2018 International Conference on System Modeling & Advancement in Research Trends (SMART 2018)

Moradabad, India 23-24 November 2018



IEEE Catalog Number: CFP18SME-POD ISBN: 978-1-5386-6370-7

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:
 CFP18SME-POD

 ISBN (Print-On-Demand):
 978-1-5386-6370-7

 ISBN (Online):
 978-1-5386-6369-1

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



Contents

	Message	iii
	Committees	vii
	Preface	xiv
TRA	CK I EMERGING TECHNOLOGIES	
1.	Simulation of Malicious Scenarios using Multi-Agent Systems Mikhail Umnitsyn, Arina Nikishova, Tatiana Omelchenko, Natalia Sadovnikova, Danila Parygin and Yuliya Goncharenko	3
2.	Off-line Handwritten Hindi Consonants Recognition System using Zernike Moments and Genetic Algorithm Ajay Indian and Karamjit Bhatia	10
3.	Advanced Practices to Detect Ambiguities and Inconsistencies from Software Requirements Ashima Rani and Dr. Gaurav Aggarwal	17
4.	Development of a Device for Technological Refrigerant Supply by the Research Designing Method Yakovlev A.A., Barabanov V.G., Postupaeva S.G. and Sokolova-Dobreva D.	22
5.	Blockchain and Smart Contracts for Support the Interaction between the Actors in the Regional Innovation System Alexey Finogeev, Sergey Vasin, Leyla Gamidullaeva and Danila Parygin	27
6.	Analysis of Drug Sales Data based on Machine Learning Methods Mohammed A. Al-Gunaid, Maxim V. Shcherbakov, Alla G. Kravets, Vadim I. Loshmanov, Alexandr M. Shumkin, Vladislav V. Trubitsin and Darya V. Vakulenko	32
7.	Big Data and Predictive Analytics in Various Sectors Kaneez Zainab and Dr. Namrata Dhanda	39
8.	Accuracy Testing of Data Classification using Tensor Flow a Python Framework in ANN Designing Neeraj Chauhan, Dr. Ashutosh Kr. Bhatt,	4.4
^	Prof. Rakesh Kr. Dwivedi and Prof. Rajendra Belwal	44
9.	Generation of Green Electricity with Pedal Generator Pradeep Kumar Gupta and Siddhant Gupta	49
TRA	CK II IOT & WIRELESS COMMUNICATION	
10.	Protection Software for Mobile Operating Systems Tatiana Omelchenko, Arina Nikishova, Mikhail Umnitsyn, Natalia Sadovnikova, Danila Parygin and Aleksandr Kostyukov	54
11.	Wireless Sensor Networks' Challenges and Future Prospects Nileshkumar R. Patel and Shishir Kumar	60

12.	Node Clustering in Wireless Sensor Networks using Fuzzy Logic: Survey Richa Sharma, Vasudha Vashisht and Umang Singh	66
13.	Distributed Big Data Analytics in the Internet of Signals Vijay Anavangot, Varun G. Menon and Anand Nayyar	73
14.	Security and Privacy in IoT based E-Business and Retail Keshav Kaushik and Susheela Dahiya	78
15 .	A Hybrid Biometric Method for Authentication of User in Internet of Things Jashanpreet Kaur and Dr. Jyotsna Sengupta	82
16.	Designing and Developing a Chatbot Using Machine Learning <i>Praveen Kumar, Mayank Sharma, Seema Rawat and Tanupriya Choudhury</i>	87
17.	Object Identification using Super Sonic Sensor: Arduino Object Radar Naman Gupta and Dr. Ambuj Kumar Agarwal	92
TRA	CK III DIGITAL INDIA INITIATIVE	
18.	Data Visualization as a Preprocessing Step in Designing of Data Mining Tools Visualizing Time Series Pattern of Rainfall Data Manoj S. Chaudhari and Dr. Nitin K. Choudhari	99
19.	The Model of Data Protection in the Geographic Information System of Housing and Communal Services Maksimova Elena, Zaikina Yuliya, Vitenburg Ekaterina, Ozhiganova Marina, Tretyakova Lily and Babenko Alexey	104
20.	Analyzing Facebook Data Set using Self-organizing Map Anu Sharma, Dr. M.K. Sharma and Dr. R.K. Dwivedi	109
21.	Predicting Employee Attrition using XGBoost Machine Learning Approach <i>Rachna Jain and Anand Nayyar</i>	113
22.	Data Schemas for Forecasting (with Examples in R) Sai Van Cuong, Dr. Andrey Davydenko and Prof. Maxim Shcherbakov	121
23.	Generating Patterns from Pizza Ontology using Protégé and Weka Tool Salvi Jain, Rupal Gupta and Rakesh Kumar Dwivedi	126
24.	Global and Indian Perspective of E-Waste and its Environmental Impact Vinay Kumar Pant and Sumit Kumar	132
TRA	CK IV COMMUNICATION AND NETWORK BROADCAST	
<i>25.</i>	Q-Analyze Tool to Detect Malicious and Black Hole Nodes in NS2 Simulation for AODV Qasim Al-Shidi, Ahmed Alburaiki, Hothefa Shaker and Basant Kumar	140
26.	A Neural Network based Vietnamese Chatbot Trang Nguyen and Maxim Shcherbakov	147
27.	Modeling and Evaluation of Heterogeneous Networks for VANETs Maryam Tahira, Danish Ather and Ashendra Kr. Saxena	150

28.	Creating a Double Lock with the Help of Sound Programming and Image Programming for the Security of Data for Remote Location Treatment in Body Area Network	
	Pradeep Kumar and Anand Sharma	154
29.	Identification Vehicle Movement Detection in Forest Area using MFCC and KNN Mitika Chaudhary, Vinay Prakash and Neeraj Kumari	158
30.	Privacy-Preserving Data Aggregation in Wireless Sensor Surbhi Madan, Er. Deepak Kumar and Er. Anamika Agnihotri	165
31.	A Routing Algorithm for Proposed Concentric Rings Topological Networks Mohammad Zubair Khan	168
32.	SmartTech: An Email Analytics Application Prachi Jain, Praveen Kumar and Seema Rawat	173
33.	An Efficient Lightweight Game Theory Based Intelligent Routing Protocol in Sparsely Connected Opportunistic Networks	
	Dishant Grover, Shivangi Kochhar, Ananya Sharma, Ashima Mittal and Preeti Nagrath	178
34.	A Cross Validated Clustering Technique to Prevent Road Accidents in VANET Chiranjit Dutta and Niraj Singhal	183
35.	An Enhanced Vehicle Parking Management using Artificial Intelligence <i>Ruby Singh and Niraj Singhal</i>	188
TRA	CK V SIGNAL IMAGE & COMMUNICATIONAL TECHNOLOGY	
36.	Accuracy of Classified Imagery without using Reference Data Set Ranjana Sharma, Prof. P.K. Garg and Prof. R.K. Dwivedi	195
37.	Speech Emotion Recognition using Mel Frequency Cepstral Coefficient and SVM Classifier	
	V. Fernandes, L. Mascarehnas, C. Mendonca, A. Johnson and R. Mishra	200
38.	Performance Analysis of Eighteen Element Dolph-Chebyshev Linear Array at Different Side Lobe Level Brajlata Chauhan, P.S. Sharma Prashansha and Sandip Vijay	205
39.	Implementing Application for Support and Automation of Analisys of Gasoline with Gas Chromatography	203
	Evgeniy Kulikov, Anna Matokhina, Michail Nevestenko, Alexey Ermolovsky and Alexey Kizim	210
40.	Optimization of PV System using Distributed MPPT Control Madhura N. Dehedkar and Prof. Subhash Vitthalrao Murkute	216
41.	Review of Fuzzy Soft Classification with Contextual Information Swati, Prof. (Dr.) P.K. Garg and Prof. (Dr.) R.K. Dwivedi	221
42.	Techniques to Elimenate Human Bias in Machine Learning Eishvak Sengupta, Dhruv Garg, Tanupriya Choudhury and Archit Aggarwal	226
43.	Facial Recognition-Application and Future: A Review Vishwani Sati, Dhruy Gara, Tanunriya Choudhury, Archit Aggarwal	231

44.	Reliability Assessment of Power System with Renewable Source using ETAP Muhammad Zahid Kamaruzaman, Noor Izzri Abdul Wahab,	
	and Mohamad Nasrun Mohd Nasir	236
TRA	CK VI GOVERNANCE, RISK AND COMPLIANCE	
45.	Eye Fatigue Detection System Ch. Sravan, K.J. Onesim, V. Sri Sai Bhavana, R. Arthi and G. Srinadh	245
46.	Keystroke Dynamics Biometrics, A tool for User Authentication–Review Suhail Javed Quraishi and Dr. S.S. Bedi	248
47.	Development of Writer Independent Offline Signature Verification System through Multiple Classifier and Geometric Features Ashok Kumar and Karamjit Bhatia	255
48.	Exploring Regional Innovation Systems through a Convergent Platform for Big Data Sergey Vasin, Leyla Gamidullaeva, Alexey Finogeev and Danila Parygin	261
49.	A List based Approach to Solve Graph Coloring Problem Ajay Narayan Shukl and M.L. Garg	265
50.	ProBot: An Online Aid to Procurement Anushka Chawla, Aman Varshney, M. Sarosh Umar and Hira Javed	268
51.	Validation of Real Estate Ads based on the Identification of Identical Images Alexey Golubev, Ilya Zelenskiy, Danila Parygin, Vyacheslav Cherkesov Alexey Finogeev and Dmitry Degtyarenko	274
52.	Technological Trends, Impact and Analysis of Social Media Quality Parameters on e-Governance Applications Prabhat Manocha, Subhranil Som, and Lovneesh Chanana	280
	AUTHOR INDEX	286