

2019 IEEE Bombay Section Signature Conference (IBSSC 2019)

**Mumbai, India
26 – 28 July 2019**



**IEEE Catalog Number: CFP19T50-POD
ISBN: 978-1-5386-7476-5**

**Copyright © 2019 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:	CFP19T50-POD
ISBN (Print-On-Demand):	978-1-5386-7476-5
ISBN (Online):	978-1-5386-7401-7

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

TABLE OF CONTENTS

SANSKRIT-GUJARATI CONSTITUENCY MAPPER FOR MACHINE TRANSLATION SYSTEM	1
<i>Jaideepsinh K. Raulji ; Jatinderkumar R. Saini</i>	
DUAL SENTIMENT CLASSIFICATION WITH SARCASM IDENTIFICATION.....	9
<i>Akhilesh Vilas Kashikar ; Jyoti Ramteke</i>	
EFFECTIVE ANALYSIS OF FEATURE SELECTION ALGORITHMS FOR NETWORK BASED INTRUSION DETECTION SYSTEM.....	15
<i>Trupti Chandak ; Chaitanya Ghorpade ; Sanyam Shukla</i>	
FAULT SIMULATOR OF CAR ENGINE.....	20
<i>Pratik Goyal ; Sumedha Fegade ; Damini Dabhilkar ; Sharmila Petkar</i>	
MULTI HIDDEN MARKOV MODELS FOR IMPROVED ANOMALY DETECTION USING SYSTEM CALL ANALYSIS.....	24
<i>Shraddha Suratkar ; Faruk Kazi ; Rohan Gaikwad ; Akshay Shete ; Raj Kabra ; Shantanu Khirsagar</i>	
STUDY AND ANALYSIS OF LOW POWER DYNAMIC COMPARATOR FOR IOT APPLICATION	30
<i>Lopamudra Samal ; P. Karuppanan ; Prem Kumar ; Sauvagya Ranjan Sahoo</i>	
MAIBOLI - A PROGRAMMING LANGUAGE SOLUTION BASED ON MARATHI DEVANAGARI SCRIPT	37
<i>Chaudhari Nimish Dadabhau ; Shaikh Bushra ; Karan Bansal ; Bhanushali Mitesh</i>	
TARGET DETECTION ON THE BASIS OF EMPIRICAL WAVELET TRANSFORM USING SEISMIC SIGNAL	40
<i>Manish Kalra ; Satish Kumar ; Bhargab Das</i>	
OPTIMIZATION OF PARKING DYNAMICS IN SMART CITY USING CLOUD NETWORKS	44
<i>Shivanand C. Hiremath ; Jayashree D. Mallapur</i>	
EFFICACY OF TSALLIS ENTROPY IN CLUSTERING CATEGORICAL DATA.....	50
<i>Shachi Sharma ; Ishaan Bassi</i>	
REAL TIME RE-ROUTING OF PUBLIC TRANSPORTATION SYSTEM.....	55
<i>Sahil Kalra ; Sohel Momin ; Tejas S. Kulkarni ; Vaibhav Lohani</i>	
A PERSONALISED APPROACH TO ADAPTIVE TUTORING USING MACHINE LEARNING AND NATURAL LANGUAGE PROCESSING	60
<i>Shravya Bhat ; Shilpa S Nair ; Shravya Kadur ; Srikanth H R</i>	
SIGN LANGUAGE TRANSLATION SYSTEM FOR RAILWAY STATION ANNOUNCEMENTS.....	66
<i>Farahanaaz Shaikh ; Shreya Darunde ; Nikita Wahie ; Swapnil Mali</i>	
AN IMPROVED LANE AND VEHICLE DETECTION METHOD IN DRIVER ASSISTANCE SYSTEM WITH LANE DEPARTURE AND FORWARD COLLISION WARNING	72
<i>Sagar S. Tikar ; Rajendra A. Patil</i>	
ADAPTIVE SENSOR FUSION AND PROPELLER THRUST EQUATION BASED DIGITAL CONTROL SYSTEM FOR UAV	78
<i>Tanmay Chakraborty ; Akash Kumar</i>	
COVER SONG IDENTIFICATION WITH PAIRWISE CROSS-SIMILARITY MATRIX USING DEEP LEARNING	84
<i>Manan Mehta ; Anmol Sajani ; Radhika Chapaneri</i>	
IOT AND MACHINE LEARNING BASED APPROACH FOR FULLY AUTOMATED GREENHOUSE	89
<i>Himanshu Jaiswal ; Karmali Radha P ; Ram Singuluri ; S Abraham Sampson</i>	
TRANSFER LEARNING FOR LOW RESOURCE SPOKEN LANGUAGE UNDERSTANDING WITHOUT SPEECH-TO-TEXT	95
<i>Swapnil Bhosale ; Imran Sheikh ; Sri Harsha Dumpala ; Sunil Kumar Kopparapu</i>	
SLEEP AVOIDANCE IN VEHICLE ECOSYSTEM (S.A.V.E.).....	100
<i>Bhushan Patil ; Sameer Pusegaonkar</i>	
WIRELESS BODY AREA NETWORK SENSOR FAULTS AND ANOMALOUS DATA DETECTION AND CLASSIFICATION USING MACHINE LEARNING	105
<i>Sumit Kumar Nagdeo ; Judhistir Mahapatro</i>	
AMBIENT PARAMETRIC MONITORING OF FARMS USING EMBEDDED IOT & LORA.....	111
<i>Tejaswi Raj ; Thoms A Johny ; Suyash Khetawat ; Rajeshwari B ; Sathya Prasad</i>	
SMART E-STICK FOR VISUALLY IMPAIRED USING VIDEO INTELLIGENCE API.....	117
<i>Priyanka Ambawane ; Devshree Bharatia ; Piyush Rane</i>	

EMOTION RECOGNITION USING MICRO-EXPRESSIONS	123
<i>Dharni Shah ; Saloni Shah ; Vineetkumar Sharma ; Vijaya Kamble</i>	
UNCONSTRAINED EAR RECOGNITION USING DEEP SCATTERING WAVELET NETWORK	129
<i>Parmeshwar Birajadar ; Meet Haria ; Sagar G. Sangodkar ; Vikram Gadre</i>	
EFFICIENT COMPUTER FORENSIC ANALYSIS USING MACHINE LEARNING APPROACHES.....	135
<i>Tanmay Toraskar ; Ujwala Bhargale ; Suchitra Patil ; Neelkamal More</i>	
DEEP LEARNING APPROACH TO VIDEO COMPRESSION.....	140
<i>Alan Jacob ; Vedanta Pawar ; Vinay Vishwakarma ; Anand Mane</i>	
SMART ANTENNA DESIGN AND IMPLEMENTATION FOR VEHICLES	145
<i>Rajveer Yaduvanshi ; Ms. Nishtha</i>	
INHERENT MEMS SENSOR ARRAY VARIABILITY REDUCTION USING ROBUST REGRESSION	151
<i>Tushar Gawande ; Raghavendra Deshmukh ; Rajendra Patrika ; Sharvari Deshmukh</i>	
CYBERSECURITY AND NETWORK PERFORMANCE MODELING IN CYBER-PHYSICAL COMMUNICATION FOR BIGDATA AND INDUSTRIAL IOT TECHNOLOGIES.....	155
<i>Sachin Sen ; Chandimal Jayawardena</i>	
DETECTION AND PREDICTION OF THE PREICTAL STATE OF AN EPILEPTIC SEIZURE USING MACHINE LEARNING TECHNIQUES ON EEG DATA.....	163
<i>K Manasvi Bhat ; Pratiksha P Anchalia ; S Yashashree ; R Sanjeetha ; Anita Kanavalli</i>	
FPGA IMPLEMENTATION OF REAL-TIME SOLDIER ACTIVITY DETECTION BASED ON NEURAL NETWORK CLASSIFIER IN SMART MILITARY SUIT	168
<i>Nikhil B. Gaikwad ; Avinash G. Keskar ; Varun Tiwari ; Ne Shivaprakash</i>	
CLASSIFICATION OF MOTOR IMAGERY EEG SIGNALS USING MEMD, CSP, ENTROPY AND WALSH HADAMARD TRANSFORM	174
<i>Dipti Sawant ; Vaibhavi Padwal ; Jugal Joshi ; Tanvi Keluskar ; Ragini Lalwani ; Tanushree Sharma ; Rohin Daruwala</i>	
REDUCED ORDER CONTROLLER FOR FO-IMC WITH DESIRED PHASE MARGIN AND GAIN CROSS-OVER FREQUENCY.....	180
<i>Pushkar Prakash Arya ; Sohom Chakrabarty</i>	
PERFORMANCE ANALYSIS OF DEEP Q NETWORKS AND ADVANTAGE ACTOR CRITIC ALGORITHMS IN DESIGNING REINFORCEMENT LEARNING-BASED SELF-TUNING PID CONTROLLERS.....	186
<i>Rajarshi Mukhopadhyay ; Soutrik Bandyopadhyay ; Ashoke Sutradhar ; Paramita Chattopadhyay</i>	
ARTIFICIAL NEURAL NETWORK BASED UNIVERSITY CHATBOT SYSTEM.....	192
<i>Namrata Bhartiya ; Namrata Jangid ; Sheetal Jannu ; Purvika Shukla ; Radhika Chapaneri</i>	
CLASSIFICATION OF MOTOR IMAGERY ACTIVITIES USING BAND POWER AND SECOND ORDER DIFFERENCE PLOT	198
<i>Niraj Bagh ; T. Janardhan Reddy ; M. Ramasubba Reddy</i>	
PERFORMANCE ANALYSIS OF SATELLITE IMAGE SUPER RESOLUTION USING DEEP LEARNING TECHNIQUES	204
<i>G. Rohith ; L. S. Kumar</i>	
AGRIBOT - AN INTELLIGENT INTERACTIVE INTERFACE TO ASSIST FARMERS IN AGRICULTURAL ACTIVITIES	210
<i>Divya Sawant ; Anchal Jaiswal ; Jyoti Singh ; Payal Shah</i>	
INTELLIGENT BLOOD MANAGEMENT SYSTEM.....	216
<i>Mitesh Sarode ; Ayush Ghanekar ; Sahil Krishnadas ; Yash Patil ; Manish Parmar</i>	
GPOL: GRADIENT AND PROBABILISTIC APPROACH FOR OBJECT LOCALIZATION TO UNDERSTAND THE WORKING OF CNNs.....	221
<i>Sarthak Gupta ; Siddhant Bagga ; Sanjay Kumar Dharandher ; Deepak Kumar Sharma</i>	
EXPLAINABLE LSTM MODEL FOR ANOMALY DETECTION IN HDFS LOG FILE USING LAYERWISE RELEVANCE PROPAGATION	227
<i>Aum Patil ; Amey Wadekar ; Tanishq Gupta ; Rohit Vijan ; Faruk Kazi</i>	
VISUAL QUESTION ANSWERING USING VIDEO CLIPS	233
<i>Mandar Bhalerao ; Shlok Gujar ; Aditya Bhawe ; Anant V Nimkar</i>	
FEATURE LEARNING USING STACKED AUTOENCODER FOR MULTIMODAL FUSION, SHARED AND CROSS LEARNING ON MEDICAL IMAGES	239
<i>Zeeshan Ul Islam ; Vikas Singh ; Nishchal K. Verma</i>	
F-NAD: AN APPLICATION FOR FAKE NEWS ARTICLE DETECTION USING MACHINE LEARNING TECHNIQUES	245
<i>Ranojoy Barua ; Rajdeep Maity ; Dipankar Minj ; Tarang Barua ; Ashish Kumar Layek</i>	

CONGESTION CONTROL IN CLOUD COMPUTING NETWORK FOR LOAD BALANCING USING PORTABILITY	251
<i>Tej C. Hiremath ; Jayashree D. Mallapur</i>	
ANDROID VULNERABILITIES: TAXONOMY AND NEXTGEN ECOSYSTEM	257
<i>Pradeep Kumar Tiwari ; T Velayutham</i>	
MACHINE LEARNING APPROACH FOR DEFECT IDENTIFICATION IN MACHINERY PARTS	264
<i>Deepa Abin ; Mehul Solanki ; Neha Waghchaure ; Snehal Shivthare ; Rosilin Augustine</i>	
AMBIENT INTELLIGENCE USING SMART MIRROR-PERSONALIZED SMART MIRROR FOR HOME USE	270
<i>Arushi Anne D'Souza ; Priya Kaul ; Eric Paul ; Manali Dhuri</i>	
DEEP LEARNING FOR MOTION BASED VIDEO AESTHETICS.....	275
<i>Madhura V. Phatak ; Manasi S. Patwardhan ; Meenakshi S. Arya</i>	
SPOKEN INDIAN LANGUAGE CLASSIFICATION USING GMM SUPERVECTORS AND ARTIFICIAL NEURAL NETWORKS	281
<i>Aarti Bakshi ; Sunil Kumar Kopparapu</i>	
AN AI DRIVEN GENOMIC PROFILING SYSTEM AND SECURE DATA SHARING USING DLT FOR CANCER PATIENTS.....	287
<i>Vijayasri Iyer ; A M Hima Vyshnavi ; Sriram Iyer ; P K Krishnan Namboori</i>	
INTUITIVE SOLUTION FOR ROBOT MAZE PROBLEM USING IMAGE PROCESSING.....	292
<i>Advait Ambeskar ; Anup Bondre ; Varsha Turkar ; Hetal Gosavi</i>	
AUTOMATIC FETAL FACIAL EXPRESSION RECOGNITION BY HYBRIDIZING SALIENCY MAPS WITH RECURRENT NEURAL NETWORK.....	298
<i>Sushama Telrandhe ; Prema Daigavane</i>	
Author Index	