

2020 11th International Conference on Computing, Communication and Networking Technologies (ICCCNT 2020)

**Kharagpur, India
1-3 July 2020**

Pages 1-832



**IEEE Catalog Number: CFP2052J-POD
ISBN: 978-1-7281-6852-4**

**Copyright © 2020 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:	CFP2052J-POD
ISBN (Print-On-Demand):	978-1-7281-6852-4
ISBN (Online):	978-1-7281-6851-7

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

MODIFIED DIFFERENCE SQUARED IMAGE BASED NON LOCAL MEANS FILTER.....	1
<i>Rayeesa Mehmood, Amandeep Kaur</i>	
HARMONIC ANALYSIS FOR POWER LOSS MINIMIZATION IN RADIAL DISTRIBUTION SYSTEM.....	8
<i>M. Ravichandra Babu, Pulakesh Roy, Rajib Banerjee</i>	
A STUDY ON CLOUD ENABLED APPLICATIONS AND THEIR SECURITY ISSUES.....	13
<i>Vidhi Mody, Vrushti Mody, Soham Parekh</i>	
MULTI UAV BASED TRAFFIC CONTROL IN SMART CITIES	21
<i>Behire Yesim Yilmaz, Sueda Nur Denizer</i>	
BUDS: BALANCING UTILITY AND DIFFERENTIAL PRIVACY BY SHUFFLING.....	28
<i>Poushali Sengupta, Sudipta Paul, Subhankar Mishra</i>	
SUPERVISED MACHINE LEARNING BASED NETWORK INTRUSION DETECTION SYSTEM FOR INTERNET OF THINGS	35
<i>Deepa Rani, Narottam Chand Kaushal</i>	
“ALGORITHMIC COMPARATIVE CLASSIFICATION APPROACH FOR DEFECT DETECTION OF PYRUS MALUS*.....	42
<i>Pooja Sainath Jadhav, Gargi S. Phadke</i>	
DATA SEQUENCE MAP FLOODING IN MPTCP FRAMEWORK: POTENTIAL CHALLENGES AND EFFICIENT COUNTERMEASURES	48
<i>V Anil Kumar, Debabrata Das</i>	
A SURVEY ON THE PROGRESSION AND PERFORMANCE OF GENERATIVE ADVERSARIAL NETWORKS.....	55
<i>Bhaskar Ghosh, Indira Kalyan Dutta, Michael Totaro, Magdy Bayoumi</i>	
DETECTION OF PHISHING WEBSITES BY USING MACHINE LEARNING-BASED URL ANALYSIS	63
<i>Mehmet Korkmaz, Ozgur Koray Sahingoz, Banu Diri</i>	
AN AUTONOMOUS FOOD WASTAGE CONTROL WAREHOUSE: DISTRIBUTED LEDGER AND MACHINE LEARNING BASED APPROACH.....	70
<i>Nikish Kumar S. V., Saiharsha Balasubramaniam, Sanjay Tharagesh R. S., Priyanka Kumar, B. Janavi</i>	
VIDEO STEGANOGRAPHY USING CURVELET TRANSFORM AND ELLIPTIC CURVE CRYPTOGRAPHY	76
<i>Sonali Rout, Ramesh Kumar Mohapatra</i>	
PREDICTION OF CHRONIC INSOMNIA USING MACHINE LEARNING TECHNIQUES.....	83
<i>Md. Muhaiminul Islam, Abu Kaisar Mohammad Masum, Sheikh Abujar, Syed Akhter Hossain</i>	
PRIVACY-CHEATING DISCOURAGEMENT: A NEW HOMOMORPHIC ENCRYPTION SCHEME FOR CLOUD DATA SECURITY	90
<i>V. Swathi, M. P. Vani</i>	

A SMART AMBULATORY COGNITIVE STATE TAXONOMY SYSTEM THROUGH EEG SIGNAL ANALYSIS.....	96
<i>Sumanto Dutta, Sumit Hazra, Anup Nandy</i>	
COMPARATIVE SENTIMENT ANALYSIS OF APP REVIEWS	103
<i>Sakshi Ranjan, Subhankar Mishra</i>	
IMAGE QUALITY ASSESSMENT USING SELECTIVE CONTOURLET COEFFICIENTS.....	110
<i>Agnel Lazar Alappat, Vipin Kamble</i>	
CORPORATE SOCIAL RESPONSIBILITY AS A TOOL FOR HEALTHTECH STARTUPS: MODELLING ENABLERS OF HEALTHCARE AND SOCIAL SUPPORT SYSTEM TO FIGHT CORONAVIRUS PANDEMIC	117
<i>Kuldeep Singh, Madhvendra Misra</i>	
CROSS-PLATFORM PERFORMANCE PREDICTION WITH TRANSFER LEARNING USING MACHINE LEARNING	123
<i>Rajat Kumar, Amit Mankodi, Amit Bhatt, Bhaskar Chaudhury, Aditya Amrutiya</i>	
BREAST CANCER DETECTION AND CLASSIFICATION USING GLOBAL POOLING.....	130
<i>Sagar Deep Deb, Md Akhlaqur Rahman, Rajib Kumar Jha</i>	
IMAGE ENCRYPTION USING GENETIC ALGORITHM AND BIT-SLICE ROTATION	135
<i>Nandini Av, Nilita Anil Kumar</i>	
A DEEP LEARNING APPROACH FOR RECOGNIZING BENGALI CHARACTER SIGN LANGUAGE.....	141
<i>Devjoyti Aich, Abdulla Al Zubair, Antora Deb Nath</i>	
A TIME SERIES ANALYSIS OF TRENDS WITH TWITTER HASHTAGS USING LSTM	146
<i>Monjur Bin Shams, Md. Junaed Hossain, Sheak Rashid Haider Noori</i>	
IMPLEMENTATION OF HUMAN FACE AND SPOOFING DETECTION USING DEEP LEARNING ON EMBEDDED HARDWARE.....	152
<i>Saankhya Mondal</i>	
MULTI-ATTRIBUTE DECISION MAKING APPROACH FOR WASTE BIN SITE SELECTION PROBLEM: A CASE STUDY IN DHAKA CITY	159
<i>Nusrat Zahan, Md. Zahid Hasan</i>	
FEATURE SELECTION FROM MICROARRAY DATA BASED ON DEEP LEARNING APPROACH.....	165
<i>Nabendu Bhui, Pintu Kumar Ram, Pratyay Kuila</i>	
BRAIN MAGNETIC RESONANCE IMAGE TUMOR DETECTION AND SEGMENTATION USING EDGELESS ACTIVE CONTOUR	170
<i>Sa Bijay Kumar, Rutuparna Panda, Sanjay Agrawal</i>	
SANMAN-MANAGEMENT SOFTWARE FOR HYPERSCALE SAN BASED STORAGE SYSTEM	177
<i>Urvashi Karnani Gaur, D. D. Sonvane, Vaibhav Kumar, Rajesh Kalmady</i>	
A NEW RESOURCE ALLOCATION APPROACH FOR SWIPT ENABLED DF RELAY-BASED NOMA NETWORK.....	181
<i>V. Narasimha Nayak, Kiran Kumar Gurrula</i>	

DETECTION OF PHISHING ATTACKS USING RADIAL BASIS FUNCTION NETWORK TRAINED FOR CATEGORICAL ATTRIBUTES	188
<i>S. Priya, S. Selvakumar, R. Leela Velusamy</i>	
GENE SELECTION FROM HIGH DIMENSIONALITY OF DATA BASED ON QUANTUM INSPIRED GENETIC ALGORITHM	194
<i>Pintu Kumar Ram, Nabendu Bhui, Pratyay Kuila</i>	
A NON-CONTACT FRAMEWORK FOR SHORTNESS OF BREATH RECOGNITION AND EFFECTS ON HEALTH PARAMETERS DURING HCI	199
<i>Satyajit Nayak, Surya Teja, Aurobinda Routray, Monalisa Sarma</i>	
PERFORMANCE ANALYSIS OF VOICE OVER WLAN INTERCOM SYSTEM AND OPTIMIZED IMPLEMENTATION FOR ANDROID USERS.....	206
<i>Riya Salian</i>	
WIDEBAND CPW-FED U-SHAPED ANTENNA ARRAY FOR WLAN AND WIMAX APPLICATIONS.....	213
<i>Budhadeb Maity, Sisir Kumar Nayak</i>	
CONTEXT-AWARE COMPUTING FOR BALANCED AGRICULTURAL PRODUCTION USING MACHINE LEARNING	217
<i>Md. Al-Hasan, Hasan Muhammad Kafi, Md Arif Rizvee, Mohammad Hasan, Md. Mamunur Rashid</i>	
VNE-NR: A NODE-RANKING METHOD FOR PERFORMING TOPOLOGY-AWARE AND RESOURCE-DRIVEN VIRTUAL NETWORK EMBEDDING.....	223
<i>Aqsa Hashmi, C.P Gupta</i>	
STATISTICAL PROVING OF ENHANCED INTERACTION AND AUGMENTATIVE DISCOURSE FOR BYOD SUPPORTED CLASSROOM.....	229
<i>Pooja Kumari, Suman Deb, Koustav De</i>	
A FRAMEWORK TO FIGURE OUT BREAST CANCER CELLS USING ULTRASOUND IMAGES.....	235
<i>Babe Sultana, Farzana Rahman, Hasib Ahmed Nesar, T. M. Shahriar Sazzad</i>	
HMM BASED ON BAUM-WELCH ALGORITHM FOR PREDICTING CRITICAL DATA PACKETS IN IOT NETWORK.....	241
<i>A.V. Anandhalekshmi, V. Srinivasa Rao, G.R. Kanagachidambaresan</i>	
EFFICIENT DESIGN OF 8×8×8 LED CUBE WITH LOW POWER CONSUMPTION USING ARDUINO UNO	247
<i>N. Sri Sai, B. Naga Subrahmanyam, K. Yeshwanth Sai, A. Vara Durga Siva Sai, K. Pavan Kumar, S. Sai Harsha, U. Adi Lakshmi Satya Sri</i>	
AGILE METHODOLOGY FOR PROJECT/PROCESS MANAGEMENT IT SYSTEM INFRASTRUCTURE.....	253
<i>Bekir Sarlak</i>	
ANALYSIS AND DESIGN OF A PLANAR UWB ANTENNA FOR SPECTRUM SENSING IN 3.1-10.6GHZ	260
<i>T. Gayatri, G. Srinivasu, Manoj Kumar Meshram, V.K. Sharma</i>	
DESIGN ANALYSIS OF AN ULTRA-WIDEBAND ANTENNA FOR RF ENERGY HARVESTING IN 1.71-12GHZ.....	266
<i>G. Srinivasu, T. Gayatri, Manoj Kumar Meshram, V.K. Sharma</i>	

COMPARATIVE ANALYSIS OF 16-TAP FIR FILTER DESIGN USING DIFFERENT ADDERS	272
<i>Usha Maddipati, Shaik Ahemedali, Maddipati Sri Sai Ramya, M D Praneeth Reddy, K N J Priya</i>	
PREDICTING LANGUAGE ENDANGERMENT: A MACHINE LEARNING APPROACH	276
<i>Pankaj Dwivedi, C Shraddha, Shreyas Mathews, Sudipta Majumder, R Madhumathi, M R Vasundhara</i>	
MODULAR INTEGRATED AUTOMATED SUBSTATION SYSTEM	283
<i>Antony Albert Anto, Robince P.O., Gautham Krishna, Jacob Joseanto, Christeen P.G.</i>	
DETECTION OF DECEIT FROM THERMAL VIDEOS ON REAL CRIME DATABASE.....	287
<i>Saswata Satpathi, K. Mohamed Ismail Yasar Arafath, Aurobinda Routray, Partha Sarathi Satpathi</i>	
SECURE SECRET SHARING USING HOMOMORPHIC ENCRYPTION.....	293
<i>Nileshkumar Kakade, Utpalkumar Patel</i>	
DEVELOPMENT OF AN ALGORITHM FOR A TARGET PLATFORM-FOLLOWING ROBOT USING LORA SIGNALS	300
<i>Ojal Bhatnagar, Natasha Surendran, Md. Mahfooz Alam</i>	
DEEP APPROACHES ON MALICIOUS URL CLASSIFICATION	305
<i>Arijit Das, Ankita Das, Anisha Datta, Shukrity Si, Subhas Barman</i>	
FINANCIAL INVESTMENT RECOMMENDATION AND DECENTRALIZED ACCOUNT MANAGEMENT	311
<i>Harsh Jain, Shreeyaa Agrawal, Harshita Khandelwal, Vinaya Sawant</i>	
NOISE POWER ESTIMATION FOR OFDM SYSTEM	317
<i>Bandi Narasimha Rao, M.V. Raghunadh, Reddy Sudheer</i>	
MOVABLE SURVEILLANCE CAMERA USING IOT AND RASPBERRY PI	323
<i>Bandi Narasimha Rao, Reddy Sudheer, Mohan Aditya Sadhanala, Veerababu Tibirisetti, Sairam Muggulla</i>	
SOIL NPK AND MOISTURE ANALYSIS USING WIRELESS SENSOR NETWORKS.....	329
<i>R. Madhumathi, T. Arumuganathan, R. Shruthi</i>	
COMPUTER CURSOR CONTROL USING EYE AND FACE GESTURES	335
<i>Akshada Dongre, Rodney Pinto, Ameya Patkar, Minal Lopes</i>	
BENGALI QUESTION ANSWERING SYSTEM USING SEQ2SEQ LEARNING BASED ON GENERAL KNOWLEDGE DATASET	341
<i>Mumenunnessa Keya, Abu Kaisar Mohammad Masum, Bhaskar Majumdar, Syed Akhter Hossain, Sheikh Abujar</i>	
WIFI BASED INDOOR POSITIONING SYSTEM USING MACHINE LEARNING AND MULTI-NODE TRIANGULATION ALGORITHMS	347
<i>Sumit Jahagirdar, Aditya Ghatak, Abhiram Ajith Kumar</i>	
SIMULATION BASED PERFORMANCE ANALYSIS OF PROACTIVE, REACTIVE AND HYBRID ROUTING PROTOCOLS IN WIRELESS SENSOR NETWORK	353
<i>Romana Rahman Ema, Abdullah Anik, Nurun Nahar, Md. Ashiqur Rahman, Khaleda Parven Eti, Tajul Islam</i>	

MULTI-TRACE INVERSION WITH SELECTIVE WEDGE TO INCREASE THIN LAYER RESOLUTION IN HORIZONTAL LAYER.....	359
<i>Supriyo Chakraborty, Aurobinda Routray</i>	
AN APPROACH FOR BENGALI AUTOMATIC QUESTION ANSWERING SYSTEM USING ATTENTION MECHANISM.....	364
<i>Md. Rafiuzzaman Bhuiyan, Abu Kaisar Mohammad Masum, Md. Abdullahil-Oaphy, Syed Akhter Hossain, Sheikh Abujar</i>	
PERFORMANCE-BASED COMPARATIVE ANALYSIS OF OPEN SOURCE VULNERABILITY TESTING TOOLS FOR WEB DATABASE APPLICATIONS.....	369
<i>Alekha Kumar Mishra, Arun Kumar</i>	
A ROBUST FEATURE BASED APPROACH FOR BARE-HAND DETECTION UNDER PRACTICAL NON-IDEAL CONDITIONS.....	374
<i>Songhita Misra, K. V. Paluri, R. H. Laskar</i>	
COMPARATIVE STUDY ON ABSTRACTIVE TEXT SUMMARIZATION.....	382
<i>Md Ashrafal Islam Talukder, Sheikh Abujar, Abu Kaisar Mohammad Masum, Sharmin Akter, Syed Akhter Hossain</i>	
A NOVEL FRAGMENTATION-AWARE AND ENERGY-EFFICIENT MULTIPATH ROUTING AND SPECTRUM ALLOCATION FOR PRIORITIZED TRAFFIC IN PROTECTED EONS.....	386
<i>Smita Paira, Joy Halder, Uma Bhattacharya, Monish Chatterjee</i>	
DETECTION OF LUNG AGENTS THROUGH RECTANGULAR HOLLOW-CORE PHOTONIC CRYSTAL FIBER.....	392
<i>Etu Podder, Abdullah Al-Mamun Bulbul, Md. Bellal Hossain, Md. Ekhlasar Rahaman, Himadri Shekhar Mondal, M. Raihan, Sajib Kabiraj, Md. Mahmudul Hasan, Ahmed Saif Muntaseer</i>	
TEXT IMBALANCE HANDLING AND CLASSIFICATION FOR CROSS- PLATFORM CYBER-CRIME DETECTION USING DEEP LEARNING.....	397
<i>Munipalle Sai Nikhila, Aman Bhalla, Pradeep Singh</i>	
AUTOMATED DETECTION AND SEGMENTATION OF LASER MARKS IN RETINAL FUNDUS IMAGES OF PRETERM INFANTS.....	404
<i>K.L. Nisha, G. Sreelekha, P.S. Sathidevi, Poornima Mohanachandran, Anand Vinekar</i>	
OPTIMAL DESIGN OF ENERGY EFFICIENT SURVIVABLE ROUTING & SPECTRUM ALLOCATION IN EON.....	411
<i>Joy Halder, Tamaghna Acharya, Monish Chatterjee, Uma Bhattacharya</i>	
CONTINUOUS PULSE RATE MONITORING FROM FACIAL VIDEO USING RPPG.....	417
<i>Kokila Bharti Jaiswal, T. Meenpal</i>	
A COMBINATION OF FRACTALNET AND CNN FOR LUNG NODULE CLASSIFICATION.....	422
<i>Amrita Naik, Damodar Reddy Edla, Venkatanareshbabu Kuppli</i>	
VIRTUAL FARMER: REAL TIME CROP PREDICTION AND AUTOMATIC IRRIGATION SYSTEM.....	429
<i>Dev V. Savla, Amogh N. Parab, Kaustubh Y. Kekre, Jay P. Gala, S. Ramchandra, Pankaj A. Sonawane</i>	

AN AHP APPROACH FOR COLD STORAGE WAREHOUSE SITE SELECTION: A CASE STUDY IN BANGLADESH.....	434
<i>Md. Mehadi Hassan, Martina Chakma, Md. Zahid Hasan</i>	
NEURAL NETWORK BASED BENGALI NEWS HEADLINE MULTI CLASSIFICATION SYSTEM: SELECTION OF FEATURES DESCRIBES COMPARATIVE PERFORMANCE.....	440
<i>Sharun Akter Khushbu, Abu Kaisar Mohammad Masum, Sheikh Abujar, Syed Akhter Hossain</i>	
DETECTION AND PREVENTION MECHANISMS FOR DDOS ATTACK IN CLOUD COMPUTING ENVIRONMENT	446
<i>Sirisha Potluri, Monika Mangla, Suneeta Satpathy, Sachi Nandan Mohanty</i>	
HIGHLY SENSITIVE PHOTONIC CRYSTAL FIBER FOR ILLEGAL DRUGS DETECTION IN THZ REGIME.....	452
<i>Abdullah Al-Mamun Bulbul, Md. Abdul Awal, Md. Ekhlasur Rahaman, Farjana Imam, Etu Podder, Md. Salim Ahmed, Md. Bellal Hossain, Himadri Shekhar Mondal, Faysal Iqbal</i>	
BANGLASENTI: A DATASET OF BANGLA WORDS FOR SENTIMENT ANALYSIS	458
<i>Hasmot Ali, Md. Fahad Hossain, Shaon Bhatta Shuvo, Ahmed Al Marouf</i>	
OPTIMAL BIPOLAR LEAD PLACEMENT IN ELECTROOCULOGRAPHY (EOG): A COMPARATIVE STUDY WITH AN EMPHASIS ON PROLONGED BLINKS	462
<i>Raj Anchan, Ashwin Pillay, Aditya Kale, Aniket Bhadracha, Sangeetha Prasanna Ram</i>	
ROBUST TEXT EXTRACTION IN IMAGES FOR PERSONAL EVENT PLANNER.....	469
<i>Lavanya Bhaskar, R. Ranjith</i>	
IOT ENABLED SMART DRIP IRRIGATION SYSTEM USING WEB/ANDROID APPLICATIONS.....	473
<i>Ravi Kant Jain, Bikash Gupta, Mustaq Ansari, Partha Pratim Ray</i>	
DEVELOPMENT OF WEB-BASED APPLICATION FOR MOBILE ROBOT USING IOT PLATFORM.....	479
<i>Ravi Kant Jain, Baskar Joyti Saikia, Nitant Pilmo Rai, Partha Pratim Ray</i>	
ESTIMATION OF TREE VOLUME USING MASK R-CNN BASED DEEP LEARNING.....	485
<i>Piyush Juyal, Sachin Sharma</i>	
A BLOCK-WISE HISTOGRAM SHIFTING BASED REVERSIBLE DATA HIDING SCHEME WITH OVERFLOW HANDLING	491
<i>Kandala Sree Rama Murthy, V. M. Manikandan</i>	
DEEP LEARNING BASED APPROACH FOR MULTIPLE MYELOMA DETECTION	497
<i>M.T. Vyshnav, V. Sowmya, E.A. Gopalakrishnan, Sajith Variyar V.V., Vijay Krishna Menon, K.P. Soman</i>	
INTELLIGENT CHATBOT FOR LAB SECURITY AND AUTOMATION.....	504
<i>V Akshatha Prasad, R Ranjith</i>	
IOT BASED COST EFFECTIVE HOME AUTOMATION AND SECURITY SYSTEM.....	508
<i>Kumar Sai Sankar Javvaji, Usha Rani Nelakuditi, Bhanu Prasad Dadi</i>	
HYBRID-FLIPPED CLASS ROOM APPROACH FOR FASHION DESIGN STUDENTS: MITIGATING IMPACTS TO LEARNING ACTIVITIES DUE TO EMERGENCE OF COVID-19.....	513
<i>Richa Gupta</i>	

LANE DEPARTURE WARNING SYSTEM USING TDA3X_RVP BOARD	519
<i>Suhas N Bhargav, V Akshatha Prasad</i>	
LEGAL PROTECTION FOR DATA SECURITY: A COMPARATIVE ANALYSIS OF THE LAWS AND REGULATIONS OF EUROPEAN UNION, US, INDIA AND UAE	525
<i>Sagee Geetha Sethu</i>	
ACTIVITY RECOGNITION AND FALL DETECTION IN ELDERLY PEOPLE	530
<i>Riya Dichwalkar, Shreya Oak, Tania Rajabally, Dhananjay Kalbande</i>	
A SECURE HYBRID ROUTING PROTOCOL FOR MOBILE AD-HOC NETWORKS (MANETS).....	536
<i>Anindya Kumar Biswas, Mou Dasgupta</i>	
DIABETES MELLITUS PREDICTION USING DIFFERENT ENSEMBLE MACHINE LEARNING APPROACHES.....	543
<i>Md. Tanvir Islam, M. Raihan, Nasrin Aktar, Md. Shahabub Alam, Romana Rahman Ema, Tajul Islam</i>	
PREPROCESSING OF CONTINUOUS BENGALI SPEECH FOR FEATURE EXTRACTION	550
<i>Md. Mehedi Hasan, Hasmot Ali, Md. Fahad Hossain, Sheikh Abujar</i>	
TYPICAL AND NON-TYPICAL DIABETES DISEASE PREDICTION USING RANDOM FOREST ALGORITHM	554
<i>Md. Tanvir Islam, M. Raihan, Fahmida Farzana, Nasrin Aktar, Promila Ghosh, Sajib Kabiraj</i>	
6G WIRELESS COMMUNICATION: ITS VISION, VIABILITY, APPLICATION, REQUIREMENT, TECHNOLOGIES, ENCOUNTERS AND RESEARCH.....	560
<i>Satya Prakash Rout</i>	
INTEGRATION OF FUZZY C-MEANS AND ARTIFICIAL NEURAL NETWORK WITH PRINCIPLE COMPONENT ANALYSIS FOR HEART DISEASE PREDICTION.....	568
<i>Romana Rahman Ema, Pintu Chandra Shill</i>	
INVESTIGATING THE SIGNIFICANCE OF DYNAMIC MODE DECOMPOSITION FOR FAST AND ACCURATE PARAMETER ESTIMATION IN POWER GRIDS	574
<i>Isha Indhu S., Kavya S. Kumar, U. Vamsi Krishna, Neethu Mohan, V. Sowmya, K.P. Soman</i>	
FEATURELESS APPROACH FOR PREDICTING CRITICAL TEMPERATURE OF SUPERCONDUCTORS.....	579
<i>Madhava Gaikwad, Ashwini R Doke</i>	
TOXIC CHEMICALS DETECTION USING PHOTONIC CRYSTAL FIBER IN THZ REGIME	584
<i>Abdullah Al-Mamun Bulbul, Rayhan Habib Jibon, Md. Abdul Awal, Etu Podder, Himadri Shekhar Mondal, Md. Salim Ahmed, Md. Bellal Hossain, Md. Mahmudul Hasan, Avijit Saha</i>	
DESIGN AND ANALYSIS OF INCENTIVE MECHANISM FOR ETHEREUM-BASED SUPPLY CHAIN MANAGEMENT SYSTEMS	589
<i>S.A. Pranesh, Vignesh Kannan V., N. Viswanathan, M. Vijayalakshmi</i>	
BREAST CANCER RISK PREDICTION USING XGBOOST AND RANDOM FOREST ALGORITHM	595
<i>Sajib Kabiraj, M. Raihan, Nasif Alvi, Marina Afrin, Laboni Akter, Shawmi Akhter Sohagi, Etu Podder</i>	
PROTOTYPE OF AQUACULTURE USING IOT TECHNOLOGIES	599
<i>Kumar Sai Sankar Javvaji, Md. Abbas Hussain</i>	

CNN-LSTM BASED ELECTRICITY THEFT DETECTOR IN ADVANCED METERING INFRASTRUCTURE.....	603
<i>Rutuja Umesh Madhure, Radha Raman, Sandeep Kumar Singh</i>	
IOT BASED STREET LIGHTING USING DUAL AXIS SOLAR TRACKER AND EFFECTIVE TRAFFIC MANAGEMENT SYSTEM USING DEEP LEARNING: BANGLADESH CONTEXT	609
<i>Mohd. Saifuzzaman, Syeda Farjana Shetu, Nazmun Nessa Moon, Fernaz Narin Nur, Mohammad Hanif Ali</i>	
PERFORMANCE IMPROVEMENT FOR OADM BASED DP-QPSK WDM OPTICAL NETWORKS WITH 37.5 GHZ CHANNEL SPACING	614
<i>Neeraj Sharma, Sunil Agrawal, Vinod Kapoor</i>	
DIGITALLY RECONSTRUCTED RADIOGRAPH GENERATION FOR ENABLING AI/ML IN MEDICAL IMAGING	619
<i>Anand P. Bora, Amit D. Joshi, Suraj T. Sawant</i>	
A MULTILINGUAL FRAMEWORK OF CNN AND BI-LSTM FOR EMOTION CLASSIFICATION.....	625
<i>Ashima Yadav, Dinesh Kumar Vishwakarma</i>	
ANALYSIS AND INTERPRETATION OF GLOBAL AIR QUALITY	631
<i>Sachin Sharma, Rishabh Raj Mishra, Vikas Joshi, Kavleen Kour</i>	
DESIGN AND ANALYSIS OF HIGH SPEED WALLACE TREE MULTIPLIER USING PARALLEL PREFIX ADDERS FOR VLSI CIRCUIT DESIGNS	636
<i>Yamini devi Ykuntam, Katta Pavani, Krishna Saladi</i>	
REAL-TIME DETECTION OF CYBER ATTACKS ON THE IOT DEVICES.....	642
<i>Jalindar Karande, Sarang Joshi</i>	
EMOTION DETECTION OF TWITTER POST USING MULTINOMIAL NAIVE BAYES	648
<i>Nazia Anjum Sharupa, Minhaz Rahman, Nasif Alvi, M. Raihan, Afsana Islam, Tanzil Raihan</i>	
DESIGN OF A TWO-BIT MAGNITUDE COMPARATOR BASED ON PASS TRANSISTOR, TRANSMISSION GATE AND CONVENTIONAL STATIC CMOS LOGIC.....	654
<i>Samaha Lubaba, K. M. Faisal, Moumita Sadia Islam, Mehedi Hasan</i>	
A MACHINE LEARNING APPROACH TO IDENTIFY THE CORRELATION AND ASSOCIATION AMONG THE STUDENTS' DRUG ADDICT BEHAVIOR.....	659
<i>Md. Mehedi Hassan, Zahrul Jannat Peya, Sadika Zaman, Jarif Huda Angon, Afrin Islam Keya, Asaf Ud Dulla</i>	
EVALUATION OF SUB-GHZ FREQUENCIES FOR IOT APPLICATIONS	664
<i>G. K Nithya, Sethuraman N. Rao</i>	
AI FOR ACCESSIBILITY: VIRTUAL ASSISTANT FOR HEARING IMPAIRED.....	671
<i>Saket Ozarkar, Raj Chetwani, Sugam Devare, Sumeet Haryani, Nupur Giri</i>	
TRACKING NOSTRIL MOVEMENT IN FACIAL VIDEO FOR RESPIRATORY RATE ESTIMATION.....	678
<i>Arya Deo Mehta, Hemant Sharma</i>	
GRAPH BASED KEYWORD EXTRACTION FOR SIMILARITY IDENTIFICATION AMONG BORN-DIGITAL NEWS CONTENTS	684
<i>Susmita Das, Samya Muhuri, Susanta Chakraborty, Samit Biswas</i>	

IMPLEMENTATION OF NEW APPROACH TO SECURE IOT NETWORKS WITH ENCRYPTION AND DECRYPTION TECHNIQUES	691
<i>Aditya Sarin, Deveshi Thanawala, Saurav Verma, Chetana Prakash</i>	
CONTENT BASED UNSUPERVISED VIDEO SUMMARIZATION USING BIRDS FORAGING SEARCH.....	698
<i>Md. Farhan Sadique, Md. Anisur Rahman, S M Rafizul Haque</i>	
DEEP NEURAL NETWORK MODELS FOR DETECTION OF ARRHYTHMIA BASED ON ELECTROCARDIOGRAM REPORTS	705
<i>Suyash Ghuge, Nishant Kumar, Tilak Shenoy, Sowmya Kamath S.</i>	
ANALYSIS OF ADVERSARIAL BASED AUGMENTATION FOR DIABETIC RETINOPATHY DISEASE GRADING	712
<i>Ramji Balasubramanian, V Sowmya, E.A Gopalakrishnan, Vijay Krishna Menon, V. V Sajith Variyar, K.P Soman</i>	
A SWITCHING CAPACITOR BASED BUCK-BOOST CONVERTER AND ITS ANALYSIS.....	717
<i>K. Suraj, Melisa Miranda</i>	
A SURVEY REPORT ON IDENTIFYING DIFFERENT MACHINE LEARNING ALGORITHMS IN DETECTING DOMAIN GENERATION ALGORITHMS WITHIN ENTERPRISE NETWORK	724
<i>Sameer Ajmera, T.R Pattanshetti</i>	
S-DOMAIN STABILITY ANALYSIS OF BOOST DC-DC CONVERTER.....	731
<i>Anushk Misra, Neeraj Iyer M., Varun Dev, Melisa Miranda</i>	
ANALYSIS OF DEMAGNETIZED BLDC MOTOR USING MATLAB SIMULINK MODEL AND AWT ANALYSIS.....	736
<i>Neel Madhav, Ranjit Sadakale</i>	
SMART HOME GARDENING MANAGEMENT SYSTEM: A CLOUD-BASED INTERNET-OF-THINGS (IOT) APPLICATION IN VANET	741
<i>Sachin Sharma, Abhinav Sharma, Tanya Goel, Rohan Deoli, Seshadri Mohan</i>	
PLANT IDENTIFICATION USING LEAF SPECIMEN.....	746
<i>Gurdit Singh, Nitin Aggarwal, Kanika Gupta, Devendra Kumar Misra</i>	
LOGICAL UNIT DESIGN USING REVERSIBLE HSG1 GATE AND ITS APPLICATION IN ALU DESIGN.....	753
<i>Harsh Pallav Govind Rao, Shiva Dwivedi</i>	
PEER CONSONANCE IN BLOCKCHAIN BASED HEALTHCARE APPLICATION USING AI-BASED CONSENSUS MECHANISM	759
<i>Nishant Kumar, C Parangjothi, Sankarshan Guru, M Kiran</i>	
PREDICTION OF RECURRENCE AND NON-RECURRENCE EVENTS OF BREAST CANCER USING BAGGING ALGORITHM.....	766
<i>Sajib Kabiraj, Laboni Akter, M. Raihan, Nusrat Jahan Diba, Etu Podder, Md. Mehedi Hassan</i>	
OBSTRUCTIVE SLEEP APNEA DETECTION BASED ON SOUND INTERVAL FREQUENCY USING WEARABLE DEVICE	771
<i>Sk. Al Mamun, Md. Mahadi Hassan, Md. Riadul Islam, M. Raihan</i>	

SEMANTIC SEGMENTATION OF SPECTRAL IMAGES: A COMPARATIVE STUDY USING FCN8S AND U-NET ON RIT-18 DATASET	775
<i>Darshik A.S., Aditya Dev, Bharath M., Bharath Ashok Nair, Gopakumar G.</i>	
HEURISTICS FOR THE POWER EDGE SET PROBLEM	781
<i>Anjeneya Swami Kare, Sreshtha Valluru</i>	
ADCOCOA- ADAPTIVE CONGESTION CONTROL ALGORITHM FOR COAP	788
<i>Sneha Deshmukh, Vijay T Raisinghani</i>	
LEVERAGING COMPUTER VISION FOR EMERGENCY VEHICLE DETECTION-IMPLEMENTATION AND ANALYSIS	795
<i>S Kaushik, Abhishek Raman, K.V.S Rajeswara Rao</i>	
CCSDS BASED SPACECRAFT TELEMETRY SYSTEM WITH PROGRAMMABLE BIT RATE AND TURBO ENCODING FOR INDIA'S INTER-PLANETARY EXPLORATION	801
<i>Anil Kumar, Prathibha Hebbar, Arvind Handoo, V Ravichandran, S Sudhakar, Puneet Kumar Pandey</i>	
GROUP SPARSITY ASSISTED SYNCHROSQUEEZING APPROACH FOR PHONOCARDIOGRAM SIGNAL DENOISING	807
<i>Neethu Mohan, Sachin Kumar S., K.P. Soman</i>	
CIRCULARLY POLARIZED DIPOLE ANTENNA WITH PATTERN RECONFIGURATION FOR WIRELESS COMMUNICATIONS	812
<i>Hemanth Madasu, Mohitha Kondapalli, Sulakshana Chilukuri, Y. Pandu Rangaiah</i>	
IMAGE SEGMENTATION BASED HYBRID WATERMARKING ALGORITHM FOR COPYRIGHT PROTECTION	817
<i>Y. Bhavani, Sai Srikar Puppala, Spoorthy Shivani Pabba, Kavya Sri Kasarla, Kadipaka Anvitha</i>	
AN EFFICIENT SORTING ALGORITHM FOR BINARY DATA	823
<i>Bhavani Yerram, Jaya Krishna Bhonagiri</i>	
USING EXPLORATORY DATA ANALYSIS FOR GENERATING INFERENCES ON THE CORRELATION OF COVID-19 CASES.....	827
<i>Joanita DSouza, Senthil Velan S.</i>	
ORGANIZATIONAL LEADERSHIP: IGNITING CREATIVITY FOR SUSTAINED CORPORATE SUCCESS	833
<i>Venkat Sankaran</i>	
JOB SHOP SCHEDULING PROBLEM AND SOLUTION ALGORITHMS: A REVIEW	839
<i>Ceren Cebi, Enes Atac, Ozgur Koray Sahingoz</i>	
FALL DETECTION FOR ELDERLY PEOPLE USING MACHINE LEARNING	846
<i>Sejal Badgujar, Anju S. Pillai</i>	
MAJORITY VOTING BASED HYBRID ENSEMBLE CLASSIFICATION APPROACH FOR PREDICTING PARKING AVAILABILITY IN SMART CITY BASED ON IOT	850
<i>A. Sampathkumar, R. Maheswar, Pon Harshavardhanan, S. Murugan, P. Jayarajan, V. Sivasankaran</i>	
SHARPENING OF 3D DIGITAL OBJECTS USING TRIANGULATION	858
<i>Sharmistha Mondal, Arindam Biswas</i>	

SOCIAL NETWORK ANALYSIS FOR EFFICIENT DELIVERY OF AGRICULTURAL EXTENSION SERVICES.....	865
<i>Kalyanee Devi, Rohit Tripathi</i>	
VIDEO GAME DRM: ANALYSIS AND PARADIGM SOLUTION	871
<i>J Karthik, P P Amritha, M Sethumadhavan</i>	
CLASSIFICATION OF BRAIN MRI IMAGES USING CONVOLUTION NEURAL NETWORK AND TRANSFER LEARNING.....	875
<i>N Ambily, K Suresh</i>	
DEVELOPMENT OF QUAD SPACER DAMPER TO SUPPRESS OSCILLATION IN 765 KV TRANSMISSION LINE	881
<i>Harish Agarwal, Sushri Mukherjee, Sumana Chattaraj, Md. Irfan Khan, Dharmbir Prasad</i>	
GAIN AND BANDWIDTH ENHANCEMENT OF 28 GHZ TAPERED FEED ANTENNA ARRAY	887
<i>Mohit Pant, Leeladhar Malviya, Vineeta Choudhary</i>	
A COMPREHENSIVE STUDY ON MACHINE LEARNING ALGORITHMS FOR WIRELESS SENSOR NETWORK SECURITY	891
<i>Fozilatoon Humaira, Md Sanju Islam, Fernaz Narin Nur, Kazi Anowar Hussain</i>	
SIGN LANGUAGE TO SPEECH TRANSLATION.....	897
<i>Aishwarya Sharma, Siba Panda, Saurav Verma</i>	
A COMPARATIVE ANALYSIS FOR MACHINE LEARNING BASED SOFTWARE DEFECT PREDICTION SYSTEMS	905
<i>Murat Cetiner, Ozgur Koray Sahingoz</i>	
A SURVEY ON REALSENSE: IN CONTEXT OF RESEARCH AND APPLICATION.....	912
<i>Masud Rabbani, Md. Jueal Mia, Thaharim Khan, Md Ishrak Islam Zarif</i>	
DETECTION OF CONCRETE CRACKS USING DUAL-CHANNEL DEEP CONVOLUTIONAL NETWORK.....	918
<i>Babloo Kumar, Sayantari Ghosh</i>	
OPTIMIZATION OF MEMORY ORIENTED NETWORK-ON-CHIP FOR FPGA.....	925
<i>Rohini Shelke, Ranjit Sadakale</i>	
MANAGING 5G NETWORKS - A REVIEW OF FSO CHALLENGES AND SOLUTIONS	931
<i>Piyush Kulshreshtha, Amit Kumar Garg</i>	
MACHINE LEARNING BASED MALWARE DETECTION IN CLOUD ENVIRONMENT USING CLUSTERING APPROACH.....	935
<i>Rahul Kumar, Kamalakanta Sethi, Nishant Prajapati, Rashmi Ranjan Rout, Padmalochan Bera</i>	
RBS: A NEW COMPARATIVE AND BETTER SOLUTION OF SORTING ALGORITHM FOR ARRAY	942
<i>Md. Hasan Imam Bijoy, Md. Rakibul Hasan, Masud Rabbani</i>	
TEMPORAL POOLING IN INFLATED 3DCNN FOR WEAKLY-SUPERVISED VIDEO ANOMALY DETECTION	947
<i>Snehashis Majhi, Ratnakar Dash, Pankaj Kumar Sa</i>	

TOWARD AN ENHANCED BENGALI TEXT CLASSIFICATION USING SAINT AND COMMON FORM	953
<i>Nushrat Jahan Ria, Sharun Akter Khushbu, Mohammad Abu Yousuf, Abu Kaisar Mohammad Masum, Sheikh Abujar, Syed Akhter Hossain</i>	
A COMPREHENSIVE ANALYSIS ON UNDERGRADUATE STUDENT ACADEMIC PERFORMANCE USING FEATURE SELECTION TECHNIQUES ON CLASSIFICATION ALGORITHMS	958
<i>Md. Rakib Ahmed, Sheikh Tariqul Islam Tahid, Nazneen Akter Mitu, Pipasha Kundu, Soniya Yeasmin</i>	
NUMERICAL STUDY OF AN OCTAGONAL PHOTONIC CRYSTAL FIBER: AN IMPROVED DESIGN	964
<i>Mohammad Mahmudul Alam Mia, Delowar Hossain Himel, Shovasis Kumar Biswas</i>	
A MACHINE LEARNING APPROACH FOR PREDICTING THE SUNSPOT OF SOLAR CYCLE	968
<i>Thaharim Khan, Faisal Arafat, Mayen Uddin Mojumdar, Aditya Rajbongshi, Shah Md Tanvir Siddiquee, Narayan Ranjan Chakraborty</i>	
ANALYSIS OF MICROSTRUCTURED PHOTONIC CRYSTAL FIBER: AN IMPROVED DESIGN	972
<i>Jarina Akter, Md. Nur Uddin, Mohosinul Hasan, Bipash Kumar Biswas, Mohammad Mahmudul Alam Mia, Shovasis Kumar Biswas</i>	
A FUZZY AHP APPROACH FOR RANKING SECURITY ATTRIBUTES IN FOG-IOT ENVIRONMENT	976
<i>Richa Verma, Shalini Chandra</i>	
UTILIZING EXPLORATORY DATA ANALYSIS FOR THE PREDICTION OF CAMPUS PLACEMENT FOR EDUCATIONAL INSTITUTIONS	981
<i>Jumana Nagaria, Senthil Velan S</i>	
REVIEW ON DEEP FAKE: A LOOMING TECHNOLOGICAL THREAT	988
<i>S M Abrar Kabir Chowdhury, Jahanara Islam Lubna</i>	
SECURITY ASSESSMENT IN FOGGY ERA THROUGH ANALYTICAL HIERARCHY PROCESS	995
<i>Jasleen Kaur, Alka Agrawal, Raees Ahmad Khan</i>	
ASSESSING AI READINESS ACROSS ORGANIZATIONS: THE CASE OF UAE	1001
<i>Anas Najdawi</i>	
EFFECT OF REDUCED DIMENSIONALITY ON DEEP LEARNING FOR HUMAN ACTIVITY RECOGNITION	1006
<i>Girja Kumari, Jayeeta Chakraborty, Anup Nandy</i>	
QML BASED COMMUNITY DETECTION IN THE REALM OF SOCIAL NETWORK ANALYSIS	1013
<i>Sana Akbar, Sri Khetwat Saritha</i>	
EMERGENCE OF EDGE COMPUTING: AN ADVANCEMENT OVER CLOUD AND FOG	1020
<i>Anuran Mitra, Soumita Biswas, Tinku Adhikari, Arindam Ghosh, Soumalya De, Raja Karmakar</i>	
PLANAR YAGI-UDA ANTENNA WITH MIRRORED GROUND PLANE FOR WLAN	1027
<i>Ravi K Tanti, Saurabh Warathe, N. Anveshkumar</i>	

CROSS-PLATFORM REMOTE DESKTOP SHARING WITH IP TUNNELING	1032
<i>Sashank Sridhar, Sowmya Sanagavarapu, S. Chitrakala</i>	
CODE-BASED ANALYSIS APPROACH TO DETECT AND PREVENT SQL INJECTION ATTACKS	1039
<i>Angshuman Jana, Dipendu Maity</i>	
HOW CAN MACHINE LEARNING IMPACT ON WIRELESS NETWORK AND IOT? – A SURVEY	1045
<i>Swarnalina Laha, Nilanjan Chowdhury, Raja Karmakar</i>	
ARTIFICIAL INTELLIGENCE: SIMULATIONS IN AUDIT EDUCATION.....	1052
<i>Ganga Bhavani</i>	
REAL-TIME DATA MONITORING IN COLD SUPPLY CHAIN THROUGH NB- IOT	1057
<i>Leena Wanganoo, Vinod Kumar Shukla</i>	
HR4.0: AN ANALYTICS FRAMEWORK TO REDEFINE EMPLOYEE ENGAGEMENT IN THE FOURTH INDUSTRIAL REVOLUTION.....	1063
<i>Bhawna Gaur</i>	
APPLICATION OF IOT AND MACHINE LEARNING FOR REAL-TIME DRIVER MONITORING AND ASSISTING DEVICE.....	1069
<i>Pranay Sharma, Naveksha Sood</i>	
PERSON FOLLOWING MOBILE ROBOT USING PEDESTRIAN DEAD-RECKONING WITH INERTIAL DATA OF SMARTPHONES	1076
<i>Anirban Dam, Ashish Verma, Charan Tej Pangi, Raja Raviteja, Chandra Shekhar Prasad</i>	
VIRTUAL MEMORY MANAGEMENT USING MEMORY BALLOONING IN OPENSTACK CLOUD PLATFORM.....	1080
<i>Pranjali P. Deshmukh, S.Y. Amdani</i>	
A QUEST TO DETECT NOVELTY USING DEEP NEURAL NETS.....	1085
<i>Dipannyta Nandi, Rohini Basak</i>	
IN-VEHICLE INTRUSION DETECTION SYSTEM ON CONTROLLER AREA NETWORK WITH MACHINE LEARNING MODELS	1092
<i>Soner Can Kalkan, Ozgur Koray Sahingoz</i>	
SURVEY ON COMPUTATIONAL ENTOMOLOGY: SENSORS BASED APPROACHES TO DETECT AND CLASSIFY THE FRUIT FLIES.....	1098
<i>Nithin Kumar, Nagarathna</i>	
T3D-Y CODEC: A VIDEO COMPRESSION FRAMEWORK USING TEMPORAL 3-D CNN ENCODER AND Y-STYLE CNN DECODER.....	1104
<i>Abhishek Kumar Sinha, Deepak Mishra</i>	
TIME SERIES FORECASTING USING A POLYNOMIAL CONTROLLED S-TRANSFORM	1111
<i>Ankush Gandhi, Satyasai Jagannath Nanda</i>	
A CIRCULARLY POLARIZED MULTIBAND MULTIMODE SIW ANTENNA: MULTI-BAND AND MULTI MODE SIW ANTENNA.....	1118
<i>Pooja Garlapati, Hemalatha Chilaka, Manohar Rangu, Raju Chigula, Sulakshana Chilukuri</i>	

MR IMAGE ENHANCEMENT USING STATIONARY WAVELET TRANSFORM BASED APPROACH.....	1123
<i>Pranaba K. Mishro, Sanjay Agrawal, Rutuparna Panda, Ku. Tapaswini Hansdah</i>	
DETECTION OF GLAUCOMA IN RETINAL IMAGE USING IMAGE PROCESSING AND SVM.....	1129
<i>Vivek Raj K., Akshatha Patil, N. Roopashree, Sanmati Gudaje, G.B. Kavya</i>	
A DYNAMIC SINGLE-HOP CLUSTERING ALGORITHM (DSCA) IN VANET	1135
<i>Abhay Katiyar, Satyam Kumar Gupta, Dinesh Singh, Rama Shankar Yadav</i>	
PERFORMANCE EVALUATION OF 6T, 7T, 8T, AND 9T SRAM CELL TOPOLOGIES AT 90 NM TECHNOLOGY NODE	1141
<i>Deepak Mittal, V.K. Tomar</i>	
IMPLEMENTATION AND PERFORMANCE ANALYSIS OF NB-IOT IN LTE.....	1145
<i>Sachin Kumar M.R., K.S. Shushrutha</i>	
FUZZY INTERPRETATION OF WORD POLARITY SCORES FOR UNSUPERVISED SENTIMENT ANALYSIS.....	1149
<i>Srishti Vashishtha, Seba Susan</i>	
OPTICK - A LOW COST WEARABLE HEAD UP DISPLAY FOR SEARCH AND RESCUE OPERATIONS	1155
<i>Adhesh Shenoy, Mahathi Amencherla, Rahul Nagaraj, T. S. Chandar</i>	
A NEURO FUZZY SYSTEM BASED INFLATION PREDICTION OF AGRICULTURAL COMMODITIES.....	1162
<i>Abhishek Dutta, Abhisek Nayak, Aditya, Rama Ranjan Panda, Naresh Kumar Nagwani</i>	
OBJECT RETRIEVAL IN AN INDOOR ENVIRONMENT USING SWARM INTELLIGENCE	1168
<i>Manasa Sathyan, Manu Vimal, Akhil Siddharth, T. S. Chandar</i>	
CHANNEL CHARACTERISTICS COMPARISON OF SINGLE-RELAY AND TWO-RELAY TWO-WAY PLC SYSTEMS.....	1175
<i>Angie A. G. Liong, Lenin Gopal, Filbert H. Juwono, Choo W. R. Chiong, Yue Rong</i>	
HANDWRITTEN POLYNOMIAL EQUATION RECOGNITION AND SIMPLIFICATION USING CONVOLUTIONAL NEURAL NETWORK.....	1181
<i>Shifat Nayme Shuvo, Fuad Hasan, Syed Akhter Hossain, Sheikh Abujar</i>	
TRACKING TARGETS USING DIGITAL BEAMFORMING	1187
<i>Abhishek Singh J., Paramananda Jena, Veena Devi S.V.</i>	
MULTI-ATTACK DETECTION USING FORENSICS AND NEURAL NETWORK BASED PREVENTION FOR SECURE MANETS.....	1192
<i>Gurveen Vaseer</i>	
AMMONIA GAS SENSOR USING $\text{Sn}_{1-x}\text{Ga}_x$ AS NANOWIRE MATERIAL.....	1198
<i>Khalid Amin, Shammy Kumar, Kartikey Solanki</i>	
AN OVERVIEW OF RUMOUR DETECTION BASED ON SOCIAL MEDIA	1204
<i>Charu Varshney, S.C. Jain, Vikash Tripathi</i>	

DECENTRANET - AN ETHEREUM, PROXY RE-ENCRYPTION AND IPFS BASED DECENTRALIZED INTERNET	1210
<i>Koushik Bhargav Muthe, Thiru Srinivasa Teja Vemuru, Khushboo Sharma, Nilofer Sultana Mohammad</i>	
COMPARATIVE ANALYSIS OF ENG, EFP AND DRONE CAMERA AND ITS IMPACT IN TELEVISION PRODUCTION	1215
<i>Sambhram Pattanayak, Vinod Kumar Shukla</i>	
AUASF: AN ANONYMOUS USERS AUTHENTICATION SCHEME FOR FOG-IOT ENVIRONMENT	1223
<i>Md Whaiduzzaman, Khondokar Oliullah, Md. Julkar Nayeem Mahi, Alistair Barros</i>	
LOW POWER 32-BIT SYNCHRONOUS AND RECONFIGURABLE ALU DESIGN USING CHAIN STRUCTURE	1230
<i>Deepali, Indu Saini, Mamta Khosla</i>	
DESIGN OF INTELLIGENT IP ADDRESS MANAGEMENT SYSTEM FOR COMMUNICATION NETWORKS	1237
<i>N. Sahana, Usha Rani K.R.</i>	
SECURITY VISUALIZATION AND ACTIVE QUERYING FOR OT NETWORK	1243
<i>Sankalp More, Imran Jamadar, Faruk Kazi</i>	
SMART CRAWLER FOR HARVESTING DEEP WEB WITH MULTI-CLASSIFICATION.....	1249
<i>Ajay Khare, Ashwini Dalvi, Faruk Kazi</i>	
CONTROL CONSOLE OF SEWAGE TREATMENT PLANT WITH SENSORS AS APPLICATION OF IOT	1254
<i>S. Ullas, Shreyansh Upadhyay, Vineeth Chandran, S. Pradeep, T.M. Mohankumar</i>	
DESIGN OF INTRUSION PREVENTION SYSTEM FOR OT NETWORKS USING DEEP NEURAL NETWORKS.....	1261
<i>Akshay Rajapkar, Pranita Binnar, Faruk Kazi</i>	
SENSING TOXIC CARBONYL COMPOUNDS IN CIGARETTE SMOKE BY PHOTONIC CRYSTAL FIBER	1267
<i>Md. Ekhlashur Rahaman, Rayhan Habib Jibon, Md. Bellal Hossain, Himadri Shekhar Mondal, Abdullah Al-Mamun Bulbul, Avijit Saha, Md Mahmud Hassan</i>	
MALWARE INJECTION IN OPERATIONAL TECHNOLOGY NETWORKS	1272
<i>Mayuri Khadpe, Pranita Binnar, Faruk Kazi</i>	
IMPROVING SKEW DETECTION AND CORRECTION IN DIFFERENT DOCUMENT IMAGES USING A DEEP LEARNING APPROACH	1278
<i>Shaheera Saba Mohd Naseem Akhter, Priti P Rege</i>	
EXPERIMENTAL VALIDATION AND CONTROL OF LABORATORY AERIAL SYSTEM BY IC741-IOPID AND IC741-FOP λ CONTROLLERS: AN ANALOG APPROACH	1284
<i>Sudarshan K. Valluru, Gaurav Kumar, Rajul Kumar, Ankit Lal Meena</i>	
ROAD BOUNDARY DETECTION USING 3D-TO-2D TRANSFORMATION OF LIDAR DATA AND CONDITIONAL GENERATIVE ADVERSARIAL NETWORKS.....	1292
<i>Leela Aishwarya T., Manoj Panda</i>	
PHPIL: FUZZING THE PHP INTERPRETER WITH CUSTOM BYTECODE	1298
<i>Vignesh S Rao, Tarunkant Gupta, Saastha Vasana, L.R. Deepthi</i>	

A BATMAN SHAPED CONFORMAL ANTENNA FOR WIMAX APPLICATION	1303
<i>Ratikanta Sahoo</i>	
PREDICTION OF AGE FROM SPEECH FEATURES USING A MULTI-LAYER PERCEPTRON MODEL	1307
<i>Sriram Ravishankar, Prasanna Kumar M.K., Vinay Vasanth Patage, Sourabh Tiwari, Saksham Goyal</i>	
EXPERIMENTAL DEMONSTRATION OF FREE SPACE QUANTUM KEY DISTRIBUTION SYSTEM BASED ON THE BB84 PROTOCOL.....	1313
<i>Adarsh Jain, Abhishek Khanna, Jay Bhatt, Parthkumar V Sakhiya, R K Bahl</i>	
EFUMS:EFFICIENT FILE UPLOAD AND MUTLI-KEYWORD SEARCH OVER ENCRYPTED CLOUD DATA	1318
<i>M. Bhavya, C.N. Pushpa, J. Thriveni, K.R. Venugopal</i>	
PERFORMANCE IMPROVEMENT IN CONVENTIONAL 4-BIT STATIC CMOS CARRY LOOK-AHEAD ADDER BY MODIFYING CARRY-GENERATE AND PROPAGATE TERMS.....	1324
<i>Md. Ashik Zafar Dipto, Afran Sorwar, Elias Ahammad Sojib, Md. Mostak Tahmid Rangon</i>	
DESIGN OF A HIGH-PERFORMANCE 2-BIT MAGNITUDE COMPARATOR USING HYBRID LOGIC STYLE	1329
<i>Afran Sorwar, Elias Ahammad Sojib, Md. Ashik Zafar Dipto, Md. Mostak Tahmid Rangon, Md. Sabbir Alam Chowdhury, Abdul Hasib Siddique</i>	
NON INVASIVE ASSESSMENT OF TISSUE OXYGEN USING SPECTROSCOPY.....	1334
<i>Priyanka Ashok Shedbale, R. P. Mudhalwadkar, Saheli Mandavkar</i>	
HUMAN BEHAVIOUR IMPACT TO USE OF SMARTPHONES WITH THE PYTHON IMPLEMENTATION USING NAIVE BAYESIAN.....	1339
<i>Iftakhar Mohammad Talha, Imrus Salehin, Susanta Chandra Debnath, Mohd. Saifuzzaman, Nazmun Nessa Moon, Fernaz Narin Nur</i>	
RAILWAY EMERGENCY DETECTION AND RESPONSE SYSTEM USING IOT	1345
<i>Shubhankar Lipare, Prasenjit Bhavathankar</i>	
LOW-COST VISION SYSTEM FOR PICK AND PLACE APPLICATION USING CAMERA AND ABB INDUSTRIAL ROBOT	1352
<i>Saurabh Chakole, Neema Ukani</i>	
SAHAYANTRA - A PATIENT ASSISTANCE ROBOT	1358
<i>B.S. Pranathi, Ananya Nair, C.S. Anushree, T.S. Chandar</i>	
DESIGN AND OPTIMIZATION OF CNN FOR LANE DETECTION	1364
<i>Aravind H, Sivraj P, K. I. Ramachandran</i>	
LIQUID BENZENE ANALYTE BASED DUAL CORE SURFACE PLASMON RESONANCE SENSOR FOR CHEMICAL SENSING	1370
<i>Md. Faiyaz Bin Hassan, Sanjida Sultana, M. Ifaz Ahmad Isti, Samiha Nuzhat, Shovasis Kumar Biswas, Hriteshwar Talukder</i>	
S2-GI: INTELLIGENT SELECTION OF GUARD INTERVAL IN HIGH THROUGHPUT WLANS.....	1376
<i>Raja Karmakar, Soumalya De, Arindam Ghosh, Tinku Adhikari, Punit Jain</i>	
IMPLEMENTATION OF COMPOSITE DIMSE SERVICES.....	1383
<i>K.R. Vidyashree, M.N. Dinesh</i>	

ELECTROMIGRATION AND POWER ANALYSIS OF DIGITAL CIRCUITS AT 10 NM TECHNOLOGY NODE BEFORE SIGNOFF	1390
<i>Akanksha Jat, Shweta Panwalkar, Shweta Meena</i>	
IMPROVED ANALOG LAYOUT PRODUCTIVITY USING TEMPLATE-DRIVEN MODGEN REUSE METHODOLOGY	1395
<i>Samiksha Maheshwari, Akshita Bansal, Shweta Meena</i>	
A NOVEL FRAMEWORK FOR DECENTRALIZED C2C E-COMMERCE USING SMART CONTRACT	1400
<i>Pankaj Joshi, Anoj Kumar</i>	
DUAL CORE SURFACE PLASMON RESONANCE BASED PHOTONIC CRYSTAL FIBER SENSOR IN IR-RANGE	1405
<i>Samiha Nuzhat, M. Ifaz Ahmad Isti, Hriteshwar Talukder, Shovasis Kumar Biswas</i>	
PRS GENERIC DATA STORE SERVICE	1409
<i>Ranjini R, Sanjay Srivatsa, K.S. Geetha</i>	
A NOVEL HIGHLY SENSITIVE PHOTONIC CRYSTAL FIBER SENSOR FOR DETECTING PH LEVELS OF ACETIC ACID AQUEOUS SOLUTION BASED ON SURFACE PLASMON RESONANCE	1415
<i>M. Hussayeen Khan Anik, Sakib Mahmud, M. Ifaz Ahmad Isti, Samiha Nuzhat, Shovasis Kumar Biswas, Hriteshwar Talukder</i>	
BIG DATA ANALYTICS FOR SUSTAINABLE CITIES: PUNE TREE CENSUS DATA EXPLORATORY ANALYSIS	1420
<i>Aboli Marathe, Kapil Mirchandani, Kushal Chordiya, Kevin Stephen</i>	
A SMART APPROACH OF LPG MONITORING AND DETECTION SYSTEM USING IOT	1427
<i>Nagib Mahfuz, Shawan Karmokar, Md. Ismail Hossain Rana</i>	
DESIGN & IMPLEMENTATION OF IOT BASED INDUSTRIAL AUTOMATION SYSTE	1431
<i>Tayeb Bin Lokman, Mohammad Touhidul Islam, Mouslah Uddin Apple</i>	
AN EXPERIMENTAL EVALUATION OF SHA-512 FOR DIFFERENT MODES OF OPERATION	1437
<i>Himanshu N. Bhonge, Monish K. Ambat, B. R. Chandavarkar</i>	
USE CASES OF AUTHENTICATION PROTOCOLS IN THE CONTEXT OF DIGITAL PAYMENT SYSTEM	1443
<i>Gopikishan Thawre, Nitin Bahekar, B. R. Chandavarkar</i>	
REMOTE USER AUTHENTICATION AND ISSUES: A SURVEY	1449
<i>Richa Mehra, Aditi Meshram, B. R. Chandavarkar</i>	
DESIGN AND ANALYSIS OF AMC BASED METASURFACE LOADED SLOT ANTENNA FOR LOW RADAR CROSS SECTION	1455
<i>Jayati Monga, Jayaditya Upadhya, Abhendra Pal Singh Gurjar, Akanksha, Ankit Sharma</i>	
LANGUAGE DETECTION USING CONVOLUTIONAL NEURAL NETWORK	1462
<i>A K M Shahariar Azad Rabby, Md. Majedul Islam, Nazmul Hasan, Jebun Nahar, Fuad Rahman</i>	
UNIT TESTING FOR USB MODULE USING GOOGLE TEST FRAMEWORK	1467
<i>Lavanya Bhaskar, Rahul B Natak, R. Ranjith</i>	

SUPPRESSION OF SSN IN HIGH-SPEED CIRCUITS USING 1-D EBG STRUCTURE	1470
<i>Sayli Shinde, Manisha Bansode, Pramod P. Bhavarthe, Surendra S. Rathod</i>	
UNDENIABLE SIGNATURE SCHEME: A SURVEY	1474
<i>Prachi Kale, Pallabi Hazarika, B. R. Chandavarkar</i>	
DISTRIBUTED LEDGER TECHNOLOGY FOR SECURING IOT	1481
<i>Soumyashree S. Panda, Bhabendu Kumar Mohanta, Meenu Rani Dey, Utkalika Satapathy, Debasish Jena</i>	
STANDALONE PORTABLE HOST FOR UNIFIED BOOTLOADER IN PIC DEVICES USING CAN INTERFACE.....	1487
<i>P.S. Priyanka, Manoraj Gnanadas, P. Supriya</i>	
COVID-19 PANDEMIC PREDICTION USING TIME SERIES FORECASTING MODELS	1491
<i>Naresh Kumar, Seba Susan</i>	
IDENTIFICATION OF MOST RELEVANT BREAST CANCER MIRNA USING MACHINE LEARNING ALGORITHMS.....	1498
<i>Tasnime Mehejabin, Faria Rahman, Soniya Yeasmin, Manika Sarkar</i>	
AUTOMATIC DETECTION OF MENTAL ARITHMETIC TASK AND ITS DIFFICULTY LEVEL USING EEG SIGNALS.....	1504
<i>Binish Fatimah, Dipro Pramanick, Pranav Shivashankaran</i>	
SIMILARITY ANALYSIS OF LEGAL DOCUMENTS USING CONTENT AND NETWORK BASED APPROACH.....	1510
<i>Suyash Chavan, Janani Balasubramanian, Jai Puro, Meghana Naik, Anant V. Nimkar</i>	
AN ADAPTIVE IMAGE STEGANOGRAPHIC SCHEME USING CONVOLUTIONAL NEURAL NETWORK AND DUAL-TREE COMPLEX WAVELET TRANSFORM.....	1517
<i>Dheeraj Varma, Shikhar Mishra, Ankita Meenpal</i>	
MUDRAKSHARA - A VOICE FOR DEAF/DUMB PEOPLE.....	1524
<i>Yeresime Suresh, J Vaishnavi, M Vindhya, Mohammed Sadiq Afreed Meeran, Supritha Vemala</i>	
EXTRADET WITH QUAD FEATURE PYRAMID NETWORKS	1532
<i>Shivam Raj, Natasha Sebastian, Raj Bisht</i>	
AN EXPERIMENTAL EVALUATION ON THE DEPENDENCY BETWEEN ONE-WAY HASH FUNCTIONS AND SALT	1538
<i>Urvesh Rathod, Meghna Sonkar, B. R. Chandavarkar</i>	
METHODOLOGIES AND TECHNIQUES FOR HEART DISEASE CLASSIFICATION AND PREDICTION	1545
<i>Priyanka S. Sangle, R. M. Goudar, A.N. Bhute</i>	
GREENVANET: GREENING VEHICULAR AD-HOC NETWORK BY SCHEDULING UP-LINK CHANNEL	1551
<i>Bhabendu Kumar Mohanta, Meenu Rani Dey, Utkalika Satapathy, Soumyashree S. Panda, Debasish Jena</i>	
APPLICATION OF FLIPPED CLASSROOM FOR ONLINE EDUCATION AND FOREIGN LANGUAGE ACQUISITION	1556
<i>Shreya Jhamb, Sandhya Java</i>	

AN EFFICIENT AUTHENTICATION SCHEME FOR SECURE COMMUNICATION BETWEEN INDUSTRIAL IOT DEVICES.....	1563
<i>Barnana Baruah, Subhasish Dhal</i>	
MITIGATION TECHNIQUE FOR BLACK HOLE ATTACK IN MOBILE AD HOC NETWORK	1570
<i>Sharma Hitesh Omprakash, Margam K. Suthar</i>	
AN IMPROVED AND RELIABLE SEQUENTIAL DECODING OF CONVOLUTION CODES	1575
<i>B R Chandavarkar, Amal Byju, Edwin Thomas</i>	
EFFICIENT TRAFFIC ROUTING METHOD AT BUSY INTERSECTIONS	1582
<i>Shubhro Shovan Roy, Samya Muhuri, Susanta Chakraborty</i>	
AN ATTENTION BASED APPROACH FOR SENTIMENT ANALYSIS OF FOOD REVIEW DATASET.....	1589
<i>Md. Rafiuzzaman Bhuiyan, Mahmudul Hasan Mahedi, Naimul Hossain, Zerin Nasrin Tumpa, Syed Akhter Hossain</i>	
RANKING OF COUNTRIES USING WORLD DEVELOPMENT INDICATORS: A COMPUTATIONAL APPROACH	1595
<i>Arushi Gupta, Kapil Sharma</i>	
ANALYSIS OF ECG FOR BIOMETRIC IDENTIFICATION	1599
<i>Binish Fatimah, G. Priyanka, Rehana Sultana, N. Rekha</i>	
PERFORMANCE EVALUATION OF VARIOUS BEAMFORMING TECHNIQUES FOR PHASED ARRAY ANTENNAS	1604
<i>Rohit H.R., Sachin B.S., Aditya P., Bhishm Tripathi, Premananda B.S.</i>	
IMAGING AS A NON-INTRUSIVE TOOL IN QUANTIFYING THE DYNAMICS OF LIQUID SHEETS	1610
<i>Kizhakkelan Sudhakaran Siddharth</i>	
THEORETICAL INVESTIGATION OF A DISPERSION COMPENSATING PHOTONIC CRYSTAL FIBER WITH ULTRA-HIGH DISPERSION COEFFICIENT AND EXTREMELY HIGH NONLINEARITY	1616
<i>Jarina Akter, Md. Nur Uddin, Shovasis Kumar Biswas</i>	
SENTIMENT ANALYSIS OF RESTAURANT REVIEWS USING COMBINED CNN-LSTM	1620
<i>Naimul Hossain, Md. Rafiuzzaman Bhuiyan, Zerin Nasrin Tumpa, Syed Akhter Hossain</i>	
USING DTRACE FOR MACHINE LEARNING SOLUTIONS IN MALWARE DETECTION	1625
<i>Aiswarya Mohan K.P., Saranya Chandran, Gilad Gressel, T.U. Arjun, Vipin Pavithran</i>	
DESIGN OF AN INTELLIGENT WHEELCHAIR FOR HANDICAP PEOPLE CONDUCTING BY BODY MOVEMENT	1632
<i>Mubdi-Ul Alam Sajid, Md Firoz Mahmud, Imteaz Rahaman, Saquib Shahriar, Mim Naz Rahman</i>	
TRUST MANAGEMENT IN CYBER PHYSICAL SYSTEM USING BLOCKCHAIN	1637
<i>Bhabendu Kumar Mohanta, Utkalika Satapathy, Meenu Rani Dey, Soumyashree S. Panda, Debasish Jena</i>	
IMAGE ENCRYPTION USING A NEW 2D BIT REVERSED LOGISTIC MAP	1642
<i>Madhu Sharma, Vishal Bharti</i>	

CONTROL OR AUTISM - CLASSIFICATION USING CONVOLUTIONAL NEURAL NETWORKS ON FUNCTIONAL MRI	1648
<i>Siddharth Shrivastava, Upasana Mishra, Nitisha Singh, Anjali Chandra, Shrish Verma</i>	
SENTIMENT ANALYSIS FROM BENGALI DEPRESSION DATASET USING MACHINE LEARNING.....	1654
<i>Md. Rafidul Hasan Khan, Umme Sunzida Afroz, Abu Kaisar Mohammad Masum, Sheikh Abujar, Syed Akhter Hossain</i>	
EVENT-DRIVEN DATA PIPELINE FOR NETWORK MANAGEMENT SYSTEMS	1659
<i>Ganesan Ponnuswami, Sriram Kailasam, Dileep Aroor Dinesh</i>	
BENCHMARKING DISTRIBUTED STREAM PROCESSING FRAMEWORKS FOR REAL TIME CLASSICAL MACHINE LEARNING APPLICATIONS.....	1665
<i>Merlin Sundar, Sriram Kailasam, Timothy A. Gonsalves</i>	
COMPARATIVE ANALYSIS OF MULTI-STEP TIME-SERIES FORECASTING FOR NETWORK LOAD DATASET	1672
<i>Debashis Sahoo, Naveksha Sood, Usha Rani, George Abraham, Varun Dutt, A.D. Dileep</i>	
A COMPARATIVE STUDY OF MVO AND SSA OPTIMIZED PID CONTROLLER FOR LFC IN EV INTEGRATED MULTI AREA NETWORK	1679
<i>Gunjan Chorasiya, Sathans Suhag</i>	
COMPARATIVE ANALYSIS BETWEEN DIRECT TORQUE CONTROL AND V/F CONTROL FOR ELECTRIC VEHICLES	1686
<i>Sanketh Saha, M. Nishanth, T. Praveen, N. Rajalekshmi, T. Prabu</i>	
TECHNIQUES TO SECURE ADDRESS RESOLUTION PROTOCOL	1692
<i>Sreenivas Selvarajan, Mahesh Mohan, B R Chandavarkar</i>	
DESIGN, ANALYSIS AND SIMULATION OF A SOLAR POWERED DC MOTOR USING MOSFET H-BRIDGE CONVERTER	1699
<i>Sangita Das, Md. Moontasir Rashid, Jannatul Firdous, Md. Niaz Morshedul Haque</i>	
OPTIMIZING DG PARAMETERS FOR VOLTAGE PROFILE AND REAL POWER LOSS IMPROVEMENT USING ELEPHANT HERD OPTIMIZATION.....	1706
<i>Shreya Mahajan, Yajvender Pal Verma</i>	
PNEUMONIA DETECTION: AN EFFICIENT APPROACH USING DEEP LEARNING.....	1712
<i>Ayush Pant, Akshat Jain, Kiran C Nayak, Daksh Gandhi, B. G. Prasad</i>	
A NEW STATE OF ART DEEP LEARNING APPROACH FOR BANGLA HANDWRITTEN DIGIT RECOGNITION USING SVM CLASSIFIER.....	1718
<i>Md. Jahid Hasan, Md. Ferdous Wahid, Md. Shahin Alom, Mohammad Mahmudul Alam Mia</i>	
DRIVER INATTENTION MONITORING SYSTEM BASED ON THE ORIENTATION OF THE FACE USING CONVOLUTIONAL NEURAL NETWORK	1724
<i>P.M. Manjula, S. Adarsh, K.I. Ramachandran</i>	
COVID-19 DIAGNOSIS FROM CHEST RADIOGRAPHY IMAGES USING DEEP RESIDUAL NETWORK	1731
<i>Ojas A. Ramwala, Himansh Mulchandani, Poojan Dalal, Mita C. Paunwala, Chirag N. Paunwala</i>	
QORAL: Q LEARNING BASED DELIVERY OPTIMIZATION FOR PHARMACIES	1736
<i>Abhishek Revadekar, Rahul Soni, Anant V. Nimkar</i>	

ALERT GENERATION ON DETECTION OF SUSPICIOUS ACTIVITY USING TRANSFER LEARNING.....	1743
<i>Om M. Rajpurkar, Siddesh S. Kamble, Jayram P. Nandagiri, Anant V. Nimkar</i>	
A SURVEY ON CLUSTERING IN WIRELESS SENSOR NETWORK.....	1750
<i>Pankaj Kumar Mishra, Shashi Kant Verma</i>	
A MODIFIED MINIATURIZED UWB BI-PLANAR YAGI-LIKE MIMO ANTENNA SYSTEM.....	1755
<i>Rinkesh Kumar Dubey, Rahul Yadav, Taimoor Alam, Nirbhay Kumar Singh, R. L. Yadava</i>	
CIFAS: COMMUNITY INSPIRED FIREFLY ALGORITHM WITH FUZZY CROSS-ENTROPY FOR FEATURE SELECTION IN TWITTER SPAM DETECTION.....	1760
<i>E. Elakkiya, S. Selvakumar, R. Leela Velusamy</i>	
IOT BASED PERCEPTIVE MONITORING AND CONTROLLING AN AUTOMATED IRRIGATION SYSTEM.....	1767
<i>Harshit Meena, Himanshu Nandanwar, Dushyant Pahl, Anamika Chauhan</i>	
DESIGNING OF COST-EFFECTIVE HUMAN ASSISTIVE ROBOT AND PERFORMANCE ENHANCEMENT.....	1773
<i>Md.Fahad Hasan, Imteaz Rahaman, Md. Shaoran Sayem, Md. Mahbub Hasan, Borhanul Kabir Tamal, Md. Anisur Rahman Rubel</i>	
A COMPARATIVE STUDY ON CONVOLUTIONAL NEURAL NETWORK BASED FACE RECOGNITION.....	1778
<i>Tanvir Ahmed, Prangon Das, Md. Firoj Ali, Md- Firoz Mahmud</i>	
DEEP LEARNING FOR SENTIMENT ANALYSIS BASED ON CUSTOMER REVIEWS.....	1783
<i>B. Seetharamulu, B. Naresh Kumar Reddy, K. Bramha Naidu</i>	
CSTA-2P1D UNET: CONSECUTIVE SPATIO-TEMPORAL ATTENTION FOR MULTI-SCALE 3D PANCREAS SEGMENTATION.....	1788
<i>Bharat Giddwani, Shruti Pandey, Hitesh Tekchandani, Shrish Verma</i>	
HARDCODED CREDENTIALS AND INSECURE DATA TRANSFER IN IOT: NATIONAL AND INTERNATIONAL STATUS.....	1795
<i>B. R. Chandavarkar</i>	
DISTANCE ESTIMATION OF PRECEDING VEHICLE BASED ON MONO VISION CAMERA AND ARTIFICIAL NEURAL NETWORKS.....	1802
<i>K. Karthika, S. Adarsh, K.I. Ramachandran</i>	
SMART CHECK-IN CHECK-OUT SYSTEM FOR VEHICLES USING AUTOMATIC NUMBER PLATE RECOGNITION.....	1807
<i>Sangay Tenzin, Pema Dorji, Bevek Subba, Thinley Tobgay</i>	
AI BASED INTRUSION DETECTION SYSTEM USING SELF-ADAPTIVE ENERGY EFFICIENT BAT ALGORITHM FOR SOFTWARE DEFINED IOT NETWORKS.....	1813
<i>Geethu M Suresh, Minu Lalitha Madhavu</i>	
A STUDY ON DARK CHANNEL PRIOR BASED IMAGE ENHANCEMENT TECHNIQUES.....	1819
<i>Anil Singh Parihar, Gokul Gupta</i>	
BEST FIT POLYGONAL APPROXIMATION FOR MULTIPLE ROI ESTIMATION.....	1826
<i>Niveditha Oruganti, Tripty Singh</i>	

SURVEY ON DATA INTEGRITY AND VERIFICATION FOR CLOUD STORAGE	1832
<i>Suchetha R. Pujar, Shilpa S. Chaudhari, R. Aparna</i>	
MODIFIED HOUGH TRANSFORMATION FOR ROI	1839
<i>Niveditha Oruganti, Tripty Singh</i>	
AUTOMATED VERSUS MANUAL APPROACH OF WEB APPLICATION PENETRATION TESTING	1845
<i>Navneet Singh, Vishtasp Meherhomji, B. R. Chandavarkar</i>	
EXTRACTED SUMMARY BASED RECOMMENDATION SYSTEM FOR INDIAN LEGAL DOCUMENTS	1851
<i>Aashka Trivedi, Anya Trivedi, Sourabh Varshney, Vidhey Joshipura, Rupa Mehta, Jenish Dhanani</i>	
MITIGATING MAN-IN-THE-MIDDLE ATTACK IN DIGITAL SIGNATURE.....	1857
<i>Sajal Jain, Shivam Sharma, B. R. Chandavarkar</i>	
IR-FF-GSO: IMAGE RETRIEVAL USING FEATURE FUSION AND GLOWWORM SWARM OPTIMIZATION	1862
<i>Venkataravana Nayak K., S.K. Sharathkumar, J.S. Arunalatha, K.R. Venugopal</i>	
AUTOMATIC STRESS DETECTION USING WEARABLE SENSORS AND MACHINE LEARNING: A REVIEW	1868
<i>Shruti Gedam, Sanchita Paul</i>	
AN INTERDEPENDENCY BETWEEN SYMMETRIC CIPHERS AND HASH FUNCTIONS: A SURVEY	1875
<i>Priyansh Kumar Dubey, Ajay Jangid, B. R. Chandavarkar</i>	
A NOVEL JOINT SUM AND PER ANTENNA POWER CONSTRAINTS MODEL BASED ON A COMPARATIVE APPROACH OF OPTIMAL TRANSMISSION STRATEGIES AND CAPACITY OF MIMO CHANNELS.....	1880
<i>Debojyoti Seth</i>	
ANALYSIS OF IMAGE CLASSIFICATION FOR TEXT EXTRACTION FROM BILLS AND INVOICES	1885
<i>K.M. Yindumathi, Shilpa Shashikant Chaudhari, R. Aparna</i>	
EVALUATION OF PROOF-OF-WORK CONSENSUS ALGORITHM FOR BLOCKCHAIN NETWORKS.....	1891
<i>Chandranshu Gupta, Asmita Mahajan</i>	
MITIGATING LOCALIZATION AND NEIGHBOUR SPOOFING ATTACKS IN UNDERWATER SENSOR NETWORKS.....	1898
<i>B. R. Chandavarkar, Akhilraj V. Gadagkar</i>	
EFFECT ON RECONSTRUCTION OF IMAGES BY APPLYING FRACTAL BASED LOSSY COMPRESSION FOLLOWED BY SYMMETRICAL ENCRYPTION TECHNIQUES.....	1903
<i>Neetu Gupta, Ritu Vijay</i>	
NUMERICAL STUDY OF RECTANGULAR AIR-HOLES BASED HIGHLY DISPERSION COMPENSATING OCTAGONAL PHOTONIC CRYSTAL FIBER: A NOVEL APPROACH	1910
<i>Delwar Hossain Himel, Md. Mostafa Faruk, Shovasis Kumar Biswas</i>	

HIGH RESOLUTION DIGITAL FILTER IMPLEMENTATION AND ITS DATA ACQUISITION SYSTEM AUGMENTATION WITH VECC DAQ	1913
<i>Ram Kumar Paul, Ayan Banerjee, Partha Dhara, Pintu Maity</i>	
INTEGRATING MACHINE LEARNING WITH BLOCKCHAIN TO ENSURE DATA PRIVACY	1918
<i>Sunil Samanta Singhar, Debasish Jena, Suraj Sharma</i>	
ROBOTIC PATH PLANNING USING RECURRENT NEURAL NETWORKS	1924
<i>Ramya S. Nair, P. Supriya</i>	
QUANTUM BASED SUPPORT VECTOR MACHINE IDENTICAL TO CLASSICAL MODEL.....	1929
<i>Disha Uke, Kapil Kumar Soni, Akhtar Rasool</i>	
MICRO LOANS FOR FARMERS	1935
<i>Rushabh Khara, Deepika Pomendkar, Rishika Gupta, Ishwarlal Hingorani, Dhananjay Kalbande</i>	
AN EFFICIENT APPROACH TO ACCOMPLISH AUTOMATIC SEGMENTATION OF OPTIC CUP USING MODIFIED U-NET.....	1940
<i>E. Sudheer Kumar, C. Shoba Bindu</i>	
UNDERWATER IMAGE ENHANCEMENT BY MULTISCALE FUSION TECHNIQUE AND DEHAZING	1945
<i>A.C. Sujitha, C.A. Prajith</i>	
A FINFET BASED 2ND-ORDER FULLY DIFFERENTIAL PASSIVE SIGMA DELTA MODULATOR FOR LOW POWER ADC	1951
<i>K Sarangam, N Bheema Rao</i>	
ANALYSIS OF BANGLADESHI PEOPLE'S EMOTION DURING COVID-19 IN SOCIAL MEDIA USING DEEP LEARNING	1956
<i>Md. Sabbir Alam Pran, Md. Rafiuzzaman Bhuiyan, Syed Akhter Hossain, Sheikh Abujar</i>	
BEHAVIOURAL ANALYSIS OF MULTI-SOURCE SOCIAL NETWORK DATA USING OBJECT-CENTRIC BEHAVIOURAL CONSTRAINTS AND DATA MINING TECHNIQUE.....	1962
<i>Priyam Das, Dhananjay Kalbande</i>	
RETINAL LESIONS DETECTION FOR SCREENING OF DIABETIC RETINOPATHY	1970
<i>S.L. Aleena, C.A. Prajith</i>	
RISK PREDICTION OF CHRONIC KIDNEY DISEASE USING MACHINE LEARNING ALGORITHMS.....	1976
<i>Shanila Yunus Yashfi, Md Ashikul Islam, Pritilata, Nazmus Sakib, Tanzila Islam, Mohammad Shahbaaz, Sadaf Salman Pantho</i>	
INTRUSION CLASSIFICATION USING ECLAT AND FUZZY LOGIC.....	1981
<i>Asif Ahamad P., S. Jeevaraj</i>	
IMPLEMENTATION OF SHIP MOTION MOBILITY MODEL IN UNETSTACK FOR UNDERWATER SENSOR NETWORKS.....	1988
<i>M. Prajval, B.R. Chandavarkar</i>	
ASCERTAINING THE FLUCTUATION OF RICE PRICE IN BANGLADESH USING MACHINE LEARNING APPROACH.....	1994
<i>Md. Mehedi Hasan, Muslima Tuz Zahara, Md. Mahamudunnobi Sykot, Arafat Ullah Nur, Mohd. Saifuzzaman, Rubaiya Hafiz</i>	

A COMPUTER VISION TECHNIQUE TO DETECT SCAB ON MALABAR NIGHTSHADE	1999
<i>Mayen Uddin Mojumdar, Narayan Ranjan Chakraborty</i>	
SMART ENERGY METER AND DIGITAL BILLING SYSTEM FOR BANGLADESH	2003
<i>Nagib Mahfuz, Mehen Nigar, Nawshin Ulfat</i>	
A MATHEMATICAL MODEL FOR NODE MOBILITY DURING WATER CURRENT AND TSUNAMI IN UNDERWATER SENSOR NETWORKS.....	2007
<i>K. Tejaskumar, Ishaan R. Dharamdas, B. R. Chandavarkar</i>	
EXPANSION OF REGULARIZED KMEANS DISCRETIZATION MACHINE LEARNING APPROACH IN PROGNOSIS OF DEMENTIA PROGRESSION.....	2013
<i>Afreen Khan, Swaleha Zubair</i>	
DISTRIBUTED ARTIFICIAL NEURAL NETWORK MODEL FOR NEUTRON FLUX MAPPING IN NUCLEAR REACTORS	2019
<i>S. K. Bahuguna, S. Mukhopadhyay, A.P. Tiwari</i>	
HISTOPATHOLOGICAL IMAGE AND LYMPHOMA IMAGE CLASSIFICATION USING CUSTOMIZED DEEP LEARNING MODELS AND DIFFERENT OPTIMIZATION ALGORITHMS.....	2026
<i>Ambarish Ganguly, Rik Das, S. K. Setua</i>	
MACHINE LEARNING ALGORITHMS IN HEALTHCARE: A LITERATURE SURVEY	2033
<i>Munira Ferdous, Jui Debnath, Narayan Ranjan Chakraborty</i>	
LINK QUALITY-BASED ROUTING PROTOCOL FOR UNDERWATER ACOUSTIC SENSOR NETWORKS.....	2039
<i>Pradeep Nazareth, B. R. Chandavarkar</i>	
GENERATION OF SYMMETRIC KEY USING RANDOMNESS OF HASH FUNCTION	2045
<i>Kamana Sai Charan, Harsha Vardhan Nakkina, B. R. Chandavarkar</i>	
A DEEP LEARNING BASED ASSISTIVE SYSTEM TO CLASSIFY COVID-19 FACE MASK FOR HUMAN SAFETY WITH YOLOV3	2052
<i>Md. Rafiuzzaman Bhuiyan, Sharun Akter Khushbu, Md. Sanzidul Islam</i>	
RECURSIVE BLOCK BASED KEYPOINT MATCHING FOR COPY MOVE IMAGE FORGERY DETECTION.....	2057
<i>Shibu S. Narayanan, G. Gopakumar</i>	
A COMPREHENSIVE STUDY OF MACHINE LEARNING APPROACH ON CYTOLOGICAL DATA FOR EARLY BREAST CANCER DETECTION	2063
<i>Faria Rahman, Tasnime Mehejabin, Soniya Yeasmin, Manika Sarkar</i>	
POWER EFFICIENT SMART HOME WITH VOICE ASSISTANT	2069
<i>Rahul Kumar, Garima Sarupria, Varshil Panwala, Smit Shah, Nehal Shah</i>	
ROAD ACCIDENT PREDICTION AND FEATURE ANALYSIS BY USING DEEP LEARNING	2074
<i>Aradhana Behura, Ashutosh Behura</i>	
IMPROVED ATTRIBUTE-BASED ENCRYPTION SCHEME IN FOG COMPUTING ENVIRONMENT FOR HEALTHCARE SYSTEMS.....	2081
<i>Bedatrayee Ghosh, Priyanka Parimi, Rashmi Ranjan Rout</i>	

ROUTING PROTOCOL ANALYSIS FOR HETEROGENEOUS NODES IN A DYNAMIC AND SPARSE ENVIRONMENT	2087
<i>P. Gopalakrishnan, Sidhant Gupta, Rahul Krishnan, Dhruv Patel, J.P. Dhivvya, Sruthy Anand, Dhanesh Raj</i>	
VISION-BASED GUIDANCE AND NAVIGATION FOR AUTONOMOUS MAV IN INDOOR ENVIRONMENT.....	2094
<i>Mahammad Irfan, Sagar Dalai, Kaushal Kishore, Samarth Singh, S.A Akbar</i>	
A SYSTEMATIC WAY OF COLLECTING DATA OF INSOMNIAC PATIENTS: AN ANALYTICAL SURVEY	2099
<i>Md. Muhaiminul Islam, Abu Kaisar Mohammad Masum, Sheikh Abujar, Syed Akhter Hossain</i>	
INVESTIGATION OF REDUCED SIZE ANNULAR RING PATCH ANTENNA WITH EBG STRUCTURE FOR WIRELESS APPLICATIONS	2106
<i>Pallab Kumar Sarkar, Imteaz Rahaman, Mim Naz Rahman, Md. Fahad Hasan</i>	
CENTRALITY AS A FRIENDSHIP SELECTION HEURISTIC IN SOCIAL INTERNET OF THINGS	2110
<i>Nishu Malik, Sateesh Kumar Awasthi, Neetu Sood</i>	
A TRUST COMPUTING MODEL FOR FUTURE GENERATION NETWORKS.....	2116
<i>Prodipto Das, Somen Debnath</i>	
ANALYSIS OF POST CENTRIC SUICIDAL EXPRESSIONS AND CLASSIFICATION ON THE SOCIAL MEDIA POST: TWITTER.....	2120
<i>C. Lalrinmawii, Vanlalhruaia, Somen Debnath</i>	
MACHINE LEARNING APPROACH FOR THE CLASSIFICATION OF EEG SIGNALS OF MULTIPLE IMAGERY TASKS	2125
<i>Smita Tiwari, Shivani Goel, Arpit Bhardwaj</i>	
AVOIDANCE OF REPLAY ATTACK IN CAN PROTOCOL USING AUTHENTICATED ENCRYPTION.....	2132
<i>Selvamani Chandrasekaran, K.I. Ramachandran, S. Adarsh, Ashish Kumar Puranik</i>	
IMPROVED FEATURE GENERALIZATION IN SMALLER DATASETS WITH EARLY FEATURE FUSION OF HANDCRAFTED AND AUTOMATED FEATURES FOR CONTENT BASED IMAGE CLASSIFICATION.....	2138
<i>Rik Das, Mohammad Arshad, P.K. Manjhi, Sudeep D. Thepade</i>	
(PORTABLE) LOW-COST ELECTROENCEPHALOGRAM (EEG) RECORDER FOR BRAIN COMPUTER-INTERFACE (BCI).....	2143
<i>Mustafa Aljshamee, Ruaa Alsabah, Ayad Hameed Mousa, Ali Alsabbagh</i>	
INTERNET OF THINGS (IOT): VULNERABILITIES, SECURITY CONCERNS AND THINGS TO CONSIDER.....	2149
<i>Eshtiak Ahmed, Ashraful Islam, Mohsena Ashraf, Atiqul Islam Chowdhury, Mohammad Masudur Rahman</i>	
PERMANENT MAGNET SYNCHRONOUS MOTOR CONTROL BASED ON MODEL REFERENCE ADAPTIVE APPROACH.....	2155
<i>Jitendra Kumar Mahawar, Anil Kumar Dahiya</i>	
DETECTION OF CUSTOMER INTERESTED GARMENTS IN SURVEILLANCE VIDEO USING COMPUTER VISION.....	2160
<i>Earnest Paul Ijjina, Aniruddha Srinivas Joshi, Goutham Kanahasabai</i>	

DEEP LEARNING BASED APPROACH TO DETECT CUSTOMER AGE, GENDER AND EXPRESSION IN SURVEILLANCE VIDEO	2165
<i>Earnest Paul Ijjina, Goutham Kanahasabai, Aniruddha Srinivas Joshi</i>	
A FRAMEWORK TO ESTABLISH A RULE-BASED SPECIALIZED DROPOUT PREVENTION SCHEME.....	2171
<i>Sheikh Arif Ahmed, Md Aref Billah, Abdullah Al Noman, Ali Haider Doha, Shahidul Islam Khan</i>	
CUSTOMER ANALYTICS USING SURVEILLANCE VIDEO	2177
<i>Earnest Paul Ijjina, Aniruddha Srinivas Joshi, Goutham Kanahasabai, Keerthi Priyanka P.</i>	
REAL-TIME VEHICLE CLASSIFICATION USING CNN.....	2184
<i>Nusrat Jahan, Saiful Islam, Md. Ferdouse Ahmed Foysal</i>	
ELECTRIC VEHICLE CHARGING COMMUNICATION TEST-BED FOLLOWING CHADEMO.....	2190
<i>Devika Anil, P. Sivraj</i>	
SECURED ROUTING PARADIGM FOR INTELLIGENT TRANSPORTATION SYSTEMS.....	2197
<i>Harish Krishnamoorthy, Basundhara Chakrabarty, S. Nandakumar</i>	
AREA-EFFICIENT D-FLIP FLOP AND XOR IN QCA	2204
<i>Raja Sekar Kumaresan, Marshal Raj, Lakshminarayanan Gopalakrishnan</i>	
A MACHINE LEARNING APPROACH TO PERFORMANCE AND DROPOUT PREDICTION IN COMPUTER SCIENCE: BANGLADESH PERSPECTIVE.....	2209
<i>Sheikh Arif Ahmed, Md. Aref Billah, Shahidul Islam Khan</i>	
HUMAN BEHAVIOR ANALYSIS USING ASSOCIATION RULE MINING TECHNIQUES	2215
<i>M. Raihan, Md. Tanvir Islam, Promila Ghosh, Md.Mehedi Hassan, Jarif Huda Angon, Sajib Kabiraj</i>	
A NOVEL FEEDER PROTECTION SYSTEM USING FAST SWITCHING PHOTOMOS RELAY.....	2220
<i>Akshay Kumar, Viranjay M. Srivastava</i>	
CHATBOT: A DEEP NEURAL NETWORK BASED HUMAN TO MACHINE CONVERSATION MODEL.....	2224
<i>G Krishna Vamsi, Akhtar Rasool, Gaurav Hajela</i>	
COVERAGE AWARE DYNAMIC SCHEDULING STRATEGIES FOR WIRELESS VIDEO SENSOR NODES TO REDUCE ENERGY CONSUMPTION	2231
<i>Kishalay Bairagi, Sulata Mitra, Uma Bhattacharya</i>	
ROUTING PROTOCOL BASED ON BACTERIAL FORAGING OPTIMIZATION AND TYPE-2 FUZZY LOGIC FOR WIRELESS SENSOR NETWORKS.....	2238
<i>Veerendra Kumar Alla, M. Mallikarjuna</i>	
A DECISION SUPPORT SYSTEM OF SELECTING GROUPS (SCIENCE/ BUSINESS STUDIES/ HUMANITIES) FOR SECONDARY SCHOOL STUDENTS IN BANGLADESH	2244
<i>Rifat Hasan, Md. Khairul Alam Ovy, Ifrat Zahan Nishi, Md. Azizul Hakim, Rubaiya Hafiz</i>	
PASSIVE COPY-MOVE FORGERY DETECTION USING LOCALIZED INTENSITY FEATURE.....	2250
<i>Shilpa Dua, Dhruv P. Shahi, Jyotsna Singh, Harish Parthasarathy</i>	

ENHANCEMENT OF UNSUPERVISED OBJECT DETECTION USING SUPERVISED METHOD.....	2257
<i>Debadri Basak, Dhruv Ramani, Ghanshyam Singh</i>	
A COMPARATIVE STUDY OF BACKGROUND SEGMENTATION APPROACHES IN DETECTION OF PERSON WITH GUN UNDER ADVERSE WEATHER CONDITIONS.....	2266
<i>Rajib Debnath, Anu Singha, Biswajit Saha, Mrinal Kanti Bhowmik</i>	
AN AUTOMATIC SIREN DETECTION ALGORITHM USING FOURIER DECOMPOSITION METHOD AND MFCC	2273
<i>Binish Fatimah, A. Preethi, V. Hrushikesh, Akhilesh Singh B., Harshanikethan R. Kotion</i>	
IN-VEHICLE OCCUPANCY DETECTION AND CLASSIFICATION USING MACHINE LEARNING.....	2279
<i>Malneedi Vamsi, K.P. Soman</i>	
CLASSICAL EQUIVALENT QUANTUM BASED EFFICIENT DATA PREPROCESSING ALGORITHM.....	2285
<i>Barkha Soni, Nilay Khare, Kapil Kumar Soni, Akhtar Rasool</i>	
ARE COORDINATOR ELECTION ALGORITHMS IN DISTRIBUTED SYSTEMS VULNERABLE?.....	2292
<i>Shital S Supase, Rajesh B Ingle</i>	
NEXT GENERATION NETWORK CODING TECHNIQUE FOR IOT	2297
<i>G. Akilandeswary, Martin Leo Manickam J.</i>	
MULTIAGENT APPROACH FOR RESOURCE MANAGEMENT IN SMART ENVIRONMENTS	2303
<i>Agostino Forestiero, Giuseppe Papuzzo, Rosaria de Simone, Francesco Forestiero, Francesca Giordano</i>	
ANALYSIS OF THE EFFECTS OF DIFFERENT TYPES OF NOISES AND WAVELETS USED IN DENOISING OF AN IMAGE USING WAVELET TRANSFORM.....	2308
<i>Tanay Mehendale, Vishal Ramina, Soham Pinge, Sujata Kulkarni</i>	
COMPARATIVE ANALYSIS ON MULTIPLIER	2313
<i>Nitesh Kumar Sharma, Deepesh Kumar Gautam, M. R. Khan</i>	
MINIATURIZATION OF A CONVENTIONAL WLAN 2.45GHZ PATCH ANTENNA USING SLOT INSERTION TECHNIQUE	2318
<i>Jai Mangal, Gaurav Varshney, N. Anveshkumar</i>	
SEGMENTATION AND PREDICTION FROM CT IMAGES FOR DETECTING LUNG CANCER.....	2325
<i>K.S. Chethan, S. Vishwanath, Rakshith V. Patil, K.A. Vijetha</i>	
PERFORMANCE ANALYSIS OF VARIOUS LORAWAN FREQUENCIES FOR OPTIMAL DATA TRANSMISSION OF WATER QUALITY PARAMETER MEASUREMENT	2331
<i>Utkarsh Alset, Atul Kulkarni, Hrishikesh Mehta</i>	
LIFE AUTOMATION: A BLESSING OF IOT	2337
<i>Abdullah Al-Mamun Bulbul, Md. Bellal Hossain, Bappy Ray, Shaon Md. Foorkanul Islam, Etu Podder, Md. Aminul Kabir, Ahmed Saif Muntaseer, Md. Mahmudul Hasan</i>	

EDUBLOCK: SECURING EDUCATIONAL DOCUMENTS USING BLOCKCHAIN TECHNOLOGY	2344
<i>Pavitra Haveri, U.B. Rashmi, D.G. Narayan, K. Nagaratna, K. Shivaraj</i>	
ELASTIC PROVISIONING OF HADOOP CLUSTERS ON OPENSTACK PRIVATE CLOUD	2351
<i>Namrata Hosamani, Nageshwar Albur, Prajna Yaji, Mohammed Moin Mulla, D.G. Narayan</i>	
ANT COLONY OPTIMIZATION-BASED DYNAMIC ROUTING IN SOFTWARE DEFINED NETWORKS	2358
<i>T. Shreya, Mohammed Moin Mulla, Sumedha Shinde, D.G. Narayan</i>	
NUCLEI SEGMENTATION AND DETECTION USING DEEP CONVOLUTIONAL NEURAL NETWORKS	2365
<i>Rohan Pudipeddi, Parikshit Phukan, Aneesh Gunda</i>	
A PROFICIENT MODEL TO CLASSIFY BANGLADESHI BANK NOTES FOR AUTOMATIC VENDING MACHINE USING A TINY DATASET WITH ONE-SHOT LEARNING & SIAMESE NETWORKS	2370
<i>Md. Ekram Hossain, Arni Islam, Md. Sanzidul Islam</i>	
A ROBUST DEEP LEARNING SEGMENTATION AND IDENTIFICATION APPROACH OF DIFFERENT BANGLADESHI PLANT SEEDS USING CNN	2374
<i>Mumenuzza Keya, Bhaskar Majumdar, Md. Sanzidul Islam</i>	
OPTIMUM WAVEGUIDE AND PULSE SHAPING FILTER FOR GFDM SYSTEM	2380
<i>Archana Kumari, Neetu Sood</i>	
UNMANNED GROUND VEHICLE FOR SURVEILLANCE	2387
<i>S. Maheswaran, G. Murugesan, Prakash Duraisamy, B. Vivek, S. Selvapriya, S. Vinith, V. Vasantharajan</i>	
AIRLINE TWEETS SENTIMENTAL ANALYSIS USING ADAPTIVE RIDER OPTIMIZATION BASED SUPPORT VECTOR NEURAL NETWORK	2392
<i>S.Sathish Kumar, Aruchamy Rajini</i>	
AGE RANGE ESTIMATION USING MTCNN AND VGG-FACE MODEL	2402
<i>Dipesh Gyawali, Prashanga Pokharel, Ashutosh Chauhan, Subodh Chandra Shakya</i>	
A REVIEW ON THE TECHNIQUES OF BRAIN TUMOR: SEGMENTATION, FEATURE EXTRACTION AND CLASSIFICATION	2408
<i>G. Yogalakshmi, B.Sheela Rani</i>	
A SINGLE BJT 10.2 PPM/°C BANDGAP REFERENCE IN 45NM CMOS TECHNOLOGY	2414
<i>R. Nagulapalli, K. Hayatleh, S. Barker, B. Naresh Kumar Reddy</i>	
STATE OF ART RESEARCH IN BENGALI SPEECH RECOGNITION	2418
<i>S.M. Saiful Islam Badhon, Md. Habibur Rahaman, Farea Rehnuma Rupon, Sheikh Abujar</i>	
WEATHER FORECASTING FOR THE NORTH-WESTERN REGION OF BANGLADESH: A MACHINE LEARNING APPROACH	2424
<i>Md. Arif Rizvee, Ashfakur Rahman Arju, Md. Al-Hasan, Saifuddin Mohammad Tareque, Md.Zahid Hasan</i>	
OPEN RNSIR MODEL FOR INFORMATION SPREAD IN SOCIAL NETWORKS	2430
<i>N. Sumith</i>	

COVERT SPEECH COMMUNICATION THROUGH AUDIO STEGANOGRAPHY USING DWT AND SVD	2435
<i>Praveen Kumar Kasetty, Aniruddha Kanhe</i>	
SCALE INVARIANT FAST PHT BASED COPY-MOVE FORGERY DETECTION.....	2440
<i>Aroof Aimen, Amandeep Kaur, Sahil Sidheekh</i>	
A TWO-STAGE OPAMP FREQUENCY COMPENSATION TECHNIQUE BY SPLITTING THE 2ND STAGE	2447
<i>R. Nagulapalli, K. Hayatleh, S. Barker, B. Naresh Kumar Reddy</i>	
EMPLOYING TRANSFER-LEARNING BASED CNN ARCHITECTURES TO ENHANCE THE GENERALIZABILITY OF DEEPAKE DETECTION	2452
<i>Shraddha Suratkar, Elvin Johnson, Karan Variyambat, Mihir Panchal, Faruk Kazi</i>	
IDENTIFYING THE WRITING STYLE OF BANGLA LANGUAGE USING NATURAL LANGUAGE PROCESSING.....	2461
<i>Syeda Farjana Shetu, Mohd. Saifuzzaman, Masuma Parvin, Nazmun Nessa Moon, Ridwanullah Yousuf, Sharmin Sultana</i>	
THROUGHPUT MAXIMIZATION IN WIRELESS POWERED ENERGY HARVESTING BASED SENSOR NETWORKS.....	2467
<i>Anupama Chennamadhava, Sudheesh Nagamalla, Mahesh Nirati, Y. Vijayalata, Dipen Bepari</i>	
THE SMART CITY: A HOLISTIC APPROACH.....	2473
<i>Ujjwal Singh, Anirudh Sharad</i>	
ARTIFICIAL NEURAL NETWORK BASED INDIAN SIGN LANGUAGE RECOGNITION USING HAND CRAFTED FEATURES	2480
<i>Purva Chaitanya Badhe, Vaishali Kulkarni</i>	
TOWARDS IMPLEMENTING FAST AND SCALABLE NETWORK INTRUSION DETECTION SYSTEM USING ENTROPY BASED DISCRETIZATION TECHNIQUE	2486
<i>Ritesh Ratti, Sanasam Ranbir Singh, Sukumar Nandi</i>	
A SURVEY ON ‘APACHE STORM PERFORMANCE OPTIMIZATION USING TUNING OF PARAMETERS’	2493
<i>Tanuja Pattanshetti, Subodh Kamble, Aditya Yalgude, Pranav Patil</i>	
STATISTICAL FEATURES BASED OPTIMIZED TECHNIQUE FOR COPY MOVE FORGERY DETECTION.....	2500
<i>S.B.G. Tilak Babu, Ch Srinivasa Rao</i>	

Author Index