



**First International Conference on  
Advanced Computational and Communication Paradigms -2017  
(ICACCP-2017)**



**Organized by:  
Department of Computer Science and Engineering  
Sikkim Manipal Institute of Technology, Sikkim, India  
Date: September 08-10, 2017**

**Registered Papers: Advanced Computational Paradigms | Venue: PGR-I Lab**

| <p><b>Day III</b><br/><b>Date: 10th</b><br/><b>September</b><br/><b>2017</b><br/><b>(Sunday)</b><br/><b>Time:</b><br/><b>2.00-4.00</b><br/><b>PM</b></p> <p><b>Track-I</b><br/><b>(AISC)</b></p> | <p><b>Session Chair: Dr. Ratika Pradhan, Sikkim Manipal Institute of Technology, India</b><br/><b>Co-Chair: Dr. Biswajit Deb, Sikkim Manipal Institute of Technology, India</b></p> |  |
|--|---|--|
|  | Paper Id  | Paper Details  |
|  | 53  | <i>Alexis Paul and C. Malathy</i> “An Innovative Approach for Automatic Genre based Fine Art Painting Classification”  |
|  | 230   | <i>Gunjan Gautam and Susanta Mukhopadhyay</i> “Efficient Contrast Enhancement based on Local-Global Image Statistics and Multiscale Morphological Filtering”             |
|  | 266   | <i>Debaditya Barman and Nirmalya Chowdhury</i> “A non-negative matrix factorization based approach to extract aspects from product reviews”                              |
|  | 306   | <i>Anjali Thukral, Ayush Jain, Mudit Aggarwal and Meहुल Sharma</i> “Semi-Automatic Ontology Builder Based on Relation Extraction from Textual Data”                      |
|  | 383   | <i>Pranav Kumar and G. Sahoo</i> “Multiple solution sorting method using Translocation”  |
|  | 397   | <i>Rajesh Kumar Sinha, Priyambada Subudhi and Susanta Mukhopadhyay</i> “A morphological color image contrast enhancement technique using Hilbert 3D space filling curve” |
|  | 414   | <i>Sandipan Sarma, Punyajoy Saha and Jaya Sil</i> “Document Categorization using Graph Structuring”  |
|  | 449   | <i>Bikram Pratim Bhuyan, Arindam Karmakar and Shyamanta M Hazarika</i> “Bounding Stability in Formal Concept Analysis”   |
|  | 474   | <i>T Sonamani Singh and R. D. S. Yadava</i> “Effect of Tapering on Swimming Efficiency of Flagellated Microswimmer at Low Reynolds Number”                               |
|  | 534   | <i>Hiranmoy Roy, Soumyadip Dhar, Kaushik Dey, Swaroop Acharjee and Debanjana Ghosh</i> “An automatic face attractiveness improvement using the golden ratio”             |
| 540  | <i>Manisha Divate and Ambuja Salgaonkar</i> “Good Quality Question Generation for Academic Support”   |  |



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**Registered Papers: Networking and Data Communications –I | Venue: PGR-I Lab**

| <p><b>Day I</b><br/><b>Date: 08th</b><br/><b>September</b><br/><b>2017</b><br/><b>(Friday)</b><br/><b>Time:</b><br/><b>2.30-5.00</b><br/><b>PM</b></p> <p><b>Track-II</b><br/><b>(AISC)</b></p> | <p align="center"><b>Session Chair: Dr. Annapurna P Patil, Ramaiah Institute of Technology, Bangalore, India</b><br/><b>Co-Chair: Dr. Bhaskar Bhuyan, Sikkim Manipal Institute of Technology, India</b></p> |  |
|---|---|--|
|   | Paper Id  | Paper Details  |
|   | 126   | <i>Priya Mishra, Charu Gandhi and Buddha Singh</i> “A Performance Analysis of Location and Non Location-based routing protocols in MANETs”   |
|   | 220   | <i>Parag Kumar Guha Thakurta, Rajeswar Guin and Subhansu Bandyopadhyay</i> “An Efficient Approach for Detecting Wormhole Attacks in AODV Routing Protocol”                                 |
|   | 249   | <i>Preethi S.H. Darius and Grace Mary Kanaga E.</i> “Bag-of-tasks Intelligent Scheduling Agent (BISA) in cloud computing”  |
|   | 275   | <i>Tarakanath Paul and Abhoy Mondal</i> “Mutation in Path for the Packets in the Network During Journey from Source to Destination”  |
|   | 287   | <i>Devendra Thakor and Bankim Patel</i> “Performance Measurement and Evaluation of Pluggable to Scheduler Dynamic Load Balancing Algorithm (P2S_DLB) in Distributed Computing Environment” |
|   | 367   | <i>Sudeep Basu and Indrajit Pan</i> “Overlapping Community Detection through Threshold Analysis on Disjoint Network Structures”  |
|   | 429   | <i>Sandesh Rai and Dependra Dhakal</i> “A Survey on Detection and Mitigation of Interest Flooding Attack in Named Data Networking”   |
|   | 479   | <i>Parampreet Kaur and Ashima Singh</i> “Nature-Inspired Optimization Techniques in VANETs and FANETs: A Survey”   |
| 537   | <i>Biswaraj Sen, Moirangthem Goldie Meitei, Kalpana Sharma, Mrinal Kanti Ghose and Sanku Si nha</i> “A Trust Based Intrusion Detection System for Mitigating Black Hole Attacks in MANET”                   |  |





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**Registered Papers: Networking and Data Communications –II | Venue: PGR-II Lab**

| <p align="center"><b>Day II</b><br/><b>Date: 09th</b><br/><b>September</b><br/><b>2017</b><br/><b>(Saturday)</b><br/><b>Time:</b><br/><b>3.00-6.00</b><br/><b>PM</b></p> <p align="center"><b>Track-II</b><br/><b>(LNEE)</b></p> | <p>Session Chair: <b>Dr. Nabendu Chaki, University of Calcutta, India</b><br/>Co-Chair: <b>Dr. H. K. D. Sarma, Sikkim Manipal Institute of Technology, India</b></p> |  |
|--|--|--|
|  | Paper Id   | Paper Details  |
|  | 262  | <i>Prashanth M N and Annapurna P Patil</i> “Implementation of secure and efficient routing algorithm for vehicular ad-hoc networks”                |
|  | 305  | <i>Shashank Sharma</i> “GAE: A Novel Approach for Software Workflow Improvement by Unhiding hidden Transactions”                                   |
|  | 359  | <i>Prem Chand Jain and Praneet Dingra</i> “Cost Effective Vertical Handoff Strategies in Heterogeneous Vehicular Networks”                         |
|  | 387  | <i>Ankita Sahu, Manish Panchal and Rekha Jain</i> “Energy Efficient Optimum Design for Massive MIMO”   |
|  | 425  | <i>Pramod Kumar Goyal, D.K. Lobiyal and C.P. Katti</i> “Game Theory for Vertical Handoff Decisions in Heterogeneous Wireless Networks: A Tutorial” |
|  | 515  | <i>Shrijana Pradhan, Eshita Sinha and Kalpana Sharma,</i> “Data Fusion By Truncation in Wireless Sensor Network”                                   |





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**Registered Papers: Cyber Security and Data Forensics | Venue: AC Lab**

| <p><b>Day II</b><br/><b>Date: 09th September 2017</b><br/><b>(Saturday)</b><br/><b>Time: 2.00-6.00 PM</b><br/><b>Track-III (AISC)</b></p> | <p align="center"><b>Session Chair: Dr. Debabrata Samanta, Dayananda Sagar Institute Of Technology, Bangalore, India</b><br/><b>Co-Chair: Dr. Maya Karki, Ramaiah Institute of Technology, Bangalore, India</b></p> |   |
|---|---|---|
|   | <b>Paper Id</b>   | <b>Paper Details</b>  |
|   | 74  | <i>Savita Anjana, Indu Saini, Phool Singh and Ak Yadav</i> “Asymmetric Cryptosystem using Affine Transform in Fourier domain”   |
|   | 135   | <i>Ananya Banerjee and Biswapati Jana</i> “A Secure High Capacity Video Steganography using Bit-Plane Slicing through (7, 4) Hamming Code”  |
|   | 148   | <i>Rai Sachindra Prasad</i> “Conceptual Design of Next Generation Security System based on Thought Form Image Patterns”   |
|   | 152   | <i>Sujit Kumar Das and Bibhas Chandra Dhara</i> “A new data hiding method using block pixel intensity range”  |
|   | 185   | <i>Sarbajit Manna, Soumya Banerjee, Prantik Panja, Ramkrishna Das and Saurabh Dutta</i> “Secure Symmetric Key Transmission of Messages using Random Shuffling of Spiral Matrix and Multiplicative Inverse (RSSMMI)” |
|   | 214   | <i>Arun Thomas, Gireesh Kumar T and Ashok Kumar Mohan</i> “Neighbor attack detection in internet of things”   |
|   | 360   | <i>Sandeep Gurung and Mrinaldeep Chakravorty</i> “Multiple Information hiding in General Access Structure Visual Cryptography using Q`tron Neural Network”  |
|   | 388   | <i>Gopalkrishna Dalvi and Dinkarrao Wakde</i> “An Improved Multi-Secret Sharing Visual Cryptography technique for Color Images Using Sterilization Algorithm”   |
|   | 452   | <i>Nalini Sri and Nagaraju Devarakonda</i> “Secure and Efficient Data Sharing with User Revocation in Cloud”  |
|   | 461   | <i>Animesh Hazra, Soumya Ghosh and Sampad Jash</i> “A New DNA Cryptography Based Algorithm Involving the Fusion of Symmetric Key Techniques”  |
|   | 498   | <i>Sohail Saif, Rajni Gupta and Suparna Biswas</i> “Implementation of cloud assisted secure data transmission in WBAN for healthcare monitoring”  |
| 500   | <i>Utkarshni Sharma and Dr.Divya Bansal</i> “A Study of Android Application Execution Trends and Their Privacy Threats to a User With Respect to Data Leaks and Compromise”   |   |
| 545   | <i>Soumitra Sasmal and Indrajit Pan</i> “Bit-reversal Encryption towards Secured Storage of Digital Image in Cloud Deployment”  |   |





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**Registered Papers: Signal Processing and Communication Engineering| Venue: MC Lab**

| Paper Id | Paper Details  |
|----------|--|
|          |  |
| 14       | <i>Arun Agarwal</i> “Design and BER Performance Improvement of WiMAX (IEEE 802.16d) Using RS-CC Concatenated Channel Coding Technique”   |
| 128      | <i>Harjeet Singh and Savina Bansal</i> “Pilot subcarrier based channel estimation in OFDM system”  |
| 139      | <i>Monisha Devi, Nityananda Sarma and Sanjib Kumar Deka</i> “Spectrum Allocation in Cognitive Radio Networks - A Centralized Approach”   |
| 206      | <i>Rajesh Chintha, Kumar Chinnaiyan V and Shankar Dhanavath</i> “Performance Evaluation of M2M and H2H Communication Coexistence in Shared LTE: A DLMS/COSEM based AMI Network Scenario” |
| 289      | <i>Soumya Gaddam, Gaurav Verma and Sudakar Singh Chauhan</i> “Improving the Utilization of Licensed Spectrum in Cognitive Radio”   |
| 297      | <i>Minajul Haque and Kaustubh Bhattacharyya</i> “Speech Background Noise Removal Using Different Linear Filtering Techniques”  |
| 300      | <i>Dr. Maya Karki and Shaguftha Yasmeen</i> “Neural Network Classification Of Eeg Signal For Detection Of Brain Abnormalities”   |
| 303      | <i>Habib Masum, Surajit Chattopadhyay, Ranjit Ray and Subhasis Bhaumik</i> “Measurement of walking speed from EMG Signal using Kurtosis of Approximate Coefficients”                     |
| 398      | <i>Sudipta Chakrabarty, Gobinda Karmakar, Md Ruhul Islam and Debashis De</i> “Reckoning of Music Rhythm Density and Complexity through Mathematical Measures”                            |

**Day I  
Date: 08th  
September  
2017  
(Friday)  
Time:  
2.30-6.00  
PM**

**Track-IV  
(LNEE)**





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**Registered Papers: Computer Vision and Image Processing| Venue: PGR-I Lab**

| Paper Id | Paper Details  |
|----------|--|
|          |  |
| 35       | <i>Muthulakshmi M and Dr. Kavitha G</i> “Local Region With Optimized Boundary Driven Level Set Based Segmentation of Myocardial Ischemic Cardiac MR Images”                          |
| 155      | <i>Ashis Pradhan, Jhuma Sunuwar, Kunal Agarwal and Sabna Sharma</i> “Fatigue Detection based on Eye Tracking”  |
| 197      | <i>Asit Barman and Paramartha Dutta</i> “Facial Expression Recognition using Distance Signature feature”   |
| 278      | <i>Dewan Imdadul Islam, S R Ngamwal Anal and Alope Datta</i> “Facial Expression Recognition using 2DPCA on Segmented Images”   |
| 283      | <i>Dibyendu Das, Mouli Laha, Somajyoti Majumder Majumder and Dip Narayan Ray</i> “Stable and Consistent Object Tracking: An Active Vision Approach”                                  |
| 313      | <i>Dibya Jyoti Bora</i> “An Ideal Approach for Medical Color Image Enhancement”  |
| 465      | <i>Divya Abhilash and Divya Chirayil</i> “Enhanced Surveillance Using Integration Of GAIT Analysis With Iris Detection”  |
| 509      | <i>Kuldip Acharya and Dr. Dibyendu Ghoshal</i> “Three Dimensional Design of a New Maglev Vehicle And Study of It Using Computer Vision”  |
| 524      | <i>Maitreya Maity, Dhiraj Dhane, Chittaranjan Bar, Chandan Chakraborty and Jyotirmoy Chatterjee</i> “Assessment of Segmentation Techniques for Chronic Wound Surface Area Detection” |
| 530      | <i>Sumit Kumar, Jitesh Pradhan and Arup Pal</i> “A CBIR Scheme based on Combination of Shape and Color Features”   |
| 544      | <i>Sanjoy Ghatak</i> “Facial Representation Using Linear Barcode”  |

**Day II**  
**Date: 09th**  
**September**  
**2017**  
**(Saturday)**  
**Time:**  
**2.00-6.00**  
**PM**  
**Track-V**  
**(AISC)**







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**Registered Papers: Computational Intelligence | Venue: PGR-II Lab**

| <p><b>Day I</b><br/><b>Date: 08th</b><br/><b>September</b><br/><b>2017</b><br/><b>(Friday)</b><br/><b>Time:</b><br/><b>2.30-5.00</b><br/><b>PM</b><br/><b>Track-VI</b><br/><b>(AISC)</b></p> | <p align="center"><b>Session Chair: Dr. Siddhartha Bhattacharyya, RCC Institute of Information Technology, India</b><br/><b>Co-Chair: Dr. C. T. Singh, Sikkim Manipal Institute of Technology, India</b></p> |  |
|--|--|--|
|  | Paper Id   | Paper Details  |
|  | 87   | <i>Kartik Sau, Ananjan Maiti and Anay Ghosh</i> “Preprocessing of Skin Cancer using Anisotropic Diffusion and Sigmoid Function”  |
|  | 194  | <i>Upma Jain, Ritu Tiwari and W. Wilfred Godfrey</i> “Odor Source Localization by Concatenating Particle Swarm Optimization and Grey Wolf Optimizer”                                       |
|  | 200  | <i>Sumati Vuppuluri and Patvardhan Chellapilla</i> “A Parallel Interval Type-2 Fuzzy Neural Inference System using Different Similarity Measures: Comparative Study”                       |
|  | 265  | <i>Plabita Gogoi, Satyabratta Mallabujarbaruah and Soumik Roy</i> “Modeling a Bioinspired Neuron: An extension to the H-H model”   |
|  | 402  | <i>Abha Trivedi and Mayank Pandey</i> “Agent Based Modelling and Simulation of Religious Crowd Gatherings in India”  |
|  | 405  | <i>Akarsh Srivastava, Aman Jain, Ashwin Jayadev, Rajdeep Mukherjee, Shronit Bhargava and Prosenjit Gupta</i> “An Experimental Study of Scalability in Cross Domain Recommendation Systems” |
|  | 415  | <i>Loveleen Kaur and Ashutosh Mishra</i> “An empirical analysis for predicting source code reusability using Meta-Classification Algorithms”   |
| 440  | <i>Animesh Biswas and Samir Kumar</i> “An integrated TOPSIS approach to MADM with interval-valued intuitionistic fuzzy settings”   |  |



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Date: September 08-10, 2017**

**Registered Papers: Adaptive Computation and Machine Learning| Venue: MC Lab**

|   |  |  |
|---|--|--|
| <p><b>Day II</b><br/><b>Date: 09th</b><br/><b>September</b><br/><b>2017</b><br/><b>(Saturday)</b><br/><b>Time:</b><br/><b>2.00-6.00</b><br/><b>PM</b></p> <p><b>Track-VII</b><br/><b>(AISC)</b></p> | <p><b>Session Chairs: Dr. Atma Sahu, Coppin State University, USA</b><br/><b>Dr. Paramartha Dutta, Visvabharati University, India</b><br/><b>Co-Chair: Dr. Archit Yagnik, Sikkim Manjiv Institute of Technology, India</b></p> |  |
|   | <b>Paper Id</b>  | <b>Paper Details</b>   |
|   | 21   | <i>Dr Rakesh Kumar Mandal and Dechen Doma Bhutia</i> “A Proposed Artificial Neural Network (ANN) Model using Geophone Sensors to Detect Elephants near the Railway Tracks”   |
|   | 76   | <i>Ajay Jatav and Ruchi Mehra</i> “A Novel Technique of an adaptive feedback Canceller for Hearing Aid”  |
|   | 114  | <i>Priyanka Das and Asit Kumar Das</i> “Crime Pattern Analysis by Identifying Named Entities and Relation among Entities”  |
|   | 215  | <i>Ritesh Kumar, Rishemjit Kaur, Amol P Bhondekar and Gajendra P. S. Raghava</i> “Human opinion inspired feature selection strategy for predicting the pleasantness of a molecule”   |
|   | 218  | <i>Himadri Mukherjee, Sourav Ganguly, Santanu Phadikar and Kaushik Roy</i> “An Ensemble Learning based Bangla Phoneme Identification System using LSF-G Features”  |
|   | 450  | <i>Aniruddha Dey, Shiladitya Chowdhury and Jamuna Kanta Sing</i> “Feature Extraction using Fuzzy Generalised Two-Dimension Inverse LDA with Gaussian probabilistic distribution and Face Recognition”  |
|   | 453  | <i>Niti Jain, Ambar Maini and Pradeep Singh</i> “An Adaptive Cluster-based Ensemble Learner for Computational Biology”   |
|   | 478  | <i>Ram Krishna Jha, Santosh Kumar, Kireet Joshi and Rajneesh Pandey</i> “Field Monitoring using IoT: A Neural Network Approach”  |
|   | 522  | <i>Moumita Dholey, Maitreya Maity, Atasi Sarkar, Amita Giri, Anup Sadhu, Koel Chaudhury, Soumen Das and Jyotirmoy Chatterjee</i> “Combining GMM-based Hidden Markov Random Field and Bag of Words Trained Classifier for Lung Cancer Detection using Pap-stained Microscopic Images” |
| 527   | <i>Maitreya Maity, Dhiraj Dhane, Chittaranjan Bar, Chandan Chakraborty and Jyotirmoy Chatterjee</i> “Pixel-based Supervised Tissue Classification of Chronic Wound Images with Deep Auto-encoder”                              |  |
| 532   | <i>Apoorva Kh, Dhanya Raghu, Anjana A and S Natarajan</i> “Trajectory Forecasting of Entities using Advanced Deep Learning Techniques”   |  |





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**Registered Papers: Industrial Applications| Venue: Seminar Hall**

| Paper Id | Paper Details  |
|----------|--|
|          |  |
| 58       | <i>Navin K, Vadivu G, Avinash Maharaj, Tom Thomas and Lavanya S</i> “A mobile health intervention to support TB eradication programme for adherence to treatment and a novel QR code based technique to monitor patient–DOTS provider interaction” |
| 168      | <i>Mahesh Jangid, Sumit Srivastava and Vivek Kumar Verma</i> “Real-time Bottle Detection using Histogram of Oriented Gradients”  |
| 180      | <i>Srayashi Mallick and Aishwarya Ramachadran</i> “DEM reconstruction for Mizoram area using CARTOSAT data and preserving it by cloud computing method”  |
| 195      | <i>Ashish Mishra, Pankaj Kumar Keserwani, Shefalika Ghosh Samaddar, Harka B Lamichaney and Abhishek Kumar Mishra</i> “A Decision Support System in Health Care Prediction”   |
| 211      | <i>Mareeswari V and Sunita Patil</i> “Smart device for ensuring women safety using android app”  |
| 234      | <i>Subrata Roy</i> “Logical Implication to Reduce Run Time Memory Requirement and Searches during LZW Decompression”   |
| 244      | <i>Latha M, Muthulakshmi M and Kavitha G</i> “Detection of Schizophrenia disorder from ventricle region in MR brain images via Hu moment invariants using random forest”   |
| 258      | <i>Kishor Kumar Das, Ram Kishore Roy, Hidam Kumarjit Singh and Tulshi Bezboruah</i> “Design and Implementation of Portable and Compact Human Heart Beat Rate Monitoring System”  |
| 274      | <i>Yash Parikh, Abhinivesh Palusa, Shravankumar Kasthuri, Rupa Mehta and Dipti Rana</i> “Efficient Word2Vec vectors for Sentiment Analysis to improve Commercial Movie Success”  |
| 419      | <i>Shreya Das, Supriyo Sadhya, Megha Dasgupta, Pratyush Anand, Manoswita Biswas, Soham Chatterjee and Surajit Bagchi</i> “Development and Feasibility Studies of A Device for Early Prediction of Asthma Attack”                                   |
| 437      | <i>Yesodha K, Anitha R, Dr. Mala T and Shri Vindhya</i> “Product Recommendation System Using Support Vector Machine”   |
| 441      | <i>Ravi Kant Kumar, Jogendra Garain, Dakshina Ranjan Kisku and Goutam Sanyal</i> “A Master Map: An Alternative Approach to Explore Hu-man’s Eye Fixation for Generating Ground truth based on Various State of Art Techniques”                     |
| 496      | <i>Abhijit Bora, Subhash Medhi and Tulshi Bezboruah</i> “Investigations on Failure and Reliability Aspects of Service Oriented Computing Based On Different Deployment Technique”  |
| 531      | <i>Salim Saay and Alex Norta</i> “Designing a scalable socio-technical method for evaluating large e-governance systems”   |

**Day II**  
**Date: 09th**  
**September**  
**2017**  
**(Saturday)**  
**Time:**  
**2.00-6.00**  
**PM**  
**Track-VIII**  
**(LNEE)**





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**Registered Papers: Electrical and Electronics Devices and Power Systems-I| Venue: AC Lab**

| Paper Id | Paper Details  |
|----------|--|
|          |  |
| 4        | <i>Debashis Jana, Sumalya Ghosh, R S S M R Krishna, Sanjukta Mandal and Ashis Kumar Mal</i> “Low Noise Amplifier with High CMRR for Sensor Application”  |
| 64       | <i>Geetamoni Konwar, Munmee Borah and Tulshi Bezboruah</i> “Modeling and Behavioral Simulation of PID Controlled Phase-Locked Loop”                      |
| 123      | <i>Rutu Parekh, Maryam Shojaei Baghini and Bipin Rajendran</i> “Modeling and simulation of 1/f noise during threshold switching for Phase Change Memory” |
| 145      | <i>Mousum Handique and Joinal Ahmed</i> “Mixing Test Set Generation for Bridging and Stuck-at Faults in Reversible Circuit”                              |
| 179      | <i>Vimal Kant Pandey, Dhananjai Kumar Verma, Sandeep Sharma and Sonika Singh</i> “A 50MHz-4GHz Low Noise Amplifier for Wideband Applications”            |
| 341      | <i>Kishore Kumar Gundugonti and Balaji N</i> “Implementation of Lifting-Scheme Discrete Wavelet Transform using Modified Multiplier”                     |
| 435      | <i>Keerti Tiwari and Prabhat Thakur</i> “Downlink Spectral Efficiency of ZF Precoding based Multi-user MIMO System over Weibull Fading Channel”          |
| 470      | <i>Rutu Parekh and Ajay Mishra</i> “Noise removing filters and its implementation on FPGA”   |
| 547      | <i>Pavan Varma Tirumani, Soukhin Das, Piyush Swami and Tapan K. Gandhi</i> “A Low-Noise Low-Cost EEG Amplifier for Neural Recording Applications”        |

**Day III  
Date: 10th  
September  
2017  
(Sunday)  
Time:  
2.00-4.00  
PM  
Track-IX  
(LNEE)**





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**Registered Papers: Electrical and Electronics Devices and Power Systems-II| Venue: BC Lab**

| <p><b>Day III</b><br/><b>Date: 10th</b><br/><b>September</b><br/><b>2017</b><br/><b>(Sunday)</b><br/><b>Time:</b><br/><b>2.00-4.00</b><br/><b>PM</b></p> <p><b>Track-IX</b><br/><b>(LNEE)</b></p> | <b>Session Chair: Dr. Rabindranath Bera, Sikkim Manipal Institute of Technology, India</b>   |  |
|---|--|--|
|   | Paper Id   | Paper Details  |
|   | 54   | <i>Mashhood Hasan, Jai Prakash Pandey, Imran Khan and Rajeev Chouhan</i> “A Hybrid Control Algorithm for Extraction of Voltage Harmonics to Mitigate Power Quality Problems Using UPQC”                  |
|   | 57   | <i>Rajeev Kumar Chauhan, Jai Prakash Pandey and Mashhood Hasan</i> “Comparative Performance of the Various Control Techniques to Mitigate the Power Quality Events Using UPQC”                           |
|   | 264  | <i>Rajkumar Jhapte, R.N. Patel and D.D. Neema</i> “Design and Analysis of Optimized Hybrid Active Power Filter for Electric Arc Furnace Load”  |
|   | 293  | <i>Subhamoy Maitra, Madhumita Hazra, Aindrila Ghosh, Soumik Pattanayak and Bulbul Mukherjee</i> “SmarThings: An Utility Service for Wireless Home Automation, Health Monitoring and Surveillance System” |
|   | 463  | <i>Sumit Kumar Pandey, Jayati Dey and Subrata Banerjee</i> “Design of H infinity controller for Twin Rotor MIMO System (TRMS) based on Linear Matrix Inequalities”                                       |
|   | 489  | <i>Priyanka Singh and R.D.S. Yadava</i> “Damping Noise Induced Stochastic Resonance Improves Q-Factor of M/NEMS Resonators”  |
| 521   | <i>Neha Gupta, Shimpy Ralhan and Shashwati Rai</i> “Optimized Coordinated Economic Load Dispatch And Automatic Generation Control For An Interlinked Power System” |  |



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**Organized by:  
Department of Computer Science and Engineering  
Sikkim Manipal Institute of Technology, Sikkim, India  
Date: September 08-10, 2017**

**Registered Papers: Computational Perception, Biomedical Engineering and Biotechnology| Venue: AC Lab**

| Paper Id | Paper Details  |
|----------|--|
|          |  |
| 102      | <i>Gulothungan G and Malathi R</i> “Deviant calcium channels: Role in ventricular arrhythmia's- A computational study on human ventricular tissue”   |
| 162      | <i>Arindam Sarkar, Aditi Bhattacharys, Ratna Ghosh and Bhaswati Goswami</i> “A Comparative Study of Biopotentials acquired from Left and Right Hands of Human Subjects”  |
| 199      | <i>Amrita Roy Chowdhury and Sreeparna Banerjee</i> “Random Forests in the Classification of Diabetic Retinopathy Retinal Images”   |
| 254      | <i>Medha Sharma and Bindu Garg</i> “Non-Invasive Anaemia Detection by Analysis of Conjunctival Pallor”   |
| 314      | <i>Karan Sharma, Harshil Soni and Kushika Agarwal</i> “Lung Cancer Detection in CT Scans of patients using Image Processing and Machine Learning Technique”  |
| 353      | <i>Niyan Marchon and Gourish Naik</i> “Assessment of the fetal health using NI-aECG”   |
| 409      | <i>Rupam Borah, Sunil Dhimel and Kalpana Sharma,</i> “Machine Learning Models: An implementation of machine learning techniques for diagnosis in breast cancer patients”   |
| 416      | <i>Sourav Pramanik, Debapriya Banik, Debotosh Bhattacharjee, Mita Nasipuri and Mrinal Kanti Bhowmik</i> “Breast Blood Perfusion (BBP) model and its application in differentiation of malignant and benign breast” |
| 464      | <i>Sayantana Pal and Surajit Bagchi</i> “Development of a Prototype Skin Color Monitor For Non-invasive Estimation of Blood Bilirubin”   |
| 472      | <i>Samiksha Pachade, Prasanna Porwal and Manesh Kokare</i> “A Novel Unsupervised Framework for Retinal Vasculature Segmentation”   |
| 483      | <i>Nidhi Gupta, Shiwangi Mishra and Pritee Khanna</i> “Classification of Brain MRIs forming Super Pixels”  |
| 493      | <i>Shib Sankar Bhowmick, Luis Rato and Debotosh Bhattacharjee</i> “Finding the association of mRNA and miRNA using Next Generation Sequencing data of Kidney renal cell carcinoma”                                 |
| 523      | <i>Maitreya Maity, Dhiraj Dhane, Chittaranjan Bar, Chandan Chakraborty and Jyotirmoy Chatterjee</i> “Selection of Colour Correction Algorithms for Calibrating Optical Chronic Ulcer Images”                       |

**Day I  
Date: 08th  
September  
2017  
(Friday)  
Time:  
2.30-6.00  
PM**

**Special  
Track-I  
(LNEE)**





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Date: September 08-10, 2017**

**Registered Papers: Human Computer Interaction, Mechatronics and Robotics | Venue: Seminar Hall**

| <p align="center"><b>Day I</b><br/>Date: 08th<br/>September<br/>2017<br/>(Friday)<br/>Time:<br/>2.30-5.00<br/>PM<br/><br/>Special<br/>Track-II<br/>(AISC)</p> | <p align="center">Session Chair: <b>Dr. Subhasis Bhaumick, Indian Institute of Engineering Science and Technology, Shibpur, India</b><br/>Co-Chair: <b>Mr. Udit Kr. Chakraborty, Sikkim Manipal Institute of Technology, India</b></p> |  |
|---|--|--|
|   | Paper Id   | Paper Details  |
|   | 269  | <i>Raj Kumar Patra, Rohit Raja and Tilendra Shishir Sinha</i> “Extraction of geometric and prosodic features from human-gait-speech data for behavioral pattern detection: Part II”  |
|   | 284  | <i>Don Joe Martin, Aaditya Saraiya, Kalaichelvi Venkatesan and Karthikeyan Ramanujam</i> “Vision Based Forward Kinematics Using ANN For Weld-Line Detection With A 5-DOF Robot Manipulator”                                |
|   | 370  | <i>Divya Piplani, Dineshkumar Singh, Karthik Srinivasan, Vaibhav Lonkar and Sujit Shinde</i> “ICT in Social Development - Context Sensitive Design Strategies to Develop Mobile Applications for Barefoot Animal Breeders” |
| 525   | <i>Khyati Marwah and Dr Jogeshwar Singh Sohal</i> “Improved Decision Making for Navigation Scenarios”  |  |





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Date: September 08-10, 2017**

**Registered Papers: Big Data Analytics and Social Networking| Venue: PGR-II Lab**

| <p><b>Day III</b><br/><b>Date: 10th September 2017</b><br/><b>(Saturday)</b><br/><b>Time: 2.00-4.00 PM</b><br/><b>Special Track-III (AISC)</b></p> | <b>Session Chair: Dr. Samarjeet Borah, Sikkim Manipal Institute of Technology, India</b>   |  |
|--|--|--|
|  | Paper Id   | Paper Details  |
|  | 107  | <i>Irani Hazarika and Anjana Kakoti Mahanta</i> “An Incremental Algorithm to Mine Closed Frequent Intervals”   |
|  | 201  | <i>Anit Chakraborty, Anup Kolya and Sayandip Dutta</i> “A Fuzzy Logic Inspired Approach for Social Media Sentiment Analysis via Deep Neural Network”                                 |
|  | 294  | <i>Sreedhar C, N Kasiviswanath and P Chenna Reddy</i> “Performance Enhancement of Hadoop for Big Data Using Multilevel Queue Migration (MQM) Technique”                              |
|  | 326  | <i>Sunil Karamchandani, Prathmesh Matodkar, Suraj Iyer and Nirav Gori Score</i> “Formulation and Parametric Synthesis of Musical track as a platform for Big Data in Hit Prediction” |
|  | 455  | <i>K V Kanimozhi, P Prabhavathi and Venkatesan Meenkshi Sundaram</i> “Text document Analysis using Map Reduce framework”   |
| 456  | <i>Rahul Johari, Sonika Dahiya, Sawan Kalra and Poonam Yadav</i> “WAPiS: WhatsApp Pattern Identification Algorithm indicating Social Connection” |  |







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Date: September 08-10, 2017**

**Registered Papers: Material Science and Nano Technology| Venue: MC Lab**

| <p><b>Day III</b><br/><b>Date: 10th</b><br/><b>September</b><br/><b>2017</b><br/><b>(Sunday)</b><br/><b>Time:</b><br/><b>2.00-4.00</b><br/><b>PM</b></p> <p><b>Special</b><br/><b>Track-IV</b><br/><b>(LNEE)</b></p> | <b>Session Chair: : Dr. Bibhuprasad Swain, Sikkim Manipal Institute of Technology, India</b>                    |  |
|--|---|--|
|  | <b>Paper Id</b>   | <b>Paper Details</b>   |
|  | 173   | <i>Sandeep Gupta and Abhishek Sharma</i> “Global Scenario of Solar Photovoltaic (SPV) Materials”   |
|  | 184   | <i>Sreenath K and Ramesh S R</i> “Statistical Viability Analysis and Optimization through Gate Sizing”   |
|  | 226   | <i>Sudakar Singh Chauhan, Gaurav Verma and Vinod Naik</i> “Characteristics analysis of Si0.5Ge0.5 Doping-less PNP TFET”  |
|  | 267   | <i>Ritam Sarkar, Debaditya Barman and Nirmalya Chowdhury</i> “To detect the influencers in a dynamic co-authorship network using heat diffusion model”                           |
|  | 350   | <i>Ayan Chatterjee, Uttam Kumar Roy and Dr. Dinesh Haldar</i> “Evolutionary Algorithms to Minimize Interaction Energy between Drug Molecule and Target Protein in Streptococcus” |
|  | 443   | <i>Anurag Gupta, T. Sonamani Singh and R. D. S. Yadava</i> “Application of Fuzzy Clustering for Selection of Coating Materials for MEMS Sensor Array”                            |
| 480  | <i>Aman Kumar Singh, Vivek Kumar Verma and R. D. S. Yadava</i> “Stochastic Resonance in Bagley-Torvik Equation” |  |





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Date: September 08-10, 2017**

**Registered Papers: Nonlinear Dynamics, Plasma Dynamics and Graph Theory| Venue: Seminar Hall**

| Session Chair : Dr. Asit Saha, Sikkim Manipal Institute of Technology, India  |  |
|---|--|
| Paper Id  | Paper Details  |
| <b>Day III</b><br><b>Date: 10th</b><br><b>September</b><br><b>2017</b><br><b>(Sunday)</b><br><b>Time:</b><br><b>3.00-4.00</b><br><b>PM</b><br><br><b>Special</b><br><b>Track-V</b><br><b>(AISC)</b> | 357 <i>Jharna Tamang</i> "Dynamics of dust-ion-acoustic anti-kink waves in a dissipative nonextensive e-p-i dusty plasma"  |
|   | 368 <i>Tushar Kanti Das and Prasanta Chatterjee</i> "Chaotic to periodic phenomena of dust ion acoustic nonlinear waves in a collisional dusty plasma"           |
|   | 386 <i>Saheb Pal, Mainul Hossain, Sudip Samanta and Nikhil Pal</i> "Chaos control in a two prey and one predator system with predator switching"                 |
|   | 396 <i>Mainul Hossain, Saheb Pal, Debjani Mondal and Nikhil Pal</i> "Migration can control chaos in ecosystem"   |
|   | 420 <i>Tapas Kumar Maji, Malay Kumar Ghorui and Prasanta Chatterjee</i> "Non head-on non overtaking collision of two solitary waves in a multicomponent plasma"  |
|   | 426 <i>Sumonta Ghosh and Anita Pal</i> "Signed Product and Total Signed Product Cordial Labeling of Cartesian Product Between Balanced Bipartite Graph and Path" |

