



Electrical Engineering Department
Motilal Nehru National Institute of Technology
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2. **Designation & Department:** Assistant Professor, Department of Electrical Engg.
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5. **Subjects of Interests/Specialization:** Renewable Energy and Distributed Generation based Power Systems, Power System Protection, Microgrid, Electrical Machines

EDUCATION AND QUALIFICATIONS

Degree	Specialisation	Year	Name of Institute/University	Percentage /CGPA	Division
Doctor of Philosophy	Power System	2017	Motilal Nehru National Institute of Technology Allahabad, U. P., India	9	First
Master of Engineering	Power System	2011	Bengal Engineering & Science University Shibpur, Howrah, W. B., India	74.18	First
Bachelor of Technology	Electrical Engineering	2009	Haldia Institute of Technology, Haldia, W. B., India	8.45	First
Intermediate	Science	2003	BIEC, Bihar	65	First
High School	Common	2001	BSEB, Bihar	73.14	First

WORK EXPERIENCE

S. No.	Duration	Position Held	Organization
1	November 05, 2012 - till Date	Assistant Professor	MNNIT Allahabad
2	July 2012 - October 2012	Assistant Professor	VVIT Purnea, Bihar
3	August 01, 2011 - May30, 2012	Assistant Professor	NIT Patna

AREA OF RESEARCH

- ⑩ Renewable Energy and Distributed Generation based Power Systems
 - ⑩ Power System Protection
 - ⑩ Integration issues of DG in Electrical Distribution Systems
 - ⑩ Microgrid and Smart grid
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COURSES TAUGHT AT UG AND PG LEVEL

- ⑩ Basic Electrical Machine/ Electrical Machine-I
- ⑩ AC Electrical Machine/ Electrical Machine-II
- ⑩ Power Systems-I
- ⑩ Power Systems-II
- ⑩ EHV AC & DC Transmission
- ⑩ EHV Transmission Technology
- ⑩ Electrical & Electronic Measurement
- ⑩ High Voltage Engineering
- ⑩ Digital Signal Processing

THESIS AND PROJECT DETAILS

Ph. D. Thesis : Impact of Distributed Generation and its Control Modes on the Coordination of Overcurrent Relays in Microgrid

Organisation : MNNIT Allahabad, Allahabad, U. P., India

n : Prof. R. K. Singh and Dr. S. R. Mohanty

Guide : January 08, 2013-February 01, 2017

Duration : MATLAB, PSCAD/ EMTDC

Tools Used :

Descriptio

n
⑩ The objective of the thesis was to investigate the impact of distributed generation and its different control modes on the protection coordination in a microgrid system.

M. E. Thesis : Assessment of Power System Voltage Security by Unsupervised Learning ANN

Organisation : Bengal Engineering & Science University Shibpur, Howrah, West Bengal, India

Guide : Prof. Abhijeet Chakrabarti and Dr. Abhinandan De

Duration : July'09-June'11

Description :

⑩ The objective of the thesis was to perform the voltage stability assessment in a power systems using voltage stability indicators.

B. Tech

Project : Light Activated Power Supply Controller

Organizati : Haldia Institute of Technology, Haldia, W. B.,
on India

: Mr. Indrayudh Bandyopadhyay, Assistant

Guide Professor

Duration : July 08-June 09

M. TECH THESIS GUIDED

Sl. No.	Name	Year	Thesis Title	Organization
01	Shweta Gupta	June 2013	Three-Phase Boost Inverter Design for Grid Connected Photovoltaic System	MNNIT Allahabad

02	Saloni Mishra	June 2013	Switched Inductor Quasi-Z- Source Inverter	MNNIT Allahabad
03	Abhishek Kumar	June 2014	Optimal coordination of overcurrent relay in the DG interfaced Distribution network using GA	MNNIT Allahabad

04	Sanjeev Ranjan	June 2014	Modelling of Phasor Measurement Unit and its application in Distributed system	MNNIT Allahabad
05	Sudeep Kumar	June 2014	Impact of Faults in Power Distribution System with the penetration of Distributed generation	MNNIT Allahabad
06	Vinay Kumar	June 2015	Protection Coordination and Optimal Location of Fault Current Limiter in Micro Grid	MNNIT Allahabad
07	Sanjit Kumar Kaper	June 2016	Advanced droop control strategy for load sharing with consideration of operational cost in autonomous micro-grid	MNNIT Allahabad
08	Aradhana Patel	June 2016	Investigation Of Protection Schemes For Flexible Distribution Of Energy Resources In Distribution System	MNNIT Allahabad
09	Somnath Mondal	June 2016	Control and Protection Techniques in Distribution Systems with the Penetration of Distributed Generators	MNNIT Allahabad
10	Murari Kumar Roy	June 2017		MNNIT Allahabad

PUBLICATIONS

- ⇒ N. K. Choudhary, S. R. Mohanty and R. K. Singh, "Impact of distributed generator controllers on the coordination of overcurrent relays in microgrid," *Turkish Journal Electrical Engineering & Computer Science*, 2016 (Accepted).
- ⇒ N. K. Choudhary, S. R. Mohanty and R. K. Singh, "Protection schemes and Protection coordination strategies in microgrid: A review," *Renewable & Sustainable Energy Review* (Under review).
- ⇒ N. K. Choudhary, S. R. Mohanty and R. K. Singh, "Coordination of Overcurrent Relay in Distributed System for Different Network Configuration," *Journal of Power and Energy Engineering*, 2015: 3, 1-9.

- ⇒ N.K. Choudhary, S.R. Mohanty, R.K. Singh, "Active and reactive power management in microgrid: Analysis in grid connected and islanded mode of operation," *Indian Journal of Science and Technology*, 2016; 9(21):1-8.
 - ⇒ N.K. Choudhary, S.R. Mohanty, R.K. Singh, "Protection Coordination of Over Current Relays in Distributed System for Different Operating Modes," in 12th *IEEE India International Conference INDICON*, 17-20 Dec, 2015.
 - ⇒ N. K. Choudhary, S. R. Mohanty and R. K. Singh, "Protection coordination of over current relays in distribution system with DG and superconducting fault current limiter," *Power Systems Conference (NPSC), 2014 Eighteenth National*, Guwahati, 2014, pp. 1-5.
 - ⇒ N. K. Choudhary, S. R. Mohanty and R. K. Singh, "A review on Microgrid protection," *Electrical Engineering Congress (iEECON), 2014 International*, Chonburi, 2014, pp. 1-5.
 - ⇒ A. Patel, S. Mondal, A. K. Tiwari and N. K. Choudhary, "Impact of distributed generation on coordination of overcurrent relays in a benchmark distribution system," *2016 IEEE 1st International Conference on Power Electronics, Intelligent Control and Energy Systems (ICPEICES)*, Delhi, India, 2016, pp. 1-6.
 - ⇒ S. K. Kaper and N. K. Choudhary, "A review of power management and stability issues in microgrid," *2016 IEEE 1st International Conference on Power Electronics, Intelligent Control and Energy Systems (ICPEICES)*, Delhi, India, 2016, pp. 1-6.
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- ⇒ S. K. Kaper, A. Kumar and N. K. Choudhary, "A novel approach of load sharing and busbar voltage regulation using Busbar voltage stabilizing controller in autonomous DC Microgrid," *2016 IEEE 1st International Conference on Power Electronics, Intelligent Control and Energy Systems (ICPEICES)*, Delhi, India, 2016, pp. 1-6.
- ⇒ Saloni Mishra, Niraj Kumar Choudhary and Ravindra Kumar Singh, "Analysis and Comparison of Different Control Methods for Switched-Inductor Quasi-Z Source Inverter", *International Conference on Electrical, Electronics & Computer Science Engineering*, 26th May-2013, New Delhi.
- ⇒ Shweta Gupta, Niraj Kumar Choudhary and Ravindra Kumar Singh, "Interfacing of photovoltaic system to utility grid using single-stage three-phase boost inverter", *National Conference on Electrical Systems & Engineering Technologies (ESET-2013)*, NIT Hamirpur, June 28th-29th, 2013.

SHORT TERM COURSE/ SEMINAR/ WORKSHOP ATTENDED/ ORGANIZED

- ⇒ Organized a one week short term course as a convener on "Advances in Power Technologies (APT-2017)" during May 15-20, 2017 at the Department of Electrical Engineering, MNNIT Allahabad.
- ⇒ Organized "Summer Internship Program in Electrical Engineering (SIPEE-2017)" as a co-coordinator during June 19, 2017 to July 14, 2017 at the Department of Electrical Engineering, MNNIT Allahabad.
- ⇒ Attended three day workshop on "A Multi dimensional Smart Energy Grid Analysis for Indian Scenario", organized by School of Computing & Electrical Engineering, IIT Mandi.
- ⇒ Attended a one week short term course on "Alternative Sources of Energy for Sustainable Development (ASESD-2017)" during March 27th-31st, 2017, organized by Department of Mechanical Engineering, MNNIT Allahabad.
- ⇒ Attended a two day Workshop on "Energy Efficiency Management (EEM-2017)" during March 24-25, 2017, organized by Department of Chemical Engineering, MNNIT Allahabad.
- ⇒ Attended Training cum Workshop on "RTDS", held at IIT Kanpur during 11-12 June 2013.
- ⇒ Attended self-financed Short-Term course on „AI and Mathematical Techniques for Modern Power System", held at EED, MNNIT Allahabad during June 24-28, 2013.
- ⇒ Attended self-financed Short-Term course on "Electric Power Control", held at EED, MNNIT Allahabad during July 18-22, 2013.

EXPERT LECTURE/ SESSION CHAIRED

- ⇒ Expert Lecture on "Introduction to Microgrid", at SRMGPC, Lucknow on April 5th, 2014.
- ⇒ Chaired Technical Session-5 on "Power Systems" in IEEE sponsored „ICCCM-2013", August 03-04, 2013, UIT, Allahabad.
- ⇒ Chaired Technical Session in IEEE sponsored 'SCES-2015', in 2015, at MNNIT Allahabad.