# **2020 International Conference** on Electronics and Sustainable **Communication Systems** (ICESC 2020)

**Coimbatore**, India 2-4 July 2020

**Pages 1-586** 



IEEE Catalog Number: CFP20V66-POD **ISBN:** 

978-1-7281-4109-1

#### **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:	CFP20V66-POD
ISBN (Print-On-Demand):	978-1-7281-4109-1
ISBN (Online):	978-1-7281-4108-4

#### 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



## International conference on Electronics and Sustainable Communication

## Systems (ICESCS 2020)

## **Table of Contents**

S. No	Paper Title/ Author Name	Page. No
	Value and Strategy of Anime Elements in the Propaganda of COVID-19 Epidemic Situation	
1	based on Computer Vision Assisted Systems	1
	Jin Deng	
	An Effective Bone Fracture Detection using Bag-Of-Visual-Words with the Features	
2	Extracted from SIFT	6
-	L. Jagjeevan Raozeelan, P. Neelakanteswar, Madupu Ramkumar, Azmira Krishna, CMAK	0
	Zeelan Basha	
	Analysis of Segmentation Techniques for Synthetic Aperture RADAR Image Processing	
3	Applications	11
	Pratibha Singh Jaiswal, Mahipal Singh Choudhry	
4	Face Detection using Deep Recurrent Learning and SMQT Technique	17
-	Astha Singh	17
5	Artificial Intelligence and Augmented Reality driven Home Automation	23
_	Aparna Natarajan, Anurag Saideep, K. Sandeep Reddy	-
6	Trajectory Tracking and Ball Position Control of Magnetic Levitation System using Swarm	20
6	Intelligence Technique	29
	Ankita Varshney, Bharat Bhushan	
7	Enhancing Multi-Step Attack Prediction using Hidden Markov Model and Naive Bayes	36
	Sanjana Ingale, Milind Paraye, Dayanand Ambawade	
0	Comparative Analysis of Visual Recognition Capabilities of CNN Architecture Enhanced	4.5
8	with Gabor Filter	45
	Karan, Kapil Yadav, Amandeep Singh	
0	Influence of Intelligent Environmental Art based on Reinforcement Learning on the	<i>C</i> 1
9	Regionality of Architectural Design	51
	Fei Xi, Xuejun Ruan	
10	Intelligent Effectiveness Evaluation of College Ideological Guiding based on Computer Data	55
10	Analysis and Mining	33
	Jinyong Zhang, Xianwei Yan	
11	ResNet: Detection of Invasive Ductal Carcinoma in Breast Histopathology Images Using	60
11	Deep Learning Halan Baiani Chanala, P. Suiatha	60
	Helen Rajani Chapala, B. Sujatha Web Page Prediction Using Genetic Algorithm and Logistic Regression based on Weblog	
12	and Web Content Features	68
12		08
	Roshan A. Gangurde, Binod Kumar Analysing the Role of Supervised and Unsupervised Machine Learning in IoT	
13	Kushal Rashmikant Dalal	75
	Computerised Classification of MRI Images Using Machine Learning Algorithms	
14	CMAK Zeelan Basha, A Likhitha, P Alekhya, V Aparna	80
	Enhanced and Effective Computerized Classification of X-ray Images	
15	Zeelan Basha CMAK, Godavarthi Rohini, Alla Venkat Jayasri, Sathigari Anuradha	86
	Rainfall Prediction Using Machine Learning & Deep Learning Techniques	
16	CMAK Zeelan Basha, Nagulla Bhavana, Ponduru Bhavya, Sowmya V	92
10	Civil in Zoomii Busha, i vuguna Bhavana, i onduru Bhavya, sowiniya v	14

17	Automatic Text Summarization and Keyword Extraction using Natural Language Processing Avinash Payak, Saurabh Rai, Kanishka Shrivastava, Reshma Gulwani	98
18	Automated Crowd Management in Bus Transport Service Achanta V Meghana, Vedant Sarode, Dhananjay Tambade, Abhidnya Marathe, Nadir	104
19	Charniya Performance Analysis of Merge Sort Algorithms Joella Lobo, Sonia Kuwelkar	110
20	Social Dobe, Social Revenue   Smart Child Safety Wearable Device   Bannuru Ranjeeth, B. Srinivasa Reddy, Y. Manoj Kumar Reddy, S. Suchitra, B. Pavithra	116
21	Advanced Prediction of Performance of A Student in An University using Machine Learning Techniques V. Uday Kumar, Azmira Krishna, P. Neelakanteswara, CMAK Zeelan Basha	121
22	Hyperspectral Image Visualization Using Multiscale Fusion Jamshiyath TP, Shayini R	127
23	Analysing the Implementation of Machine Learning in Healthcare Kushal Rashmikant Dalal	133
24	Towards Sentiment Analysis: A Powerful Technique for Data Analytics Vasundhara, Suraiya Parveen	138
25	Improvised Progressive Neural Network (iPNN) for Handling Catastrophic Forgetting Rohit Kumar Pathak, Vrinda Yadav	143
26	Comparison of ANN and ANFIS Controller based Hysteresis Current Control Scheme of DSTATCOM for Fault Analysis to Improve Power Quality Chirag Mittal, Smriti Srivastava	149
27	An Inventive Thought for Understanding the Passionate Needs of Individuals Who Are Blind Farhin Farhad Riya, Kazi Sultana Farhana Azam	157
28	Natural Language Processing based Text Imputation for Malayalam Corpora   Annlin Rojan, Edwin Alias, Georgy M. Rajan, Jithin Mathew, Dhanya Sudarsan	161
29	Clothing Image Recognition based on Multiple Features Using Deep Neural Networks S Shubathra, PCD Kalaivaani, S Santhoshkumar	166
30	Application of Artificial Intelligence and Zen Space in Modern Landscape Design and Topology Optimization Zhenze Wang, Yan Gao	173
31	Predict Socio-Economic Status of an Area from Satellite Image Using Deep Learning Atmika Shetty, Arya Thorat, Rumjhum Singru, Mrunali Shigawan, Vidya Gaikwad	177
32	Analysis of brain MRI images for Tumor Segmentation using Fuzzy C means Algorithm M. Thilagam, K. Arunesh, A. Rajeshkanna	183
33	Image Aesthetic Assessment using Deep Learning for Automated Classification of Images into Appealing or Not-Appealing Payal Bhandari, Mandovi Jaiswal, Vaishnavi Puranik, Shraddha Kirtane, D.D Pukale	187
34	Weapon Detection using Artificial Intelligence and Deep Learning for Security Applications Harsh Jain, Aditya Vikram, Mohana, Ankit Kashyap, Ayush Jain	193
35	Fire and Gun Violence based Anomaly Detection System Using Deep Neural Networks Parth Mehta, Atulya Kumar, Shivani Bhattacharjee	199
36	Video Analysis and Natural Language Description Generation System Bhavesh Ahuja, Austin Coutinho, Chandan Bhangale, Chinmay Sankhe, Sujata Khedkar	205
37	Exploring the Turning Points for Intelligent Traversal with Q-Learning Models Anil Kumar S	209
38	Satellite Image Classification for Detecting Unused Landscape using CNN Akshay S, Mytravarun T K, Manohar N, Pranav M A	215

39	Performance Evaluation of Different Machine Learning Techniques using Twitter Data for Identification of Suicidal Intent Anirudh Ramachandran, Akshara Gadwe, Dishank Poddar, Saurabh Satavalekar, Sunita Sahu	223
40	Morphological Operations for Denoising of White Gaussian Noise Corrupted MR Images Varun Gandhi, Vansh Mendiratta, Sumedha Thakur, Mahipal Singh Choudhry	228
41	Implementation of Deep Learning Model for Video Colorization Aditya Acharya, Anandhu Gopi, Karthik Iyer, Lakshmisudha Kondaka	235
42	A Review on Text Detection from Multi-Oriented Text Images in Different Approaches Ranjitha.P, Rajashekar.K, Shamjith	240
43	A Comparative Study on Security Breach in Fog Computing and its Impact R. Sendhil, A. Amuthan	247
44	Intelligent Parameter Tuning Using Segmented Adaptive Reinforcement Learning Algorithm Hari Krishna Modalavalasa, Madhavi Latha Makkena	252
45	Raspberry Pi based Wearable Reader for Visually Impaired People with Haptic Feedback S. Srija, P. Kawya, T. Akshara Reddy, M. Dhanalakshmi	257
46	Dual-Modal Emotion Recognition Using Discriminant Correlation Analysis Rajiv Kapoor, Suhail Saifi, Tarun Kapoor, Utkarsh Bisaria, Nikhil Singh	261
47	A Neoteric Speaker Verification System Using Ant Colony Optimization Algorithm M Datta Sai Krishna Mohan, T Shashank, M Vaishnavi, J Sirisha Devi	268
48	Intrusion Detection and Prevention System Using Deep Learning Akhil Krishna, Ashik Lal M A, Athul Joe Mathewkutty, Dhanya Sarah Jacob, Hari M	273
49	A Comparative Analysis of Capsule Networks in Content based Image Retrieval tasks: CapsCBIR Rajiv Kapoor, Vasu Malhotra, Sunny Yasser, Vidur Wadhwa	279
50	Secured Communication of Text and Audio using Image Steganography Anusha M, Bhanu K.N, Divyashree D	284
51	Fruit Classification System Using A Multiclass Support Vector Machine Classifier Mohammed Zeeshan, Akshatha Prabhu, Arun C, N. Shobha Rani	289
52	On the Analysis of Space-Amplitude Diagram in Chaotic based Image Encryption Pradheep Manisekarana, M. R Ashwin Dhivakarb, Parveen Kumara	295
53	Predicting Heart Disease at Early Stages using Machine Learning: A Survey Rahul Katarya, Polipireddy Srinivas	302
54	Stress Detection using Smart Watches with Machine Learning: A Survey Rahul Katarya, Saurav Maan	306
55	Weed Seedling Detection Using Mask Regional Convolutional Neural Network Sanjay Patidar, Utkarsh Singh, Sumit Kumar Sharma, Himanshu	311
56	Infant Care Assistant using Machine Learning, Audio Processing, Image Processing and IoT Sensor Network Crispin Lobo, Ajinkeya Chitrey, Pradeepti Gupta, Sarfaraj, Archana Chaudhari	317
57	Survey and Gap Analysis of Word Sense Disambiguation Approaches on Unstructured Texts Krishnanjan Bhattacharjee, ShivaKarthik S, Swati Mehta, Ajai Kumar, Snehal Phatangare, Kirti Pawar, Sneha Ukarande, Disha Wankhede, Devika Verma	323
58	Transfer learning-based Object Detection by using Convolutional Neural Networks Bulbul Bamne, Neha Shrivastava, Lokesh Parashar, Upendra Singh	328
59	Anomaly Detection Using Long Short-Term Memory Smita Parsai, Sachin Mahajan	333

60	Network Traffic Prediction Using Long Short-Term Memory	
00	Shyam Nihale, Shantanu Sharma, Lokesh Parashar, Upendra Singh	338
(1	Predicting the Dynamics of Forest Fire Spread from Satellite Imaging Using Deep Learning	244
61	Rajni Jindal, Aditya Kulraj Kunwar, Anupreet Kaur, Bramhdeep Singh Jakhar	344
()	Fuzzy C- means Algorithm based Depth Estimation in Single Image	251
62	Vismaya V M, Manohar N	351
63	Natural Language Processing based Rule Based Discourse Analysis of Marathi Text	356
05	Kalpana B. Khandale, C. Namrata Mahender	550
64	Scientific Exploration of Hand Gesture Recognition to Text	363
04	Juginder Pal Singh, Akrati Gupta, Ankita	505
65	A Review on Challenges and Applications of Digital Graphology	368
05	Ranjitha P, Akshatha Prabhu	500
	Image Processing based Human Following Cart Using 360° Camera	
66	Ron Jamin C. Aquino, Charles Kenneth C. Beltran, John William A. Fajardo, John Loid A.	375
	Lopez, Nicole E. Sambajon, Roselito E. Tolentino	
67	Course Recommendation for Students using Machine Learning	381
	L Paul Jasmine Rani, D. C. Joy Winnie Wise, K V.Ajayram, T. Gokul, B. Kirubakaran	201
68	Designing A Model for Weather Forecasting Using Machine Learning	385
	K. Geetha Rani, D. C. Joy Winnie Wise, S. Sufiyah Begum, S. Nirosha	
69	Detection and Differentiation of Skin Cancer From Rashes	389
	S. Subha, D. C. Joy Winnie Wise, S. Srinivasan, M. Preetham, B. Soundarlingam	
70	Dress code Surveillance Using Deep Learning	394
	Rebekah J, D. C. Joy Winnie Wise, Bhavani D, Agatha Regina P, N. Muthukumaran	
71	Image Analysis and Detection of Tea Leaf Disease using Deep Learning	398
	S. Gayathri , D. C. Joy Winnie Wise, P. Baby Shamini, N. Muthukumaran	
72	Analyzing, Detecting and Automatic Classification of Different Stages of Brain Tumor	404
12	Using Region Segmentation and Support Vector Machine Gayathri S, D. C. Joy Winnie Wise, Janani V, Eleaswari M, Hema S	404
	Cloud based Smart Healthcare Management System Using Blue Eyes Technology	
73	Dhinakaran K, M. Nivetha, Duraimurugan N, D. C. Joy Winnie Wise	409
	Movie Recommender System Using Collaborative Filtering	
74	Meenu Gupta, Aditya Thakkar, Aashish, Vishal Gupta, Dhruv Pratap Singh Rathore	415
	Fraud Detection in Credit Card Data using Unsupervised Machine Learning based Scheme	
75	Arun Kumar Rai, Rajendra Kumar Dwivedi	421
	Enhancing College Chat Bot Assistant with the Help of Richer Human Computer Interaction	
76	and Speech Recognition	427
, 0	Sangeeta Kumari, Zaid Naikwadi, Akshay Akole, Purushottam Darshankar	
77	Real Time Driver Fatigue Detection and Smart Rescue System	12.4
77	A Ravi, T Raga Phanigna, Y Lenina, P Ramcharan, P Subrahmanya Teja	434
70	Advanced Skin Diseases Diagnosis Leveraging Image Processing	140
78	Siva S Sinthura, K. Richie Sharon, G. Bhavani, L. Mounika, B. Joshika	440
70	Raspberry pi base Smart Reader for Blind People	445
79	A Ravi, SK Khasimbee, T Asha, T Naga Sai Joshna, P Gnana Jyothirmai	445
	Image Processing System based Identification and Classification of Leaf Disease: A Case	
80	Study on Paddy Leaf	451
	Manohar N, Karuna J Gowda	
	Operative Access Regulator for Attribute based Generalized Signcryption Using Rough Set	
81	Theory J. Priyanka, K. Raja Rajeshwari, M. Ramakrishnan	458

	Natural Longraph Decogging has a d Abetra structure Tout Symmony structure of Deviaura	
82	Natural Language Processing based Abstractive Text Summarization of Reviews Janice Shah, Manasvi Sagathiya, Kareena Redij, Varsha Hole	461
	Trajectory Planning of Unmanned Aerial Vehicle using Invasive Weed Optimization	
83	Manoj Kumar, Piyush Sharma, Piyush Kumar	467
	Construction of Intelligent University Quality Evaluation System for Ideological Work and	
84	Its Computer Applications	473
	Weijuan Wang, Xianwei Yan	
05	Big Data Cleaning Algorithm based on Repetitive Change Detection and GANs	177
85	Hong Chen	477
	Evaluation Model of Integrated English Course Online Guiding Intelligent Evaluation based	
86	on Evolutionary Algorithm and Data Mining	481
	Guihua Zhu, Haiyun Peng, Jun Wei	
	Summary of the Intelligent Social Management Function of Ideological from the Perspective	
87	of Information Theory with MOOC Platforms	486
	Weimin Liu	
88	An Approach for Prediction of Loan Approval using Machine Learning Algorithm	490
00	Mohammad Ahammad Sheikh, Amit Kumar Goel, Tapas Kumar	490
89	ResNet-based Approach for Detection and Classification of Plant Leaf Diseases	495
0,	Vinod Kumar, Hritik Arora, Harsh, Jatin Sisodia	170
	Automated Identification of Disaster News for Crisis Management using Machine Learning	
90	and Natural Language Processing	503
	Jayashree Domala, Manmohan Dogra, Vinit Masrani, Dwayne Fernandes, Kevin D'souza,	
	Delicia Fernandes, Tejal Carvalho	
91	Sentiment Identification in COVID-19 Specific Tweets	509
	Manoj Sethi, Sarthak Pandey, Prashant Trar, Prateek Soni	
92	Simulation of Performance of Air Conditioning System using Multi-nets Artificial Neural	517
92	Networks(MN-ANN) V. Shenbagalakshmi, T. Jaya	317
	Demand Forecasting in Retail Industry for Liquor Consumption using LSTM	
93	Anish Palkar, Mitali Deshpande, Shweta Kalekar,	521
)5	Shree Jaswal	521
	Enhanced Data Processing System for Real Time Video Monitoring	
94	Swarna HG, Manishankar S	526
	Breast Cancer Detection Using K-Nearest Neighbors, Logistic Regression and Ensemble	
95	Learning	534
	Ram MurtiRawat, Shivam Panchal, Vivek Kumar Singh, Yash Panchal	
96	Analysis of Facial Sentiments: A deep-learning way	541
90	Yatharth Yadav, Vikas Kumar, Vipin Ranga, Ram Murti Rawat	541
97	Deep-learning based Group-Photo Attendance System using One Shot Learning	546
21	Aruna Bhat, Shivam Rustagi, Shivi R Purwaha, Shubhang Singhal	J <del>1</del> 0
	Machine Learning based Language Modelling of Code Switched Data	
98	Vaibhav Kumar, Shubham Pasari, Vallabh Pravin Patil,	552
	Sumedha Seniaray	
99	GPU based Re-trainable Pruned CNN Design for Camera Trapping at the Edge	558
	Rajesh Rohilla, Pavneet Singh Banga, Pulkit Garg, Priya Mittal	
100	Plant Disease Detection and Classification using CNN Model with Optimized Activation	
100	Function	564
	S.Yegneshwar Yadhav, T.Senthilkumar, S.Jayanthy, J.Judeson Antony	
101	Prediction of House Pricing Using Machine Learning with Python	570
	Mansi Jain, Himani Rajput, Neha Garg, Pronika Chawla	

105	Selection of Appliance Using Skeletal Tracking of Hand to Hand-tip for a Gesture Controlled Home Automation	
102	Alexis Ian D. Viaje, Patrick S. Bernardo, Kevin N. Manuel, Girlie M. Pacheco, Roselito E. Tolentino, keny-Ron C.Barroma	575
	Arduino based Automated Sports Court Drawing Bot	
103	Rajesh Kannan Megalingam, Sreevatsava Reddy Musani, Hemanth Sai Venkata Srinivasa Kumar Nidamanuru, Lokesh Gadde	581
104	Big Data Analytics Tools and Applications for Modern Business World	507
104	Sanket Ekka, N. Jayapandian	587
105	Emotion Analysis Using Deep Learning D. S. L.Parvathi, N. Leelavathi, J. M. S. V. Ravi kumar, B. Sujatha	593
106	Handwritten Character Recognition to obtain Editable Text Vaibhav. V. Mainkar, Jyoti A. Katkar, Ajinkya B. Upade, Poonam R. Pednekar	599
107	Cloud based ERP Model Using Optimized Load Balancer Saurabh, N. Jayapandian	603
108	Implementation of Proximity Marketing Leveraging Bluetooth Low Energy Ruchika Muddinagiri, Shubham Ambavane, Vivek Jadhav, Santosh Tamboli	608
109	Scope and Limitations of Ethical Hacking and Information Security Rakshitha C M	613
110	Implementation of Online Guiding Framework based on Multimedia and PHP under the Influence of New Coronavirus Yanxia Zhang, Xiang Gao	619
111	Counting Students using OpenCV and Integration with Firebase for Classroom Allocation Jahanvi Mehariya, Jahanvi Mehariya, Niranjan Pai, Sagar Koul, Prashant Gadakh	624
112	Design and Implementation of Heart Beat Rate and SpO2 Detector by using IoT for Patients Sivapriya Natarasan, Pavithra Sekar	630
113	Slotted Patch Microstrip Antenna with a Fork-Like Lattice EBG Structure Jimstan A. Fernandes, H. G. Virani	637
114	1×4 Microstrip Patch Slotted Array Antenna for 5G C-band Access Point Application Pooja S. Naik, H. G. Virani	641
115	Convolutional Neural Network based Working Model of Self Driving Car - A Study Chaitra P G, Deepthi V, Gautami S, Suraj H M, Naveen Kumar	645
116	A Review on Design of Compact Rectenna for RF Energy Harvesting Anand Trikolikar, Swapnil Lahudkar	651
117	Handoff Analysis in 5G Small Cell Network Vivek Kumar Shaw, Sanjay Dhar Roy	655
118	Internet of Things Forensics HoneyNetCloud Investigation Model A R Jayakrishnan, V. Vasanthi	660
119	Impact of Higher Order Horizontal Sectorisation on a Real 4G Long Term Evolution Network Saraju Prasad Padhy, Madhusmita Panda, Srinivas Sethi, Aruna Tripathy	667
120	Design of a Tag Dipole Antenna for the RFID Applications Shreya U. Naik, H. G. Virani, Steffie Tom	672
121	Advanced Energy Consumption Strategy in Mobility Support Enhancement for RPL With Multiple Sinks Soniya Jain, Trupesh Patel	676
122	Heuristics and Meta-heuristics based Multiple Depot Vehicle Routing Problem: A Review Rohit Sharma, Sanjay Saini	683

123	Optimizing the Static Path Planning (SPP) methods and Path Length analysis based on the Level sensing resolution of sensor node in Wireless Sensor Network (WSN) Thilagavathi P, Martin Leo Manickam J	690
124	Securing Logs of a System - An IOTA Tangle Use Case Mohan Bhandary, Manish Parmar, Dayanand Ambawade	697
125	A Specific Absorption Rate in Human due to Mobile Phone Radiations: Review Amol D Sonawane, Dattatraya S Bormane	703
126	Real Time Patient Activity Monitoring and Alert System Aditya T R, Sanath S Pai, Karthik Bhat U, Manjunath P, Jagadamba G	708
127	Design of a Compact Microstrip Patch Antenna of FR-4 Substrate for Wireless Applications Paula Reis, H. G. Virani	713
128	Design of Cost-effective Beam Steered Phased Array Antenna with Enhanced Gain Using Metamaterial Lens Pradeep A S, G. A. Bidkar, Thippesha D, Shekharappa M, Kuberappa C, Suma K	717
129	Channel based Threshold Segmentation of Multi-Class Cervical Cancer using Mean and Standard Deviation on Pap Smear Images S.Jaya, M.Latha	721
130	Collaborative Enhanced System for Heterogeneous IoT Devices Krishnaraj Solanki, Rahul Padwani, Mitesh Mayavanshi, Avani R Vasant	727
131	Handling Secure Healthcare Data Streaming using R2E Algorithm Umesh Kumar, Rohit Kumar Pathak, Arun Kumar	732
132	Using a Blend of Brassard and Benett 84 & Elliptic Curve Digital Signature for Secure Cloud Data Communication Vanchhana Srivastava, Rohit Kumar Pathak, Arun Kumar, Shiv Prakash	738
133	Dynamic Channel State Information based Relay Selection Device-to-Device Communication D. Prabakar, N. Lakshmy, S. Vishnu	744
134	PCP Framework to Expose Malware in Devices Rahul Nigam, Rohit Kumar Pathak, Arun Kumar, Shiv Prakash	748
135	Blockchain: The Novel Way to Secure Confidence! Jairaj Khushalani, Sachin Chandwani, Abdus Samad Shaikh, Bhavesha Talreja, Rupali Hande	754
136	IoT based Smart System for Enhanced Irrigation in Agriculture Bhanu K.N, Mahadevaswamy H.S, Jasmine H.J	760
137	Implementation and Performance Analysis of Traffic Engineered Multiprotocol Label Switching Network for IPv6 clients Sai Prasad. N, Sri Kumaran. M, Sachin Prasad, N. Sathish Kumar	766
138	Synthesizing Images from Hand-drawn Sketches using Conditional Generative Adversarial Networks Bipin Kuriakose, Theres Thomas, Nikitha Elsa Thomas, Sharon John Varghese, Veena A. Kumar	774
139	Integrity Check in a Cognitive Radio Network Jagathi Chennareddy, Prem Savarinathan, Thenmozhi Karuppasamy, Avila Jayapalan	779
140	IoT based Smart Bin A Swachh-Bharat Initiative Anagha Praveen, R. Radhika, Rammohan M. U, Sidharth D, Sreehari Ambat, Anjali T	783
141	ID3 Decision Tree Classification: An Algorithmic Perspective based on Error rate A. Rajeshkanna, K. Arunesh	787
142	Location-based Human Behaviour Analysis on Products or Events Rahul Katarya, Daizy Mehta, Japneet Singh	791

1.40	Blackhole Attack Detection Using Machine Learning Approach on MANET	707
143	Shweta Pandey, Varun Singh	797
144	Intrusion Detection System Using PCA with Random Forest Approach	803
144	Subhash Waskle, Lokesh Parashar, Upendra Singh	803
145	Detection and Prevention of Wormhole Attack using the Trust-Based Routing System	809
143	Aditya Bhawsar, Yogadhar Pandey, Upendra Singh	809
146	A Glaucoma Detection using Convolutional Neural Network	815
140	Arkaja Saxena, Abhilasha Vyas, Lokesh Parashar, Upendra Singh	015
147	Comparative Analysis of Various Approaches for DoS attack Detection in VANETs	821
147	A. Ilavendhan, K. Saruladha	021
148	Intrusion Detection System for IoT Devices	826
140	Athira Remesh, Divya Muralidharan, Neha Raj, Gopika J, Binu P. K	820
149	Automatic Messaging System for Vehicle Tracking and Accident Detection	831
149	Rajvardhan Rishi, Sofiya Yede, Keshav Kunal, Nutan V. Bansode	051
	Comparative Study of Clustering Approaches in Rumor Source Localization Algorithm in	
150	Social Networks	835
	Rahul,Sarthak Srivastava, Pradyun Kumar	
151	Detecting Security Vulnerabilities in Website Using Python	844
131	Abirami R, D. C.Joy Winnie Wise, Jeeva R, Sanjay S	044
152	A Real Time Auditing System Using QR Code for Secure Cloud Storage	847
132	P. Baby Shamini, D. C. Joy Winnie Wise, Megavarshini K S, Mudaliar Kritika Ramesh	04/
153	Implementation of Fault Current Detection System using IoT	851
133	A Ravi, A Khandeswar Rao, P Pooja, Y Sai Krishna Reddy, G Krupa Kiran, G Yesu Babu	631
154	Secured Communication for Multimedia based Steganography	856
134	Divyashree. D, Bhanu K. N, Anusha. M	850
	A Perturbation based Algorithm for Inference of Gene Regulatory Networks for Multiple	
155	Myeloma	862
	Nimrita Koul, Sunilkumar S Manvi	
	Completely Contactless Finger-Knuckle Recognition Using Gabor Initialized Siamese	
156	Network	867
	Rajiv Kapoor, Dinesh Kumar, Harshit, Anmol Garg, Anuj Sharma	
157	Divergence based Database Intrusion Detection by User Profile Generation	873
1.57	Indu Singh, Harshit Arora, Harjeet Kaur, Harshit Kumar	075
	Software Defined Radio based Global Positioning System Jamming and Spoofing for	
158	Vulnerability Analysis	881
	Riddhi V. Karpe, Sukanya Kulkarni	
159	Hybrid IoT based Hazard Detection System for Buildings	889
137	Nisarga B L, Manishankar S, Somnath Sinha, Sindhu Shekar	007
_	Load Balancing Algorithm to Reduce Make Span in Cloud Computing by Enhanced Firefly	
160	Approach	896
	M.Padmavathi, Sk. Mahaboob Basha, V.V.Jaya Rama Krishnaiah	
	Detailed Study on the Features of Mobile Applications	
161	M. Hossein Ahmadzadegan, M. Izadyar, Hossein Amini Deilami, Sabitha Banu. A,	901
	Hamidreza Ghorbani	
	Evaluation of Energy Efficiency in Mobile Phones from two perspectives: Location and	
162	Retrieve Content	908
	M. Hossein Ahmadzadegan, Hamidreza Ghorbani, Sabitha Banu. A, Z. Noori	
	A Novel SNN-ANN based IDS in Cloud Environment	
163	Debojit Majumder, Anubhav Singh, Partha Ghosh, Santanu Phadikar	913

1.64	The Ground Arc Extinguishing Timing Identification based on Petersen Coil by Using	010
164	Isolated Gate Bipolar Transistor (IGBT) Technique	919
	Kasim K. Abdalla, Fadhel Y. Ahmed	
165	Automatic Weather Monitoring Analysis for Renewable Energy System	924
100	U. Ramani, R. Nithya, S. Sathieshkumar, T. Santhoshkumar	/
166	Modified High Speed 32-bit Vedic Multiplier Design and Implementation	929
100	M. Bala Murugesh, S. Nagaraj, J. Jayasree, G. Vijay Kumar Reddy	929
167	Maximum Power Point Tracking based Transient Analysis of Wind Power Plant	933
107	Raj Roushan, A K Kori	755
1(0	CMOS CFOA based Quadrature Oscillator	040
168	Sneha Tandel, Narendra Bhagat, Uday Pandit Khot	940
1(0	Analysis of Overloading in Trucks using Embedded Controller	044
169	Kalavathi Devi Thangavel, Sakthivel Palaniappan, Gokul Chandrasekar, Chitra Muthusamy	944
170	8:1 Radio Frequency High Power Combiner	0.50
170	Neha N. Gharat, Ekta V. Naik	950
	An Overview of Detection and Prediction of Seizure or Epilepsy	
171	Amol W. Pardhi, S. W. Varade	955
	EEG Cross Validation of Effective Mobile Technology by analyzing Attention Level in	
172	Classroom	961
172	Pooja Kumari, Suman Deb	901
	Application of Fuzzy C-Means Clustering and Genetic Algorithm in the Fabrication of	
173	Circuit Board	966
175	Koustav De, Swapan Debbarma, Pooja Kumari	700
	Design of Dual-Band Bandpass Filter on Coplanar Waveguide Using Meander Inductor	
174	Manish Jha, Poonam Agarwal	971
	Oversampling based Classifiers for Categorization of Radar Returns from the Ionosphere	
175		975
	Surabhi Adhikari, Surendrabikram Thapa, Bickey Kumar Shah	
17(	Single Phase Modeling and Harmonics Compensation of Standalone PV+SOFC System	070
176	with SAPF	979
	Kritika Sharma, Vinit Kumar Sharma	
177	SO-OTA based Emulator Circuit for Extended Memristor with Hysteresis Loop of TypeII	984
	Raghavendra V, D V Kamath	
178	Modelling and Comparison of Different MPPT Algorithms for a Standalone PV System	989
	Aman Sharma, Shivam Gupta, Narendra Kumar	
179	A Survey on Data-driven Methods for State Of Charge Estimation of Battery	996
177	P. Aanchal Satyan, R. G Sutar	<i>,,,</i> ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
	Power Efficient and High Speed Multiplier based on Ancient Mathematics: A Review	
180	Praveen Kumar Y G, Kariyappa B S, Basavaraj H Patil, Anil kumar Naik, Pavan kumar, M	1005
	Z Kurian	
181	IoT based Remote Monitoring of Mass Solar Panels	1009
101	Kanaga Durga Deenadayalan, Jayanthy S, Arunraja A, Suresh Selvaraj	1007
182	Vehicle Classification in Traffic Surveillance System using YOLOv3 Model	1015
162	Abhishek Shekade, Rituja Mahale, Rushikesh Shetage, Ajit Singh, Prashant Gadakh	1015
102	Memory Testing and on Board Data Handling of Satellite Payload	1020
183	M. Ranga Rao, K. Dedeepya, G. Pravallika, M. Aparna, M. Poorna Bhavani, M. Chakradhar	1020
104	Human Movement Analysis from the Egocentric Camera View	1026
184	Mohammad Almasi	1026
	Design and Implementation of Primitive Cells, Full Adder, Full Subtractor, and Multiplier	
185	using Modified Gate Diffusion Input Logic	1032
	Shanmuga Priya. N, Radha. N	

186	Arduino based Conventional Headlight with Multi Trait Sushmita Pal, Sreebha Bhaskaran	1039
187	Design and Development of PV-Wind based Hybrid Renewable Energy System	1045
107	Ashiwani Yadav, Jawaharlal Bhukya, Nitai Pal	1010
188	Two Dimensional Numerical Simulation of Zinc Oxy-Nitride Thin Film Transistors Anjana J. G, Venu Anand	1052
100	Non-Isolated Five Switch CCM Boost Inverter	1056
189	Salma Abdul Aziz Kormath, K. Muhammedali Shafeeque, K. T. Ajmal	1056
190	Advanced Memory Management Unit for 3-D Network on Chip	1062
	Ashok Kumar K, V. Karunakar Reddy	
191	Command Control Robot using Internet of things on Field Programmable Gate Array Mudasar Basha, Kusa Vamshi, Kollu Bhavana, Mala Bhavitha	1068
192	Microcontroller based Vanadium Redox Flow Battery Powered EV	1074
192	Aboo Faris R, Basil P Poulose	10/4
193	4-Bit Vedic Multiplier with 18nm FinFET Technology	1079
	P. Saritha, J. Vinitha, S. Sravya, Vallabhuni Vijay, E. Mahesh	
194	A New Design of Phase-Locked Loop with Multiple Frequencies for Communication Standard	1085
194	Hieu-Truong Ngo, Quoc-Son Tran	1005
105	Ultrasonic Cleaner Powered by Efficient Utilization of Solar Power	1000
195	P. Aanchal Satyan, R. G Sutar	1090
196	Cyberbullying Detection using pre-trained BERT Model	1096
170	Jaideep Yadav, Devesh Kumar, Dheeraj Chauhan	1090
197	Low Transconductance M-CDTA Block and its Application in Biomedical Signal	1101
197	Processing Ashmin Gangal, Varun Bhanoo, Neeta Pandey	1101
	Contingency Analysis of Low Voltage DC Microgrid	
198	Anshuman Bhuyan, Basanta K.Panigrahi, Subhendu Pati, Harapriya Sahoo, Rajat Kumar	1108
	Pradhan	
	A Detailed Comparative Analysis of Different Multipulse and Multilevel Topologies for	
199	STATCOM	1112
	D.S.Maurya, P.D. Jadhav, R.S.Joshi, R.R.Bendkhale, M. P. Thakre Spectrum Sensing in OFDM using Energy Detection-A Comparative Study in AWGN and	
	Rayleigh Channels	
200	Kommula Vamsi Rama Bhaskar, Anuraj K, Poorna S S, Rasineni Pavan Kumar, Garlapati	1118
	Shashidhar, Ankireddy Dinesh Reddy	
201	Real Time Face Recognition System with Deep Residual Network and KNN	1122
201	Nusrat Jahan, Pranta Kumer Bhuiyan, Parves Ahmed Moon, Md. Ali Akbar	1122
202	Development of a Communication Test Bed for Electric Vehicle Charging	1127
	Lathika, Nithin S An FPGA Based Hardware Emulator for Neuromorphic Chip	
203	Harsh Vinod Patel, S.S.Rathod, Payal Hitesh Shah	1131
	Voltage Sag Mitigation by Using Photovoltaic based Dynamic Voltage Restorer in Barak	
204	Valley Power System	1137
	Jagannath Patra, Nitai Pal, Ashiwani Yadav, Aprajita Kumari	
205	A Review on Traditional Methods of Condition Monitoring of Transformer	1144
_~~	R.P. Singh, A. V. Sonawane, M. S. Satpute, D. Y. Shirsath, M. P. Thakre	
206	Open Simulator for Digital Circuit based Virtual Experiments Shubham Mathesul, Ayush Rambhad, Parth Shrivastav, Sneha Pisey, Sangeeta Kumari	1153
200	Shuohani Maulesui, Ayush Kamohau, Fatui Shi Wastav, Sheha Fisey, Sangeeta Kuman	1155

207	VLSI Design of a Squaring Architecture Based on Yavadunam Sutra of Vedic Mathematics A. Deepa, C. N. Marimuthu	1162
208	Cost Efficient Subtractor Designs in QCA Marshal Raj, Lakshminarayanan Gopalakrishnan	1168
209	Signal Processing based Autonomous Sensory Meridian Response to Treat Insomnia V Vishnu Vardhan, Venkatesh U, Sudha Yadav	1173