

2020 7th International Conference on Computing for Sustainable Global Development (INDIACom 2020)

**New Delhi, India
12 – 14 March 2020**



**IEEE Catalog Number: CFP2083W-POD
ISBN: 978-1-7281-2958-7**

**Copyright © 2020, Bharati Vidyapeeth, New Delhi
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: | CFP2083W-POD |
| ISBN (Print-On-Demand): | 978-1-7281-2958-7 |
| ISBN (Online): | 978-93-80544-38-0 |

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



Presentation Schedule

Track Wise – Session Wise List of Papers

Track # 1: Papers from all the four Thematic Tracks Session 1.1; Date: 13th March, 2020; Time: 9:00 a.m. to 11:00 a.m. Venue: E-101; E-Block (1st Floor); (08 Papers Presentations)

| | | |
|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| 16 | Sentiment Analysis using Machine Learning and Deep Learning <i>Yogesh Chandra and Antoreep Jana</i> | 1 |
| 18 | Pixel Wise Image Fusion by using Quantization Table for Data Security <i>Sukanya Roy, Bipasha Roy, Arnab Bhowmik, Koyel Dey, Rudrangshu Dutta, Souvik Biswas, Pinaki Bhowmick and Suvarup Gosh</i> | 5 |
| 24 | An Investigation of Reduction of Cryptography Processing Overhead in BGP Security Protocols <i>Arushi Agarwal, Madhurima and Saru Dhir</i> | N/A |
| 29 | Robust Comparative Analysis of Zero-Knowledge Proofs using Discrete Logarithm Problem <i>Chitranjan Prasad Sah and Preeti Rani Gupta</i> | 11 |
| 73 | Detection of DDoS Attacks using Machine Learning Algorithms <i>Parvinder Singh Saini, Sunny Behal and Sajal Bhatia</i> | 16 |
| 135 | A Curve Fitting Thresholding Approach for Forensic Source Identification of JPEG Compressed Images <i>Joybrata Sarkar and Ruchira Naskar</i> | 22 |
| 208 | Study of Cloud Security in Hyper-scalers <i>Megha Panjwani and Suman De</i> | 29 |
| 223 | Partial Occlusion Handling using Quadrant-wise Sparsity for Face Image Recognition <i>Gargi Mishra and Virendra P. Vishwakarma</i> | 35 |

Organized by  **INDIACom-2020**  Technically Sponsored by

(IEEE Conference ID:49435 | SCOPUS Indexed)
 14th INDIACom; 2020 7th International Conference on
Computing for Sustainable Global Development
 Scheduled for 12th - 14th March, 2020

Bharati Vidyapeeth, New Delhi  Advancing Technology for Humanity
 IEEE Delhi Section

Track # 1: Papers from all the four Thematic Tracks

Session 1.2

Date: 13th March, 2020; Time: 11:15 a.m. to 01:15 p.m.

Venue: E-101; E-Block (1st Floor); (07 Papers Presentations)

| | | |
|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| 3 | Exemplifying the Effects of Distance Metrics on Clustering Techniques: F-measure, Accuracy and Efficiency <i>Tasleem Nizam and Sayed Imtiyaz Hassan</i> | 39 |
| 17 | Comparative Analysis of Gaussian Filter, Median Filter and Denoise Autoencoder <i>Arvind Kumar and Sartaj Singh Sodhi</i> | 45 |
| 30 | Automation in Baking using AI and IoT <i>Anagha Francis and Yogesh P. Pingle</i> | 52 |
| 243 | Epileptic Seizure Detection using Multicolumn Convolutional Neural Network <i>Indrani Bhattacharjee</i> | 58 |
| 252 | An Analysis of Various IoT Security Techniques: A Review <i>Saijshree Srivastava and Shiva Prakash</i> | N/A |
| 361 | Predictors of Drop-out in Massive Open Online courses <i>Adarsh Garg and Akansha Sehgal</i> | N/A |
| 368 | Performance Comparison of Spline Curves and Chebyshev Polynomials for Managing Keys in MANETs <i>Chetna, K. R. Ramkumar and Shaily Jain</i> | 64 |

Organized by **INDIACom-2020** Technically Sponsored by

(IEEE Conference ID:49435 | SCOPUS Indexed)
 14th INDIACom; 2020 7th International Conference on
Computing for Sustainable Global Development
 Scheduled for 12th - 14th March, 2020

Bharati Vidyapeeth, New Delhi

IEEE
 Advancing Technology
 for Humanity
 IEEE Delhi Section

Track # 1: Papers from all the four Thematic Tracks

Session 1.3

Date: 13th March, 2020; Time: 02:00 p.m. to 04:00 p.m.

Venue: E-101; E-Block (1st Floor); (07 Papers Presentations)

| | | |
|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| 204 | Performance Analysis of Gradient Descent Methods for Classification of Oranges using Deep Neural Network <i>Pooja Pathak, Himanshu Gangwar and Anand Singh Jalal</i> | 68 |
| 257 | Comparative Analysis of Various Adder Architectures on 28nm CMOS Technology <i>Aishani Misra, Shilpi Birla and Neha Singh</i> | 73 |
| 259 | Mining Comprehensible Classification Rules with Metaheuristic Strategy: AntMiner <i>Bhawna Jyoti and Aman Kumar Sharma</i> | 77 |
| 356 | Machine Reading of Arabic Manuscripts using KNN and SVM Classifiers <i>Aasim Zafar and Arshad Iqbal</i> | 83 |
| 360 | Design and Development of Framework for Speaker Recognition System <i>Nilu Singh and Shalini Chandra</i> | N/A |
| 366 | Prediction of Educationist's Performance using Regression Model <i>Sapna Arora, Manisha Agarwal and Ruchi Kawatra</i> | 88 |
| 371 | Cloud of Things (CoT) based Smart Cities <i>Sudhanshu Maurya and R Badlishah Ahmad</i> | 94 |

Organized by  **INDIACom-2020**  Technically Sponsored by

(IEEE Conference ID:49435 | SCOPUS Indexed)
 14th INDIACom; 2020 7th International Conference on
Computing for Sustainable Global Development
 Scheduled for 12th - 14th March, 2020

Bharati Vidyapeeth, New Delhi  Advancing Technology for Humanity
 IEEE Delhi Section

Track # 1: Papers from all the four Thematic Tracks

Session 1.4:

Date: 14th March, 2020; Time: 09:00 a.m. to 11:00 a.m.

Venue: E-101; E-Block (1st Floor); (08 Papers Presentations)

| | | |
|-----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| 51 | Intelligent Software Mining with Business Intelligence Tools for Automation of Micro services in SOA: A Use Case for Analytics <i>Divanshi Priyadarshni Wangoo</i> | 98 |
| 114 | Design and Development of User-Friendly Interface Environment for Accelerating Scientific Research Process: A Case Study for Nuclear Fusion Applications <i>Deepak Aggarwal and Ankita Shingala</i> | 102 |
| 123 | A Review on Cloud based Image Processing Services <i>Neeraj Kumar Pandey and Manoj Diwakar</i> | 108 |
| 163 | Security Requirements Specification: A Formal Method Perspective <i>Aditya Dev Mishra and K. Mustafa</i> | 113 |
| 240 | Acoustic Analysis of Punjabi Oral and Nasal Vowels <i>Shweta Bansal and Shyam S. Agrawal</i> | N/A |
| 241 | Internet of Things for Military Applications <i>Lalita Mishra, Vikash and Shirshu Varma</i> | 118 |
| 246 | Augmented Reality Tourism using Tele-Rover <i>Vishal G Yadav, Touheed Kazmi and Harshith K</i> | 124 |
| 296 | Intelligent FOREcasting Model for Climate Variations (InFORM): An Urban Climate Case Study <i>Pralhad P. Teggi, Santhi Natarajan and Bharathi Malakreddy</i> | 130 |
| 20 | Design and Development of Wizardry Gauntlet <i>Shourya Mehra, Ankur Varshney, Harshit Atri and Ruchi Parashar</i> | 138 |
| 34 | Nonlinear Response of Fiber Bragg Grating for Health Monitoring of Railway Track <i>Thammaiah N S, Prajwal P Patil, Anup M Upadhyaya, Preeta Sharan and Maneesh C Srivastava</i> | 144 |
| 47 | Ensemble Methods of Sentiment Analysis: A Survey <i>Dimple Tiwari and Bharti Nagpal</i> | 150 |
| 71 | Computation Termination and Malicious Node Detection using Finite State Machine in Mobile Adhoc Networks <i>Shrikant V. Sonekar, Madhuri Pal, Milind Tote, Supriya Sawwashere and Sonali Zunke</i> | 156 |
| 205 | An Implementation of KFDD based Reversible Logic using IBM-Q Experience <i>Sangeetha P and Prameela Kumari</i> | 162 |
| 317 | Data Size and its Impact for Feature Creation in Transfer Learning using Neural Networks <i>Suman Roy and Rajashekar Patil</i> | 168 |

Organized by



Bharati Vidyapeeth, New Delhi

INDIACom-2020

(IEEE Conference ID:49435 | SCOPUS Indexed)
14th INDIACom; 2020 7th International Conference on
Computing for Sustainable Global Development
Scheduled for 12th - 14th March, 2020

Technically Sponsored by



IEEE
Advancing Technology
for Humanity
IEEE Delhi Section

| | | |
|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| 338 | Jan Shikshan Sansthan Web Portal: A Technical Approach to Support Skill Development <i>IPS Sethi, Neeta Chauhan and Deepti Khanduja</i> | 176 |
| 362 | A Machine Learning Based Adult Content Detection Using Support Vector Machine <i>Ganesh Gajula, Ajinkya Hundiwale, Shreyas Mujumdar and Saritha L. R</i> | 181 |

Organized by  **INDIACom-2020**  Technically Sponsored by

(IEEE Conference ID:49435 | SCOPUS Indexed)
 14th INDIACom; 2020 7th International Conference on
Computing for Sustainable Global Development
 Scheduled for 12th - 14th March, 2020

Advancing Technology
for Humanity
IEEE Delhi Section

Track # 1: Papers from all the four Thematic Tracks

Session 1.6

Date: 14th March, 2020; Time: 2:00 p.m. to 4:00 p.m.

Venue: E-101; E-Block (1st Floor); (06 Papers Presentations)

| | | |
|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| 59 | Bacterial Analysis of Drinking Water using Photonic Crystal based Optical Sensor <i>Sumeet Kulkarni, Nusrathulla Khan, Preeta Sharan and Ranjith B</i> | 186 |
| 62 | Detection of Vitiligo using Waveguide Resonator Based on Optical Sensor <i>Nandhini V L, K. Suresh Babu, Sharan A and Venugopal K. R</i> | 192 |
| 66 | Quantum Dot Cellular Automata Based RGB to Gray Scale Conversion in Bio-Medical Applications <i>Kishan Shetty, Kiran Saravana, Vikas Vinugna M K, Brinda N Murthy, Seema Patil and Preeta Sharan</i> | 198 |
| 67 | Design and Analysis of Digital Circuits using Quantum Cellular Automata and Verilog <i>Nanditha V M, Sanath Rao U, Manasa Murali, Swathi R and Chethana K</i> | 205 |
| 72 | Breast Cancer Detection using Thermal Images and Deep Learning <i>Sumita Mishra, Aditya Prakash, Sandip Kumar Roy, Preeta Sharan and Nidhi Mathur</i> | 211 |
| 160 | Denoise Modelling of ECG Signals for Analog Front End <i>Lokesh L, Sanket N Shettar and Shashidhar Tantry</i> | 217 |

Organized by **INDIACom-2020** Technically Sponsored by

(IEEE Conference ID:49435 | SCOPUS Indexed)
 14th INDIACom; 2020 7th International Conference on
Computing for Sustainable Global Development
 Scheduled for 12th - 14th March, 2020

Bharati Vidyapeeth, New Delhi **IEEE**
 Advancing Technology
 for Humanity
 IEEE Delhi Section

Track # 2: 6th International Conference on Information Engineering and Management (ICIEM-2020)

Session 2.1

Date: 13th March, 2020; Time: 09:00 a.m. to 11:00 a.m.

Venue: Delphi Hall (Ground Floor); (03 Paper Presentations)

- | | | |
|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| 19 | Predictive Analysis & Classification of Diseases in Organs using Modified-C Clustering Technique <i>Sukanya Roy, Arnab Bhowmik, Suvarup Ghosh and Bipasha Roy</i> | 223 |
| 74 | An Automated System for Transferring and Equivalence between Saudi Universities <i>Basem Abdullah Alahmadi, Adnan Ahmed Abi Sen, Abdullah M. Alsubhy, Nour Mahmoud Bahbouh, Omar Alhaboob and Hanin Ahmed Abi Sen</i> | 229 |
| 75 | A Classification Algorithm for Date Fruits <i>Adnan Ahmed Abi Sen, Nour Mahmoud Bahbouh, Ahmad B.Alkhodre, Ashwaq Mohammed Aldhawi, Fatmah Ahmad Aldham and Manar Ibrahim Aljabri</i> | 235 |

Organized by **INDIACom-2020** Technically Sponsored by

(IEEE Conference ID:49435 | SCOPUS Indexed)
 14th INDIACom; 2020 7th International Conference on
Computing for Sustainable Global Development
 Scheduled for 12th - 14th March, 2020

Bharati Vidyapeeth, New Delhi **IEEE**
 Advancing Technology
 for Humanity
 IEEE Delhi Section

Track # 2: 6th International Conference on Information Engineering and Management (ICIEM-2020)

Session 2.2

Date: 13th March, 2020; Time: 11:15 a.m. to 01:15 p.m.

Venue: Delphi Hall (Ground Floor); (03 Paper Presentations)

| | | |
|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| 76 | Enhanced-Blind Approach for Privacy Protection of IoT <i>Adnan Ahmed Abi Sen, Fathy Albouraey Eassa, Kamal Jambi, Nour Mahmoud Bahbouh, Sami S. Albouq and Abdullah Alshamqiti</i> | 240 |
| 77 | A Model for Tracking People and Property in Crowds <i>Abdullah M. Alsubhy, Adnan Ahmed Abi Sen, Basem Abdullah Alahmadi, Nour Mahmoud Bahbouh and Hanin Ahmed Abi Sen</i> | 244 |
| 157 | 5G Networks and Security <i>Ma Jinsong and Mohammad Yamin</i> | 249 |

Organized by **INDIACom-2020** Technically Sponsored by

 (IEEE Conference ID:49435 | SCOPUS Indexed)
14th INDIACom; 2020 7th International Conference on
Computing for Sustainable Global Development
Scheduled for 12th - 14th March, 2020

 **IEEE**
Advancing Technology
for Humanity
IEEE Delhi Section

Track # 2: 6th International Conference on Information Engineering and Management (ICIEM-2020)

Session 2.3

Date: 13th March, 2020; Time: 02:00 p.m. to 04:00 p.m.

Venue: Delphi Hall (Ground Floor); (02 Paper Presentations)

- | | | |
|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| 236 | Digital Governments of Developed Nations and Saudi Arabia: A Comparative Study <i>Awad Saleh Alharb, George Halikias and Abdullah M Basahel</i> | 255 |
| 237 | An Overview of Security Management in Saudi Arabia <i>Mishaal Mofleh Almutairi, George Halikias and Mohammad Yamin</i> | 261 |

Organized by **INDIACom-2020** Technically Sponsored by

 (IEEE Conference ID:49435 | SCOPUS Indexed)
14th INDIACom; 2020 7th International Conference on
Computing for Sustainable Global Development
Scheduled for 12th - 14th March, 2020

 **IEEE**
Advancing Technology
for Humanity
IEEE Delhi Section

Track # 2: 6th International Conference on Information Engineering and Management (ICIEM-2020)

Session 2.4

Date: 14th March, 2020; Time: 09:00 a.m. to 11:00 a.m.

Venue: Delphi Hall (Ground Floor); (02 Paper Presentations)

| | | |
|-----|-------------------------------------------------------------------------------------------------------------------|-----|
| 238 | A Survey on Blockchain-based Applications in Education <i>Nadeem Abdullah Malibari</i> | 266 |
| 260 | An Overview of Mobile Payments, Fintech, and Digital Wallet in Saudi Arabia <i>Abdullah Almuhammadi</i> | 271 |

Organized by **INDIACom-2020** Technically Sponsored by

 (IEEE Conference ID:49435 | SCOPUS Indexed)
14th INDIACom; 2020 7th International Conference on
Computing for Sustainable Global Development
Scheduled for 12th - 14th March, 2020

 **IEEE**
Advancing Technology
for Humanity
IEEE Delhi Section

Bharati Vidyapeeth, New Delhi

Track # 2: 6th International Conference on Information Engineering and Management (ICIEM-2020)

Session 2.5

Date: 14th March, 2020; Time: 11:15 a.m. to 01:15 p.m.

Venue: Delphi Hall (Ground Floor); (02 Paper Presentations)

| | | |
|-----|--------------------------------------------------------------------------------------------------------------------------|-----|
| 359 | Impact of Indigenous Military Production on Saudi Arabian Economy <i>Abdullah Al-hudhaif</i> | 279 |
| 364 | The Changing Dynamics of Relationship Marketing in the Era of Digitalization <i>Meshal Abdulmahsen Alharbi</i> | 286 |