

2018 International Conference on Intelligent Computing and Communication for Smart World (I2C2SW 2018)

**Erode, India
14 – 15 December 2018**



**IEEE Catalog Number: CFP18R63-POD
ISBN: 978-1-5386-9433-6**

**Copyright © 2018 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:	CFP18R63-POD
ISBN (Print-On-Demand):	978-1-5386-9433-6
ISBN (Online):	978-1-5386-9432-9

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

CONTENTS

S.NO	TITLE	P.NO
1.	Classification of Cloud/Sky Images based on kNN and Modified Genetic Algorithm <i>Akila Rajini S and G.Tamilpavai</i>	1
2.	Low Latency Scheduling of Point Multiplication Featuring High Speed GF (2m) Multiplier Suitable for FPGA Implementation. <i>I. Blessing Meshach Dason and N. Kasthuri</i>	9
3.	A Study on Firewall System,Scheduling and Routing Using Pfsense Scheme <i>Dr.P.Senthilkumar and M.Muthukumar</i>	14
4.	An Ultra Low Power VLSI Architecture for Viterbi Decoder using Subthreshold Adiabatic Logic <i>M. Ruban Gladwin and N. Kasthuri</i>	18
5.	Design of Novel SRAM cell using Hybrid VLSI Techniques for Low Power and High Speed in Embedded Memories <i>K.Gavaskar, U. S .Ragupathy, D.Malathi and G.Ravivarma</i>	22
6.	In Depth Survey on Sms4 Architecture <i>Babu.M and G.A.Sathish Kumar</i>	33
7.	Machine Learning Approach Improves the Quality of the MRI Images in Tumor Detection and Diagnosis: A PSO based Cluster Analysis <i>V. Siva Kumar, N. Janakiraman and S. Naganandhini</i>	37
8.	Search for Effective Data Mining Algorithm for Network Based Intrusion Detection(NIDS)- DDOS Attacks <i>S.Sumathi and N.Karthikeyan</i>	41
9.	A Neuro-Fuzzy Approach for Anomaly Identification in Brain fMRI Using K-Means Algorithm <i>Kandasamy Kittusamy, Latha Shanmuga Vadivu Sampath Kumar, K.S.Tamilselvan and A.Saraswathi</i>	46
10.	An Effective Channel Access Mechanism for Data Transmission in Heterogeneous Cognitive Radio Sensor Networks <i>V.Noel Jeygar Robert and K.Vidya</i>	50
11.	Linear Weighted Multiple Watermarking in DWT-SVD Domain through Covariance Analysis <i>N. Sangeetha and X.Anita</i>	55
12.	A Survey on Water Stagnation Detection And Prevention System in Smart Cities <i>E. Elavarasi and I. Joe Louis Paul</i>	V
13.	A Survey on Multimodal Biometrics Authentication And Template Protection <i>Aravindhraj Natarajan and N.Shanthi</i>	64
14.	Comparative Analysis of Feature Selection Methods And Machine Learning Algorithms in Permission Based Android Malware Detection <i>M.Nivaashini, R.S.Soundariya, Vidhya Shri H and P.Thangaraj</i>	72
15.	Smart Irrigation System Using Zigbee Technology And Machine Learning Techniques <i>R.N.Kirtana, S.Kavitha, B.Bharathi, B.Keerthana, S.Keerthana priya and K.Kripa</i>	78

16.	Design And Fabrication of Mobilized Lower Extremity Powered Exoskeleton System <i>D.Venkatesa Prabu, T.Sakthivel, S.Praba and B.Shabareesha</i>	V °
17.	Multi-Factor Based User Authentication Scheme for Lightweight IoT Devices <i>J. Gowthami and N. Shanthi</i>	89
18.	A Low Traceback and zero logging overhead IP Traceback approach for Communication Networks <i>S.Malliga, S.V.Kogilavani and P.S.Nandhini</i>	100
19.	Content-Based Image Retrieval Techniques: A Review <i>M.Thilagam and K.Arunish</i>	106
20.	Automatic Optic Disc Localization and Optic Cup segmentation from monocular color retinal images for glaucoma assessment <i>S. Sumithra, A.Geetha and D.Santhi</i>	111
21.	Energy Efficient Cluster formation in Wireless Sensor Networks Based on Multi Objective Bat Algorithm <i>Vani Rajasekar, K.Sathya and J.Premalatha</i>	116
22.	A Novel Architecture to Improve Performance of Photovoltaic Cells Using Lens Let Arrays <i>Pragash N. Nagaiyan</i>	121
23.	Survey on Adaptive Filter Applications <i>T.Shanmugaraja, N.Kasthuri and C.Karthikeyini</i>	V °
24.	Sink Originated Unique Algorithm for Clustering and Routing to forward Aggregated Data in Wireless Sensor Networks <i>K.Lalitha, R.Thangarajan, C.Poongodi and D.Vijay Anand</i>	127
25.	Steganography based Data Hiding for Security Applications <i>G.Ramya, P.P.Janarthanan and D.Mohanapriya</i>	131
26.	Design And Implementation of Biometric Based Smart Antitheft Bike Protection System <i>K.S.Tamilselvan, G.Murugesan and S.Sasikumar</i>	136
27.	Comparative Analysis on Image Retrieval Technique using Machine Learning <i>S. Sasireka, M. Karthiga and N. Santhi</i>	139
28.	Area Efficient Implementation of Adaptive Filters using High Level Transformation <i>S.Gomathi, G.Murugesan, S.Sasikala and M.Chitra</i>	144
29.	Design and Fabrication of LPG Drain Gesture <i>RM.Udhaya Chandran, S. Sharboj, S. Shivsurya, S. Naveen and E.Mithul Pranav</i>	V °
30.	Investigation of Various Speckle Noise Denoising Filters <i>S.Pradeep and P.Nirmala Devi</i>	156
31.	Diabetes Risk Analysis using IoT and Deep Learning <i>Monica Murugesan and M. Sujaritha</i>	V °
32.	Prediction of Passenger Traffic for Global Airport using Holt's Winter Method in Time Series Analysis <i>S.Deetchiga, U.Kabila harini, M. Marimuthu and J. Radhika</i>	165
33.	Finger Knuckle Biometric Authentication using Texture Based Statistical Approach <i>P.Jayapriya and R. Manimegalai</i>	170

34.	Application of Rough Set Based Reduction for Network data set <i>V.R. Saraswathy, M.Prabhu Ram ,A.Vennila and S.G.Dravid</i>	175
35.	Analysis on Behavioural Changes in the Intellectual Disability of the Individuals <i>P.P.Janarthanan, V.Ashok, R.P.Karthik and K.M.Keerthana</i>	178
36.	The Survival of intellectual Disabled Subjects in Social Environment Using BCI <i>V.Ashok, R.P.Karthik, K.M.Keerthana and A.R.Roshinee</i>	181
37.	Adaptive Modulation for Wireless Sensor Networks <i>G.Thirunavukkarasu, G.Murugesan, R.Soundharya, K.Vijayalakshmi and N.Tamil</i>	185
38.	Study of Interline Power Flow Controller in Congestion Management of Power System with Flower Pollination Algorithm <i>Saraswathi Ananthavel and Kandasamy Kittusamy</i>	V °
39.	Performance Comparison of Adaptive Filters for Speckle Noise Reduction in Sar Images <i>G.Mageshkumar, S.Suthagar and K. S. Tamilselvan</i>	195
40.	A Novel Ternary Half Adder & one Bit Multiplier Circuits based on Emerging sub-32nm FET Technology <i>P.A. Gowri Sankar</i>	198
41.	2D Lifting Based Discrete Wavelet Transform Architecture based on Sub Expression Reduction Technique <i>V. Anbumani, V.Geetha and G.Murugesan</i>	204
42.	Detection of replica node attack based on Exponential Moving Average Model in Wireless Sensor Networks <i>S.Anitha, P.Jayanthi and V.Chandrasekaran</i>	V °
43.	2D Lifting Based Discrete Wavelet Transform Architecture based on Modified Reduced Hardware Algorithm <i>V. Geetha, V. Anbumani and G. Murugesan</i>	215
44.	Improve Efficient Keywords Searching Data Retrieval Process in Cloud Server <i>S. Saravanan T.Abirami and P.Pandiaraja</i>	219
45.	A Comparative Study of Secured Medical Images in Cloud Environment <i>D.Linett Sophia and S. Balambigai</i>	V °
46.	A Study of ACO/PSO approaches in Agriculture and Social Network Fields - A Generic Review <i>Anitha Natarajan, R.Devi Priya, S. Chineaga and L. Shrinidhi</i>	V °
47.	Performance Evaluation of Image Binarization Technique for Recognition of Ancient Historical Documents <i>V.Sathya Narayanan and N. Kasthuri</i>	231
48.	Real Time Location Tracking and Health Monitoring of Police force <i>V.Mekala, Rosalin Ruby Angela, M. Manimegalai and Vibin Mammen Vinod</i>	236
49.	Effects of Microwave Annealing of Graphene and its impact on Structural, Electrochemical performance for Energy Storage <i>K.Senthil Kumar, A.Chandrasekaran, K. Kannan and G. Murugesan</i>	241
50.	Driver Warning System in Hill Bends <i>L.Vijayalakshmi, Pradeepa and Sairam</i>	244
51.	Task Based Resource Scheduling in Cloud <i>I.Devi and G.R .Karpagam</i>	249
52.	Rule Based Fuzzy Image Segmentation for the Detection of Breast Cancer	254

	from Ultrasound Image <i>S.Rajasri and D. Rahul Gandh</i>	
53.	Autonomous Room Mapping Vehicle <i>Yathin Thilak Kumar</i>	260
54.	Performance Analysis of Non Cooperative Spectrum Sensing Schemes in 5G Cognitive Radio Networks <i>R.Ramyaa and N.Kasthuri</i>	263
55.	Automatic Solar Powdered Grass Cutter incorporated With Alphabet Printing And Pesticide Sprayer <i>M.Manimegalai, V.Mekala, N.Prabhu Ram and D.Suganthan</i>	268
56.	Reversible Data Hiding using Spiral Order Technique in Medical Images <i>S.Lakshmanan and M. Mary Shanthi Rani</i>	272
57.	Isolated offline Tamil Handwritten Character Recognition Using Deep Convolutional Neural Network <i>A.Arun Prakash and S. Preethi</i>	278
58.	Contemplate Study of Contemporary Techniques for HUIM <i>K.Logeswaran, P. Suresh, S. Savitha and A. Rajiv Kannan</i>	282
59.	Area And Power Efficient Approximate Wallace Tree Multiplier Using 4:2 Compressors <i>S.Thava Bala, D.Shangavi and P.Sangeetha</i>	287
60.	Review on Brain Tumor Segmentation Methods using Convolution Neural Network for MRI Images <i>K.Venu, P.Natesan, N.Sasipriyaa and S.Poorani</i>	291
61.	An Improved transformerless inverter topology for grid connected photovoltaic system <i>Patakamoori Aswini, Zameer Ahmad and P V R L Narasimham</i>	296
62.	Honey Bee Behaviour inspired Scheduling and Load Balancing of Virtual Machine in Fog Environment <i>R.S.Mohana, B.Krishnakumar and N.Sasipriyaa and S.Kalaiselvi</i>	301
63.	Portable Communication Aid for Specially Challenged : Conversion of Hand Gestures into Voice And Vice Versa <i>T.Meeradevi and K.M.Sharavana Raju</i>	306
64.	Design of UWB high gain modified Bowtie antenna for radar applications <i>J.Vijayalakshmi and G.Murugesan</i>	311
65.	A Compact Stair Case Monopole UWB Antenna for Radar Applications <i>V.Dinesh and G.Murugesan</i>	314
66.	Analysis and Experimental Evaluation of Routing Protocol for static and mobile challenging environment in WSNs <i>V.C.Diniesh, G.Murugesan, M.Joseph Auxilius Jude and E.M.Jayanth</i>	317
67.	Improving TCP's Throughput and Fairness Stability in Vehicular Network <i>M. Joseph Auxilius Jude, S.Kuppuswami and V. C. Diniesh</i>	320
68.	Offline Navigation: GPS based Assisting System in Sathuragiri forests using Machine Learning <i>N.Prabhu Ram, K.Sandhya, Vibin Mammen Vinod and V.Mekala</i>	326
69.	Review on Big Data Analytics in Mortality Prediction <i>A.Vidya, D.Shanthi, P.Gokulakrishnan and K.Manivannan</i>	V *
70.	Wind Power Forecasting in Short-Term using Fuzzy K-Means Clustering and Neural Network <i>R.Praveena and K.Dhanalakshmi</i>	336

71.	Stress prediction to reduce suicidal rate in the society based on social media using machine learning approach <i>C.R.Preethi Rajam, N.Uma Maheswari , S.Jeyanthi and S.K.Somasundaram</i>	V °
72.	Are pregnancy welfare schemes effective? A case study on India <i>Ramalatha Marimuthu, G.Kesavkrishna, R.Sathya Narayanan</i>	V °
73.	A Self Induced Warning System for Wild Animal Trespassing Using Machine Vision System <i>Aswin.V.P.Ram, A.Sarath Prakash, Irshath Ahamed.A, K.Anirudh, Arvinth.M.M and N.Nithyavathy</i>	349
74.	Enhancement of Routing Protocol for Low Power Lossy Network for Internet of Things <i>S.B.Gopal, C.Poongodi, D.Nanthiya, K.Harish, E.Divya and N.Aarthy</i>	354
75.	Strength Prediction using ANN for concrete with Marble and Quarry dust <i>S. Anandaraj, Jessie Rooby, Gobinath Ravindran, Arun Kumar Beeral, Vikram Mulukalla and Swathi Koduri</i>	357
76.	ANN based Prediction of Bond and Impact Strength of Light Weight Self Consolidating Concrete with coconut shell <i>K. Poongodi, P.Murthi, M. Shivaraj, Arun Kumar Beeral, Sangeetha Gaikadi, A. Srinivas and R. Gobinath</i>	364
77.	Industrial Wrapping Machine <i>Harish Raj, K. Suganeswaran, S.Arunkumar, M.Barath and S.Balaji</i>	V °
78.	A Review on the Impact of Climate Change on Agriculture in India using Big Data Analytics <i>D.Namachivayam and K. Kousalya</i>	V °
79.	Cardiac Arrhythmia Diagnosis system from Electrocardiogram Signal using machine learning approach <i>R.Lakshmi Devi and V.Kalaivani</i>	377
80.	A Survey on Performance Analysis of Load Balancing Algorithms using Meta Heuristics Approach in Public Cloud-Service Providers Perspective <i>R.Ramya, T. Hemalatha, S.Puspalatha and M.Bhuvana</i>	380
81.	Low Cost Raspberry Pi Oscilloscope <i>B. Vivek, S. Maheswaran, P.Keerthana, S. Sathesh, S. Bringeraj, R.Akshyasri and S.Aasma Sultana</i>	386