

# **2019 9th International Conference on Emerging Trends in Engineering and Technology – Signal and Information Processing (ICETET-SIP-19)**

**Nagpur, India  
1 – 2 November 2019**



**IEEE Catalog Number: CFP1941E-POD  
ISBN: 978-1-7281-3507-6**

**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:	CFP1941E-POD
ISBN (Print-On-Demand):	978-1-7281-3507-6
ISBN (Online):	978-1-7281-3506-9
ISSN:	2157-0477

**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

**2019 9th International Conference on Emerging Trends in  
Engineering and Technology - Signal and Information  
Processing (ICETET-SIP-19)**

**TABLE OF CONTENT**

<b>Paper Id</b>	<b>Authors</b>	<b>Paper Title</b>	<b>Page No.</b>
6	Neerajkumar Sathawane, Dr. Ulhaskumar Gokhale	Survey on Design of Cardiovascular Disease Classification and Detection using Neural Network	1
17	Kalyani Akant	Measuring Frequencies of Shrutis in Indian Classical Music	5
18	Ms. Snehal Dongare,Dr. Dinesh Padole	Development of Feature based Hybrid Method for Brain Signature Identification	9
19	Dr.Nilesh N. Kasat, Dr.A.D.Gawande, Dr.P. D. Gawande	Smart City Solutions on Drainage, Unused Well and Garbage Alerting System for Human Safety	14
20	Diksha Manikkule, Pravin Jaronde	Encapsulation of Full Adder Using 180nm CNTFET	20
22	Pranjali Jumle, P L Zade, V R Kapur, Suresh Gohane, Devashree Marotkar and Madhulika Pimple	Shorted Compact Implantable Patch Antenna for ISM Band-Biomedical Regime	26
23	Pragati Chandankhede, Prof.Arun Kumar	Deep Learning Technique for serving visually impaired person	31
25	Dr. Pankaj H. Chandankhede, Dr. Milind M. Khanapurkar	System Design of Embedded Event Data Recorder for Evidence Collection	37
26	Gunjan Rajput, Gopal Raut, Sajid Khan, Ankur Beohar, Neha Gupta, Dr. Santosh Kumar Vishvakarma	ASIC Implementation Of Biologically Inspired Spiking Neural Network	42
28	Prajakta Papalkar, Dr. Mahendra Gaikwad	Adaptive load balancing approach for Cluster Bidirectional Diagonal Mesh Topology	47
30	Preeti Mankar, Pratik Hajare, Poonam Agarkar, Shweta Bondre and Narendra Bawane	An efficient Deep Learning of scarce and diverse faces for Face recognition	53
33	Pranay Iyer,Sanjana Tarekar and Swati Dixit	Hand Gesture Controlled Robot	59
35	Indrasen Singh, R. K. Jaiswal, Varun Kumar, Rajiv Verma, N. P. Singh, and Ghanshyam Singh	Outage Probability of Device-to-Device Communication Underlying Cellular Network over Nakagami/Rayleigh Fading Channels	64
36	Rucha Dhumne, Suresh Salankar, Raj Vardhan Singh, Priyanka Morghade	A Hardware-Software Co-designed Low Latency AES-RC4 Cryptosystem	69

46	Prof.Anupa Kavale, Prof. Prachi Bramhe, Prof. Shraddha Shukla	Coin Counting and Sorting Machine	74
47	Surekha K.Tadse, S.L.Haridas	A Low Power Asynchronous Viterbi Decoder	78
50	Swati Godbole	Load Sensetive Hoist in Assembly Line	83
51	Abhijit Titarmare	Accident Detection & Rescue Information System for vehicles	87
54	Bhushan Bhad	Experimental Cansat for measurment of UV Radiation	91
59	Rushikesh Bankar, Dr. Suresh Salankar	Improvement of Head Gesture Recognition Using Camshift Based Face Tracking With UKF	95
63	Bhushan Modak	Testing and Monitoring of Car Infotainment Automation System by using Key Performance Indicator	100
65	Dr.Subiksha.K.P	Accelerating Health Care Inference Using Deep Learning Boost	105
68	T S Kumar, Shobhit Yadava	An overview of IoT enabled generic embedded controller developed for an observatory	109
69	Prafulla Bafna	Identification of Significant Challenges in the Sports Domain using Clustering and Feature Selection Technique	115
72	Balaji Rao Katika , Pratik Hajare , Ravi Mishra , Kamal Kashyap	Spoofing Face Identification Using Higher order Descriptors	120
73	Prabodh Mahajan, Chinmaya Naik and Nikita Kumari	IoT and Machine Learning based data collection and analysis system to determine agricultural residue and waste availability and its efficient collection for regeneration of clean energy.	127
76	Sharvari Urane, Tanvi Bopche, Vaishnavi Parteki, Sonali Kaleshwar, Prerna Meshram, Dr. Shrikant Sonekar	Road Accident Detection and Traffic Congestion Management using RF communication ,GSM and GPS	132
77	Ekta Toshniwal and Yogesh Golhar	Rubik's Cube Solver: A Review	137
80	Umesh Sahu, Dipti Patra and Bidyadhar Subudhi	Sliding Mode Observer Based Tip-Tracking Control of 2-DOF Serial Flexible Link Manipulator	142
81	Shraddha Pawankar	High Performance LDPC decoder design using FPGA	148
83	Vipin Bhure, Dr. M. Sumathi	Study of different methods for characterizing benign & cancerous breast tissue.	152
84	Prafulla Bafna, Jatinderkumar Saini	Hindi Multi-document Word Cloud based Summarization through Unsupervised Learning	155
86	Atul Negi, K. Rajesh	A Review of AI and ML Applications for Computing Systems	161
92	Priyanka Kale and Kapil Jajulwar	Design of Embedded Based Dual Identification ATM Card Security System	167
96	Akshita Baisware, Bharati Sayankar, Saurabh Hood	Review on Recent Advances in Human Action Recognition in Video Data	172