Dr. Sambeet **Mishra**

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Google Scholar | ✉ www.sambeetmishra.com | 🔗 /sambeet-mishra

Expertise: Power and Energy System, Mathematical Optimization, Machine Learning and Statistics

Work Experience

2015-2019   **RESEARCHER** *TTU, Estonia*
Electrical Power Engineering
- Power system reliability and adequacy
- Renewable energy resources
- Data Science and Machine Learning applications

2016-2018   **VISITING RESEARCHER (AFFILIATED)** *NTNU, Norway*
Industrial Economics and Technology Management (IØT)
Center for Sustainable Energy Studies (CenSES)
- Energy Economics
- Mathematical Optimization Modelling
- Industrial business process

2014-2015   **ENGINEER** *TTU, Estonia*
Electrical Power Engineering

Research Projects

2019-...   MIGRATE - Massive Integration of Power Electronic Devices

2015-2019   Flex4RES - Flexibility for Variable Renewable Energy Integration

2014-2016   Effect of new electricity production patterns on high voltage equipment and cables isolation.

2015-2016   Cable networks and their effects on the function of the transmission network

Education

2014-2018   **DOCTORAL STUDIES**   Graduation: December 2018
"Models for Modern Power Distribution System Planning"
- Model for classifying wind power variations
- Stochastic MILP formulation for Generation and Transmission Expansion with peer-to-peer market
- Game Theory (coalitions) for expansion price settlements (MCP)
- AC-OPF (MINLP) with Power System reliability indicators through applied machine learning classifiers
  Industrial partners:
    - TrønderEnergi (Norway)
    - LO3 Energy, Brooklyn Microgrid (NewYork, USA)

2011-2013   **MASTER OF TECHNOLOGY** *KIIT University*
Specialization in Power & Energy system (Distinction) [Two dissertations]
1. "Design and simulation of a solar–wind–biogas hybrid system architecture using HOMER in India"
2. "Characterization of ohmic contact layer in CdS-Al junction"
- Techno-economic decision making for rural electrification
- Quantum energy (Nanotechnology)

2006-2010   **BACHELOR OF TECHNOLOGY** *KIIT University*
Electrical Engineering
Electrical Equipment control using C-programming

Publications

11 international conference presentations | 7 peer-reviewed international journals
h-index: 6 [Scopus Author H-index] | 10 hour(s) Professional development from IEEE Smart Grid

Language Skills

Professional | English
Native | Odia, Hindi, Sanskrit

IT skills

Programming environments | Python, Julia, R, MATLAB, Octave
Algebraic environments | GAMS and AIMMS
Data management | Tableau and PowerBI
Office tools | Microsoft office, LaTeX, Markup
Operating systems | Windows, Linux (Ubuntu)
High performance computing | SLURM workload manager
Database management | sql-lite

Professional Skills

- Power and Energy systems

- Decision theory/ Operations Research

- Data Science & Machine Learning model development and deployment

Miscellaneous

Interpersonal Skills | Energetic and cheerful, Time management, Diligent & Team player, Calm
Hobby | Playing musical instruments and Culinary arts