

# **2018 First International Conference on Secure Cyber Computing and Communication (ICSCCC 2018)**

**Jalandhar, India  
15-17 December 2018**



**IEEE Catalog Number: CFP18P01-POD  
ISBN: 978-1-5386-6374-5**

**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:	CFP18P01-POD
ISBN (Print-On-Demand):	978-1-5386-6374-5
ISBN (Online):	978-1-5386-6373-8

**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](mailto:curran@proceedings.com)  
Web: [www.proceedings.com](http://www.proceedings.com)

CURRAN ASSOCIATES INC.  
**proceedings**  
.com

## Table of Contents

### *Paper Title & Authors*

S. NO.	PAPER ID	PAPER TITLE	AUTHOR NAME(S)	PAGE NO.
1.	1570451465	Object Identify Using Electrical Impedance Tomography Technique for Industrial Application	Ramesh Kumar, Sarwan Kumar and A. Sengupta	1
2.	1570451571	Assessment of Message Queue Telemetry and Transport (MQTT) protocol with symmetric encryption	Atul Oak and R.D. Daruwala	5
3.	1570456671	Removing Ambiguity problem based on Clustering in a Web Search	Sunita Mahajan and Vijay Rana	9
4.	1570462052	Sentiment Analysis Approach Based on N-gram and KNN Classifier	Sumandeep Kaur, Geeta Sikka, and Lalit Kumar Awasthi	13
5.	1570462125	Analyzing Complex Non-Trivial Network using Attack Set Generation by Genetic Algorithm	Zeenia, Jagmeet Singh Aidan and Urvashi Garg	17
6.	1570462126	Advanced Petya Ransomware and Mitigation Strategies	Jagmeet Singh Aidan, Zeenia and Urvashi Garg	23
7.	1570462987	A Dynamic Hybrid Timeout Method to Secure Flow Tables Against DDoS Attacks in SDN	Balram Sooden and Mohammad Reza Abbasi	29
8.	1570464574	Comparative analysis of multi label classification algorithm	Seema Sharma and Deepti Mehrotra	35
9.	1570465684	Multi-Layered Attack Recognition (MLAR) Model to Protect Cloud From EDOS Attacks	Yashika Arora	39
10.	1570465756	A comparative study of classifiers used in facial embedding classification	Sourabh Sarkar and Geeta Sikka	46
11.	1570467468	Design and Performance Analysis of Reference Point Group Mobility Model for Mobile Ad hoc Network	Prabhakar Dorge and Samiksha L. Meshram	51
12.	1570468285	Significant Machine Learning And Statistical Concepts and Their Applications in Social Computing	Nishtha Arora and Goldie Gabrani	57
13.	1570469447	A novel framework for smart crop monitoring using internet of things (IOT)	Rahul Chauhan, Kamal Ghanshala and R C Joshi	62
14.	1570469449	A Comparative Study of Data Deduplication Strategies	Nipun Chhabra and Manju Bala	68

15.	1570469469	Statistical Feature Based Comparison of EEG in Meditation for Various Wavelets	Neha Gupta, Neetu Sood and Indu Saini	73
16.	1570469471	Fractal Elliptical Monopole Antenna for Wi-Fi, Wi-Max and WLAN	Sachin Khade, P.L.Zade and Sanjay Lalchandji Badjate	78
17.	1570469475	A Credits Based Scheduling Algorithm with K-means Clustering	Vrajesh Sharma and Manju Bala	82
18.	1570469495	To Alleviate The Flooding Attack And Intensify Efficiency In MANET	Mintu Shah, Gursharan Singh and Pooja Gupta	87
19.	1570469555	Automated analysis of Gaze Patterns for Autism Screening- Density Approach	Pavneet Kaur, Arun Khosla and Gajendra Singh	95
20.	1570469585	BNID: A Behavior-based Network Intrusion Detection at Network-Layer in Cloud Environment	Kamal Kumar Ghanshala, Preeti Mishra, R. C. Joshi and Sachin Sharma	100
21.	1570469632	Design and implementation of Smart Wheelchair for Quadriplegia patients using IOT	Umang Garg, Kamal Ghanshala, R C Joshi, and Rahul Chauhan	106
22.	1570470057	Automated Detection of Breast Cancer Metastases in Whole Slide Images	Pallvi Grover and Raj Mohan Singh	111
23.	1570470502	Statistical Analysis and Forecasting Models for Stock Market	Sourabh Yadav and Krishan Pal Sharma	117
24.	1570470748	Predictive Analysis and Forecasting of S&P CNX NIFTY50 using Stochastic Models	Himanshu Thapar and Kumar Shashvat	122
25.	1570471042	Encrypted Image based Reversible Data hiding using Invertible Image Conversion	Stanzin Namkha, Himansu Sekhar Pattanayak	128
26.	1570473267	Statistical Models for Predicting Swine flu Incidences in India	Nashreen Sultana and Nonita Sharma	134
27.	1570473278	Statistical Models for Predicting Chikungunya Incidences in India	Shobhit Verma and Nonita Sharma	139
28.	1570474858	Smart Applications of Internet of Things	Kavleen Kour, Jaspreet Kour and Parminder Singh	143
29.	1570475419	Android Controlled Wheelchair	Beverly Borges, Aniruddha Chandra, Rakhi Kalantri, Shubham Gupta, Gavin Dsilva and Shagufta Rajguru	147
30.	1570481270	Smart (Dual) Mode Operating Cooling System	Bharati Masram, Amar Dhokale, Piyush Shirsat, Minal Keote and Mandar dongarwar	150
31.	1570478669	TOPSIS Optimized Dual-Hop Routing Protocol for Homogeneous Wireless Sensor Networks with Grid-based Clustering	Saloni Dhiman and Deepti Kakkar	154
32.	1570483410	Online Handwritten Text and Non-Text Classification in Devanagari Script using Elliptical Region-wise Features	Rajib Ghosh, Shaktideo Kumar and Prabhat Kumar	163
33.	1570484500	Self-Organizing Sustainable Spectrum Management Methodology in Cognitive Radio Vehicular Adhoc Network (CRAVENET) Environment: A Reinforcement Learning Approach	Kamal Kumar Ghanshala, Sachin Sharma, Seshadri Mohan, Lata Nautiyal, Preeti Mishra, R. C. Joshi	168
34.	1570485035	Non-Saturated Heterogeneous Mobile Ad-hoc Network Throughput Analysis Considering Max Retry Limit and	Mukta Airon and Neeraj Gupta	173

## Max Contention Window Size

35.	1570486022	Cognitive State Classification using Genetic Algorithm based Linear Collaborative Discriminant Regression	Kapil Gupta and P. N. Chatur	180
36.	1570486490	Prediction of Liver Cirrhosis Using Weighted Fisher Discriminant Ratio Algorithm	Simarjot Kaur Randhawa, Ramesh Sunkaria and Anterpreet Bedi	184
37.	1570487546	Secure QR-Code Based Message Sharing System using Cryptography and Steganography	Abhijeet Mendhe, Deepak Kumar Gupta and Krishna Pal Sharma	188
38.	1570487705	Vertical Tunnel-FET Analysis for Excessive Low Power Digital Applications	Shailendra Singh and Balwinder Raj	192
39.	1570487754	Fog classification and accuracy measurement using SVM	Md Imtiyaz Anwar and Arun Khosla	198
40.	1570487788	Security challenges in Internet of Vehicles (IoV) environment	Nishant Sharma, Naveen Chauhan and Narottam Chand	203
41.	1570487791	Neural based Energy-Efficient Stable Clustering for Multilevel Heterogeneous WSNs	Akshay Verma, Rajkrishna Mondal, Prateek Gupta and Arvind Kumar	208
42.	1570487874	Deep Neural Network for Transformation Zone Classification	Mamta Arora, Sanjeev Dhawan and Kulvinder Singh	213
43.	1570487882	Spoofed Fingerprint Detection Based on Time Series Fingerprint Image Analysis	Shefali Arora, Naman Maheshwari and MPS Bhatia	217
44.	1570487932	Opinion Mining and Classification of Music Lyrics Using Supervised Learning Algorithms	Mahesh Ahuja and A. L. Sangal	223
45.	1570487935	Predictive Analysis of Medical Data Using a Hybrid Machine Learning Technique	Pushpendra Rajawat, Deepak Kumar Gupta, Santosh Rathore, and Avtar Singh	228
46.	1570488028	Local Binary Pattern Variants: A Review	Anterpreet Bedi, Ramesh Kumar Sunkaria and Simarjot Kaur Randhawa	234
47.	1570488038	Smart Automatic Control and Monitor Water Purification Using Wireless Sensor System	Bhupesh Lonkar, Rajesh T. Nakhate and Manoj R. Sayankar	238
48.	1570488084	An efficient Gaussian Noise Reduction Technique for Noisy Images using optimized filter approach	Sandeep Chand Kumain, Maheep Singh, Krishan Kumar, Navjot Singh	243
49.	1570488187	Stacked Autoencoders based Deep Learning approach for Automatic Epileptic Seizure Detection	Kuldeep Singh and Jyoteesh Malhotra	249
50.	1570488224	Sentiment Analysis of Social Media Reviews Using QoS Parameterization	Jaspreet Singh and Gurvinder Singh	255
51.	1570488251	Investigation of Performance of Savitzky-Golay Filter for Speckle Reduction in Ultrasound Images	Simarjot Kaur Randhawa and Ramesh Kumar Sunkaria	261
52.	1570488328	LoRaWAN based GPS tracking of city-buses for smart public transport system	Swapnil Hattarge, Akshay Kekre and Ashwin Kothari	265
53.	1570488413	Design of Military Surveillance Robot	Minal Ghute, Kanchan P.Kamble and Mridul Korde	270

54.	1570488421	Jaya algorithm using weighted sum approach for the multi-objective next release problem	Pavitdeep Singh, Manjit Singh Bhamrah and Jatinder Kaur	273
55.	1570488427	Convolutional Neural Network (CNN) for image detection and recognition	Rahul Chauhan, Kamal Ghanshala and R C Joshi	278
56.	1570488468	Encrypted Domain Image Scaling and Cropping in Cloud	Anurenjini R	283
57.	1570488484	Morphologically Robust Discrete Cosine Transform based Lossless ECG Compression with Access Control Quality	Neetika Soni, Indu Saini and Butta Singh	289
58.	1570488503	Q-AODV: A Flood control Ad-Hoc on Demand Distance Vector Routing Protocol	Bhagyalakshmi Magotra and Amit Kumar Dogra	294
59.	1570488505	Mobility Models and Simulation Tools for Opportunistic Networks	Prashant Kumar, Naveen Chauhan and Narottam Chand	300
60.	1570488509	Multiple Load Controllers for Industry Using Arm Cortex	Kanchan Kamble, Dipa and M.S.Ghute	305
61.	1570488510	A Literature Survey on various Image Encryption & Steganography Techniques	Madhu Dahiya and Raman Kumar	310
62.	1570488513	Analysis and Forecasting of Individual Stock Prices of Various Constituents in NIFTY 50	Deepak Kumar Gupta, Raj Mohan Singh and Vikalp Ravi Jain	315
63.	1570490648	3E-VMC: an Experimental Energy Efficient model for VMs scheduling over Cloud	Pushkar Pete, Kunal Patange, Manjiri Wankhade, Arpitrama Chatterjee, Manish Kurhekar and Krishan Kumar	322
64.	1570491003	A Critical Survey Of Virtual Machine Migration Techniques In Cloud Computing	Bhagyalakshmi and Deepti Malhotra	328
65.	1570491379	A Study of Performance Evaluators for Software Defined Networking	Amit Nayyer, Aman Kumar Sharma and Lalit K. Awasthi	333
66.	1570492017	Item-Based Collaborative Filtering in Movie Recommendation in Real time	Mukesh Kumar Kharita, Atul Kumar and Pardeep Singh	340
67.	1570492129	Outcome Prediction of ODI Cricket Matches using Decision Trees and MLP Networks	Jalaz Kumar , Rajeev Kumar, and Pushpender Kumar	343
68.	1570492469	MICHB based extended stable clustering protocols for three-level heterogeneous WSNs	Prateek Gupta and Ajay K. Sharma	348
69.	1570492525	Design of Printed Circuit Board for Retrofit Kit of Smart Energy Meters	Kiran Ahuja and Arun Khosla	354
70.	1570492744	Range Automata for Alphabetic Time Series Dimensionality Reduction	Sagarkumar Badhiye and P.N. Chatur	360
71.	1570492955	Patch-based Face Recognition under Plastic Surgery	Roshni Khedgaonkar, M. M. Raghuwanshi and K. R. Singh	364
72.	1570493139	Security Vulnerabilities in Handover Authentication Mechanism of 5G Network	Shubham Gupta, Balu Parne and Narendra S Chaudhari	369

73.	1570493286	Detection of concealed weapons using image processing techniques: A review	Rohini Mahajan and Devanand Padha	375
74.	1570494918	A comparative study of various wireless network monitoring tools	Rajinder Singh and Satish Kumar	379
75.	1570495033	Movie Success Prediction using Machine Learning Algorithms and their Comparison	Rijul Dhir and Anand Raj	385
76.	1570495062	Comparison on Generative Adversarial Networks - A Study	Akanksha Sharma, Neeru Jindal and Abhishek Thakur	391
77.	1570495091	An algorithm for computing efficiently in cloud based data centers	Idris Afzal Shah	397
78.	1570495117	Real time monitoring of muscle fatigue and muscle disorder of biceps brachii using Surface Electromyography(sEMG)	Ankit Kumar, S.K Pahuja and Anurag Singh	401
79.	1570495171	Expanding Lifetime Of Wireless Sensor Network Using Fuzzy Logic	Padmini Mishra, Saurabh Jaiswal, Neha Agarwal and Vikas Patel	406
80.	1570495180	Breast Cancer Detection Through Gabor Filter Based Texture Features Using Thermograms Images	A.A. Khan and A. S. Arora	412
81.	1570495252	A Comparative study of various Video Tampering detection methods	Sandeep Kaur and Alok Kumar Singh Kushwaha	418
82.	1570495289	Economic Analysis of Reactive Power Services in Deregulated Power Market Integrated with Doubly Fed Induction Generator Wind Unit	Aditi Gupta, Yajvender Pal Verma and Amit Chauhan	424
83.	1570495354	Analysis and prevention of phishing attacks in Cyber space	Alekha Mishra, Asis Kumar Tripathy and, Satyabrata Swain	430
84.	1570495398	Restoration of Image from deterioration using Image Inpainting	Varuni Garg and Renu Dhir	435
85.	1570495442	Ambient Intelligent Wireless Sensor Network for Environmental Monitoring and Indoor Localization Using an Extended Kalman Filter	Karthik Muthineni and Attaphongse Taparugssanagorn	441
86.	1570495452	Efficient Task Allocation Strategies For WSNs	C Cara Evangeline, C. Kushala, and BKSP Kumar Raju Alluri	446
87.	1570495469	Machine Learning based Saliency Algorithm for Image forgery Classification and Localization	Abhishek Thakur and Neeru Jindal	451
88.	1570495523	Concentric Layered Architecture for Multi-Level Clustering in Large-Scale Wireless Sensor Networks	Harmanpreet Singh and Damanpreet Singh	457
89.	1570495478	Abnormality detection in ECG using hybrid feature extraction approach	Ritu Singh, Navin Rajpal and Rajesh Mehta	461
90.	1570495470	Sensor fusion algorithm for software based advanced driver-assistance intelligent systems	Parampreet Kaur and Rajeev Sobti	467
91.	1570495524	Energy Optimization Using Game Theory in Energy-Harvesting Wireless Sensor Networks	Poonam Kashtriya, Rajeev Kumar and Gurpreet Singh	472
92.	1570495526	Physical Layer Security Approaches in 5G Wireless Communication Networks	Pooja Singh, Praveen Pawar and Aditya Trivedi	477
93.	1570495533	Community Detection Metrics and Algorithms in Social Networks	Himansu Sekhar Pattanayak , Harsh K Verma and A. L. Sangal	483

94.	1570495538	Detection of Potholes and Speed Breaker on Road	Gurpreet Singh, Rajeev Kumar and Poonam Kashtriya	490
95.	1570495547	ECSim-2: A Performance Evaluator for Erasure Code based Storage Systems	Ojus Thomas Lee ,Rajat Porwal, S D Madhu Kumar and Priya Chandran,	496
96.	1570495578	Analyzing the structures of clusters in Multi-layer biological networks	Ruchi Mittal and M.P.S Bhatia.	502
97.	1570495604	A Color-Based Approach for Melanoma Skin Cancer Detection	Shalu Sahota and Aman Kamboj	508
98.	1570495628	Sentimental Analysis On Social Feeds to Predict the Elections	Neha Gigi and Amanpreet Kaur	514
99.	1570495636	DDoS detection and discrimination from flash events: A Compendious Review	Avneet Dhingra and Monika Sachdeva	518
100.	1570495639	A comparison of road network extraction from high resolution Images	Pramod Soni, Navin Rajpal and Rajesh Mehta	525
101.	1570495645	Design of a novel energy efficient routing framework for Wireless Nanosensor Networks	Sandeep Verma, Satnam Kaur, Amandeep Kaur and Gaurav Dhiman	532
102.	1570495787	An Effective Approach for Smart Infrastructures Using Internet of Things	Saurav Singh, Manav Sharma, Janvi Malhotra, and Naveen Bilandi	537
103.	1570497018	Deep Learning Approaches for Human Activity Recognition in Video Surveillance - A Survey	Rajat Khurana and Alok Kumar Singh Kushwaha	542
104.	1570497099	An Energy Efficient TDMA based MAC Protocol for Wireless Body Area Networks	Naveen Bilandi, Harsh Verma and Renu Dhir	545
105.	1570497329	ROI and Non-ROI based Medical Image Compression Techniques: A Survey and Comparative Review	Rajandeep Kaur and Rajneesh Rani	550
106.	1570497390	A Comparative Survey on Information Dissemination in Heterogeneous Vehicular Communication Networks	Abhilasha Sharma and Lalit Kumar Awasthi	556
107.	1570498221	Systematic Survey on Sentiment Analysis	Shubham Kumar Jain and Pardeep Singh	561
108.	1570498281	Artemis - 2D Vector Graphics Markup Language	Amaan Naqvi and Niharika Dubey	566
109.	1570498290	Second Order Statistics of SIR based Macro Diversity System for V2I Communications over Composite Fading Channels	Caslav Stefanovic, Stanislav Veljkovic, Mihajlo Stefanovic, Stefan Panic, and Srdjan Jovkovic	569
110.	1570498336	Stock Market Prediction Using Machine Learning	Ishita Parmar, Navanshu Agarwal, Sheirsh Saxena, Ridam Arora, Shikhin Gupta, Himanshu Dhiman and Lokesh Chouhan	574
111.	1570498352	Sentiment Analysis using tidytext package in R	Priyavrat Chauhan and Nonita Sharma	577
112.	1570498366	A Survey on Internet of Things - Architecture, Applications, and Future Trends	Karandeep Kaur	581
113.	1570498367	Text Extraction from Indian and Non-Indian Natural Scene Images: A Review	Shilpa Mahajan and Rajneesh Rani	584



114.	1570498380	Distributed Recovery in Moveable Wireless Sensor Networks	Pankaj Kumar and Lokesh Chouhan	589
115.	1570498381	Group Head Selection in WSN using EM Algorithm	Tanuj Wala, Narottam Chand and Ajay K. Sharma	593
116.	1570498382	Deep Learning Approaches for Brain Tumor Segmentation: A Review	Aman Kamboj, Rajneesh Rani and Jiten Chaudhary	599
117.	1570498386	Feature weighting for improved classification of anuran calls	Dalwinder Singh and Birmohan Singh	604
118.	1570498414	Priority aware Congestion Control scheme using dual thresholds	Neha Pant	610

*Author Index*