

CONFERENCE PROGRAMME

International Conference on Emerging Frontiers in Electrical and Electronic Technologies (ICEFEET -2020)

10-11, July 2020

DAY 1: 10-07-2020

| Time | Programme |
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| 09:30-10:30 | Inaugural Session |
| 10:30-11:10 | PlenaryTalk 1– Prof. Sujit Kumar Biswas, Vice Chair Technical Activities, IEEE India Council. |
| 11:10–11:25 | Break |
| 11:25-14:15 | Day 1 Technical Session-1 |
| Power System Control and Protection (Venue: Hall-1) | |
| 11:25-11:45 | Invited Talk – Prof. Kalyan Chatterjee, ISM Dhanbad |
| 11:45 – 12:00 | Paper ID:10 Title: Short Term Load Forecasting: A Hybrid Approach Using Data Mining Methods <i>Authors: Pallavi Borthakur and Barnali Goswami</i> |
| 12:00 – 12:15 | Paper ID:15 Title: Modelling and Simulation of Electrically Exploding Wire Opening Switch for Pulse Compression <i>Authors: Pankaj Soni, Harsh Sharma, RadheshDewett, Sangeeta Gulati and H K Gupta</i> |
| 12:15 – 12:30 | Paper ID:18 Title: Effect of change in Environmental factors on coordination of overcurrent relays with DG Integration <i>Authors: Jayant Mani Tripathi, Adhishree Srivastava and Dr. Sanjeev Kumar Mallik</i> |
| 12:30 – 12:45 | Paper ID:21 Title: S-Transform Assisted CUSUM Based Protection Strategy for Transmission Lines Possessing UPFC <i>Authors: Sauvik Biswas, Vishal Parhi, Anudeep Bhatraj and Paresh Kumar Nayak</i> |
| 12:45 – 13:00 | Paper ID:26 Title: Performance Analysis of HVDC Lines Using Surge Arrester <i>Authors: Shobha Agarwal, Rakesh Kumar Singh and Vimlesh Verma</i> |
| 13:00 – 13:15 | Paper ID:27 Title: Impact of Renewable Sources in AGC for Two Area Interconnected Power System <i>Authors: Prateek Sharma, Abhishek Mishra and Ravi Shankar</i> |
| 13:15 – 13:30 | Paper ID:28 Title: Load Shifting Based DSM Strategy for Peak Demand Reduction in a Microgrid <i>Authors: Jwala Prasad, Taksh Jain, Nishant Sinha and Sneha Rai</i> |
| 13:30 – 13:45 | Paper ID: 60 Title: Accommodative Energy Market for Battery Energy Storage and Grid Balancing <i>Authors: Asif Nazar and Dr.NaquiAnwer</i> |
| 13:45 – 14:00 | Paper ID: 106 Title: Role of Demand Side Management in Automatic Load Frequency control <i>Authors: SwetalinaBhuyan, Sunita Halder Nee Dey and Subrata Paul</i> |

Power Electronics and Drives (Venue: Hall-2)

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| 11:25-11:45 | Invited Talk – Dr. R. K. Behera, IIT Patna |
| 11:45 – 12:00 | Paper ID:16 Title: Fault-Tolerant Converter Topology for Speed Control of Induction Motor Drive <i>Authors: Bhaskar S S Gupta Yelamarthi and Srinivasa Rao Sandepudi</i> |
| 12:00 – 12:15 | Paper ID: 30 Title: Scalar Control of Induction Motor Drive with Inverter Fault-Tolerance Capability <i>Authors: Bhaskar S S Gupta Yelamarthi and Srinivasa Rao Sandepudi</i> |
| 12:15 – 12:30 | Paper ID: 41 Title: Performance Analysis of Brushless Direct Current Motor Drive for Different types of DC-DC Converter Using MPPT <i>Authors: Sweety Kumari and Ramesh Kumar</i> |
| 12:30 – 12:45 | Paper ID: 44 Title: Torque Ripple reduction of BLDC motor introducing Delay in the Gate Firing Circuits <i>Authors: Susanta Ray and Ritam Chakraborty</i> |
| 12:45 – 13:00 | Paper ID: 51 Title: A new generalized topology of multilevel inverter with reduce number of DC sources and switches <i>Authors: Avinash Maurya and Ambarisha Mishra</i> |
| 13:00 – 13:15 | Paper ID: 62 Title: Novel Reduced Switch 9-Level DC/AC Converter With Unequal Sources <i>Authors: Rajesh Kumar Mahto and Ambarisha Mishra</i> |
| 13:15 – 13:30 | Paper ID: 64 Title: Mathematical Modelling, Simulation and Control of Five-Phase Induction Motor Drives <i>Authors: Sartaz Ahmad and Ambarisha Mishra</i> |
| 13:30 – 13:45 | Paper ID: 67 Title: Effectiveness of Space Vector PWM in Three-Phase Inverter <i>Authors: Sweta Kumari and Rajib Kumar Mandal</i> |
| 13:45 – 14:00 | Paper ID: 80 Title: Modelling of Hybrid Electric Vehicle Charger and Study the Simulation Results <i>Authors: Abhishek Gaurav and Anurag Gaur</i> |
| 14:00 – 14:15 | Paper ID: 105 Title: Comparative Analysis of Different Converter Topologies for an SRM Drive with Conventional and Vector Control Schemes <i>Authors: Yawer Abbas Khan, I.S. Twinkle, Shashi Kumar and Vimlesh Verma</i> |
| 14:15–14:30 | Break |

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| 14:30–17:00 | Day 1 Technical Session-2 |
| Power System Optimization (Venue: Hall-1) | |
| 14:30–14:50 | Invited Talk – Prof P. Acharjee, NIT Durgapur |
| 14:50–15:05 | Paper ID: 7 Title: Multi-point Optimal Placement of Shunt Capacitor in Radial Distribution Network: A Comparison <i>Authors: Dibya Bharti</i> |
| 15:05–15:20 | Paper ID: 61 Title: Optimal Non-convex Combined Heat and Power Economic Dispatch Using Particle Swarm Optimization <i>Authors: Siddharth Suhas Joshi, G Rahul Prashanth, Vinay Kumar Jadoun, Anshul Agarwal and Saurabh Kumar Pandey</i> |
| 15:20–15:35 | Paper ID: 69 Title: Hybrid Intelligence Technique for Reactive Power Planning using FACTS devices <i>Authors: NiharKarmakar, Saurav Raj and Biplab Bhattacharyya</i> |
| 15:35–15:50 | Paper ID: 72 Title: A Novel Optimization Technique for LFC and Virtual Inertia Emulation of A Multi Area Hybrid Power System <i>Authors: Sariki Murali, Ravi Shankar and Pulakraj Aryan</i> |
| 15:50–16:05 | Paper ID: 76 Title: An Improved 3-Phase Load Flow for DG Integrated Distribution Systems Based on PSO <i>Authors: Sudhakar Reddy Sama, Subrata Paul and Sunita Halder Nee Dey</i> |
| 16:05–16:20 | Paper ID: 77 Title: SOS Based Solution for Optimization of Indian Power System <i>Authors: Nagendra Palukuru, BalaChnennaiah P and Vaisakh K</i> |
| 16:20–16:35 | Paper ID: 87 Title: Application of Quasi Opposition Based Whale Algorithm For LFC of Multi-area Deregulated Power System Using Fractional Controller <i>Authors: Ashiwani Kumar, Prabhat Kumar Vidyarthi and Pulakraj Aryan</i> |
| 16:35–16:50 | Paper ID: 89 Title: Interactive Search Algorithm Based Automatic Generation Control Using Cascade Control and UPFC <i>Authors: Utkarsh Raj, Ravi Shankar and Pankaj Rai</i> |
| 16:50–17:05 | Paper ID: 93 Title: Optimal Power Flow with BAT algorithm for a Power System to reduce transmission line losses using SVC <i>Authors: Lakshmi P, Venkateswara Rao Bathina, Ramesh Devarapalli and Pankaj Rai</i> |

Automation and Signal Processing (Venue: Hall-2)

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| 14:30–14:50 | Invited Talk – Dr. Paramita Guha, CSIR-CSIO, Chandigarh |
| 14:50–15:05 | Paper ID: 48 Title: Path Planning of UGV using Sampling Based Method and PSO in 2D Map Configuration: A Comparative Analysis <i>Authors: Rahul Prakash, Dr. Dharmendra Kumar Dheer and Dr. Mukesh Kumar</i> |
| 15:05–15:20 | Paper ID: 52 Title: Estimation of Theophylline in Black Tea Using NIR Spectroscopy <i>Authors: Shreya Nag, Debangana Das, HemantaNaskar, Runu Banerjee Roy, BipanTudu and Rajib Bandyopadhyay</i> |
| 15:20–15:35 | Paper ID: 53 Title: Discrimination of Various Clones of Black Tea Using NIR Spectroscopy <i>Authors: Debangana Das, Shreya Nag, HemantaNaskar, Ajanta Kumar Hazarika, Runu Banerjee Roy, SantanuSabhaponidit, BipanTudu and Rajib Bandyopadhyay</i> |
| 15:35–15:50 | Paper ID: 54 Title: Development of Linseed Oil Based Quartz Crystal Microbalance Sensor for Detection of Trimethylamine <i>Authors: Samhita Dasgupta, BarnaliGhatak, Sanjoy Banerjee, Sk Babar Ali, Jyotsna Dei, Bijay Kumar Behera, Runu Banerjee Roy and BipanTudu</i> |
| 15:50–16:05 | Paper ID: 55 Title: Fish Freshness Assessment using NIR spectroscopy <i>Authors: Jyotsna Dei, HemantaNaskar, Samhita Dasgupta, Shreya Nag, Bijay Behera, BipanTudu, Runu Roy and Rajib Bandyopadhyay</i> |
| 16:05–16:20 | Paper ID: 57 Title: Detection of Curcumin using A Simple and Sensitive Molecularly Imprinted Polymer (MIP) Embedded Graphite Electrode Based Electrochemical Sensor <i>Authors: HemantaNaskar, Sheikh Saharuk Ali, A. H. M. Toufique Ahmed, Debangana Das, Shreya Nag, BipanTudu and Rajib Bandyopadhyay</i> |
| 16:20–16:35 | Paper ID: 82 Title: Secured Pulse Rate Monitoring System using IoT and Cloud <i>Authors: Aritra Ray and Hena Ray</i> |
| 16:35–16:50 | Paper ID: 104 Title: Self-Supplied Automatic Control of Street Light <i>Authors: Surya Rai, Khushboo Kumari and Diwakar Verma</i> |

DAY 2: 11-07-2020

| Time | Programme |
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| 09:30-10:10 | PlenaryTalk– 2: Prof. Ramesh Bansal, Department ofElectrical and ComputerEngineering, University of Sharjah, Sharjah, United Arab Emirates |
| 10:10–10:30 | Break |
| 10:30-12:50 | Day 2 Technical Session-1 |
| Microgrid and Power Electronic Applications (Venue: Hall-1) | |
| 10:30–10:50 | Invited Talk – Dr. S. K. Parida, IIT Patna |
| 10:50–11:05 | Paper ID: 5 Title: Impact of Distributed Generation on the Reliability Allocation of Distribution System : A Mesh-Grid Approach <i>Authors: Sonal S and Debomita Ghosh</i> |
| 11:05–11:20 | Paper ID: 29 Title: Integration of PV, Battery and Supercapacitor in Islanded Microgrid <i>Authors: Mahesh Kumar Choudhary and Ashwani Kumar Sharma</i> |
| 11:20–11:35 | Paper ID: 38 Title: A Probabilistic Approach for Reactive Power Compensation in an Active Distribution Network with Wind Based Renewable Integration <i>Authors: AmareshGantayet and Dharmendra Kumar Dheer</i> |
| 11:35–11:50 | Paper ID: 88 Title: Design and Analysis of the Gate Driver Circuit for Power Semiconductor Switches <i>Authors: Ashutosh Kumar Singh, Rajib Kumar Mandal, Ravi Raushan and Pratyush Gauri</i> |
| 11:50–12:05 | Paper ID: 94 Title: Siting and sizing of DG unit to minimize loss in distribution network in the presence of DG generated harmonics <i>Authors: BarnaliMotling, Subrata Paul and Sunita Halder Nee Dey</i> |
| 12:05–12:20 | Paper ID: 95 Title: Design of a High Gain DC-DC Converter For Renewable Energy Applications <i>Authors: Pranjit Kumar Roy, Ajoyjit Ghosh, Ashoke Mondal and Shilpi Bhattacharya</i> |
| 12:20–12:35 | Paper ID: 97 Title: Single-Phase Average Reactive Power Measurement Using Instantaneous Power Theory in a Fixed Point Processor <i>Authors: Dipankar Chatterjee and SuvarunDalapati</i> |
| 12:35–12:50 | Paper ID: 103 Title: Grid Connected Photovoltaic Systems with Multilevel Inverter <i>Authors: Ashutosh Kumar Singh, Rajib Kumar Mandal, Ravi Raushan and Pratyush Gauri</i> |

Sensors and Signal processing (Venue: Hall-2)

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| 10:30–10:50 | Invited Talk – Prof Bipan Tudu, Jadavpur University |
| 10:50–11:05 | Paper ID: 36 Title: CNN Classifier based Low-resolution Face Recognition Algorithm <i>Authors: Shyam Singh Rajput and K V Arya</i> |
| 11:05–11:20 | Paper ID: 56 Title: Anisotropic Diffusion Based Unsharp Masking and Crispening for Denoising and Enhancement of MRI Images <i>Authors: Ravi Ranjan Kumar, Abhinav Kumar and Subodh Srivastava</i> |
| 11:20–11:35 | Paper ID: 70 Title: Single-channel color image cryptosystem using chaotic structured phase encoding <i>Authors: Muhammad Abuturab</i> |
| 11:35–11:50 | Paper ID: 78 Title: Reduced Graphene Oxide/Amino-Nitroso-Uracil Nanocomposite for the Detection of Heavy Metals in Aqueous Environment <i>Authors: Pramanand Kumar, Chandramika Bora and Subrata Das</i> |
| 11:50–12:05 | Paper ID: 86 Title: Impact of back gate voltage on sensing metric of dielectric modulated Tunnel FET biosensor <i>Authors: Praveen Dwivedi, Amitesh Kumar, Brajendra Singh Sengar, Vivek Garg and Rohit Singh</i> |
| 12:05–12:20 | Paper ID: 92 Title: Effect of applied bias on Schottky interface to affect resistive switching in a memristive device <i>Authors: Amitesh Kumar, Praveen Dwivedi, Brajendra Singh Sengar, Vivek Garg and Rohit Singh</i> |
| 12:20–12:35 | Paper ID: 99 Title: Performance Analysis For Wireless Non-Orthogonal Multiple Access Downlink Systems <i>Authors: Ashish Pandey, Indrajeet Kumar and Ritesh Mishra</i> |
| 12:35–12:50 | Paper ID: 101 Title: Study of Cognitive Fatigue using EEG Signal Analysis <i>Authors: Anwesha Sengupta</i> |
| 12:50–13:30 | Break |

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| 13:30–15:50 | Day 2 Technical Session-2 |
| Renewable Energy and Application (Venue: Hall-1) | |
| 13:30–13:50 | Invited Talk - Prof. N. B. Dev Choudhury, NIT Silchar |
| 13:50–14:05 | Paper ID: 13 Title: Scheduling mixed task sets in energy harvesting embedded systems <i>Authors: Rola El Osta, MarylineChetto and Hussein El Ghor</i> |
| 14:05–14:20 | Paper ID: 22 Title: Performance Analysis of Parallel-Connected Grid Independent Wind Energy Conversion Systems (WECS) with Energy Storage <i>Authors: Sri Datta Sai Polaki, VidhyadhariKotipatruni, Harija Rani Kirlampalli and Sastry V.Vedula</i> |
| 14:20–14:35 | Paper ID: 31 Title: Investigation of Buffer less Cu ₂ ZnSnS ₄ Based Solar Cell <i>Authors: Prashant Kumar Verma, Pooja Punetha and Brajendra Singh Sengar</i> |
| 14:35–14:50 | Paper ID: 39 Title: Energy Consumption and Energy Saving Potential in Indian Textile Sector <i>Authors: Saurabh Kumar Rajput, Dharmendra Kumar Dheer and Sulochana Wadhvani</i> |
| 14:50–15:05 | Paper ID: 66 Title: Investigation of Environmental Effects on the Performance of Solar PV Modules <i>Authors: Kalpana BijayeeniSamal and AbhyarthanaBisoyi</i> |
| 15:05–15:20 | Paper ID: 73 Title: Dynamic participation of DFIG based wind farms for improved frequency regulation <i>Authors: Abhishek Saxena, Ravi Shankar and Pankaj Rai</i> |
| 15:35–15:50 | Paper ID: 96 Title: Wind Generation Forecasting Using Python <i>Authors: Md Irfan Ahmed, Prateem Pan, Ramesh Kumar and R. K. Mandal</i> |

Control System (Venue: Hall-2)

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| 13:30–13:50 | Invited Talk – Dr. S. K. Jha, MNNIT Allahabad |
| 13:30–13:45 | Paper ID: 47 Title: Robust Least Square Filter for Simultaneous Localization and Mapping <i>Authors: Sharifuddin Mondal and Wan Kyun Chung</i> |
| 13:45–14:00 | Paper ID: 63 Title: Equilibrium Optimized AGC of Multi-Area Restructured Power System Using Cascaded Fractional Fuzzy Controller <i>Authors: Pulakraj Aryan, Ravi Shankar and Mrinal Ranjan</i> |
| 14:00–14:15 | Paper ID: 75 Title: Discretization of Linear Time-Varying Systems <i>Authors: Gagan Deep Meena and JanardhananSivaramakrishnan</i> |
| 14:15–14:30 | Paper ID: 79 Title: Stabilizing x-z Inverted Pendulum via Fractional Order PID Controller <i>Authors: Satyendra Kumar and MoinaAjmeri</i> |
| 14:30–14:45 | Paper ID: 83 Title: LFC Scheme for A Deregulated Multi-Area Power System using Cascaded Fractional Order Controller <i>Authors: Sariki Murali, Ravi Shankar, ShivamShrivastav, Utkarsh Dhawal and Vishal Kannaujia</i> |
| 14:45–15:00 | Paper ID: 84 Title: Load Frequency Regulation using Linear Active Disturbance Rejection Control Technique <i>Authors: Anand Kumar, Md Nishat Anwar and Ranjeet Kumar</i> |
| 15:00–15:15 | Paper ID: 85 Title: Application of a Novel Political Optimization in Optimal Parameter Design of PI Controller for the BLDC motor Speed Control <i>Authors: Ramesh Devarapalli, Naraharisetti Jaya Naga Lakshmi and Upendra Prasad</i> |
| 15:15–15:30 | Paper ID: 91 Title: Gain-Scheduled Feedback Controller Design for a Nonlinear Continuous Stirred Tank Reactor <i>Authors: Ankita Ranjan, Sarbani Chakraborty and Vijaya Laxmi</i> |
| 15:30–15:50 | Paper ID: 102 Title: PID Control of a Fixed Displacement Electro-Hydrostatic Actuation System <i>Authors: Nimai Pada Mandal</i> |
| 16:00-16:20 | Valedictory Session |