



**International Conference on
Role of Energy for Sustainable Social Development in 'New Normal' Era**
28th -29th December 2020, Kathmandu, Nepal

PROGRAM SCHEDULE

DAY I: 28th December 2020 (Monday): Online

Plenary Session I (10:00 AM -12:00PM)

Keynote Speech-I: Reliability Cost of Sustainable Energy for Social Development, **Rajesh Karki**, Professor, University of Saskatchewan, Canada; **Moderator:** Nava Raj Karki, Professor, IoE, Tribhuvan University

Keynote Speech-II: Challenges with Lower Inertia - Provision of Fast Frequency Control Reserves, **Kjetil Uhlen**, Professor, NTNU, Norway; **Moderator:** Shailendra Kumar Jha, Assistant Professor, Kathmandu University

Technical Session-I: Sustainability of Power System (12:30PM – 2:00PM)

Session Chairs: Dr. Bishal Silwal, Mr. Khagendra Thapa, Assistant Professor, IoE, Tribhuvan University

Paper ID-04: Load Flow Analysis of Under Construction Hydropower Plants in Integrated Nepal Power System, **Santosh Humagain**, **Pramish Shrestha**, **Alisha Paudel**, **Brajesh Mishra**

Paper ID-06: Design and Implementation of Automatic Three-phase Fault Detection and Load Isolation System, **Rajiv Bishwokarma**, **Shayarn Khatiwoda**, **Bishal Bhetwal**, **Shailendra K. Jha**

Paper ID-07: Reactive Power Reallocation for Loss Minimization, Voltage Profile Improvement, and Voltage Stability Enhancement Using Moth Flame Algorithm, **Prakash Budha**, **Nava Raj Karki**

Paper ID-19: Optimal Allocation of Capacitors and DGs for Power Loss Minimization and Voltage Profile Improvement in Radial Distribution System, **Saru Bastola**, **Suraj Kumar Dhungel**, **Khagendra Bahadur Thapa**, **Nava Raj Karki**

Paper ID-22: Reliability worth Analysis of a Modern Power System, **Akrit Acharya**, **Alish Bista**, **Krishna Raj Majhi**, **Aman Nath Mandal**

Paper ID-23: Optimization of Fault Current Limiter for Restoring Recloser-Fuse Coordination in Distribution System Integrated with Synchronous DG Units by Using MOPSO Algorithm, **Purushottam Khadka**, **Asha Khanal**

Technical Session-II: Electricity Trading and Sustainability (2:30PM-4:00PM)

Session Chairs: Dr. Kamal Chapagain, Assistant Professor, Kathmandu University, Ms. Menaka Karki, Assistant Professor, IoE, WRC, Tribhuvan University

Paper ID-01: Towards Sustainable Social Development: Optimal Demand Forecasting, **Pradip Neupane**

Paper ID-03: Energy Absorption Analysis and Load Forecasting in Integrated Nepal Power System, **Pramish Shrestha**, **Namrata Tusuju Shrestha**, **Alisha Paudel**, **Sharad Bahadur Karmacharya**, **Brajesh Mishra**

Paper ID-10: A Study on Charging Behavior of Private Electric Vehicle Owners in Nepal - A Case Study, **Prashant Niroula**, **Riti Newa**, **Ravikant Chaudhary**, **Binay Paudyal**

Paper ID-11: Eco-Environment Analysis and Complete Design of 500kW On-Grid Solar Plant in Pokhara, Nepal, **Braj Kishor Shah**, **Mahesh Chapai**, **Basanta Gautam**

Paper ID-13: Deep Neural Network based Automatic System for Electricity Meter Reading in Nepal, **Rajiv Bishwokarma**, **Binay Paudyal**, **Pravesh Chapagain**, **Shirshak Bajgain**, **Hitendra Dev Shakya**



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DAY II: 29th December 2020 (Tuesday): Online

Plenary Session II (10:00AM-11:00AM)

Keynote Speech III: A unified quantitative framework: modeling and analysis for renewable energy applications, **Dr. Krishna Mohan K**, Consultant, Banking Labs, and Consulting Researcher, U of A, Canada; **Moderator:** Sujan Adhikari, Savvy Tech Pvt. Ltd.

Technical Session-III: Green Energy for Sustainability (11:00AM-12:30PM)

Session Chairs: Mr. Shahabuddin Khan, Assistant Professor, IoE, WRC, Tribhuvan University, Mr. Pramish Shrestha, Assistant Professor, Kathmandu University

Paper ID-12: Assessment of Wheeling Rate at Deregulated Power Market: A Case Study of Nepalese Power System, **Mohan Neupane**, Basanta Raj Pokhrel

Paper ID-05: Optimal Location of Series FACTS Devices to Control Overloaded Line with Wind Penetration in Western Region of Integrated Nepal Power System, Kamal Adhikari, Pramish Shrestha, Alisha Paudel, **Abhisekh Shrestha**, Brajesh Mishra

Paper ID-14: Transient Stability in Renewable Energy Penetrated Power Systems: A Review, **Nasib Khadka**, Ramesh Paudel, Brijesh Adhikari, Aayush Bista, Shriram Sharma, Ashish Shrestha

Paper ID-20: Smart Reconfiguration of Distribution Networks Handling DG Penetration for Power Loss Minimization and Voltage Profile Improvement, **Suraj Kumar Dhungel**, Saru Bastola, Khagendra Thapa, Nava Raj Karki

Paper ID-25: A Review on Hierarchical Control of AC Microgrids, **Bishal Rijal**, Kanchan Bomzon, Rijan Dahal, Sujan Adhikari

Paper ID-26: Review on Control Strategies of DC Microgrid, **Abhay Kandel**, Anjan Aryal, Sujan Adhikari

Paper ID-27: A Voltage Based Optimal Relay Coordination using PSO in Distributed Generation Penetrated Distribution System, **Bharat Pokharel**, Nava Raj Karki, Netra Prasad Gyawali, Khagendra Thapa, Akhileswar Mishra

Technical Session-IV: Power and Energy System Components (1:00PM-2:30PM)

Session Chairs: Mr. Akhileswar Mishra, Assistant Professor, IoE, Tribhuvan University, Mr. Ajay Kumar Lal, Assistant Professor, Nepal Engineering College

Paper ID-02: Switchyard Earthing Design for a Distribution Substation, **Sagun Katuwal**

Paper ID-09: GIS-based Three Level Method for Determination of Route Alignment of 33 kV Lines in Nepal, **Binay Paudyal**, Neha Joshi, Bibek Rai, Ashish Regmi, Pravakar Khanal, Bishnu Prasad Neupane, Prashant Tiwari, Dayasagar Niroula, Prasant Basnet, Ravi Raj Shrestha, Saroj Ghimire, Niroj Karmacharya, Nawa Raj Chapagain, Suraj Kumar Dhungel, Bijaya Sen Khadka

Paper ID-15: Importance of Efficient Lighting Control Techniques in Illumination Design: A Review, **Aayush Bista**, Nasib Khadka, Diwakar Bista, Ashish Shrestha

Paper ID-16: LPS Design Analysis: A Case Study of RIC Building at Pashchimanchal Campus, Shahabuddin Khan, **Menaka Karki**

Paper ID-17: Optical and Thermal Performances of Black Nickel and Black chrome Selective Coating based Solar Thermal Collectors, **Bhim P. Kafle**, Nayan Acharya, Sunil Lohani, Manoj Bista, Ritesh Dev

Paper ID-24: Synthesis and Characterisation of reduced graphene Oxide thin films for their potential application in Perovskite Solar Cells, Ashwin Khadka, **Manoj Pandey**, Bhim Prasad Kafle

Plenary Session III (3:45 PM – 4:45PM)

Keynote Speech IV: Intelligent design Framework for Optimal Maintenance and Machinery Health Monitoring for e-maintenance platforms for power plants, **Ajit Kumar Verma**, Professor, Western Norway University of Applied Sciences, Haugesund, Norway; **Moderator:** Dr. Shailendra Kumar Jha, Assistant Professor, Kathmandu University



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DAY II: 29th December 2020 (Tuesday) – Venue: The Bakery Café, Haribahwan, Pulchowk, Lalitpur

Registration (5:00PM-5:30PM)

Welcome Tea
Registration of Authors and Participants

Valedictory Session (5:30PM-6:15PM)

Address from the Dean, School of Engineering, Kathmandu University
Address from the Dean, Institute of Engineering, Tribhuvan University
Website Launch – IEEE PES Nepal Chapter
Address from Conference Chair, RESSD-2020

Conference Diner (6:15 PM-8:00PM)