

BIO DATA

Name: Prof. R. N. Mahanty
Father's Name: Late Prof. M. M. Mahanty
Designation: Professor and Head, EE Deptt
Department: Department of Electrical Engineering
Organization: National Institute of Technology, Jamshedpur,
Jharkhand, India, PIN-831014



Address: Professor, Department of Electrical Engineering, National Institute of Technology, Jamshedpur, India

Nationality: Indian

Academic Qualification:

Name of Exam	Board/University	Year
Ph.D	IIT Kharagpur	2003
M.Tech	NIT Jamshedpur	1988
B.Sc (Engg.)	VSSUT Burla (Formerly UCE Burla)	1985

Field of Specialization: Power System Protection, Applications of ANN, Applications of Wavelet Transform

Teaching Experience:

Employer	Designation	Duration
NIT Jamshedpur (Formerly RIT Jamshedpur)	Lecture	1 st Jan 2000 to 15 th July 2003
	Assistant Professor/ Associate Professor	16 th July 2003 to 1 st Jan 2007
	Professor	From 1 st July 2008

Foreign experience: Jan 2007 – July 2008: Visiting Faculty,
University Tunku Abdul Rahman, Kuala Lumpur, Malaysia

Core Subjects Taught:

UG Level

- Basic Electrical Engg.
- Electrical Machines
- Power System-I
- Power system-II
- Microprocessor and its Applications
- Protection of Power Apparatus and Systems

PG Level

- Power system relaying
- Power System Protection

Ph. D. guidance:

Awarded:- *One*, Ongoing:- *Two*

M. Tech. theses guided:

Twenty

Papers in refereed Journals:

- [1] R. N. Mahanty and P. B. Dutta Gupta, "Application of RBF neural network to fault classification and location in transmission lines", **IEE Proceedings-Generation, Transmission and Distribution**, Vol. 151, No. 2, March 2004, pp. 201-212.
- [2] R. N. Mahanty and P. B. Dutta Gupta, "An improved method for digital relaying of transmission lines", **Electric Power Components and Systems**, Vol. 32, No. 10, Oct. 2004, pp. 1013-1030.
- [3] R. N. Mahanty and P. B. Dutta Gupta, "Comparison of Fault Classification Methods Based on Wavelet Analysis and ANN", **Electric Power Components and Systems**, Jan 2006, pp. 47-60.
- [4] R. N. Mahanty and P. B. Dutta Gupta, "A fuzzy logic based fault classification approach using current samples only", **Electric Power Systems Research**, Vol. 77, No. 5-6, April 2007, pp. 501-507.
- [5] R. N. Mahanty and P. B. Dutta Gupta, "ANN based fault classifier with wavelet MRA generated inputs", **International Journal of Engineering Intelligent Systems**, Vol. 16, No. 2, June 2008, pp. 75-85.
- [6] M. Abdel-Akher, M. E. Ahmad, R. N. Mahanty and Khalid M. Nor, "An approach to determine a pair of power flow solutions related to the voltage stability of unbalanced three phase networks", **IEEE Transactions on Power Systems**, Vol. 23, No. 3, Aug 2008, pp. 1249-1257.
- [7] P. Gupta and R. N. Mahanty, "An approach for detection and classification of transmission line faults by wavelet analysis", **International Journal of Applied Engineering Research. (ISSN: 0973-4562)**, Vol. 11, No. 9, 2016, pp. 6290-6296.

- [8] P. Gupta and R. N. Mahanty, "Transmission line protection by wavelet analysis", **International Journal of Applied Engineering Research**. (ISSN: 0973-4562), Vol. 11, No. 9, 2016, pp. 6297-6304.
- [9] R. N. Mahanty and A. B. Chattopadhyay, "A Microprocessor Based Directional Relay", **IEEMA Journal**, India, March 2000, pp. 18-20.

Papers in Conferences:

- [1] R. N. Mahanty and P. B. Dutta Gupta, "Differential Equation based fault diagnosis algorithms for digital relaying of transmission lines", Proc. **International conference on recent Advancements in Mathematical Sciences (ICRAMS)**, I. I.T., Kharagpur, India, Dec 2000, pp. 465-472.
- [2] R. N. Mahanty and P. B. Dutta Gupta, "Differential Equation based digital fault location algorithms with error compensation for Transmission Lines", Proc. **International Power Engineering Conference (IPEC)**, Singapore, May 2001, pp. 614-619.
- [3] R. N. Mahanty and P. B. Dutta Gupta, "A scheme for accurately locating transmission line faults including the high impedance ones", Proc. **International conference on Integrated Protection, Control and Communication: Experience, Benefits and Trends**, Central Board of Irrigation and Power, New Delhi, India, Oct. 2001, pp. VI-30- VI-35.
- [4] R. N. Mahanty and P. B. Dutta Gupta, "Two novel schemes based on wavelet analysis and artificial neural network for detection and classification of transmission line faults", Proc. **International conference on Integrated Protection, Control and Communication: Experience, Benefits and Trends**, Central Board of Irrigation and Power, New Delhi, India, Oct. 2001, pp. X-23-X-29.
- [5] R. N. Mahanty and P. B. Dutta Gupta, "A B-spline Wavelet based Multi Resolution approach for detection and classification of Transmission Line faults", Proc. **International conference on Energy, Automation and Information Technology (EAIT)**, I. I.T., Kharagpur, India, Dec. 2001, pp. 743-746.
- [6] R. N. Mahanty and P. B. Dutta Gupta, "Detection, Classification and Location of Transmission Line faults using Radial Basis Function based Artificial Neural Network", Proc. **International conference on Control, Instrumentation and Information Communication (CIIC)**, Calcutta University, Kolkata, India, Dec. 2001, pp. 199-202.
- [7] R. N. Mahanty and P. B. Dutta Gupta, "Algorithms for accurately locating faults on transmission lines", Proc. **International conference on Computer Applications in Electrical Engineering-Recent Advances (CERA)**, I.I.T., Roorkee, India, Feb. 2002, pp. 621-625.
- [8] M. Abdel-Akher, M. E. Ahmad, R. N. Mahanty and Khalid M. Nor, "On the relationship between multiple power flow solutions and the voltage stability problem

in unbalanced three phase networks”, *Proc. 12th International Middle East Power systems Conference 2008 (MEPCON 2008)*, **Aswan, Egypt**, March 2008, pp. 152-156.

- [9] R. N. Mahanty and P. B. Dutta Gupta, “Digital Fault Locator for Transmission Line fed from both ends”, *Proc. National Power Systems Conference (NPSC)*, **I.I.Sc., Bangalore, India**, Dec. 2000, pp. 383-388.
- [10] R. N. Mahanty and P. B. Dutta Gupta, “Location of Transmission Line faults using Radial Basis Function based Artificial Neural Networks”, *National Power Systems Conference (NPSC)*, **I.I.T., Kharagpur, India**, Dec. 2002.
- [11] R. N. Mahanty and P. B. Dutta Gupta, “Multi neural network based approach for transmission line protection”, *28th Annual Convention and Exhibition of IEEE India Council (ACE)*, **Kolkata, India**, Dec. 2002.

Reviewer of International Journals:

- Electric Power Systems Research (Elsevier)
- International Journal of Electrical Power and Energy Systems (Elsevier)
- IEEE Trans on Power Delivery

Non Academic Work:

- Head, Electrical Engineering Department: May 2018 – continuing
- Associate Dean (Students’ Welfare): May 2011- April 2014
- Member, UG Admission Committee: 2002-2006