## **2020 International Conference** on Intelligent Engineering and **Management (ICIEM 2020)**

London, United Kingdom 17 – 19 June 2020



**IEEE Catalog Number: CFP20V61-POD ISBN**:

978-1-7281-4098-8

## Copyright © 2020 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:
 CFP20V61-POD

 ISBN (Print-On-Demand):
 978-1-7281-4098-8

 ISBN (Online):
 978-1-7281-4097-1

## **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



## **Table of Content**

| S.  | TITLE                                                                                         | PAGE |
|-----|-----------------------------------------------------------------------------------------------|------|
| No. |                                                                                               | No   |
|     | Small Area Fingerprint Verification using Deep Convolutional Neural Network                   |      |
| 1   | NabilahShabrina, Dongju Li, and Tsuyoshi Isshiki                                              | 1    |
|     | Paper id 081                                                                                  |      |
|     | Bayesian Estimation of Global and Local Variances for Improved Perceptual Quality of Fused    |      |
| 2   | Medical Images                                                                                | 7    |
|     | FayadhAlenezi                                                                                 |      |
|     | Paper id 022                                                                                  |      |
|     | Development of a Novel System for Speaker Verification                                        |      |
| 3   | Farman Ullah, Muhammad Israr, Atif Jan, Dr. Arbab Masood Ahmad, IrshaDullah, FaheemUllah      | 12   |
|     | Paper id 006                                                                                  |      |
|     | Feature selection to identify the residence state of teachers for the real-time               |      |
| 4   | Chaman Verma, VeronikaStoffova, ZoltanIlles                                                   | 17   |
|     | Paper id 008                                                                                  |      |
|     | Review on Performance Of SDAE For Historical Usage Data Using Deep Learning                   |      |
| 5   | Meenakshi Sharma, Dr. Satpal                                                                  | 23   |
|     | Paper id 013                                                                                  |      |
|     | An Analysis of Data Mining Techniques to Analyze the Effect of Weather on Agriculture         |      |
| 6   | SumanAvdhesh Yadav, Biswa Mohan Sahoo, Smita Sharma, Lipsa Das                                | 29   |
|     | Paper id 016                                                                                  |      |
|     | A Machine Vision System for Manual Assembly Line Monitoring                                   |      |
| 7   | Paola Pierleoni, Alberto Belli, Lorenzo Palma, MichelaPalmucci, LuisianaSabbatini             | 33   |
|     | Paper id 017                                                                                  |      |
|     | Elman Recurrent Neural Networks Based Direct Inverse Control for Quadrotor Attitude and       |      |
| 8   | Altitude Control                                                                              | 39   |
|     | BharindraKamanditya, Benyamin Kusumoputro                                                     |      |
|     | Paper id 019                                                                                  |      |
|     | Hetero-gate Dielectric with Hetero Dielectric BOX for Suppressing Ambipolar Current in Tunnel |      |
| 9   | FETs                                                                                          | 44   |
|     | Irfan Ahmad Pindoo, Sanjeet K. Sinha                                                          |      |
|     | Paper id 020                                                                                  |      |
|     | Image Processing Mechanism for Augmented Reality based Autonomous Navigation                  |      |
| 10  | Supriya Sharma, Lovi Raj Gupta, Mithilesh Kumar Dubey                                         | 48   |
|     | Paper id 023                                                                                  |      |
|     | Model for Implementing Biometrics in Library Management System using "Kensington VeriMark"    |      |
| 11  | Sarah Khalid, Vinod Kumar Shukla                                                              | 52   |
|     | Paper id 026                                                                                  |      |
|     | Swarm Intelligence and its applications towards Various Computing: A Systematic Review        |      |
| 12  | Komalpreet Kaur, Yogesh Kumar                                                                 | 57   |
|     | Paper id 027                                                                                  |      |
| 1.0 | Risk Management in Software Engineering Using Big Data                                        | 63   |
| 13  | AakashPuri, Shilpi Sharma                                                                     | 63   |
|     | Paper id 032                                                                                  |      |
| 1   | Analyzing the Students' Attitude Towards a Real-Time Classroom Response System                |      |

| 14  | ViktoriaBakonyi, ZoltanIlles, Chaman Verma                                                          | 69  |
|-----|-----------------------------------------------------------------------------------------------------|-----|
|     | Paper id 041                                                                                        |     |
|     | Surface modeling - Designing products in Industry 4.0                                               |     |
| 15  | Hector Rafael MoranoOkuno, Guillermo Sandoval Benitez, Rafael Caltenco Castillo, Daishi Alfredo     | 74  |
|     | Murano Labastida, Jose De Jesus Solis Cordova, Andres Garcia                                        |     |
|     | Paper id 043                                                                                        |     |
|     | Enhancing Performance of Deep Learning Models with different Data Augmentation Techniques: A Survey |     |
| 16  | Cherry Khosla, Baljit Singh Saini                                                                   | 79  |
|     | Paper id 046                                                                                        |     |
|     | Effective Congestion Control In MANET                                                               |     |
| 17  | Gagandeep Singh, Onkar Singh Bawa, Ashok Kumar Sharma, Harneet Kaur                                 | 86  |
|     | Paper id 047                                                                                        |     |
|     | Adaptive Traffic Control System: The Smart And Imperative Traffic Control System For India          |     |
| 18  | Kajal Dubey, Tushar Gupta                                                                           | 91  |
|     | Paper id 049                                                                                        |     |
|     | Using Web Log Files the Comparative Study of Big Data with Map Reduce Technique                     |     |
| 19  | Mudassir Khan, ShakilaBasheer                                                                       | 97  |
|     | Paper id 052                                                                                        |     |
|     | Survey Paper: Sentiment Analysis For Major Government Decisions                                     |     |
| 20  | TarunAnand, Vikrant Singh, Bharat Bali, Biswa Mohan Sahoo, BasuDevShivhare, Amar Deep Gupta         | 104 |
|     | Paper id 055                                                                                        |     |
|     | A Revolution Towards Current-Mode Circuits And Realization Of A Novel Lossless Floating Inductor    |     |
| 21  | Using MCDCC                                                                                         | 110 |
|     | ZainabHaseeb, Dinesh Prasad, Mainuddin, M W Akram                                                   |     |
|     | Paper id 056                                                                                        |     |
|     | Using Plastic Injection Moulding Machine Process Parameters for Predictive Maintenance              |     |
| 22  | Purposes                                                                                            | 115 |
|     | Paola Pierleoni, Alberto Belli, LuisianaSabbatini, Lorenzo Palma                                    |     |
|     | Paper id 057                                                                                        |     |
|     | Comparative Analysis of Leakage Power in 18nm 7T and 8T SRAM cell Implemented with SVL              |     |
| 23  | Technique                                                                                           | 121 |
|     | T. Santosh Kumar, SumanLataTripathi, Sanjeet Kumar Sinha                                            |     |
|     | Paper id 066                                                                                        |     |
|     | Fibre Optic Communication in 21st Century                                                           |     |
| 24  | PrakarshKaushik, DevangPratap Singh, Dr. SubhadraRajpoot                                            | 125 |
|     | Paper id 071                                                                                        |     |
|     | A Survey of Deep Learning based Online Transactions Fraud Detection Systems                         |     |
| 25  | Kanika, Dr. Jimmy Singla                                                                            | 130 |
|     | Paper id 073                                                                                        |     |
| 2.5 | Implement Android Application For Book Donation                                                     | 1   |
|     |                                                                                                     | 407 |
| 26  | Arushi Singh, Dr. Shilpi Sharma Paper id 074                                                        | 137 |

|    | Responsiveness of FWM with Fraction of Planck HOD Parameters in Presence of Intensity       |     |
|----|---------------------------------------------------------------------------------------------|-----|
| 27 | Dependent Phase Matching Factor in Optical Transmission                                     | 142 |
|    | Richa Bhatia, Shreya Bhatia                                                                 |     |
|    | Paper id 075                                                                                |     |
|    | Providing Security & Minimizing Fake Calls by Use of Hashing Algorithm in Digital India     |     |
| 28 | NehaRastogi, Pradeep Chauhan                                                                | 148 |
|    | Paper id 076                                                                                |     |
|    | Taxonomy of Link Based web Spammers using Mining Optimized PageRank Algorithm for e-        |     |
| 29 | Governance                                                                                  | 155 |
|    | Anish Gupta, Rajeev Kumar, Manish Kumar Tiwari                                              |     |
|    | Paper id 077                                                                                |     |
|    | Congestion Control Protocols in Wireless Sensor Networks – a comprehensive survey           |     |
| 30 | Makul Mahajan, Dr. Sukhkirandeep Kaur                                                       | 160 |
|    | Paper id 080                                                                                |     |
|    | Nanotechnology and its impact on Medical diagnosis                                          |     |
| 31 | Mohammed Sajjad Ali Obaid, Dr. Parshuram Singh                                              | 165 |
|    | Paper id 098                                                                                |     |
|    | Speaker Recognition using fusion of features with Feedforward Artificial Neural Network and |     |
| 32 | Support Vector Machine                                                                      | 170 |
|    | Neha Chauhan, Tsuyoshi Isshiki, Dongju Li                                                   |     |
|    | Paper id 099                                                                                |     |
|    | Advanced Communication Technologies and Intelligent Systems – Communication Technologies in |     |
| 33 | Smart Grid at Different Network Layers : An Overview                                        | 177 |
|    | Tania Gupta, Richa Bhatia                                                                   |     |
|    | Paper id 100                                                                                |     |
|    | Plastic used in flexible pavements : Retrospects and Prospects                              |     |
| 34 | Anuj Bhardwaj, R. K. Tomar, PrakharDuggal, Akash Singh, DushyantPratap Singh, Ishant Bajaj  | 183 |
|    | Paper id 102                                                                                |     |
|    | A Panoramic View of Content-based Medical Image Retrieval system                            |     |
| 35 | Palwinder Kaur, Dr. Rajesh Kumar Singh                                                      | 187 |
|    | Paper id 107                                                                                |     |
|    | Performance Analysis of proposed Mutation Operator of Genetic Algorithm under Scheduling    |     |
| 36 | Problem                                                                                     | 193 |
|    | Mr. Rajiv Kumar, Ms. MeenakshiMemoria, Mr. AseemChandel                                     |     |
|    | Paper id 108                                                                                |     |
|    | Identification of Ambulance Siren sound and Analysis of the signal using statistical method |     |
| 37 | Supreeth H. V, Sumukh Rao, Chethan K. S, Purushotham. U                                     | 198 |
|    |                                                                                             | 1   |
|    | Paper id 116                                                                                |     |
|    | Paper id 116  Application Of Phase Change Materials In Buildings                            |     |

|    | Paper id 121                                                                                  |     |
|----|-----------------------------------------------------------------------------------------------|-----|
|    | The Impact of SGI and RTS/CTS in WLAN Throughput                                              |     |
| 39 | Pawan Kumar Pant, Pawan Kumar, Amit Tewari                                                    | 207 |
|    | Paper id 122                                                                                  |     |
|    | Study And Analysis Of Variation In Behavior Of Mechanical Properties Of Carbon Powder         |     |
| 40 | Reinforced Concrete To Conventional Concrete                                                  | 212 |
|    | SuparnaHavelia, P. Duggal, R. K. Tomar, Masha Kundal, MimansaKripal                           |     |
|    | Paper id 144                                                                                  |     |
|    | Comparative Study Between P&O and Incremental Conduction MPPT Techniques- A Review            |     |
| 41 | MurariLal Azad, Pradip Kumar Sadhu, Soumya Das                                                | 217 |
|    | Paper id 147                                                                                  |     |
|    | Towards FoT (Fog-of-Things) enabled Architecture in Governance: Transforming e-Governance to  |     |
| 42 | Smart Governance                                                                              | 223 |
|    | Dr. Naveen Tewari, Dr. GopalDatt                                                              |     |
|    | Paper id 168                                                                                  |     |
|    | MANET Congestion Alerting and Adapting Protocols – A Comparative Study                        |     |
| 43 | N. S. Vishnu, Mir Mohammad Yusuf, SripadaManasa Lakshmi, Mamoon Rashid                        | 228 |
|    | Paper id 170                                                                                  |     |
|    | Performance Analysis of Elastic Optical Network using different Modulation Formats            |     |
| 44 | Ritu Agarwal, Richa Bhatia                                                                    | 234 |
|    | Paper id 173                                                                                  |     |
|    | Anomaly Detection and Fault Prediction of Breakdown to Repair Process Using Mining Techniques |     |
| 45 | RehetBhogal, AnchalGarg                                                                       | 240 |
|    | Paper id 174                                                                                  |     |
|    | Prediction of Diabetes Risk based on Machine Learning Techniques                              |     |
| 46 | Madhusmita Rout, Amandeep Kaur                                                                | 246 |
|    | Paper id 176                                                                                  |     |
|    | An efficient routing protocol for FANET based on hybrid optimization algorithm                |     |
| 47 | Vinay Bhardwaj, Navdeep Kaur                                                                  | 252 |
|    | Paper id 179                                                                                  |     |
|    | A Model for prediction of consumer conduct using machine learning algorithm                   |     |
| 48 | Sandeep Kumar Budhani, Rajendra Singh Bisht, NeelimaBudhani                                   | 256 |
|    | Paper id 180                                                                                  |     |
|    | When Cartoon Meets Anime - Distinguishing Animation Styles with Convolutional Neural          |     |
| 49 | Networks                                                                                      | 261 |
|    | Varun Prakash, SagarRaghav, Manpreet Kaur                                                     |     |
|    | Paper id 203                                                                                  |     |
|    | Vision Maker: An Audio Visual And Navigation Aid For Visually Impaired Person                 |     |
| 50 | SagorSaha, Farhan Hossain Shakal, Ahmed MortuzaSaleque, JerinJahan Trisha                     | 266 |
|    | Paper id 211                                                                                  | -   |
|    | 1 apol 14 ZII                                                                                 | ĺ   |

|    | A Review on Various Data Encryption Techniques used in Cloud Enabled Data Centre                |     |
|----|-------------------------------------------------------------------------------------------------|-----|
| 51 | Mukesh Joshi, Mamta Joshi                                                                       | 272 |
|    | Paper id 214                                                                                    |     |
|    | Feature Selection For Indian Instrument Recognition Using SVM Classifier                        |     |
| 52 | Ms. Ashwini, Dr. Vijaya Krishna A.                                                              | 277 |
|    | Paper id 215                                                                                    |     |
|    | Application of data mining for the identification of parts for additive manufacturing           |     |
| 53 | Marcel Winkler, Georg Jacobs, Stefan Sturmer, Christian Konrad                                  | 281 |
|    | Paper id 216                                                                                    |     |
|    | Cloud Based End to End Service Security                                                         |     |
| 54 | Gaurav Raj, Kamini                                                                              | 289 |
|    | Paper id 218                                                                                    |     |
|    | Automatic Face Expressions and Gesture Detection System Using Blockchain Security               |     |
| 55 | R. Vamshidhar Reddy, V. Jaya Prakash Reddy, E. Madhusudhana Reddy                               | 296 |
|    | Paper id 220                                                                                    |     |
|    | Regression Test cases selection using Natural Language Processing                               |     |
| 56 | ShantanuSutar, Rajesh Kumar, SriramPai, Shwetha B R                                             | 301 |
|    | Paper id 222                                                                                    |     |
|    | Interpreting The Nature Of Rainfall With AI And Big Data Models                                 |     |
| 57 | Mohammed HatimFerhan Siddiqui, Dr. Rajeev Kumar                                                 | 306 |
|    | Paper id 223                                                                                    |     |
|    | Collision Analysis to Motor Dashcam Videos With YOLO and Mask R-CNN for Auto Insurance          |     |
| 58 | Hao-Hsuan Hsu, Nen-Fu Huang, Chuan-Hsiang Han                                                   | 311 |
|    | Paper id 224                                                                                    |     |
|    | A.I Techniques in Early Prediction of Heart Stroke                                              |     |
| 59 | NahidaNazir, Pushpendra Kumar Pateriya, Gaurav Raj                                              | 316 |
|    | Paper id 227                                                                                    |     |
|    | Big Data in Climate Change Research: Opportunities and Challenges                               |     |
| 60 | PrateekMangal, Dr. Anupama Rajesh, Dr. RichaMisra                                               | 321 |
|    | Paper id 254                                                                                    |     |
|    | Fuzzy Elliptic Curve Cryptography based Cipher Text Policy Attribute based Encryption for Cloud |     |
| 61 | Security                                                                                        | 327 |
|    | Gurpreet Singh, Dr. SushilGarg                                                                  |     |
|    | Paper id 255                                                                                    |     |
|    | A comprehensive review for test case prioritization in Software Engineering                     |     |
| 62 | Ashima, GolmeiShaheamlung, Ketusezo Rote                                                        | 331 |
|    | Paper id 256                                                                                    |     |
|    | A Survey on machine learning techniques for the diagnosis of liver disease                      |     |
| 63 | GolmeiShaheamlung, Harshpreet Kaur, Mandeep Kaur                                                | 337 |
|    | Paper id 257                                                                                    |     |

|    | An Overview, Survey, and Challenges in UAVs Communication Network                               |     |
|----|-------------------------------------------------------------------------------------------------|-----|
| 64 | AnshuVashisth, Ranbir Singh Batth                                                               | 342 |
|    | Paper id 326                                                                                    |     |
|    | Blockchain Technology for Higher Education Sytem: A Mirror Review                               |     |
| 65 | Shallu Sharma, Ranbir Singh Batth                                                               | 348 |
|    | Paper id 327                                                                                    |     |
|    | Face Recognition Based Smart Attendance System                                                  |     |
| 66 | Arjun Raj A, MahammedShoheb, Arvind K, Chethan K S                                              | 354 |
|    | Paper id 328                                                                                    |     |
|    | Age Invariant Face Recognition Using Stacked Autoencoder Deep Neural Network                    |     |
| 67 | Raman Arora, Parvinder Kaur, Er. Deepinder Kaur                                                 | 358 |
|    | Paper id 015                                                                                    |     |
|    | Enhancing Data Security Using Digital Watermarking                                              |     |
| 68 | Amrit Anil, Vinod Kumar Shukla, Ved Prakash Mishra                                              | 364 |
|    | Paper id 031                                                                                    |     |
|    | Optimal Control of Connected and Automated Vehicles at Unsignalized Intersections: Discrete and |     |
| 69 | Regroup                                                                                         | 370 |
|    | LijunQian, Chen Chen, Bing Wu, Liang Xuan, Tianxiang Wang                                       |     |
|    | Paper id 333                                                                                    |     |
|    | Novel XGBoost Tuned Machine Learning Model for Software Bug Prediction                          |     |
| 70 | Aashish Gupta, Shilpa Sharma, ShubhamGoyal, Mamoon Rashid                                       | 376 |
|    | Paper id 329                                                                                    |     |
|    | Speech Enhancement Using Semi-Supervised Learning                                               |     |
| 71 | Purushotham. U, Chethan K. S, Manasa. S, Meghana. U                                             | 381 |
|    | Paper id 117                                                                                    |     |
|    | A Novel method for Reviewer Assignment Problem based on Reviewers' Profile and Fuzzy Graph      |     |
| 72 | Connectivity Measure                                                                            | 386 |
|    | Kanika Mittal, Amita Jain, Kunwar Singh Vaisla, Devendra K Tayal                                |     |
|    | Paper id 002                                                                                    |     |
|    | Smart Security System Using IOT                                                                 |     |
| 73 | Piyush Kumar Singh, Rahul Saxena, Utkarsh Dubey, Aakansha Raj, Biswa Mohan Sahoo, VimalBibbu    | 392 |
|    | Paper id 054                                                                                    |     |
|    | Data Science and its application in heart disease prediction                                    |     |
| 74 | Mohammed Jawwad Ali Junaid, Dr. Rajeev Kumar                                                    | 396 |
|    | Paper id 115                                                                                    |     |
|    | IoT Applications in Automated Water Level Detections                                            |     |
| 75 | AlbinLibiMadana, LipsaSadath                                                                    | 401 |
|    | Paper id 148                                                                                    |     |
|    | Classification of Unmanned Aerial Vehicles : A Mirror Review                                    |     |
| 76 | Jyoti, Ranbir Singh Batth                                                                       | 408 |

|    | Paper id 325                                                                                                              |      |
|----|---------------------------------------------------------------------------------------------------------------------------|------|
|    | A Facial Expression Recognition System to Predict Emotions                                                                |      |
| 77 | Kaustav Mani Pathak, Swati Yadav, Priyanka Jain, Dr. PoonamTanwar, Prof. Brijesh Kumar                                    | 414  |
|    | Paper id 332                                                                                                              |      |
|    | Security Enhancement in Smart Home Management Through Multimodal Biometric and Passcode                                   |      |
| 78 | Sameera Ibrahim, Vinod Kumar Shukla, RuchikaBathla                                                                        | 420  |
|    | Paper id 331                                                                                                              |      |
|    | High- Performance Algorithms To Ascertain The Power Generation In A Photovoltaic System Using                             |      |
| 79 | Fuzzy Logic Controller                                                                                                    | 425  |
|    | MurariLal Azad, Soumya Das, Pradeep Kumar Sadhu, P. Arvind                                                                |      |
|    | Paper id 330                                                                                                              |      |
|    | Numerical Modeling of Retrofitted Structures                                                                              |      |
| 80 | Tushar Gupta, Kajal Dubey, Sneha Singh, Gaurav Panwar                                                                     | 431  |
|    | Paper id 338                                                                                                              |      |
|    | Soft Classification Techniques for Breast Cancer Detection and Classification                                             |      |
| 81 | Anjanalvaturi, Ankita, GunanvithaBhanu, Chethan K S                                                                       | 437  |
|    | Paper id 344                                                                                                              |      |
|    | A Comparative Study and Enhancement of Classification Techniques Using Principal Component                                | 4.40 |
| 82 | Analysis for Credit Card Dataset                                                                                          | 443  |
|    | Abhishek Agarwal, Amit Rana, Karan Gupta, Neeta Verma                                                                     |      |
|    | Paper id 335                                                                                                              |      |
| 83 | Application of Exploratory Data Analysis to Generate Inferences on the Occurrence of Breast Cancer using a Sample Dataset | 449  |
| 03 | SabeelAshfaq Khan, SenthilVelan S.                                                                                        | 443  |
|    | Paper id 339                                                                                                              |      |
|    | Deep Analysis of Autism Spectrum Disorder Detection Techniques                                                            |      |
| 84 | Anshu Sharma, Dr. PoonamTanwar                                                                                            | 455  |
|    | Paper id 334                                                                                                              |      |
|    | Numerical Algorithm for Unsteady Nonisothermal Two-Phase Flow in a Porous Cavity                                          |      |
| 85 | Mohamed F. El-Amin, ShereenAbbdel-Naeem                                                                                   | 460  |
|    | Paper id 252                                                                                                              |      |
|    | Improved Contactless RFID Detections in Transport System                                                                  |      |
| 86 | AlbinLibiMadana, LipsaSadath                                                                                              | 465  |
|    | Paper id 336                                                                                                              |      |
|    | Economic Load Dispatch with Emission and Line Constraints using Biogeography Based                                        |      |
| 87 | Optimization Technique                                                                                                    | 471  |
|    | Sunil Kumar Goyal, Jitendra Singh, Amit Saraswat, NeerajKanwar, Manish Shrivastava, O. P. Mahela                          |      |
|    | Paper id 118                                                                                                              |      |
| 00 | A Wind Farm Modeling in IEEE-24 Bus Reliability Test System on DIgSILENT Power Factory                                    | 477  |
| 88 | Ravi Ucheniya, Amit Saraswat, Shahbaz Ahmed Siddiqui, Sunil Kumar Goyal, NeerajKanwar                                     | 477  |
|    | Paper id 212                                                                                                              | 400  |
| 90 | The Role of Converged Network in Disruptive Technology                                                                    | 483  |
| 89 | Vinay Kumar, Divya Singh, S. Vikram Singh, TarunAnand                                                                     |      |
| l  | Paper id 171                                                                                                              | l    |

|    | Companies Adoption Of IoT For Smart Retailing In Industry 4.0                                     |     |
|----|---------------------------------------------------------------------------------------------------|-----|
| 90 | Dr. Gurinder Singh, Dr. Anubhuti Gupta, Dr. VikasGarg, Dr. Shalini Srivastav                      | 487 |
|    | Paper id 003                                                                                      |     |
| 91 | Biosensors for Modern Healthcare                                                                  |     |
|    | Sandeep Gupta                                                                                     | 493 |
|    | Paper id 039                                                                                      |     |
| 92 | University - Industry: a successful collaboration experience                                      |     |
|    | Guillermo Sandoval Benitez, Ricardo Mendez Hernandez, David Barragan Prieto                       | 498 |
|    | Paper id 060                                                                                      |     |
| 93 | Sentiment Analysis of Ayodhya Verdict using Twitter                                               |     |
|    | Yash Malhan, Swati Singal                                                                         | 504 |
|    | Paper id 120                                                                                      |     |
| 94 | Prediction of N-Gram Language Models Using Sentiment Analysis on E-Learning Reviews               |     |
|    | P. Rajesh, G. Suseendran                                                                          | 510 |
|    | Paper id 181                                                                                      |     |
| 95 | Transport Riding Wheelchair                                                                       |     |
|    | Md. Kamrul Islam, Jannatul MawaAkanto, Ajijul Hakim, KawshikShikder                               | 515 |
|    | Paper id 221                                                                                      |     |
| 96 | Steganography: Double Encrypted Image Deployed In Cloud                                           |     |
|    | Ridhima Alhuwalia, Dr. Anish Gupta, Dr. Priyanka Chaudhary                                        | 519 |
|    | Paper id 348                                                                                      |     |
| 97 | Artificial Intelligence in Waste Electronic and Electrical Equipment Treatment: Opportunities and | 526 |
|    | Challenges                                                                                        |     |
|    | Vernika Agarwal, Shivam Goyal, Sanskriti goel                                                     |     |
|    | Paper id 204                                                                                      |     |
| 98 | Search Engine Optimization in Digital Marketing: Present Scenario and Future Scope                | 530 |
|    | Himanshu Matta, Ruchika Gupta, Sumit Agarwal                                                      |     |
|    | Paper id 207                                                                                      |     |