India Smart Grid Forum

Top 25-ISUW 2024 Technical Paper Selected for Presentation

Sl. No	Theme	Title of Technical Paper	Technical Paper Author	Organization
1	INDIA @ 100 in 2047: Vision for the Indian Power System	Towards Carbon-Neutrality for High-Voltage Switchgear Installed Base	Francesco Agostini	Hitachi Energy
2	INDIA @ 100 in 2047: Vision for the Indian Power System	Field data evaluation of line protection for lines connected with renewable resources: Problems and solutions	Aarthi V	Hitachi Energy
3	INDIA @ 100 in 2047: Vision for the Indian Power System	An overview of the challenges in reaching the 2030 solar PV target in India	Chunendra Kumar Singh Chaudhary	IIT Roorkee
4	INDIA @ 100 in 2047: Vision for the Indian Power System	Revolutionizing Last-Mile Delivery: The Power of Automation for Enhanced Reliability and Customer Satisfaction	Raghuvir Singh	Tata Power Delhi distribution limited.
5	INDIA @ 100 in 2047: Vision for the Indian Power System	Efficiency Improvement in Power Forecasting through ABT Meter Installation	Abhinav Mogha	Tata Power Delhi Distribution Limited
6	INDIA @ 100 in 2047: Vision for the Indian Power System	Developing Data driven tool based on Life Cycle Assessment for computing Carbon Footprint across Electricity Value Chain	Surekha Deshmukh	IEEE Pune Section
7	Smart Grids for Smart Cities	MANAGING VAR IN DISTRIBUTION GRID STATIONS " Ways to Vitalize with Technical Advancements for reliable Smart Grids for Smart Cities.	Kuldip Raj Suri	INDIGRID, MUMBAI, INDIA

8	Smart Grids for Smart Cities	Evaluating the Performance of Maximum Power Point Tracking Methods for Photovoltaic Systems: Perturb & Observe, Incremental Conductance, and Fuzzy Logic-Based Approaches	Mansoori Nasreenbanu Nazirbhai	Silver Oak University
9	Smart Grids for Smart Cities	Unlocking the Value of Street Lights for Multiple Smart Cities Applications	Sairam Kumar	Accenture
			Gufran Basit	Siemens Technology and Services Private Limited
10	Smart Grids for Smart Cities	Supply-Demand-Based Optimization technology for frequency regulation of a virtual inertia control based microgrid.	Aditya Kumar Pati	TPWODL
11	Smart Grids for Smart Cities	Common GIS Map for all Domains in a Smart Cit and A Case Study of Dehradun Smart City, Uttarakhand, India	Rakesh Kadu	The Tata Power Company
12	Smart Grids for Smart Cities	Smart buildings and Electric Vehicles Acting as Microgrids in Context of India	Moreshwar Salpekar	Sevya Multimedia Pvt Ltd
13	Foundational Blocks for Smart Grids	Modern Techniques for Managing the Voltage Profile at Customer Side	Swapnil Rao	The TATA Power Co.Ltd
14	Foundational Blocks for Smart Grids	Optimized Design and Development of Cost Effective Transmission Line Inspection Robot	Manan Pathak	Silver Oak University
15	Foundational Blocks for Smart Grids	Automatic Generation Control of BESS Alongside Conventional Generators with Market Interface	Pankaj Prabhat	GE Digital

16	Foundational Blocks for Smart Grids	Bandwidth adequacy, data compression and evolving WAMS applications for Indian grid	Amit R. Kulkarni	MAHATRANSCO
17	Foundational Blocks for Smart Grids	Virtual DT Metering Dashboard: Enhancing Smart Grid Development through Advanced Network Capacity Planning and Asset Utilization	Akash Kumar	Tata Power Delhi Distribution Ltd.
18	Foundational Blocks for Smart Grids	Towards net zero through smart metering	V. Lavanya	Vellore Institute of Technology, Chennai
19	Foundational Blocks for Smart Grids	Fault Location Challenges in Traction Power Delivery System with Autotransformer	Gurujith A	Hitachi Energy
20	Electric Mobility	EV CHARGING INFRASTRUCTURE: IMPACTS, CHALLENGES AND SOLUTIONS	S. Hemamalini	Vellore Institute of Technology, Chennai
21	Disruptive Innovations for Utilities	Grid Guardians from the Sky: Aerial Technologies and AI for Transmission Systems Asset Management	Saroj Chelluri	GarudaUAV Soft Solutions
22	Disruptive Innovations for Utilities	Web 3.0 and Metaverse for Utilities	M.L. Sachdeva	-
			N.S. Sodha	
23	Disruptive Innovations for Utilities	Transforming Power Utility O&M Through Advanced Analytics	Devesh Verma	BSES Rajdhani Power Ltd.
24	New and Emerging Technologies and Trends	Green Credits	RN Sen	-
25	New and Emerging Technologies and Trends	Indian Carbon Market Proposal	Purnima Gupta	-

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22	Disruptive Innovations for Utilities	Web 3.0 and Metaverse for Utilities	M.L. Sachdeva	-
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23	Disruptive Innovations for Utilities	Transforming Power Utility O&M Through Advanced Analytics	Devesh Verma	BSES Rajdhani Power Ltd.
24	New and Emerging Technologies and Trends	Green Credits	RN Sen	-
25	New and Emerging Technologies and Trends	Indian Carbon Market Proposal	Purnima Gupta	-

26	INDIA @ 100 in 2047: Vision for the Indian Power System	Towards a Sustainable Energy Future: Achieving Net Zero Power in the Face of Climate Change	Priyanshu Praliya	Tata Power Delhi Distribution Limited
27	INDIA @ 100 in 2047: Vision for the Indian Power System	Maximising Renewable Energy in India ™s Power Sector: A case study of Karnataka state	Sai Ram Thandra	Center for study of science, technology and policy (CSTEP)
28	INDIA @ 100 in 2047: Vision for the Indian Power System	India's Roadmap to Net Zero Emissions	Amit Sharma	Ernst & Young LLP
29	Smart Grids for Smart Cities	Common GIS Map for all Domains in a Smart Cit and A Case Study of Dehradun Smart City, Uttarakhand, India	Rohan Chakraborty	Cognizant technology solutions Pvt ltd
30	Smart Grids for Smart Cities	Title: Smart Microgrids for Campuses, Railway Stations, Sea Ports, Airports, Industrial Parks, Military Bases, Hotels, Hospitals, Slums and Commercial Complexes	Adesh Golash	BSES Rajdhani Power Ltd
31	Foundational Blocks for Smart Grids	Microgrid Testbed: A Platform for Developing and Testing Decentralized Intelligent Micropower Networks	Ganesh Narayanan	Amrita Vishwa Vidyapeetham
32	Electric Mobility	Critical techno-economic investigation for integrational topologies of grid-pv-fast charging (dc) stations	Brijesh Singh	KIET Group of Institutions, Delhi-NCR, Ghaziabad-201206 (U.P)
33	Disruptive Innovations for Utilities	Robotics in Transmission O&M	Ravi Sahu	Tata Power Co. Ltd

34	Disruptive Innovations for Utilities	Implementation of Artificial Intelligence for the detection of anomalies of electrical assets from the Drone orthomosaic imagery for providing inputs to the Preventive Maintenance Team	Vikas Gupta	Noida Power Company Limited (NPCL)
35	Disruptive Innovations for Utilities	Load Optimization in Power Distribution through Geospatial Analysis	Devesh Verma	BSES Rajdhani Power Ltd.
36	Disruptive Innovations for Utilities	AI-driven automation of Power Purchase Invoice Processing and Payment Posting	Diksha Singla	Noida Power Company Limited
37	Disruptive Innovations for Utilities	Peer-to-peer (P2P) energy trading in India Utilities	Praveen Kumar Goyal	Noida Power Company Limited
38	Disruptive Innovations for Utilities	TP-Satark: E-Theft Complaint Tab on Tata Power's--Mumbai Distribution Website and Mobile App	Ravinder Bagel	TATA POWER MUMBAI DISTRIBUTION LIMITED
39	Disruptive Innovations for Utilities	Digital Utilities Evolution of New Roles & Responsibilities bringing opportunities to the ecosystem	Anindya Pradhan	Tata Consultancy Services
40	Disruptive Innovations for Utilities	Models for Short Term Load Forecasting with Increased Penetration of Solar Generation	Nick Phillips	Itron
41	Disruptive Innovations for Utilities	Innovation in Digitalization for Online Condition Assessment, Monitoring, and Predictive Maintenance for Transformers and Power Products	Atul Pandey	Hitachi Energy India Limited
42	Disruptive Innovations for Utilities	Demand Forecasting based on weather and economic parameters with AI & ML	Trusha Biswas	TATA Power Distribution Company - Mumbai

43	New and Emerging Technologies and Trends	Diesel Generator Set Replacement with Battery Energy Storage System (BESS)	Sushmita Sarkar Chakravarty	Tata Power Co. Ltd.
			Shantanu Sankpal	Tata Power Co. Ltd.
			Vishal Vij	Tata Power Trading Company Limited
			Atharv Mahesh Sarnaik	Tata Power Co. Ltd.
44	New and Emerging Technologies and Trends	Enhancing value proposition of distributed battery energy storage systems through operational strategies and targeted policy measures	Kumaresh Ramesh	Council on Energy, Environment and Water
45	New and Emerging Technologies and Trends	Design, and Design and development 420 kV eco-efficient switchgear	Kalpesh Chauhan	Hitachi Energy Ltd
46	New and Emerging Technologies and Trends	Real Time Monitoring of Gujarat Power systems (WAMS) Synchrophasor Technology: Addressing Integration of Renewable with Synchronous Grid	Devendra P Parmar	State Load Despatch Center, Gujarat Energy Transmission Corporation LTDr
47	Regulations for the Evolving Smart Energy Systems	Behavioral Demand Response Program by Tata Power-DDL	Nilesh Kane	Tata Power - Mumbai
48	Evolving Architecture of the 21st Century Grid with Two Way Power Flows	Transitioning from Bilateral to Trilateral and Multilateral Power Trade in South Asia	Maitreyi Karthik	Centre for Science and Environment
49	Smart Water	Smart Technologies to Address India s Urban Water Crisis	Gufran Basit	Siemens Technology and Services Private Limited
50	Smart Water	Optimizing water supply management in India: Leveraging shared IT infrastructure at the state level for improved service delivery and equitable supply	Sachin S	PricewaterhouseCoopers. Pvt. Ltd

51	Smart Water	Smart Technologies to Address India's Urban Water Crisis	Nishant Awasthi	Cognizant
52	Smart Water	Digital Framework for Equitable Distribution of Drinking Water	Subhajyoti Majumder	Cognizant Technology Solutions
53	Smart Water	Water Production & Humidity Control Using Atmospheric Water Generator in Transmission Substation	Ganesh Vitthal Kasture	Tata Power Company Ltd
54	Regulations for the Evolving Smart Energy Systems	Monetization of the Latent Emissions	Sumit Sachdev	Tata Power Trading Company Limited
55	Cyber Security for the Digitalized Grids	Automating Threat Detection and Response in Power Utility	Aamir Hussain Khan	Tata Power Delhi Distribution Limited
56	Cyber Security for the Digitalized Grids	Cyber Security in Grid Protection system	Varun Thakur	Tata Power delhi distribution ltd
57	Cyber Security for the Digitalized Grids	Cyber Risk Assessment of Distributed Control System in Power Generation Plant	Santanu Thandar	Indian Institute of Information Technology Kalyani
58	Cyber Security for the Digitalized Grids	Ensemble Learning based Real-time Intrusion Detection on GOOSE Messages in Digital Substations	Tanushree Bhattacharjee	GRIDsentry Pvt Limited
59	Cyber Security for the Digitalized Grids	A Comprehensive Analysis of Open-Source SIEM and Endpoint Security Monitoring	Rajesh Pathak	Noida Power Company Limited
60	Cyber Security for the Digitalized Grids	Development of Active Intrusion Detection and Prevention System using Artificial Intelligence for Electrical Distribution System and Enhancing Cybersecurity Resilience in Critical Power Utility Infrastructure	Adesh Golash	BSES Rajdhani Power Ltd