

International Conference on Recent Advancements in Engineering and Management (ICRAEM-2020)

IOP Conference Series: Materials Science and Engineering
Volume 981

Online
9-10 October 2020

Part 1 of 3

Editors:

**I. Rajasri Reddy
K. Mahender**

ISBN: 978-1-7138-4795-3
ISSN: 1757-8981

Printed from e-media with permission by:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571



Some format issues inherent in the e-media version may also appear in this print version.

This work is licensed under a Creative Commons Attribution 3.0 International Licence.
Licence details: <http://creativecommons.org/licenses/by/3.0/>.

No changes have been made to the content of these proceedings. There may be changes to pagination and minor adjustments for aesthetics.

Printed with permission by Curran Associates, Inc. (2022)

For permission requests, please contact the Institute of Physics
at the address below.

Institute of Physics
Dirac House, Temple Back
Bristol BS1 6BE UK

Phone: 44 1 17 929 7481
Fax: 44 1 17 920 0979

techtracking@iop.org

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
Email: curran@proceedings.com
Web: www.proceedings.com

TABLE OF CONTENTS

PART 1

Preface	
Declaration of Peer Review	
Mathematical Modeling Approaches for Blockchain Technology	1
<i>K Suresh Kumar, R Rajeswari, Ch Vidyadhari, B Santhosh Kumar</i>	
Smart Catcher of weighted Objects	9
<i>Radha Mothukuri, S. Hrushikesava Raju, S. Dorababu, Saiyed Faiyaz Waris</i>	
Smart Gas Monitoring System for Home and Industries	22
<i>Modepalli Kavitha, S. Hrushikesava Raju, Saiyed Faiyaz Waris, Ashok Koulagaji</i>	
Data Science and Machine Learning Integrated Implementation Patterns for Cavernous Knowledge Discovery from COVID-19 Data	33
<i>B Prashanth, G Neelima, Chhaya S Dule, T Chandra Prakash, S Tharun Reddy</i>	
Computer vision based fatigue detection using facial parameters	51
<i>A Balasundaram, S Ashokkumar, D Kothandaraman, Seenanaik Kora, E Sudarshan, A Harshaverdhan</i>	
Cardiovascular disease prediction using deep learning techniques	59
<i>Syed Nawaz Pasha, Dadi Ramesh, Sallauddin Mohmmad, A. Harshavardhan, Shabana</i>	
HomeCloud Framework for Priority aware VM Allocation and Network Bandwidth Provisioning.....	65
<i>Chintouju Sidhardha, V. Srinivas, M. Gopal, Rajesh Mothe, Komuravelly Sudheer Kumar</i>	
A Brief Analysis of Collaborative and Content Based Filtering Algorithms used in Recommender Systems.....	75
<i>Sri Hari Nallamala, Usha Rani Bajjuri, Sarvani Anandarao, D. Durga Prasad, Pragnaban Mishra</i>	
Collaborative Filtering and Regression Techniques based location Travel Recommender System based on social media reviews data due to the COVID-19 Pandemic.....	82
<i>K. V. Daya Sagar, P. S. G. Arunasri, Sridevi Sakamuri, J. Kavitha, Dbk Kamesh</i>	
A Systematic Review on Anomaly Based Intrusion Detection System.....	92
<i>R Ganeshan, Chandra Sekhar Kolli, Ch. Mohan Kumar, T Daniya</i>	
An Interactive Clustered base Recommender system for effective Social Data Analysis	99
<i>K. Kiran Kumar, T. Srinivasa Ravi Kiran, M. Ramesh Kumar, P. S. G. Aruna Sri</i>	
An Efficient Deep Learning Approach for Brain Tumor Segmentation Using CNN.....	108
<i>M. Jogendra Kumar, N. Raghavendra Sai, Ch. Smitha Chowdary</i>	
SQLID Framework In Order ToPerceive SQL Injection Attack on Web Application.....	117
<i>Bandi Aruna, Bhimavarapu Usharani</i>	
A Hybrid Hash-Stego for Secured Message Transmission Using Steganography	124
<i>A. Pavan Kumar, Lingam Gajjela, N. Raghavendra Sai</i>	

Security Analysis on Remote Authentication against Man-in-the-Middle Attack on Secure Socket Layer.....	135
<i>O. Rama Devi, S Parvathi Vallabhaneni, Mohammed Ali Hussain, Tulisetti Kranthi Kumar</i>	
An overview of an automated essay grading systems on content and non content based	142
<i>Ramesh Dadi, Syed Nawaz Pasha, Mohammad Sallauddin, Chintoju Sidhardha, A. Harshavardhan</i>	
Suitable encrypting algorithms in Parallel Processing for improved efficiency.....	151
<i>Sampath Kumar Tallapally, B. Manjula</i>	
A Novel Approach for Detection of Counterfeit Indian Currency Notes Using Deep Convolutional Neural Network	158
<i>S Naresh Kumar, Gaurav Singal, Shwetha Sirikonda, R. Nethravathi</i>	
A novel framework for quality of service aware vertical handover process in heterogeneous wireless networks	169
<i>P Pramod Kumar, K Sagar, G Ranadheer Reddy, S Shwetha, V Pranathi</i>	
Enhancing dull images using discrete wavelet families and fuzzy	182
<i>D Kothandaraman, A Balasundaram, Seenanaik Korra, E Sudarshan, B Vijaykumar</i>	
Mathematical model for implementing Non Linear Time Series Forecasting using Deep Learning	190
<i>Imran Qureshi, Burhanuddin Mohammad, Mohammed Abdul Habeeb, Mohammed Ali Shaik</i>	
Discover the Adaption of Big Data Study in EHR Information	198
<i>R A V Krishna Rao, Shaik Razia, D. Harita</i>	
Innovative Task Scheduling Algorithm in Cloud Computing	204
<i>S. Magesh Kumar, V. Auxilia Osvin Nancy, A Balasundaram, Seena Naik Korra, D Kothandaraman, E Sudarshan</i>	
An Overview on Prediction of Plant Leaves Disease using Image Processing Techniques	216
<i>Sridevi Sakhamuri, Vijaya Sri Kompalli</i>	
Glimpse On Blockchain Technology And Applications	226
<i>V. Chandra Shekhar Rao, Johnson Kolluri, M. S. B. Phridviraj, Syed Abdul Moeed, C. Srinivas</i>	
Portable manure dispenser machine	232
<i>Seena Naik Korra, E Sudarshan, S Venkatesulu, P Pramod Kumar, Bonthala Prabhanjan Yadav</i>	
RNN based prediction of spatiotemporal data mining.....	239
<i>Mohammed Ali Shaik, Dhanraj Verma, P Praveen, K Ranganath, Bonthala Prabhanjan Yadav</i>	
Analysis of Cryptography Encryption for Network Security	250
<i>V. Esther Jyothi, Bdcn Prasad, Ramesh Kumar Mojjada</i>	
Detecting Faults within a Cloud Using Machine Learning Techniques	257
<i>K. V. Daya Sagar, J Kavitha, Balabrahmeswara Kadaru, M. Venkateswara Rao, D. B. K. Kamesh</i>	
A Privacy Preserving System for Protecting Cloud Based Health Care Records Using Fine Grade Access Techniques	268
<i>P. S. G. Aruna Sri, M. Anusha, K. Kiran Kumar, S. Sridevi</i>	

A Novel Cosine-based Internal and External Validation metrics to assess twitter Data Clustering using Hybrid Topic Models.....	275
<i>R M Noorullah, Moulana Mohammed</i>	
Hybrid Learning Method to Detect the Malicious Transactions in Network Data	294
<i>Gayathri Edamadaka, Ch. Smitha Chowdary, M. Jogendra Kumar, N. Raghavendra Sai</i>	
Heterogeneous inter-Clue designing of POI Popularity Analysis with discrepancy Tourism Data	304
<i>Mahesh Akarapu, G. Sunil, Koteshwar Rao Donthamala, M Mrutyunjaya, D. Praveen</i>	
Checking For Identity-Based Remote Data Integrity Cloud Storage with Perfect Data Privacy.....	315
<i>Mahesh Akarapu, Sheshikala Martha, Koteshwar Rao Donthamala, B Prashanth, G. Sunil, K. Mahender</i>	
Fundamental Perception of EDGE Computing	321
<i>Khaja Mannanuddin, M. Ranjith Kumar, Srinivas Aluvala, Y. Nagender, S. Vishali</i>	
Lifting wheelchair for limbless people.....	328
<i>A Harshavardhan, D Ramesh, Syed Nawaz Pasha, S Shwetha, Sallauddin Mohmmad, D Kothandaraman</i>	
Secure Deployment of Decentralized Cloud in Blockchain Environment using Inter-Planetary File System.....	337
<i>Mruthyunjaya Mendu, B Krishna, Sallauddin Mohmmad, Y Sharvani, Ch Vinay Kumar Reddy</i>	
Enhanced ANN training model to smooth and time series forecast	351
<i>Mohammed Ali Shaik, Dhanraj Verma</i>	
Competent multi-level encryption methods for implementing cloud security.....	360
<i>Sampath Kumar Tallapally, B. Manjula</i>	
A Comparative Study of Interrupted Secondary User Buffer Mechanism with No buffer mechanism for Cognitive Radio Networks.....	369
<i>B. B. V. Satya Vara Prasad, M. Ramesh Kumar, K. Kiran Kumar, Arvind Yadav</i>	
Deep learning time series to forecast COVID-19 active cases in INDIA: a comparative study.....	378
<i>Mohammed Ali Shaik, Dhanraj Verma</i>	
Women Wellbeing Assessment in Indian Metropolises Using Machine Learning models	389
<i>Bonthala Prabhanjan Yadav, M. Sheshikala, N Swathi, Kanegonda Ravi Chythanya, E Sudarshan</i>	
A Coherent and Privacy-Protecting Biometric Authentication Strategy in Cloud Computing.....	396
<i>Bonthala Prabhanjan Yadav, Ch. Shiva Sai Prasad, Ch Padmaja, Seena Naik Korra, E Sudarshan</i>	
Text categorization Performance examination Using Machine Learning Algorithms	403
<i>Bonthala Prabhanjan Yadav, Sukhaveerji Ghate, A Harshavardhan, G Jhansi, Komuravelly Sudheer Kumar, E Sudarshan</i>	
A Comprehensive Study on the Various Applications of Deep Learning	408
<i>V. Pranathi, G. Ranadheer Reddy, G. Sunil, D Raghava Kumari, Bhavana Jamalpur</i>	
A Redesigning Software Procedure in Improved Software Management using Machine Learning	415
<i>R. Nethravathi, S. Naresh Kumar, S. Shwetha, M Shyamsunder, Ch Vinay Kumar Reddy</i>	

ECO Friendly Mask Guide for Corona Prevention	422
<i>Praveen Tumuluru, S. Hrushikesava Raju, Ch. M. H. Sai Baba, S. Dorababu, B. Venkateswarlu</i>	
Remote Data Auditing in Multi-tenancy Cloud Storage by Using File Attribute Test Technique	435
<i>Ranjith Kumar Marrikkala, P. Praveen, Bonthala Prabhanjan Yadav, G Jhansi, P. Venkata Ramana Rao</i>	
Multi Labeled Multi-Expressions to Explore Descriptive Documents	440
<i>Ravikumar Thallapalli, G. Narasimha, Seena Naik Korra, K Ravi Kiran, P. Pallavi</i>	
Sentiment Analysis for Multi-Attribute Data in OSNs Using Hybrid Approach	447
<i>Ravikumar Thallapalli, G. Narasimha, P. Pramod Kumar, K Srinivas, P. Pallavi</i>	
Routing and data aggregation in wireless sensor networks by using clusters.....	454
<i>Kanegonda Ravi Chythanya, Komuravelly Sudheer Kumar, Bonthala Prabhanjan Yadav, P. M. Madhuri, Rajesh Mothe</i>	
Survey on machine leaning based game predictions	463
<i>Sallauddin Mohmmad, V. Nikhitha Madishetti, Yarra Nitin, Bonthala Prabhanjan Yadav, Bommagani Sathya Sree, Beesupaka Marvel Moses</i>	
Time for relative velocity optimal time approach in internet of vehicle communication.....	469
<i>Sallauddin Mohmmad, Mohammed Ali Shaik, Ramesh Dadi, Syed Nawaz Pasha, Shabana, Bonthala Prabhanjan Yadav</i>	
Average Response Time (ART):Real-Time Traffic Management in VFC Enabled Smart Cities.....	478
<i>Shabana, Sallauddin Mohmmad, Mohammed Ali Shaik, K Mahender, Ranganath Kanakam, Bonthala Prabhanjan Yadav</i>	
Study of threats associated with cloud infrastructure systems.....	486
<i>Ch Shiva Sai Prasad, Bonthala Prabhanjan Yadav, Sallauddin Mohmmad, M Gopal, K Mahender</i>	
Detection of Mentally Distressed Social Media Profiles Using Machine Learning Techniques	493
<i>T. Sravanthi, V. Hema, S Tharun Reddy, K Mahender, S Venkateshwarlu</i>	
Fiscal Scam Illuminating Through Analyzing Human Behaviour.....	499
<i>T. Sravanthi, M. Sruthi, S Tharun Reddy, T Chandra Prakash, Ch Vinay Kumar Reddy</i>	
A Multi-hop Network Congestion Management Routing Protocol for WNETS.....	506
<i>Sruthi Mamidala, T. Sravanthi, Ramesh Dadi, E Kumaraswamy, G. Sunil</i>	
Data Integrity And Ensuring Computation Using MHT In Cloud Computing.....	515
<i>Sukhaveerji Ghate, Bonthala Prabhanjan Yadav, S Tharun Reddy, N Swathi, Purushotham Endla</i>	
Scrum: An Effective Software Development Agile Tool	522
<i>Valpadasu Hema, Sravanthi Thota, S Naresh Kumar, Ch Padmaja, C. Bala Rama Krishna, K Mahender</i>	
Exploiting Artificial Intelligence to Enhance Healthcare Sector.....	532
<i>Vishali Sivalenka, Srinivas Aluvala, Naheer Fatima, D Raghava Kumari, C.H. Sandeep</i>	
Cyber Security Challenges and its Emerging Trends on Latest Technologies	539
<i>K. M Rajasekharaiah, Chhaya S Dule, E Sudarshan</i>	

Analyze The Legislative Framework relating to Surveillance and Right to Privacy: Issues and Challenges	546
<i>Chhaya S Dule, K. M Rajasekharaiah, B Prashanth</i>	
To Reduce Error Rate and Improve Performance of Classification Algorithm.....	553
<i>S Nagaparameshwara Chary, B. Rama</i>	
A research on security problems with data storage in cloud computing	561
<i>Komuravelly Sudheer Kumar, Kanegonda Ravi Chythanya, Bhavana Jamalpur, Mahesh Dandugudum, Bonthala Prabhanjan Yadav</i>	
Smart Instant Charging of Power Banks	571
<i>N Sunanda, S. Hrushikesava Raju, Saiyed Faiyaz Waris, Ashok Koulagaji</i>	
Tourism Enhancer App: User-Friendliness of a Map with Relevant Features	584
<i>Raju S. Hrushikesava, Ramani Burra Lakshmi, Koujalagi Ashok, Saiyed Faiyaz Waris</i>	
Diabeties Predection Using Biosensors	596
<i>N. Ravinder, N. Rajesh, V. Kantha Rao, T. Praveen, M. Sridhar</i>	
A Secured and Effective Load Monitoring and Scheduling Migration VM in Cloud Computing	607
<i>Sai N. Raghavendra, Kumar M. Jogendra, Chowdary Ch. Smitha</i>	
Sturdy goals coverage for power harvesting Wi-Fi detector coterie	621
<i>Yerrolla Chanti, Seena Naik Korra, Bandi Bhaskar, A. Harshavardhan, V Srinivas</i>	
The comparative study on agglomerative hierarchical clustering using numerical data	635
<i>P Praveen, M Ranjith Kumar, Mohammed Ali Shaik, R Ravikumar, R Kiran</i>	
Machine learning intersections and challenges in deep learning	645
<i>Bhavana Jamalpur, Seena Naik Korra, Vijaya Prakash Rajanala, E Sudarshan, Bonthala Prabhanjan Yadav</i>	
Personalized fashion recommender system with image based neural networks.....	659
<i>M Sridevi, N Manikyaarun, M Sheshikala, E Sudarshan</i>	
Evaluation and scrutiny of XML files, XML empowered records and native XML records	666
<i>S. Tharun Reddy, Rajesh Mothe, Sukhaveerji Ghate, G. Sunil</i>	
Findings on detection of fraud smartphone apps by ranking using mining leading sessions	674
<i>Prof A Sai Hanuman, P. Sujan Mohan, Kanegonda Ravi Chythanya</i>	
Innovative teaching practice on “software engineering laboratory course”	679
<i>A. Harshavardhan, D. Ramesh, P. Kumaraswamy, Mahesh Akarapu, Bhavana Jamalpur, Yerrollachanti</i>	
Cognitive ability to improve driving in aging adults suffering with visual and hearing impairments with yoga and exercise	688
<i>Sheshikala Martha, Syedmusthak Ahmed, G. Jose Mary, Bonthala Prabhanjan Yadav, S. Gouthami, M. Sridevi</i>	
Analogous Approach towards Performance Analysis for Software Defect Prediction and Prioritization.....	697
<i>Ch. Smitha Chowdary, Gayathri Edamadaka, N. Raghavendra Sai, M. Jogendra Kumar</i>	

Secure Multiparty computation enabled E-Healthcare system with Homomorphic encryption.....	709
<i>A Vijaya Kumar, Mogalapalli Sai Sujith, Kosuri Tarun Sai, Galla Rajesh, Devulapalli Jagannadha Sriram Yashwanth</i>	
Performance of Vehicle Arrival Traffic Data at Fuel Station using Queuing System.....	718
<i>Pushpalatha Sarla, Mallikarjuna Reddy Doodipala, Purushotham Endla</i>	
A Comprehensive Study On Evaluation Of Strategic Innovation In Creative Industries And Ensuring Strategic Innovations In Business	725
<i>M. Rajya Laxmi, Kafila, B. Pragathi, Km Sujatha, D Ramesh Babu</i>	
Identifying the Areas of Project Management Competences and Resources, Capabilities Facilitating Agility Development	734
<i>Kafila, M. Rajyalaxmi, J. Bhavana, K M Sujatha, R. Vijayasrinivas</i>	
Technology based startups pivoting for sustainability: case study of startups	744
<i>G Satheesh Raju, N Suman Kumar, Soni Nikkat</i>	
Experimental Study on Thermophysical Properties in AgCl.....	752
<i>A. S. Madhusudhan Rao, P. Venkata Madhusudhan Rao, Anno Kare, Anna Srinivas</i>	
X-Ray Debye temperature study of Gruneisen constant of Hexagonal Phase Cu _{1-x} -Zn _x alloys	756
<i>Purushotham Endla, N Srivani</i>	
Characterization Of Size Dependent Thermal Properties In Strained Nanocrystalline Powder Using Williamson – Hall Method	764
<i>Purushotham Endla, Ch Krishna Reddy</i>	
Electronic, NLO, and thermodynamic parameters and frontier molecular orbital investigation of pentafluoro phenol and pentachloro thiophenol with DFT approach	773
<i>P Venkata Ramana Rao, K Srishailam, Adla Rajesh</i>	
Estimation Of Coefficients For A Novel Subclasses Of Harmonic Mappings	778
<i>B Ravindar, R Bharavisharma</i>	
Mathematical Modelling Of Extraction Of The Underground Fluids: Application To Peristaltic Transportation Through A Vertical Conduit Occupied With Porous Material.....	783
<i>G Ravi Kiran, Md Shamshuddin, C Balarama Krishna, K Rajesh Chary</i>	
On The Solution And Stability Analysis Of 6 th order Bvp By Special Multistep Methods.....	794
<i>C Balarama Krishna, G Anusha, R Archana Reddy, K Rajesh Chary</i>	
How the collaborative learning can strengthen the Teaching and learning process in Engineering Education.....	803
<i>D. Praveena, E. Purushotham, J. Sunil Kumar, P. Vijaya Lakshmi</i>	

PART 2

Ion Conductance, Walden Product Pressure Coefficient And Hydrodynamic Radii Of Sodium Salt Of Methane Sulphonic Acid In Water-Methanol And Water-Dmf Compositions	809
<i>V. Radhika, J. Sunil Kumar, N Srivani</i>	
Teaching-Learning process : Seven Attributes of an Engineering Educator-An Introspection	814
<i>Sangaraboina Shailaja, P. Vijaya Lakshmi</i>	

Association Constant And Free Energy Change Properties Of Sodium Salt Of 1-Butane Sulphonic Acid In Aqueous Meoh And Aqueous DmsO Composition.....	819
<i>Sunil Kumar Jakkula, Radhika Veerati, Adla Rajesh</i>	
Collaborative Learning Through Virtual Labs in Engineering Education.....	823
<i>Sunil Kumar Jakkula, Purushotham Endla, Praveena Dugyala, T. Kumaraswamy</i>	
Eco-Friendly One Pot Synthesis Of Triazole Containing Pyrrolopyridine Derivatives Using PEG-600.....	829
<i>B Ravi Kumar, K Srivani, M Ramesh, M Thirumala Chary, E Laxminarayana</i>	
Analytical study on Air India Traffic Using Artificial Neural Networks	833
<i>Pushpalatha Sarla, Mallikarjuna Reddy D, G Ravi Kiran</i>	
Analysis of Self-similar Nature Vehicle Arrival Data Pattern on Arterial Roads	839
<i>Pushpalatha Sarla, Mallikarjuna Reddy, Archana Reddy</i>	
Eliminating products' fake reviews using network parameters and geo location.....	848
<i>B Raja, V Malathy, N Shilpa, M Anand</i>	
Various signals used for device navigation in BCI production	857
<i>Ravichander Janapati, Viswas Dalal, Rakesh Sen Gupta, P Anuradha, P V Raja Shekar</i>	
Real Time Fitness Analysis of Bitumen Road and Vehicle through Their Acoustic Signals	862
<i>S Venkatesulu, E Sudarshan, Seena Naik Korra, D Raghava Kumari, Bonthala Prabhanjan Yadav, K Mahender</i>	
Rank based Approach for Extracting Unit Pixel Width Skeleton.....	869
<i>N. Neelima, A. Srikrishna, K. Gangadhara Rao</i>	
High Speed and Low Power Error Recovery Approximate Multiplier for Image Processing Applications	879
<i>B. Aparna, B. Girirajan</i>	
Analysis of The Energy Efficiency of Wireless Communication When Receiving A Data Stream.....	886
<i>Nafisa Inoyatovna Juraeva, Alisher Fayzulla Ugli Khayrullaev, Javlon Hoshim Ugli Hamraev</i>	
A Prediction based Encryption Approach for Telemedicine Applications	894
<i>G. Vallathan, T. Rajani, Eelandula Kumaraswamy, C. Srinivas</i>	
Solar energy harvesting for smart farming using nanomaterial and machine learning.....	906
<i>Rambabu Vatti, Nagarjuna Vatti, K Mahender, Prasanna Lakshmi Vatti, B. Krishnaveni</i>	
Smart Memory Management (SaMM) For Embedded Systems without MMU.....	915
<i>Krishnaveni Bukkapatnam, Prashant, Ch Kranthi Rekha, Eelandula Kumaraswamy, Rambabu Vatti</i>	
Cancer prediction for type-2 diabetes using machine learning.....	925
<i>V Malathy, N Shilpa, M Anand, N Swathi, R Elavarasi</i>	
Effect of physical parameters on the drain characteristics of Double gate MOSFET incorporating Quantum Mechanical Effects	937
<i>Shankaranand Jha, Ritesh Kumar, Santosh Kumar Choudhary</i>	
Low-Jitter CMOS Digital PLL for the generation of the clock in synchronous serial communication systems	943
<i>Rajendra Prasad, P Ramchandrarao, Polaiiah Bojja, E. Kumaraswamy</i>	

Anti-Poaching of Trees in Forest-Based on IoT	959
<i>S. Sanjay Kumar, V. Ravi, Ch. Rajendra Prasad, P. Ramchandar Rao</i>	
Effective Power Consumption Monitoring of Smart meter through IoT	965
<i>V. Ravi, S. Sanjay Kumar, Ch. Rajendra Prasad, P. Ramchandar Rao</i>	
Fire Detection and Direction Control of Fire Fighting Robot	970
<i>Sridevi Chitti, P. Ramchandar Rao, Ch. Padmaja, D Raghava Kumari</i>	
Solar power generation system with IOT based monitoring and controlling using different sensors and protection devices to continuous power supply	975
<i>K Rajeshwar Reddy, Rajeshwar Rao Arabelli, Durgam Rajababu, Kommabatla Mahender</i>	
Radio frequency identification based electronic voting machine using fingerprint module.....	986
<i>V Malathy, N Shilpa, M Anand, R Elavarasi</i>	
Review on EEG-BCI classification techniques advancements.....	995
<i>Ravichander Janapati, Viswas Dalal, N. Govardhan, Rakesh Sen Gupta</i>	
A Novel Method to Monitor and Alert System for A Letter Box.....	1001
<i>Rajeshwarrao Arabelli, Durgam Rajababu, D Srinivas, Sharvani Yedulapuram, Chandini Banapuram</i>	
Microcontroller Based Monitoring and Controlling of LPG Leaks Using Internet of Things.....	1007
<i>P Anuradha, Rajeshwar Rao Arabelli, K Rajkumar, J Ravichander</i>	
Area-Delay-Power analysis of Carry Look-AheadAdder Architecture	1015
<i>Ch. Rajendra Prasad, Y. Srikanth, P. Ramchandar Rao, S. Sanjay Kumar</i>	
Microcontroller Based Bi-directional Vehicle Counter and Automatic Gate Controlling System	1023
<i>P Anuradha, Rajeshwarrao Arabelli, K Rajkumar, J Ravichander</i>	
Multi-Core Platforms Energy Saving Scheduling Algorithm.....	1029
<i>P Anuradha</i>	
An IOT Based Environmental Monitoring System	1032
<i>G Jhansi Rani, G Shanmukhi Rama, Ranjith Kumar Marrikukkala, Y Srikanth, Ch Vinay Kumar Reddy</i>	
Face detection authentication analysis on smartphones.....	1040
<i>G Jhansi Rani, G Shanmukhi Rama, K Ranganath, Tarun Kumar Juluri, Ch Vinay Kumar Reddy</i>	
Realization of Elegant Security System for Women and Children Safety.....	1051
<i>Koteshwar Rao Danthamala, P Krishna, Y Srikanth, T Anil Kumar</i>	
Sensor based controlling system for monitoring Home automation using IOT.....	1058
<i>D Raghava Kumari, K Pravallika, A Mahesh, Ch Sridevi, Ch Vinay Kumar Reddy</i>	
Experimental Investigation Of Compressed Air Engine: A Review	1067
<i>M. Vishnu Vardhan, J. Purushothaman</i>	
SVD Based Robust Unsighted Video Watermarking Technique for different attacks	1070
<i>Eelandula Kumaraswamy, Rambabu Vatti, G Vallathan, Ch Rajendra Prasad, Koteshwar Rao Danthamala</i>	

Digital Watermarking: State of The Art and Research Challenges in Health Care & Multimedia Applications.....	1079
<i>Eelandula Kumaraswamy, G Mahesh Kumar, Kommabatla Mahender, Krishnaveni Bukkapatnam, Ch Rajendra Prasad</i>	
Sustainable development in agriculture using internet of things-A Review	1085
<i>Ch Padmaja, N Swathi, P Anuradha, B Prashanth</i>	
Wi-Fi based smart wireless flipchart	1089
<i>N Swathi, Ch Padmaja, Soma Umamaheshwar, T Sravanthi</i>	
Maize dryer by using Arduino.....	1094
<i>N Swathi, Ch Padmaja, V Malathy, Sruthi Mamidalai</i>	
Raspberry Pi based Intelligent Classroom Information and Management System using LBP Method.....	1098
<i>Shyamsunder Merugu, D Naga Sudha, Tarun Kumar Juluru, Ramchander Rao, Shashi Kumar Reddy Ravula</i>	
Automatic Door Lock System by Face Recognition	1107
<i>Sharvani Yedulapuram, Rajeshwarrao Arabelli, Kommabatla Mahender, Chintoju Sidhardha</i>	
IoT Based Solar Power Monitoring System	1113
<i>Maisagalla Gopal, T Chandra Prakash, N Venkata Ramakrishna, Bonthala Prabhanjan Yadav</i>	
Extensive evaluation of the MIMO along with sliced multi modulus algorithm and estimate strategies in the direction of MIMO OFDM solutions	1120
<i>T Chandra Prakash, S Srinivas, M Gopal, E Sudharshan</i>	
Novel Hybrid MIMO Detector for Spatial Multiplexed MIMO System	1127
<i>Soma Umamaheshwar, Kommabatla Mahender, Maisagalla Gopal</i>	
Identification of Sulphur Added Copra Using Drying Process	1134
<i>P. Ramchandar Rao, Y Srikanth, Shyamsunder Merugu, Ch. Rajendra Prasad, A Chakradhar</i>	
Smart street light management system for conservation of electrical energy.....	1143
<i>Rajeshwarrao Arabelli, P Anuradha, K Rajkumar, Sharvani Yedulapuram</i>	
Design and Analysis of Channel Estimation of MIMO-OFDM using Whale Swarm Optimization.....	1148
<i>Srinivas Samala, Tallapalli Chandraprakash, P. Ramchandar Rao</i>	
Estimating Tropical cyclone intensity using a deep belief network	1156
<i>J Tarun Kumar, N Shilpa, V Malathy</i>	
Radiation Hardened Circuits in Multiple Harsh Environments	1164
<i>Chakradhar Adupa, T Chandra Prakash, P. Ramchandar Rao, J. Tarun Kumar, Ch. Rajendra Prasad</i>	
Area-Power Analysis of Carry Select Adder using Transmission gates.....	1170
<i>Y. Srikanth, Ch. Rajendra Prasad, P. Ramchandar Rao, G. Jhansi Rani, A. Chakradhar</i>	
Digital Error Correction Logic for Pipelined ADC Using 1.5Bits/Stage	1176
<i>Y. Srikanth, Ch. Rajendra Prasad, Koteshwar Rao Danthamala, P. Ramchandar Rao, A. Chakradhar</i>	
Cognitive User Mobility Using Cooperative Spectrum Sensing	1183
<i>V Sandeep Kumar, Tarun Kumar Juluru, P. Ramchandar Rao, K Ravi Kiran</i>	

Smart Traffic Junction Using Raspberry Pi.....	1190
<i>G. Mahesh Kumar, Eelandula Kumaraswamy</i>	
Convolution Neural Networks Based Blind Quality Predictor.....	1196
<i>P Anuradha, K Rajkumar, J Ravichander, Ch Padmaja</i>	
Successful strategies implemented in active learning: ECE Perspective.....	1202
<i>Sridevi Chitti, J. Tarun Kumar, P. Ramchandrar Rao, Ch. Padmaja, N. Shilpa</i>	
Blind Parameters Estimation Algorithm Based on SC-FDE Cyclic Autocorrelation.....	1209
<i>Shekar Yedunuri, Kanne Naveen, P. Ramchandrar Rao, S. Srinivas</i>	
Disease monitoring of the crops after segmentation and IoT based sensing of soil water level.....	1216
<i>M Anand, V Malathy, N Shilpa, B Raja</i>	
Understanding Soil Erosion Protection Capabilities of Four Different Plants on Silty Soil.....	1226
<i>R Gobinath, G P Ganapathy, A A Salunkhe, G Raja, E Prasath, T Kavya</i>	
The Effect of Partial Replacement of Micro Silica in Asphalt Mix.....	1234
<i>Neduri Prabhanjan, Swamy Yadav Golla, G. Sahithi, B. Chandu, Roshan Singh Rathore, M. Guruprasad, M Swetha</i>	
An Experimental Investigation of Natural Admixture Effect on Durability Studies of High Silica Fly Ash	1244
<i>T S Ramesh Babu, A Vishal, Lakkakula Shruthi, A Rajesh</i>	
Evaluation Of Correlation Equations Of CBR Of Soils	1253
<i>E. V. Raghava Rao, C. N. V. Satyanarayana Reddy</i>	
Strength studies on Geopolymer Concrete produced by Recycled Coarse Aggregate and Quarry Stone Dust as Fine Aggregate	1261
<i>G Alok, K Ravali, M Guru Prasad, C Pravalika, P Sai Priya, M Sai Kiran</i>	
Acid resistance behaviour of Binary blended Geo-polymer Mortar.....	1272
<i>K Poongodi, R Saravanan, P Murthi, G Shyam Sundar, R Gobinath</i>	
Performance of hybrid waste fibrous materials in high strength concrete.....	1281
<i>M Sivaraja, K Poongodi, M Jegan, Ch Krishna Reddy, Ar Krishnaraja, P Murthi</i>	
Effect of ratio between Na_2SiO_3 and NaOH solutions and curing temperature on the early age properties of geopolymer mortar	1288
<i>P Murthi, K Poongodi, R Saravanan, K Rajesh Chary, R Gobinath</i>	
Scale effect of rectangular and square footing of shallow foundation resting on cohesive soil	1296
<i>R Saravanan, P Murthi, K Poongodi, G Shyam Sundar, R Gobinath</i>	
A study on the effect of waste plastic strips in the stabilization of clay soil	1305
<i>R Saravanan, P Murthi, K Poongodi, Adigoppula Raju</i>	
Strength Properties of Bamboo Fiber Reinforced Concrete	1313
<i>Karthikeyan Kumarasamy, G Shyamala, Haftom Gebreyowhanse, Kumarasamy</i>	
Analytical Examination of Reinforced Concrete with Hybrid Fibres Exterior Beam Column Joint.....	1322
<i>D Maruthachalam, G Shyamala, S C Boobalan, B Sandhya Rani, V Muthukrishnan</i>	
Performance of sustainable concrete with crushed rock fines—A Review	1331
<i>S C Boobalan, V Gayathri, G Shyamala, D Maruthachalam, Sandhya Rani</i>	

Experimental Investigation on Jute Fibre Reinforced Concrete with Partial Replacement of Fine Aggregate by Plastic Waste	1338
<i>M Kalaivani, G Shyamala, S Ramesh, I Rajasri Reddy</i>	
Performance evaluation of concrete using prosopis juliflora as partial replacement of coarse aggregate	1346
<i>G Shyamala, An Swaminathen, I Rajasri Reddy</i>	
Thermal behavior of Concrete subjected to elevated temperature: Case Studies	1353
<i>G. Shyamala, V. Mahesh, K. Rajesh Kumar, I Rajasri Reddy</i>	
Experimental Investigation on Conventional Rebar RC Column with Non-Conventional Prefabricated Cage System	1361
<i>N Gurumoorthy, K Rajesh Kumar, S Sivakumar, P Chandana, M Vinod Kumar, R Vandhiyan</i>	
Performance of Geogrid Reinforced Concrete Slabs under Drop Weight Impact Loading	1368
<i>T J Vijay, K Rajesh Kumar, R Vandhiyan, K Mahender, K Tharani</i>	
Microstructural Characterisation and Durability Enhancement of Concrete with Nano Silica	1379
<i>R Vandhiyan, K Rajesh Kumar, N Gurumoorthy, K Mahender, M Vinod Kumar, T J Vijay</i>	
Effect of plastic powder, silica fume and steel slag in concrete-An Experimental and Analytical Approach	1390
<i>S Sivakumar, K Rajesh Kumar, M Vinod Kumar, Rasha, N Gurumoorthy, R Vandhiyan, G Balaji Kumar, B Kameshwari</i>	
Impact and Flexural Strength Prediction of Plain Concrete with Hybrid Fibres	1398
<i>M Vinod Kumar, K Rajesh Kumar, S Sivakumar, P Madhuriya, A Chithambar Ganesh, R Vandhiyan, N Gurumoorthy</i>	
Durability Studies on the Hybrid Fiber reinforced Geopolymer concrete made of M-sand under ambient curing	1404
<i>A Chithambar Ganesh, K Rajesh Kumar, M Vinod Kumar, Vyshnavi, R Vandhiyan, N Gurumoorthy, S Sivakumar</i>	
Mitigating of drying shrinkage in alkali-activated slag composites	1414
<i>Adeyemi Adesina, K. Rajesh Kumar, Samson Odeyemi, K Mahender, Shaswat Das, Kaze Cyriaque</i>	
Performance Studies on white topping layers over flexible pavement	1421
<i>S M Rashmi, K Rajesh Kumar, Basavaraj Akki, I Rajasri Reddy</i>	
Innovative use of brick wastes as coarse aggregate in concrete	1433
<i>Naraindas Bheel, K Rajesh Kumar, Ashok Kumar, Rehana Bhagam, Adeyemi Adesina, Shankerlal Meghwar, Noor Ahmed Memon</i>	
Effect of bacteria on strength and porosity of M-sand based pumpable concrete	1444
<i>P Murthi, K Poongodi, I Rajasri Reddy</i>	
Effect of particle grain size on its shear strength behaviour of soils	1454
<i>R Saravanan, K Poongodi, P Murthi, E Sudharshan, R Gobinath</i>	
Impact of Partial Replacement of Cement by Coconut Shell Ash and Coarse Aggregate by Coconut Shell on Mechanical Properties of Concrete	1461
<i>P Vasanthi, S Senthil Selvan, P Murthi, I Rajasri Reddy, K Poongodi</i>	

Laboratory Evaluation of Bearing Capacity of Footing on Clayey Bed Overlaid with Geocell Sand Mattress	1468
<i>M Heeralal, G V Praveen, D Bharath Naik, Adla Rajesh, Pandu Kurre</i>	
Investigation of Strain in Infill Frames using Nastran Patran	1475
<i>Swamy Yadav Golla, B. Santhosh Reddy, N. Prabhanjan</i>	
Strength and Settlement studies on basalt fiber reinforced marginal soil	1485
<i>R Gobinath, V Mahesh, G. Shyamala, Adla Rajesh</i>	
Machine Learning based Landslide Prediction System for Hilly Areas	1495
<i>R Archana Reddy, R Gobinath, Chilupuri Saloni Khanna, G Shyamala</i>	
Experimental Investigations on Chloride Permeability and Strength Properties of Concrete using Alcofine	1503
<i>K Thangapandi, R Gobinath, R Anuradha, Pushpalatha Sarla, S Shrihari, J Sahaya Jeevarethinam, T A Khaja Mueenudeen, N Archana, J T Walter</i>	
Waste Products as an Alternative Construction Material-A Review	1510
<i>J Anne Mary, R Gobinath, G Shyamala, K Rajesh Chary</i>	
Influence of Various Admixtures on The Swelling Characteristics of Clay	1517
<i>J Logeshwari, R Gobinath, Srihari, Eelandula Kumaraswamy</i>	
Self-Curing Concrete Using Water-Soluble Polymer for Developing Countries	1523
<i>T Udayabanu, N P Rajamane, C Makendran, R Gobinath, S Chandra Chary</i>	
An art of Research on concrete-Ternary blended	1534
<i>R Srinivas Prabhu, R Gobinath, R Anuradha, Bonthala Prabhanjan Yadav</i>	
Investigation of strength and impact characteristics of blended Self cured concrete	1546
<i>T Udaya Banu, N P Rajamane, R Gobinath, E Sudharshan</i>	
Interventions in location specific technologies and material utilization through Women Technology Park in India	1556
<i>V Mahesh, P V Ramana Rao, I Rajasri Reddy, K Kiran, R Gobinath, P Murthy</i>	
A Comprehensive Review on the Transmission System of Electrical All-Terrain Vehicle	1570
<i>Gds Vamsi, Mohammed Ajmal Sheriff, John Silvisterraju</i>	
Analysis of Compressive Strength Characteristics of Mineral Admixture in Concrete Containing Various Gelled Materials using Artificial Neural Networks	1574
<i>G Shyamala, R Gobinath, Pushpalatha Sarla, Manisha Shewale</i>	
Web of Things an intelligent approach to solve interoperability issues of Internet of Things communication protocols	1584
<i>V. Thirupathi, K. Sagar</i>	
IoT based saline level monitoring system	1591
<i>G. Sunil, Srinivas Aluvata, G. Ranadheer Reddy, Vedantham Sreeharika, Parupally Sindhu, Sriramula Keerthana</i>	
New Era of IoT Network Protection and Packages Through Prolonged Range	1596
<i>Nagendar Yamsani, Yerrolla Chanti, M Ranjith Kumar, K Mannanuddin, Hema Valpadasu</i>	

Cost function for delay (CFD) in software defined network with fog computing and associated IoT application 1605
Sallauddin Mohmmad, Ramesh Dadi, Syed Nawaz Pasha, Mruthyunjaya Mendu, A Harshavardhan, Shabana

Traffic control system for vehicles on Indian roads using raspberry Pi 1613
Bura Vijay Kumar, Seena Naik Korra, N Swathi, D. Kothandaraman, Nagender Yamsani, Yerrolla Chanti

PART 3

Key business drivers for IoT development and security principles 1623
C. H. Sandeep, C. H. Pradeep, Vishali Sivalenka

An IoT Based Obstacle Avoidance Robot Using Ultrasonic Sensor and Arduino 1632
Rajesh Mothe, S. Tharun Reddy, G. Sunil, Chintaju Sidhardha

Confluence of Machine Learning with Edge Computing for IoT Accession 1638
Khaja Mannanuddin, Srinivas Aluvala, Y Sneha, E Kumaraswamy, E Sudarshan, K Mahender

IoT Based Smart Solar Atmospheric Water Harvesting System 1647
E Sudarshan, Seena Naik Korra, K.M Rajasekharaiah, S Venkatesulu, A Harshavardhan

Raspberry Pi based Sign to Speech Conversion System for Mute Community 1654
G Niroshta, Ramasamy Velmani

RF-Automatic Traffic Clearance System for Ambulance using Raspberry Pi 1662
V. Swapna, R. Arun Prasath

Machine Learning based Patient Face Recognition and Medicine Dispensing System using Raspberry Pi 1669
Mohammed Abdul Azher, K. Jeevana Jyothi

Raspberry Pi based E-Health System over Internet of Things..... 1676
Pasuladi Rakesh, I. V Mr Prakash

Bluetooth and GSM based Smart Security System using Raspberry Pi 1684
Kashaboina Radhika, Ramasamy Velmani

IoT based Industrial Sensor Monitoring and Alerting System using Raspberry Pi 1692
Ch Shalini, I. V Mr Prakash

IoT based Earthquake and Hazardous Gases Detection in Coal Mines using Raspberry Pi..... 1701
Gudla Ravitheja, K. Jeevana Jyothi

Autonomous Smart Energy Meter over Internet of Things using Raspberry Pi 1710
Manogna Pamulaparthi, K. Jeevana Jyothi

Blockchain Based Public Cloud Security for E-Voting System on IoT Environment..... 1717
A Vijaya Kumar, Gabbita Viswa Sarvani, Dama Satya

International Currency Translator using IoT for shopping 1728
Ch. M. H Sai Baba, S Hrushikesava Raju, M. V. B. T Santhi, S Dorababu, Er Saiyed Faiyaz Waris

IoT as a Health Guide Tool	1737
<i>S Hrushikesava Raju, Lakshmi Ramani Burra, Saiyed Faiayaz Waris, S Kavitha</i>	
Fabrication of a Glass Fibre Reinforced Composite Rotor Disc for a bicycle Disc brake	1746
<i>R Ande, G Alok, P Gulati</i>	
Experimental Study Of The Nano Based Paper Battery	1756
<i>Pulla Sammaiah, Md Yakub Baba, N. Praveena Devi, I Rajasri Reddy</i>	
A Review on Impact of Tool pin Geometry on Friction Stir Welding of Aluminum alloys	1763
<i>M Shiva Chander, M Ramakrishna, B Durga Prasad, Adla Rajesh</i>	
Performance Optimization Of Hydraulic Brakes In Go-Kart	1773
<i>Jay Prakash Srivastava, Mohammed Moizuddin, Gankidi Gangadhar Reddy, Kavvempally Suryateja, N Sambasiva Rao</i>	
Modeling And Simulation Of Applied Load On Lenin Fiber Composite Materials Using COMSOL	1780
<i>Pankaj Kumar, Cherala Sairam, V Dender, Adla Rajesh</i>	
The Influence Of Process Parameters On The Surface Roughness Of The 3d Printed Part In FDM Process.....	1786
<i>Pulla Sammaiah, K. Rushmamanisha, N. Praveenadevi, I. Rajasri Reddy</i>	
Effect Of Substrate Surface Roughness On Adhesion Of Titanium Nitride Coatings Deposited By Physical Vapour Deposition Technique	1794
<i>Tvsmr Bhushan, A Chandrashekhar, S Venkat Prasat, I Rajasri Reddy</i>	
Comparison Of Tests For Isomorphism In Planetary Gear Trains	1803
<i>I Rajasri Reddy, Ch Vinay Kumar Reddy, Yvd Rao, A Chandra Shekar</i>	
Consequences on Manual Drawing Ability from Computer Aided Design and Computer Aided Manufacturing	1811
<i>Adla Rajesh, V. Mahesh, Jay Prakash Srivastava, P Abhilash, Suni Kumar Jakkula</i>	
Analysis of New Methodologies applied in Teaching Engineering Graphics to have a Moderate Explanation.....	1816
<i>Adla Rajesh, P. Sammaiah, Pankaj Kumar, T S Ramesh Babu, Sunil Kumar Jakkula</i>	
Case Study on Different Go Kart Engine Transmission Systems.....	1822
<i>Jay Prakash Srivastava, Gankidi Gangadhar Reddy, Mohammed Moizuddin, Kavvampally Surya Theja, N Sambasiva Rao</i>	
A review of methods on Condition Monitoring and Fault Diagnosis using IR Thermography–An Expert System approach	1830
<i>Ch. Vinay Kumar Reddy, K. V. Ramana</i>	
Thermal Stress Simulation on a Stainless-steel Submersible Water Heater design.....	1837
<i>S K Singh, G Alok, R Ande, C Pravalika, N Sindhuja, J Uday</i>	
Thermal performance of nanofluids in heat transfer loops	1848
<i>N Praveena Devi, Ch Srinivasa Rao, K Kiran Kumar</i>	
Effect Of The Support Structure On Flexural Properties Of Fabricated Part At Different Parameters In The Fdm Process	1855
<i>Pulla Sammaiah, D. Chaitanya Krishna, S. Sai Mounika, I Rajasri Reddy, T. Karthik</i>	

Materials study on a Telescopic Barbell design using Finite Element Model	1864
<i>S K Singh, G Alok, R Ande, P Sai Priya, G Sai Mukesh, J Uday</i>	
Design And Cfd Analysis Of Combustion Chamber In IC Engine	1876
<i>P Abhilash, R Praveen Kumar, Adla Rajesh</i>	
Agriculture Pump based on Smart Energy Harvesting on Solar System	1885
<i>Anna Srinivas, V. Radhika, P Sammaiah, Jay Prakash Srivastava, P Venkata Ramana Rao, Sangaraboina Shailaja</i>	
Designing for Control Strategy by Particle Swarm Optimization in Parallel Hybrid Electric Vehicles for Economical Fuel Consumption	1889
<i>M. S. Teja, P. Srinivasa Varma, Md Mujahid Irfan, E. Sudarshan</i>	
Dynamic Voltage Restorer to Maintain Constant Voltage at Load	1899
<i>K Sravan Kumar, Ram Deshmukh, K Sanjay, K. Ravikiran</i>	
Power quality improvement by active shunt filter with hysteresis current controller	1907
<i>K Sravan Kumar, K B V S R Subrahmanyam, K Sanjay, N. Govardhan</i>	
Grid connected power system protection by superconducting fault current limiter (SFCL)	1915
<i>K Sanjay, K Sravan Kumar, Ram Deshmukh, T. Chandra Prakash</i>	
Hybrid Electric Vehicles Application Oriented Transformation Improvement.....	1921
<i>K Vamshidhar, J Suresh, B. Vedik, E. Kumaraswamy</i>	
Power Transmission and Conservation Using Real Time Measurement.....	1935
<i>K Vamshidhar, J Suresh, Ram Deshmukh, B. Prabhanjan Yadav</i>	
Role of UPFC in Power Transmission Line	1944
<i>P Sucharitha, S Anitha, D Rajababu, Ch. Padmaja</i>	
Speed control of scim drive using fuzzy pi controller	1950
<i>J Suresh, K Vamshidhar, D Rajababu, V. Srinivas</i>	
Technology Testing in Urban Power Network on VSC-HVDC.....	1957
<i>S Anitha, P Sucharitha, Ritesh Kumar, V. Pranathi</i>	
To drive induction motor with variable speed using cascaded multilevel inverter.....	1962
<i>J Suresh, Ramdeshmukh, K Vamshidhar, D. Koteswar</i>	
Usage of STATCOM to interface hybrid power system (HPS) to grid	1967
<i>K Sanjay, K Sravan Kumar, Chandan K Shiva, M. Shyam Sunder</i>	
Simulink implementation of Nine-level Cascaded T-type RSC-MLI for 3P3W DSTACOM application	1971
<i>Hari Priya Vemuganti, Ravula Shashi Kumar Reddy, Abhishek Deshmukh</i>	
Fault tolerant methods to reconfigure Multilevel level inverter for single and multiple open circuit switch faults.....	1981
<i>Hari Priya Vemuganti, M. S. Teja, Priyanka Joshi</i>	
Effective power generation and utilization of solar photo voltaic system	1990
<i>Durgam Rajababu, Rajeshwarrao Arabelli, J Suresh, K Rajeshwar Reddy</i>	

Monitoring and load regulation of photovoltaic solar energy conversion system using internet of things	1997
<i>Durgam Rajababu, Rajeshwarrao Arabelli, P Sucharitha, K Rajeshwar Reddy</i>	
Effect of electric field on movement of conducting particles in single phase GIB	2004
<i>Kbvsr Subrahmanyam, Ravula Shashi Kumar Reddy, Ram Deshmukh, P. Joshi</i>	
Particle movement pattern in a 1- ϕ GIB under abnormal conditions	2014
<i>Kbvsr. Subrahmanyam, K. Sravan Kumar, A. Deshmukh, P. Joshi</i>	
Performance of 1- Φ GIS with and without dielectric coating	2021
<i>Kbvsr Subrahmanyam, K. Balakrishna, P. Sucharitha</i>	
Fuzzy based controller for a hybrid electric vehicle with MMC and SRM drive	2029
<i>A V V Sudhakar, Y Manjusree, M S Teja</i>	
Performance enhancement of EV charger with Cuk converter and ABC algorithm	2041
<i>Avv Sudhakar, Y Manjusree, Ms Teja</i>	
Utilization of renewable energy sources in generation and distribution optimization	2053
<i>G. Balram, S. Anitha, A. Deshmukh</i>	
Assessment of active filter on transformers connected three phase bridge converters	2062
<i>Ritesh Kumar, D. Ramya Laxmi, Ravula. Shashi Kumar Reddy, E. Thirupathi</i>	
Solution to economic load dispatch using quasi-oppositional based CoDE by considering transmission line losses	2074
<i>B. Vedik, Chandan Kumar Shiva, K. Vamshidhar</i>	
Utilization of power decoupling method in solar system frame to track maximum power using artificial neural networks	2084
<i>Ram Deshmukh, J. Suresh, Kbvsr Subrahmanyam, Mm Irfan</i>	
Effect of chording on the efficiency of induction motor supplied by PWM inverter	2093
<i>Ram Deshmukh, K. Sravan Kumar, Priyanka Joshi, Kbvsr Subrahmanyam</i>	
Mathematical Modeling of Five-Phase and Three-Phase Induction Motor and their Result Comparison	2098
<i>Veldandi Vamshi Saikumar, B Sathyavani, J Suresh</i>	
Optimal placement of distributed generation using firefly algorithm	2114
<i>G. V. Naga Lakshmi, A. Jayalaxmi, Venkataramana Veeramsetty</i>	
Optimal placement of shunt capacitor with VCPI to improve voltage profile using Mi power	2121
<i>Upendra Prasad, Nikhil Kumar Sinha, Bathina Venkateswara Rao, Naraharisetti Jaya Naga Lakshmi, Ramesh Devarapalli</i>	
Simulink implementation of three-phase PWM rectifier using five-level cascaded H-bridge MLI configuration	2131
<i>Seelam Niharika, Hari Priya, P. Sucharitha</i>	
THD analysis and design of filter combinations in 13 level cascaded H bridge with 1-phase half bridge LDN in multilevel inverter	2141
<i>Rajeshwar Reddy, Sathyavanib, Durgam Rajababu, K Sanjay</i>	

Controlled active power generation with multi-terminal HVDC system using modified grey wolf optimization.....	2152
<i>Ram Deshmukh, Chandan Kumar Shiva, B. Vedik, Ritesh Kumar, K. Vamshidhar</i>	
Improved cat-firefly algorithm with facts controllersfor improvement of voltage profile in IEEE modified 14 bus systems	2165
<i>Ram Deshmukh, A. Naraina, K. Sanjay, K. B. V. S. R. Subrahmanyam</i>	
Single and double LDN configuration analysis with cascaded H bridge multilevel inverter	2172
<i>B Sathyavani, S Tara Kalyani</i>	
Frequency stability of interconnected power systems using atom search optimization algorithm	2185
<i>Chandan Kumar Shiva, B. Vedik, Ritesh Kumar, K. Sravan Kumar</i>	
Electric vehicle technology: The transformation of conventional vehicle-based travel to an electric mobility in urban India	2196
<i>Md Mujahid Irfan, Ram Deshmukh, M. S Teja, Priyanka Joshi</i>	
Design, Analysis and Tuning of an Optimal Controller for an AVR: A Simulation Approach	2208
<i>Satyabrata Sahoo, V. Mahesh</i>	
Performance improvement of voltage controlled isolated wind power generation system consisting of linear and non-linear loads	2218
<i>Durgam Rajababu, K Raghu Ram</i>	
Implementation of LDN to MLI and RSC-MLI configurations with a simple carrier-based modulation.....	2227
<i>B Sathyavani, S Tara Kalyani</i>	
Performance advancements of fuzzy controllers over conventional controllers carried out in matlab simulation environment.....	2240
<i>R Shashi Kumar Reddy, K B V S R Subrahmanyam, D Venu Gopal, K. Mahender</i>	
A Review And Implementation Of A Sun Position Tracker With A Twin-Axis Control	2250
<i>P Sucharitha, K B V S R Subrahmanyam, Ch. Vinay Kumar Reddy, Y. Sharvani</i>	
An Integration of dual UPQC controller for power quality compensation by extending its voltage regulation at grid side as a STATCOM.....	2255
<i>M. S. Teja, Ravula Shashi Kumar Reddy, Avv Sudhakar, K. Srinivas</i>	
Design of PV Array Using Boost Converter by Incremental Conductance Mppt Power Technique	2262
<i>S Anitha, Ch. Vinay Kumar Reddy, G Balaram, G. Ranadheer Reddy</i>	
An Intelligent helmet system using IoT and Raspberry Pi	2268
<i>N. L. Aravinda, Mohammad Jabirullah, Dubasikirtana</i>	
Design of Parallel Prefix Adder and Subtractor using Majority Logic Formulations	2275
<i>Divya Gampala, L Srinivas, Vaseem Ahmed Qureshi</i>	
IoT-based Flood Monitoring and Alerting System using Raspberry Pi.....	2288
<i>K Subramanya Chari, Maturi Thirupathi, . Ch Hariveena</i>	
IoT based Child Safety Management using Raspberry Pi and RFID Technology	2293
<i>Mohammad Jabirullah, M. Amru, D. Raviteja</i>	
IoT-based Fire Detection and Prevention System	2299
<i>. Ch Hariveena, K. Anitha, Potharaju Ramesh</i>	

IoT-based Health Monitoring System with Medicine Remainder using Raspberry Pi.....	2304
<i>M. Amru, Allam Venkata Naga Mahesh, Potharaju Ramesh</i>	
Medical Image Fusion Based on Transformation Domain Approaches	2309
<i>Raja Krishnamoorthi, Annapurna Bai, A. Srinivas</i>	
Palm print Biometric Authentication System for Security Applications	2316
<i>Bhasker Dappuri, Vidadala Srija, Basava Dhanne</i>	
A Survey on Fresh Produce Grading Algorithms Using Machine Learning And Image Processing Techniques.....	2325
<i>Mrs. T K Ameethajunaina, B Ebenezer Abishek, Vr Rajendren, Shakir Mohammed, P Sathish Kumar</i>	
Automatic Gas Leakage Detection using IOT	2332
<i>Rajat Kumar Dwibedi, V. Vanitha, R D Sagar, P Phanisai, Ganjikuntayeshwanth</i>	
Traffic Clearance System For Life Caution.....	2338
<i>S. Balamurugan, M Annerose, P Bhuvaneswari, Ms Keerthika</i>	
Fault Clearance Ultra Sensing Electronic Circuit Breaker	2343
<i>M Ganesan, S Balamurugan</i>	
Behaviour Of Self Compacted Concrete Produced With Steel Fiber, Glass fiber and Polypropylene Fiber Additives Subjected To High Temperature.....	2349
<i>Gokulnath Venkadachalam, M. Dileepkumar</i>	
E-Brainstorming Engenders Synergy Based on Ontology.....	2359
<i>Akila Victor, S. L. Aarthy, R. Sujatha, A. Srivani</i>	
Raspberry PI Based Smart Walking Stick	2371
<i>M. Ganesan, R Hemanth., S Gunalan., J Hemprasad.</i>	
Klann Mechanism.....	2380
<i>Komma Siva Manikanta, Vinodh, John Silvester Raju</i>	
Animatronic Hand for Collecting Samples From Human-Corona Test	2386
<i>Ms. M. Perarasi, K Vanitha, R K Sankamitra, A Sumathisree, K S Vishnu Priya, D Prabavathy</i>	
Mathematical Modeling of alloy wheel rim shape optimization using metaheuristic method	2390
<i>Mattakoyya Rahul, J. Jaya Prakash</i>	
Study On Fly Ash as a Partial Replacement Material in Highway Embankment.....	2398
<i>Ramalakshmi, S. Hari Krishna</i>	
IOT Based Progressive Anti Theft ATM Security System.....	2408
<i>S. Ramyasri, M. Mahalakshmi</i>	
Numerical Modelling and Experimental Analysis of Cracking Properties of Aluminium alloy	2417
<i>G. Srinivasrao, J. Jayaprakash</i>	
Design of Transmission system Layout for an Agriculture Electrical All-Terrain Vehicle	2423
<i>G. D. S. Vamsi, Mohammed Ajmal Sheriff</i>	

Slope Stability in Rainfall Induced Landslided Area In Tirumala Hills By-Geotechnical
Investigation 2428
G. Sumanth Reddy, S. Needhidasan

Author Index