

Rabindra Mohanty

POSTDOCTORAL RESEARCHER

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Education

Indian Institute of Technology Kharagpur

PHD IN ELECTRICAL ENGINEERING

- Protection and Fault Location for DC Microgrids

West Bengal, India

July 2014 - July 2018

Indian Institute of Technology Kharagpur

MTECH IN POWER AND ENERGY SYSTEM

- Fault Detection, Location and Isolation in DC and Hybrid AC-DC Microgrids, CGPA: 8.96/10

West Bengal, India

July 2012 - April 2014

Veer Surendra Sai University of Technology, Burla

BTECH

- Electrical Engineering, CGPA: 8.08/10

Sambalpur, Odisha, India

August 2007 - May 2011

Siddhe Swar College, Amarda Road

SCIENCE

- Higher Secondary Examination, Percentage: 80.22%

Balasore, Odisha, India

August 2004 - May 2006

Radha Krushna High School, Vellora

BOARD OF SECONDARY EDUCATION

- High School Certificate Examination, Percentage: 84.66%

Balasore, Odisha, India

August 2003 - May 2004

Experience

Chalmers University of Technology

RESEARCHER

- **Project:** Protection of converter dominated medium-voltage microgrids – Protection challenges in converter dominated medium voltage microgrids are analysed and protection algorithms are developed for the microgrid consisting all the converters are rated converters. Investigation, proposition and verification of effective control strategies of the Chalmers network with local generations to operate both in islanded and grid-connected modes.
- **Teaching:** Course development for Power Systems Protection and Monitoring (EEK202), Tutor in Power Systems Protection and Monitoring (EEK202).

Gothenburg, Sweden

Aug. 2020 - Present

Chalmers University of Technology

POSTDOCTORAL FELLOW

- **Project:** Protection of converter dominated medium-voltage microgrids.
- **Teaching:** Course development for Power Systems Protection and Monitoring (EEK202), Tutor in Power Systems Protection and Monitoring (EEK202), Tutor in Sustainable Electric Power System (ENM100), Computer design exercise for ENM100, HV Lab (MTT035) - Lightning Impulse Testing,

Gothenburg, Sweden

Aug. 2018 - Jul. 2020

ABB Corporate Development Center

SENIOR DEVELOPER

- Shunt Capacitor Bank Protection : Worked on voltage and current based protection functions for implementation in intelligent electronic device (IED). The product of this protection function is REV615.

Bangalore, India

Feb. 2018 - Jun. 2018

Indian Institute of Technology Kharagpur

MTECH AND PHD

- Teaching assistant in Power Systems Lab and Electrical Technology Lab for Undergraduate students
- Computer Lab, Power and Energy Systems Lab for Masters students

West Bengal, India

Aug. 2013 - Dec. 2017

Adani Power Limited

SENIOR ENGINEER

- Testing and Commissioning of 400 kV switchyard equipments
- Erection, Testing and Commissioning of Electro-Static Precipitator of 5×660 MW Thermal Power Station

Maharashtra, India

Jun. 2011 - Jul. 2012

Publications

Journals

- **R. Mohanty** and A. K. Pradhan, "DC Ring Bus Microgrid Protection Using the Oscillation Frequency and Transient Power," in *IEEE Systems Journal*, vol. 13, no. 1, pp. 875-884, March 2019.
- **R. Mohanty** and A. K. Pradhan, "Protection of smart DC microgrid with ring configuration using parameter estimation approach," in *IEEE Transactions on Smart Grid*, vol. 9, no. 6, pp. 6328-6337, Nov. 2018.
- **R. Mohanty** and A. K. Pradhan, "A superimposed current based unit protection scheme for DC microgrid," in *IEEE Transactions on Smart Grid*, vol. 9, no. 4, pp. 3917-3919, July 2018.
- **R. Mohanty** and A. K. Pradhan, "Faulted Section Identification for DC Distribution Systems Using Smart Meter Data," in *IET Generation, Transmission Distribution*, vol. 12, no. 4, pp. 1030-1037, Feb. 2018.
- **R. Mohanty**, U. S. M. Balaji and A. K. Pradhan, "An accurate noniterative fault-location technique for low-voltage DC microgrid," in *IEEE Transactions on Power Delivery*, vol. 31, no. 2, pp. 475-481, April 2016.

Conferences

- **R. Mohanty**, P. Chen and Le Anh Tuan, "Current restrained undervoltage protection of converter dominated microgrids," in *DPSP 2020*, ACC Liverpool, UK, March 9-12, 2020.
- S. S. Inamdar, **R. Mohanty**, P. Chen, R. Majumder and M. Bongiorno, "On benefits and challenges of nested microgrids," in *IEEE PES Asia-Pacific Power and Energy Engineering Conference (APPEEC)*, Macao, China, 1st-4th Dec. 2019.
- **R. Mohanty**, P. Chen and Le Anh Tuan, and A. Narula, "Challenges in Protection of Converter Dominted Medium Voltage Microgrids," in *ISGT Europe*, Romania, Bucharest, 26th September- 2nd Oct. 2019.
- **R. Mohanty** and A. K. Pradhan, "A Superimposed Current Based Unit Protection Scheme for DC Microgrid," in *IEEE PES Gen. Meeting (PESGM)*, Atlanta, GA, USA, 4th - 8th August 2019.
- **R. Mohanty**, U. S. M. Balaji and A. K. Pradhan, "An accurate non-iterative fault location technique for low voltage DC microgrid," in *IEEE Power and Energy Society General Meeting (PESGM)*, Boston, MA, July 2016.
- **R. Mohanty** and A. K. Pradhan, " Cable fault location in a DC microgrid using current injection technique," in *National Power System Conference (NPSC)*, IIT Bhubaneswar, India, 19th-21st Dec. 2016.
- **R. Mohanty** and A. K. Pradhan, " Protection of DC and Hybrid AC-DC Microgrid with Ring Configuration," in *International Conference on Power System (ICPS)*, College of Engineering, Pune, India, 21st - 23rd Dec. 2017.
- K. Nayak, **R. Mohanty** and A. K. Pradhan, "Testing A Communication Assisted Protection Scheme for AC Microgrid in A Laboratory Setupin ," in *6th International Conference on Computer Application in Electrical Engineering- Recent Advances (CERA)*, IIT Roorkee, India, 5th-7th Oct. 2017.

Positions Served

Since 2016 **Member**, IEEE

USA

Since 2016 **Member**, PES

USA

Since 2020 **Member**, IET

UK

Reviewer, IEEE Transactions on Power Delivery, IEEE Transactions on Smart Grid, IEEE Transactions on Ind. Electronics, IEEE Transactions on Power Systems, IEEE Transactions on Circuits and Systems, IEEE Systems Journal, IET Gen. Trans. and Distr., IEEE PES General Meeting (PESGM), International Conference on Power Systems (ICPS), National Power Systems Conference (NPSC), IEEE PES Asia Pasific Power and Energy Engineering Conference (IEEE APPEEC)

Honors & Awards

2019 **Awarded**, POSOCO Power System Award for PhD Category

New Delhi, India

2017 **Best Poster**, Research Scholars' Day

IIT Kharagpur, India

2015 **Awarded**, POSOCO Power System Award for Masters Category

New Delhi, India

2011 **Qualified**, GATE with percentile 99.33

India

Skills

Software PSCAD/EMTDC, MATLAB, Simulink, PowerWorld, OpalRT

Presentation LaTeX, MS Word, Power Point, Excel, MS Visio

Languages English, Hindi, Odia