

2014 Innovative Applications of Computational Intelligence on Power, Energy and Controls with their impact on Humanity

(CIPECH 2014)







**Ghaziabad, India
28-29 November 2014**









**IEEE Catalog Number: CFP1487Z-POD
ISBN: 978-1-4799-5872-6**




28th November

Session 1	Computational Intelligence And Applications
Date/Time	Friday, 28 November 2014 / 12:30 – 13:45
Venue	PGDM Conference Hall
Coordinator	Mohd. Sariz Ansari
Chair	Dr. Chaitanya P. Agrawal
Co-Chair	Prof. Adesh Pandey

- 
Adaptive Neurofuzzy System for Brain Tumor – (ID 028)'''
Shashank Bhardwaj, Niraj Singhal and Neeraj Gupta
- 
Analysis of Web Mining Technology and Their Impact on Semantic Web – (ID 029)'''
Vijay Rana and Gurdev Singh
- 
Adaptive Neuro-Fuzzy Inference System for Recognition of Cotton Leaf Diseases – (ID 047)'''
P. R. Rothe and R. V. Kshirsagar
- 
Towards an Efficient Regression Model for Solar Energy Prediction – (ID 049)'''
Anuj Prakash and Sandeep Kumar Singh
- 
Neurofuzzy Inference System for Diagnosis of Malaria – (ID 058)'''
Aayush Rastogi, Neeraj Kumar Gupta and Praveen Kumar Tyagi
- 
Fuzzy Q Learning Based UAV Autopilot – (ID 126)'''
Rajneesh Sharma
- 
Controls and Intelligence Behind “NISTARA-2”-A Disaster Management Machine (DMM) – (ID 129)'''
Nishant Bhardwaj, Nitish Aggarwal, Nishant Ahlawat and Charu Rana
- 
Web Based Enterprise Management for Distributed Heterogeneous Computing Environment: A Review – (ID 137)'''
Manvi Mishra and S. S. Bedi
- 
Digital Life Assistant Using Automated Speech Recognition – (ID 145)'''
Seema Rawat, Parv Gupta and Praveen Kumar

-  **A Huffman Based Lossless Compression Algorithm for Wireless Sensor Networks – (ID 147)**'''
Shabana Mehfuz, Usha Tiwari, Akanksha Rathore, Ankit Arora and Diksha Singh
-  **Background Modelling, Detection and Tracking of Human in Video Surveillance System – (ID 184)**''' '''
Rajvir Kaur and Sonit Singh
-  **Supervised Pixel Classification into Arteries and Veins of Retinal Images – (ID 189)**''' '''
Smriti Chhabra and Bharat Bhushan
-  **Fuzzy Warehouse Inventory Model for Items with Imperfect Quality under Trade Credit Policy and Inflationary Conditions – (ID 080)**''' '''
S. R. Singh and Pinky Saxena
-  **Analysis of Security Trends and Control Methods in Android Platform – (ID 197)**'''
Payal Mittal, Bhawna Dhruv, Praveen Kumar and Seema Rawat
-  **A Simulation Based Study of IP Mobility Over IPv6 Networks – (ID 075)**'''
Riaz A. Khan and A. H. Mir

Session 2	Computational Intelligence And Applications
Date/Time	Friday, 28 November 2014) / 12:30 – 13:45
Venue	TBI Conference Hall
Coordinator	Prof. Rajeev Kumar Mehta
Chair	Dr. S.B. Singh
Co-Chair	Dr. Ekata

-  **Arrhythmia Classification Using Morphological Features and Probabilistic Neural Networks – (ID 093)**'''
Rajesh Ghongade, Minal Deshmukh and Devashree Joshi
-  **Segmentation of Lumbar Intervertebral Discs from Spine MR Images – (ID 095)**''''
Bazila and A. H. Mir
-  **Forgery Detection Using Statistical Features – (ID 106)**'''
Saba Mushtaq and Ajaz Hussain Mir

- 
Computation & Analysis of Aluminum and Steel Structures by Using ABAQUS Software for Engineering Applications – (ID 128) '''
Shabana Urooj, Ankesh Yadav, Monika Singh, Monika Singh, Ruchi Dohare, Shilpi Ghosh and Snigdha Sharma

- 
Low Frequency Recursive Digital Differentiator – (ID 162) '''
Nitisha Shrivastava and Pragya Varshney

- 
Real Time Acquisition and Frequency Domain Analysis of Acoustic Patterns of Fluids for Applications in the Field of Homeland Security – (ID 180) '''
Shweta Singh and Dipali Bansal

- 
Outlier Detection: A Survey on Techniques of WSNs Involving Event and Error Based Outliers – (ID 203) '''
Deep Shikha Shukla, Avinash Chandra Pandey and Ankur Kulhari





- 
Application of Iterative Fast Fourier Transform for Fault Finding in Linear Array Antenna with various Fault Percentage – (ID 212) '''
Kuldeep Yadav and Harshavardhan Singh




- 
Training Two Dimensional Cellular Automata for Some Morphological Operations – (ID 245) '''
Anand Prakash Shukla and Suneeta Agarwal

- 
An Implementation of Opinion Mining Using Fuzzy Inference System – (ID 218) '''
Rashmi Priyadarshi, Seema Rawat and Praveen Kumar







- 
Performance Improvement of Simple LSB Watermarking Using SVD – (ID 250) ''''
Sanjeev Kumar and Tanupreet Singh






Session 3	Control Systems and Applications
Date/Time	Friday, 28 November 2014 / 15:00 – 16:15
Venue	PGDM Conference Hall
Coordinator	Prof. Alok Pandey
Chair	Dr. Mukhtiar Singh
Co-Chair	Prof. Ashish Kulkarni

- 
Evaluating Fuzzy Reliability Using Rough Intuitionistic Fuzzy Set – (ID 037) ^{*}**
Deepak Kumar and S. B. Singh
- 
Online PI Controller Tuning for a Nonlinear Plant Using Genetic Algorithm – (ID 082) ^{*}**
Vikrant Vishal, Vineet Kumar, K. P. S. Rana, Puneet Mishra and Jitendra Kumar
- 
Fractional Order System Identification and Controller Design Using PSO – (ID 088) ^{*}**
Rohit Gupta, Sanjay Gairola and Sanjeet Diwiedi
- 
Compensated Average Modeling for a Buck Converter Control – (ID 097) ^{*}**
Anil Kumar Jha, Sanjay Gairola, Rohit Gupta and R. K. Saxena
- 
Search Based Software Testing with Genetic Using Fitness Function – (ID 119) ^{*}**
Gautam M. Lodha and Rahul S. Gaikwad
- 
Odometry and Motion Planning for Omni Drive Robots – (ID 155) ^{*}**
Paril Jain
- 
Review of Task Scheduling Algorithms Using Genetic Approach – (ID 156) ^{*}**
Ashish Sharma, Navdeep Singh, Abhinav Hans and Kapil Kumar
- 
Analysis of Different Techniques for Locating Leaks in Pipes in Water Distribution System Using WSN – (ID 159) ^{*}**
Shikha Pranesh Gupta, Abha Mahalwar and P. Udaykumar
- 
Load Frequency Control in Power System Using Feed-Forward Internal Model Control – (ID 164) ^{*}**
Abhishek Kumar and T. K. Dan
- 
An Effective Temperature Controller System Using PID Mechanism – (ID 166) ^{**}**
Sudhir Ranjan, Abhishek Sharma and Puneet Chaudhary





- 
Design of Controller to Damp Inter Area Oscillations – (ID 211)'''
A. D. Janaj, D. R. Joshi and B. N. Akiwate
- 
Parameter Identification of Eddy Current Braking Sytem for Various Applications – (ID 241)'''
Arunesh Kumar Singh, Ibraheem and Amit Kumar Sharma
- 
A Reduced Order Model for AGC System Using Routh Approximation Technique – (ID 068)'''
Sadaf Naqvi, Ibraheem and Sana Ali Naqvi






Session 4	Power System Technology
Date/Time	Friday, 28 November 2014 / 15:00 – 16:15
Venue	TBI Conference Hall
Coordinator	Prof. S.K Tripathi
Chair	Dr. Haroon Ashfaq
Co-Chair	Dr. Mohd Rihan

- 
Allocation of UPFC in Distribution System to Minimize the Losses – (ID 019)'''
Shiva Pujan Jaiswal and Vivek Shrivastava
- 
The Future of Fuzzy Logic Based Wind Energy Conversion System with Solid Oxide Fuel Cell and the Passions of Radical Pedagogy – (ID 083)'''
M. Padma Lalitha, T. Janardhan and R. Madhan Mohan
- 
Transmission Loss Allocation Using Fairness Index in Deregulated Market – (ID 143)'''
Naimul Hasan, Ibraheem and Yudhishtir Pandey
- 
A Gravitation Based Search Algorithm for Improvement of Maximum Power Transfer by Optimal Placement of UPFC – (ID 150)'''
Anwar S. Siddiqui and Tanmoy Deb
- 
Disaster Management of Distribution Line Using Fixed and Switched Capacitors''' – (ID 171)
Zaheeruddin and Mayank Pande
- 
A Comparative Analysis of SPSO and BPSO for Power Loss Minimization in Distribution System Using Network Reconfiguration – (ID 177)'''
Ankush Tandon and D. Saxena

- 
Power System Restructuring & Competitive Wholesale Electricity Markets in Deregulated Environment – (ID 182) ***
Harleen Kaur, Puneet Kumar, Anuja Sharma and Nikhil Kamaiya
- 
Supplementary Signal of SVC for Damping Torsional Oscillation – (ID 227) ****
Shilpa Gupta and Narendra Kumar
- 
Analysis and Comparison of Various Methods Available for Load Forecasting: An Overview – (ID 240) ***
Shahida Khatoon, Ibraheem, Arunesh Kr. Singh and Priti
- 
Real Time Control Centre Lab for Research and Training for Power System Operation and Control – (ID 066) ***
Naimul Hasan, Ibraheem and Shuaib Farooq
- 
Distribution System Restoration Using Fuzzy Multi-Criteria Evaluation – (ID 072) ***
Shabana Mehfuz, Pramod Kumar and Reetu






Session 5	Power Electronics Drives and Electromechanical Energy Conversion
Date/Time	Friday, 28 November 2014 / 15:00 – 16:15
Venue	PGDM Board Room
Coordinator	Prof. Saurabh Diwaker
Chair	Prof Aseem Chandel
Co-Chair	Prof. Ravi Gupta

- 
A Fuzzy Pre-Compensated-PI Controller for Indirect Field Oriented Controlled Induction Motor Drive – (ID 133) ***
Gurmeet Singh and Gagan Singh
- 
A PFC Based Bridgeless Sheppard-Taylor Converter fed Brushless DC Motor Drive – (ID 160) ***
Vashist Bist and Bhim Singh
- 
Multi Quadrant Operation of DC Motor Using Hybrid Topology With Reduced Number of Switches – (ID 260) ***
Nirav N. Senghani and G. Seshagiri Rao
- 
An Assessment of RAD Based Control Algorithm for Single-Stage Multitasking Grid Tied SECS – (ID 101) ***
Chinmay Jain and Bhim Singh









- 
Large Scale Wind Energy Conversion System Using Permanent Magnet Synchronous Generator – (ID 008) ***
Hemant Ahuja, Arika Singh and Arvind Sharma
- 
Performance Comparison of DFIG and SCIG Based Wind Energy Conversion Systems – (ID 009) ***
Manaullah, Arvind Kumar Sharma, Hemant Ahuja and Arika Singh
- 
Effects of Voltage Sag on Doubly Fed Induction Machine at Hyper-Synchronous Motoring Mode – (ID 057) ***
Navneet Kumar, Thanga Raj Chelliah and S. P. Srivastava
- 
Pulse Width Modulation Scheme for a Quasi Six-Phase Voltage Source Inverter – (ID 141) ***
Mohd. Arif Khan
- 
Obtaining Maximum Torque Operation of Single Phase Induction Motor Using Simulation Technique of MATLAB – (ID 262) ***
Swati Singla, Jyoti Srivastava and D. Blandina Miracle




29th November

Session 6	Emerging Trends In On-Chip Communications
Date/Time	Saturday, 29 November 2014 / 11:00 – 12:30
Venue	PGDM Conference Hall
Coordinator	Prof. Ruchika Singh
Chair	Prof. Nirmesh Kumar Awasthi
Co-Chair	Prof. Ketan J Raut






- 
Wireless Communication Application in Smart Grid: An Overview – (ID 044)'''
Shivangi verma and Poonam Rana
- 
Performance Analysis of Metrics of Broadcasting Protocols in VANET – (ID 078)''''
Mallika Gandhi and M. Ayoub Khan
- 
A CPW Fed Antenna Design for UWB-MIMO Communication System for High isolation – (ID 090)'''
Yashika, Monika Sharma, Sachin Sharma, Kumar Goodwill and Jagannath Malik
- 
NONACK in Wireless Ad Hoc Network – (ID 111)'''
Trisha Mittal and Bijendra Kumar
- 
Design and Implementation of Tree Decoder for SDR Applications – (ID 121)'''
Sachin Kumar, Jyoti Gupta and Pushkar Praveen








Session 7	Recent Technological Developments in VLSI Design and Tool Automation
Date/Time	Saturday, 29 November 2014 / 11:00 – 12:30
Venue	PGMD Board Room
Coordinator	Prof. Anmol Gupta
Chair	Prof. Ekram Khan
Co-Chair	Prof. C.P. Jain

- 
Bandwidth Extension of Voltage Follower Using DTMOS Transistor – (ID 018) ****
Shelly Garg, Geetika Chaudhary, Vandana Niranjana and Ashwani Kumar
- 
A 180 nm Low Power CMOS Operational Amplifier – (ID 079) ***
Ketan J. Raut, R. V. Kshirsagar and A. C. Bhagali
- 
High Performance CMOS Current Comparator Using MTCMOS Technique Design – (ID 173) ***
Sakshi Saxena and Shyam Akashe
- 
Memory Yield and Repair Rate Improvement Scheme Using Built in Self Repair Techniques – (ID 176) ***
Jyotika and Balwinder Singh
- 
Analysis of Low Power Reduction in Voltage Level Shifter – (ID 179) ***
Rashmi Sharma and Shyam Akashe
- 
VLSI Architecture and Implementation of Statistical Multiplexer – (ID 215) ***
Abhilasha Rani Goel, Akhil Ranjan and Mohd Wajid
- 
Design of Non-Volatile 4T-2Magnetic Tunnel Junction Based Random Access Memory Cell – (ID 223) ***
Ankit Singh Kushwah and Shyam Akashe
- 
Hybrid CMOS-Memristor 4T-NVSRAM Cell for Low Power Applications – (ID 226) ***
Atibhi Jadon and Shyam Akashe



-  **Scan-Chain-Based Multiple Error Recovery in TMR Systems (SMERTMR) – (ID 238)**'''
Firoz Ahmed Siddiqui and Puran Gour
-  **Structural and Electrical Properties of Modified CMOS Device Under Radiation Environment in Designing of Voltage Control Oscillator (VCO) – (ID 110)**'''
C. P. Jain
-  **Standby and Active Leakage Current Control Mechanism of Half Adder Cell – (ID 174)**'''
Preeti Kushwah and Shyam Akashe

Session 8	Applied Technologies in Renewable Energy and Smart Grids
Date/Time	Saturday, 29 November 2014 / 14:15 – 15:15
Venue	PGDM Conference Hall
Coordinator	Prof. Kumari Archana
Chair	Dr. Gajendra Singh
Co-Chair	Prof. Rahat U Khan

-  **Variation of Estimated Insolation from East to West in Uttar Pradesh, India – (ID 025)**'''
Ashok Kumar Rajput, D. V. Avasthi and Durgesh Kumar
-  **Solar Photo Voltaic Power Generation in Union Territory of Lakshadweep Island: Projected Level Dissemination Using Technology Diffusion Models – (ID 033)**'''
Manaullah and M. Shariz Ansari
-  **PV Module Integration with STATCOM for Reactive Power Compensation – (ID 094)**'''
Kusum Tharani and Ratna Dahiya
-  **Optimization of Design Parameters of Glazed Hybrid Photovoltaic Thermal Module Using Genetic Algorithm – (ID 099)**'''
Sonveer Singh, Sanjay Agrawal and D. V. Avasthi
-  **Hybrid Optimization Algorithm for Distributed Energy Resource (DER) Management – (ID 148)**'''
Sheetal Shinkhede and S. K. Joshi

-  **Present Scenario of Distributed Generation in India - Technologies, Cost Analysis & Power Quality Issues – (ID 172)'''**
Sumanth Yamujala, Mehtab Fatima, Indrakanti Abhinay Sri Teja and Yalavarthi Lahari
-  **Parameter Logging & Remote Monitoring for Microgrid Demonstration Project – (ID 192)'''**
Meena Agrawal and Arvind Mittal
-  **Hydrogen Generation/Pressure Enhancement Using FC and ANN Based MPPT Assisted PV System – (ID 248)'''**
Rupendra Kumar Pachauri and Yogesh K. Chauhan
-  **Analysis and Optimization of Lever Propelled Wheelchair – (ID 264)'''**
Shikhar Agarwal and Saumya Gautam
-  **Assessment of Process Parameter to Improving power Plant Performance – (ID 265)'''**
Balaram Saha, Vivek Patel and Kalyan Chaterjee
-  **Analysis of Grid-Tied Hybrid Wind PV Generation System – (ID 270)'''**
Pratiksha Gupta and Surendra Kumar Tripathi
-  **Analysis of Solar Photovoltaic Array Under Partial Shading Conditions for Different Array Configurations – (ID 272)'''**
Shahida Khatoon, Ibraheem and Mohd Faisal Jalil

Session 9	Computational Intelligence And Applications
Date/Time	Saturday, 29 November 2014 / 14:15 – 15:15
Venue	TBI Conference Hall
Coordinator	Prof. Alok Kumar Pandey
Chair	Dr. Arun Sharma
Co-Chair	Prof. Sanjeev Yadav

-  **Improving the Performance of Hierarchical Scheduling for Rendering – (ID 105)'''**
Ab Rouf Khan, Mir Saleem and Shoaib Amin Bandy
-  **Neurofuzzy Inference System for Diagnosis of Leukemia– (ID 136)'''**
Ekata, Praveen Kumar Tyagi and Harshit Singhal

- 
Application of Ant Colony Algorithm for Calculation and Analysis of Performance Indices for Adaptive Control System – (ID 149)'''
A. Q. Ansari, Ibraheem and Sapna Katiyar

- 
Analysis of Relationship Between Extracurricular Activities and Academic Performance by Computational Intelligence – (ID 167)'''
Neelam Rawat, Aayush Rastogi, Kopal Jaiswal and Abhishek Nigam

- 
A Comparative Analysis of Ant Colony Optimization for Its Applications into Software Testing – (ID 233)'''
Prashant Vats, Manju Mandot and Anjana Gosain

- 
Towards The Various Cloud Computing Scheduling Concerns: A Review – (ID 246)'''
Kapil Kumar, Abhinav Hans, Ashish Sharma and Navdeep Singh

- 
Unfolding Various Security Brawls and Concerns of Cloud Computing – (ID 247)'''
Navdeep Singh, Abhinav Hans, Ashish Sharma and Kapil Kumar

- 
Allograph Discovery on Machine Printed Text – (ID 251)'''
Palvi Gupta, Basant Verma, Anamika Mitra and Md. Ansari

- 
A Survey on MANET Simulation Tools – (ID 253)'''
Manpreet and Jyoteesh Malhotra

- 
A Literature Review of Bee Colony Optimization Algorithms – (ID 257)'''
Rishabh Gulati and Prashant Vats

- 
Formulation and Computation of Cattle Feed Mix by using TORA and LINGO: Minimization of Adverse Effect of Nutrient Ingredien – (ID 208)'''
Pratiksha Saxena and Neha Khanna

- 
Neural Network Approach for Analytical Study of the Reliability of Refrigeration System – (ID 010)'''
Ekata Gupta, Neelam Sharma and C. M. Batra

- 🌐 **Enhancing Security of Stored Biometric Data – (ID 060)'''**
Manmohan Lakhera
- 🌐 **Training Cellular Automata for Salt and Pepper Noise Filtering – (ID 275)'''**
Anand Prakash Shukla and Suneeta Agarwal