. Rege</i>	

COMBINING LEARNING AND HAND-CRAFTED BASED FEATURES FOR FACE RECOGNITION IN STILL IMAGES	2502
<i>Mahesh D. Sawarbandhe ; V. R. Satpute ; Naveen Cheggoju ; Saugata Sinha</i>	
MULTI-MODAL AUTHENTICATION SYSTEM BASED ON AUDIO-VISUAL DATA	2507
<i>Saswati Debnath ; Pinki Roy</i>	
A VERSATILE ONLINE SYSTEM FOR PERSON-SPECIFIC FACIAL EXPRESSION RECOGNITION	2513
<i>Satyajit Nayak ; S L Happy ; Aurobinda Routray ; Monalisa Sarma</i>	
ROBUST CBFR FOR FORENSIC APPLICATION USING CNN	2519
<i>Sampada S. Bulbule ; Mukul S. Sutaone ; Vibha Vyas</i>	
CONVOLUTIONAL NEURAL NETWORK BASED FACE RECOGNITION APPROACH	2525
<i>Pratul Kumar ; Sayali Chande ; Saugata Sinha</i>	
DEEP LEARNING BASED KINSHIP VERIFICATION ON KINFACEW-I DATASET	2529
<i>Hemprasad Yashwant Patil ; Avinash Chandra</i>	
INFLUENCE OF TEMPERATURE VARIATION ON FREQUENCY SPECTRUM ANALYSIS OF INTERCALATION DOPED MLG NR INTERCONNECTS	2533
<i>Tajinder Kaur ; Mayank Kumar Rai ; Rajesh Khanna</i>	
HIGH SPEED ERROR CORRECTION IN CONTINUOUS-TIME RAMP GENERATORS USING LOOP GAIN OPTIMIZATION	2538
<i>L Asish ; Sankar R S Prasobh ; Aravind Krishnan ; B Bhuvan</i>	
TEMPERATURE-DEPENDENT ANALYSIS OF CROSSTALK NOISE IN CAPACITIVELY COUPLED INTERCONNECTS FOR MIXED CARBON NANOTUBES BUNDLE	2544
<i>Manvi Sharma ; Mayank Kumar Rai ; Rajesh Khanna</i>	
LOW POWER 10T SRAM CELL WITH IMPROVED STABILITY SOLVING SOFT ERROR ISSUE	2549
<i>Rohit Lorenzo ; Roy Paily</i>	
INFLUENCE OF WIDTH AND SPACE ON CROSSTALK ANALYSIS IN ADJACENT MLG NR INTERCONNECTS	2554
<i>Ramneek Sidhu ; Mayank Kumar Rai</i>	
A SUB-1-V, HIGH PSRR, SUBTHRESHOLD MOSFET-ONLY VOLTAGE REFERENCE FOR WIRELESS SENSOR NETWORKS	2559
<i>Walton B. Lacorte ; Rodney M. Manalo</i>	
CARBON NANOTUBE RECESSED CHANNEL (CNT-RC) MOSFET FOR HIGH LINEARITY/ULSI APPLICATIONS	2564
<i>Ajay Kumar ; Neha Gupta ; Samarth Singh ; Balark Tiwari ; Madan Mohan Tripathi ; Rishu Chaujar</i>	
AUGMENTED REALITY FOR EDUCATION; AR CHILDREN'S BOOK	2568
<i>Mohammad Fahim Hossain ; Sudipta Barman ; A K M Bahalul Haque</i>	
INTELLIGENT PLATFORM FOR VISUALLY IMPAIRED CHILDREN FOR LEARNING INDOOR AND OUTDOOR OBJECTS	2572
<i>Chandimal Jayawardena ; B. K. Balasuriya ; N. P. Lokuhettiarachchi ; A. R. M. D. N. Ranasinghe</i>	
INNOVATIONS IN TOURISM INDUSTRY & DEVELOPMENT USING AUGMENTED REALITY (AR), VIRTUAL REALITY (VR)	2578
<i>Pavan Kumar Katkuri ; Archana Mantri ; Srilakshmi Anireddy</i>	
DYNAMIC ESTIMATION OF THE TIRE-ROAD FRICTIONAL COEFFICIENT (TRFC) FOR ACCELERATION SLIP REGULATION IN A LIGHTWEIGHT ELECTRIC VEHICLE	2582
<i>Sujan Neroula ; Santanu Sharma</i>	
EMULATION OF AC AND DC SUBGRIDS USING POWER CONVERTERS FOR ISLANDED HYBRID MICROGRID APPLICATIONS	2587
<i>R. V. S. E. Shravan ; C. Vyjayanthi</i>	
SPV POWER OPTIMIZATION USING HALF BRIDGE INVERTER AND VOLTAGE MULTIPLIER	2593
<i>Harikesh Rawat ; Dinkar Prasad</i>	
FREQUENCY CONTROL REGULATION RESERVE ANALYSIS WITH EFFECT OF SMOOTHING TECHNIQUE ON FREQUENCY RESPONSE METRIC	2599
<i>Seema Behera ; Pranoy ; T. S. Bhatti</i>	
INFINITE LEVEL INVERTER BASED DYNAMIC VOLTAGE RESTORER FOR MITIGATION OF VOLTAGE SAG AND SWELL	2605
<i>K Reshma ; N. P. Aiswarya ; B Jayanand</i>	
AN IMPROVED SVPWM CONTROL TECHNIQUE TO REDUCE WINDING LOSSES OF 9-PHASE INDUCTION MOTOR	2610
<i>Ramaiah V Janaki ; Sivakumar Keerthipati</i>	

DESIGN AND CONTROL OF AN ASYMMETRICAL CASCADED COMPACT MODULE	
MULTILEVEL INVERTER FOR PV SYSTEM	2616
<i>Kaibalya Prasad Panda ; Prabhat Ranjan Bana ; Gayadhar Panda</i>	
CONSTANT SWITCHING FREQUENCY VIRTUAL VECTOR BASED PREDICTIVE CONTROL OF A THREE-LEVEL FLYING CAPACITOR ACTIVE FRONT END CONVERTER	2622
<i>S. Durga Nair ; Greeshma Nadh ; S. Arun Rahul</i>	
LOW-FREQUENCY EFFECTIVENESS OF DIFFERENTIAL DETECTION FOR ELECTRO-OPTIC SENSOR SYSTEM	2628
<i>Mei Okajima ; Takafumi Ogawa ; Mitsuru Shinagawa ; Yoshinori Matsumoto ; Jun Katsuyama ; Yoshiaki Tanaka</i>	
CENTRALIZED CONTROL WITH DECOUPLING APPROACH FOR LARGE SCALE MULTIVARIABLE PROCESSES.....	2633
<i>Shubham Khandelwal ; Suresh Aldhandi ; Ketan P. Detroja</i>	
SEED QUALITY ANALYZER AND SEGREGATOR.....	2639
<i>K V Suma ; R Ranjana ; Sanjana Kale ; Suhas Suresh ; Swathi K Hiremath ; N Nethra</i>	
UNMANNED FLOATING WASTE COLLECTING ROBOT	2645
<i>Abir Akib ; Faiza Tasnim ; Disha Biswas ; Maeesha Binte Hashem ; Kristi Rahman ; Arnab Bhattacharjee ; Shaikh Anowarul Fattah</i>	
MULTI-MODE CONTROLLER SYNTHESIS - A REFINED APPROACH	2651
<i>Rajorshee Raha</i>	
EVENT-TRIGGERED SLIDING MODE CONTROL BASED TRAJECTORY TRACKING OF ROBOTIC MANIPULATORS IN A CYBER-ROBOTIC SPACE.....	2657
<i>V. S. Gautham ; Manas Kumar Bera</i>	
A MULTIVARIABLE SUPER TWISTING SLIDING MODE CONTROL OF DESCRIPTOR SYSTEMS	2663
<i>Ariful Mashud ; Manas Kumar Bera</i>	
NOVEL DISCRETE REACHING LAW FOR SLIDING MODE CONTROL OF ROBOTIC MANIPULATORS TO REDUCE QUASI SLIDING MODE BAND WITH IMPROVED REACHING.....	2669
<i>P Pournami ; Susy Thomas</i>	
VEHICLE COUNT SYSTEM BASED ON TIME INTERVAL IMAGE CAPTURE METHOD AND DEEP LEARNING MASK R-CNN	2675
<i>Eduardo Jr Piedad ; Tuan-Tang Le ; Kimberly Aying ; Fhenyl Kristel Pama ; Ianny Tabale</i>	
COMBINATION OF GLOBAL AND NONLOCAL SPARSE REGULARIZATION PRIORS FOR MR IMAGE RECONSTRUCTION.....	2680
<i>Raji Susan Mathew ; Joseph Suresh Paul</i>	
A NOVEL GEO-STAT ENDMEMBER EXTRACTION ALGORITHM.....	2685
<i>Dharambhai Shah ; Tanish Zaveri</i>	
A NOVEL APPLICATION OF MULTISCALE LOW-RANK IMAGE DECOMPOSITION FOR OPTIC DISC LOCALIZATION.....	2690
<i>Dwiref Oza ; Aditya Nair ; J. R. Harish Kumar</i>	
DETECTION OF CHROMOSOMAL ARMS 1P/19Q CODELETION IN LOW GRADED GLIOMA USING PROBABILITY DISTRIBUTION OF MRI VOLUME HETEROGENEITY	2695
<i>Debanjali Bhattacharya ; Neelam Sinha ; Jitender Saini</i>	
ANALYSIS, DIAGNOSIS AND CORRECTION OF RAIN STREAKS	2700
<i>Sumit Kumar ; Akshita Gupta ; Rajib Kumar Jha</i>	
CLASSIFICATION OF MICROARRAY GENE EXPRESSION DATA USING WEIGHTED GREY WOLF OPTIMIZER BASED FUZZY CLUSTERING	2705
<i>Amika Achom ; Ranjita Das ; Partha Pakray ; Sriparna Saha</i>	
COMBINED DENSE URBAN TRAFFIC SURVEILLANCE AND PRINCIPAL COMPONENT ANALYSIS FOR INTELLIGENT TRANSPORTATION SYSTEMS	2711
<i>Anandkumar Balasubramaniam ; Anand Paul ; Fatemeh Afghah</i>	
Author Index	