

Ramaprasad Panda, Ph.D.

PERSONAL PROFILE



Designation : Professor
Department : Department of Electrical & Electronics Engineering
(JOINED THE INSTITUTE IN 2007)
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Research Interest

- Power factor Improvement in AC- DC Converters
- New Inverter topology for photovoltaic solar system
- Reactive power management in wind power integrated power systems
- Mitigation of Voltage instability with large scale integration of wind power with grid

Power System Consultancy

Providing consultancy services to industries regarding system study, load flow analysis, short circuit analysis, Voltage instability study, relay coordination etc. Sizing and Design of on- grid and off- grid roof- top PV solar power plants

Academic Qualifications

- Ph.D. (Electrical Engineering) Jadavpur University, Kolkata, India
- M.Tech. (Power Electronics and ASIC Design), Motilal Nehru National Institute of Technology, Allahabad, India
- B.E (Electrical Engineering), Bangalore University,

Teaching Experience/Industrial Experience/Research Experience

- Professor, Dept. of EEE, Silicon Institute of Technology, Bhubaneswar: December 2007-present
- Research associate; Power Research & Development Consultants, Bangalore: 1st February 2011 to 30th June 2011 on Deputation from SIT, Bhubaneswar.
- Assistant Professor, Dept. of E.C.E., KIT, Kodaikanal, India: Jan 2007 - Nov 2007
- Assistant professor, Dept. of EEE, Roland Institute of Technology, Berhampur, Odisha: Jul 2006 - Jan 2007
- Lecturer/ Senior lecturer, Dept. of Electrical Engineering, S. M.I. T., Berhampur, Odisha, India: March 1991 – June 2004

Conference

1. Ramaprasad Panda and R. K. Tripathi, "Development of a Simple and Efficient Hybrid Sine PWM Inverter for PV Power Cells" in proceeding of All India seminar in Advances in Product Development 2006", 17-18 Feb. 06, jointly organized by Motilal Nehru national institute of technology (MNNIT), Allahabad and the Institution of Engineers (India).
2. Ramaprasad Panda and R. K. Tripathi, "A Symmetrical Hybrid Sine PWM Switching Technique for Full Bridge Inverters" published in proceeding of India International conference on Power Electronics (IEEE-IICPE 2006), pp 345-348 19- 21, Dec. 06, Chennai.
3. Ramaprasad Panda and R. K. Tripathi, "A Novel Sine Wave Inverter with PWM DC Link" in the proceedings of "The IEEE Colloquium and the third IEEE International Conference on Industrial and Information Systems (ICIIS 2008) held at Indian Institute of Technology, Kharagpur, India during 08 – 10 December 2008.
4. Ramaprasad Panda and P. K. Satpathy, B.D. Biswal, "A Novel Fuzzy Approach to Handle Parameter Uncertainties in Bifurcation Analysis for identification of Critical Bus bars" IEEE 11th International Conference on Probabilistic Methods Applied to Power Systems (PMAPS), 2010 pp. 741 - 744, DOI: 10.1109/PMAPS.2010.5528404
5. Ramaprasad Panda and P. K. Satpathy, Subroto Paul, "Determination of Firing Angle for Multiple SVCs Connected to a Large System to Improve Voltage Stability" published in proceedings of NPSC-2012, held at IIT, BHU, Varanasi.
6. Pradyumna Sahoo, Ramaprasad Panda, P. K. Satpathy, Subroto Paul, "Voltage Stability Monitoring Based on Feed Forward and Layer Recurrent Neural Networks" published in proceedings of 6th IEEE POWER INDIA International Conference 2014 (PIICON 2014) to be held at New Delhi, 5-7 December 2014.
7. Ramaprasad Panda, Pradyumna Sahoo, P. K. Satpathy, Subroto Paul, "Impact Analysis of Wind Power Integration in Existing Power Systems for Study of Voltage Stability Conditions" accepted for publication in proceedings of 18TH National Power Systems Conference (NPSC-2014) - 18TH National Power Systems Conference (NPSC-2014) at IIT Guwahati, 18-20 December 2014.
8. Sahoo P.K., Panda R., Satpathy P.K., Mohanty M.N. (2016) Performance Comparison for Feed Forward, Elman, and Radial Basis Neural Networks Applied to Line Congestion Study of Electrical Power Systems. In: Dash S., Bhaskar M., Panigrahi B., Das S. (eds) Artificial Intelligence and Evolutionary Computations in Engineering Systems. Advances in Intelligent Systems and Computing, vol 394. Springer, New Delhi
9. Patra J.K., Panda R., Dash S.P., Rani A. (2020) A Review of Advancements in DC Grid Technology. In: Pradhan G., Morris S., Nayak N. (eds) Advances in Electrical Control and Signal Systems. Lecture Notes in Electrical Engineering, vol 665. Springer, Singapore
10. Panda N.K., Panda R., Patra J.K. (2020) A Stand-Alone Sine-Wave Inverter with Reduced Switching Loss. In: Pradhan G., Morris S., Nayak N. (eds) Advances in Electrical Control and Signal Systems. Lecture Notes in Electrical Engineering, vol 665. Springer, Singapore

National and International Journals Publication:

1. Ramaprasad Panda, P K Satpathy, "Small Hydro Power: issues & challenges in Indian context" Vortex 2012, annual journal of the Odisha Engineer's Forum. PP 50- 54.
2. Ramaprasad Panda, P K Satpathy, "Evolution of Wind Power" Vortex 2013, annual journal of the Odisha Engineer's Forum. PP 71-77.
3. Dr. P. K. Satpathy, Mr. R. P. Panda, Mr. B. D. Biswal, "A novel soft computing approach for uncertainty modeling and Parameter evaluation for steady State voltage stability analysis" published in International Journal of Engineering and Information Technology, IJEIT 2010 Vol 2, No. 1 pp 69-73
4. Mr. R. P. Panda, Dr. P. K. Satpathy, Dr. S. Paul, "Application of SVC to mitigate voltage instability in a Wind system connected with GRID" published in International Journal of Power System Operation and Energy Management (IJPSOEM), 2011 VOL. 1. pp 90-96
5. Ramaprasad Panda & Ashok Kumar Tripathy, "Evolution of Single-Phase Photovoltaic Inverters" published in Special Issue International Journal of Power System Operation and Energy Management (IJPSOEM), 2012, vol. 1, issue 3. pp 19- 24
6. Ramaprasad Panda, Pradyumna Kumar Sahoo, Prasanta Kumar Satpathy, Subrata Paul, "Analysis of Critical Conditions in Electric Power Systems by Feed Forward and Layer Recurrent Neural Networks", International Journal of Electrical Engineering and Informatics (IJEEI), September 2014, Vol.6, issue 3, pp 447-459.
7. Prasanta Kumar Satpathy, Pradyumna Kumar Sahoo, Ramaprasad Panda, "Smooth Evacuation of Power in Grid Connected Small Hydro Power Stations by Application of SVCs" International Journal of Renewable Energy Research (IJRER), Vol 5, No 2 (2015), pp 622-628.
8. Pradyumna Kumar Sahoo, Ramaprasad Panda, Prasanta Kumar Satpathy, Subrata Paul, "Assessment of Transmission Line Congestion in Electrical Power Systems by Historical Elman Neural Network", Science-International Journal of Power System Reliability, September 2014, Inaugural issue, pp 1-12.
9. Mr. R. P. Panda, P.K. Sahoo, Dr. P. K. Satpathy, "A Novel Scheme for Placement and Sizing of SVCs to Improve Voltage Stability of Wind-Integrated Power Systems", International Journal of Renewable Energy Research (IJRER), Vol 5, No 2 (2015), pp 452-463.

Book Chapter/Books

1. Co-authored a book "An Introduction to Electrical and Electronics Engineering" for Diploma/Polytechnic students. Year of publication 2001, Amita Publications, Cuttack, Orissa.
2. Co-authored a book "Energy Conversion Devices" for B. Tech students. Year of publication 2010, India Tech Publishing House, Bhubaneswar, Orissa.
3. Co-authored a book "Electrical & Electronics Measurements & Measuring Instruments" for B. Tech students. Year of publication 2010, India Tech Publishing House, Bhubaneswar, Orissa.
4. Co-authored a book "Basic Electrical Engineering" for B. Tech students in 2011 (Sevenses Publications, Bhubaneswar, Orissa).

Conferences/Workshops
Attended

Sl. No.	Title of Workshop / Seminar / Conference	Institute Name	Month and Year	Seminar Period (in days)
1	All India Power Engineer's Meet (AIPEM-2020)	Silicon Institute of Technology, Bhubaneswar	March-2020	1
2	National Workshop on Emerging Technologies in Electrical Power Engineering (NWET-2020) With focus on " Power with Quality, Reliability, Safety & Security (PQRS)	Silicon Institute of Technology, Bhubaneswar	February-2020	3
3	One Day Workshop on "Safe Working Practices on Sub-Station Equipment"	Silicon Institute of Technology, Bhubaneswar	April 2019	1
4	National Workshop on Emerging Technologies in Electrical Power Engineering (NWET-2019) With focus on "Smart Energy Management and Protection Systems"	Silicon Institute of Technology, Bhubaneswar	January-February-2019	3
5	One day Technical Tutorial on "BEST PRACTICES on earthling systems" (BPES-2018)	Silicon Institute of Technology, Bhubaneswar	May 2018	1
6	National Workshop on Emerging Technologies in Electrical Power Engineering (NWET-2018)	Silicon Institute of Technology, Bhubaneswar	Feb-18	3
7	One-week ISTE STTP on "Electric Power System"	IIT, Kharagpur	Jul-17	10
8	One-week ISTE STTP for coordinators on "Electric Power System"	IIT, Kharagpur	May-17	5
9	IEEE, PES Chapter Chair's Training program.	IEEE PES R-10, Melbourne, Australia	Nov-16	1
10	NMEICT workshop on Control System	IIT, Kharagpur	Dec-14	10
11	Introduction to PSCAD and its general applications	Silicon Institute of Technology, Bhubaneswar	Sep-14	2

12	7th National Workshop on Emerging Technologies in Electrical Power Engineering (NWET-2014)	Silicon Institute of Technology, Bhubaneswar	Feb-14	3
13	AICTE sponsored National seminar on "Dispersed Generation and Smart Grid"	NIST, Berhampur, Ganjam, Odisha	Dec-13	3
14	National Power System Conference (NPSC-2012)	IIT, BHU, Varanasi	Dec-12	3
15	MATLAB & Simulink for Engineering Education	MathWorks India Pvt. Ltd	Sep-12	1
16	Workshop on "Numerical Optimization and it's Engineering Applications" (WNOEA-2011)	Silicon Institute of Technology, Bhubaneswar	Jul-11	4
17	Workshop on " Sustainable Energy: Economics, Environment and Equity"	NIAS, IISC., Bangalore	Jun-11	2
18	National Conference on Power System Operation and Management (NCPSEM-2011)	Inter science Research Network, Bhubaneswar	May-11	2
19	7th National Workshop on Emerging Technologies in Electrical Power Engineering (NWET-2011)	Silicon Institute of Technology, Bhubaneswar	Jan-11	3
20	Introductory course and workshop on "PSCAD Power System Simulator"	Jadavpur University, Kolkata	Aug-10	2
21	International Conference on Probabilistic Methods Applied to Power Systems (PMAPS 2010)	NTU, Singapore	Jun-10	3
22	workshop on "Challenges in Smart Grid and Renewable Resources"	Infosys, Mysore	May-10	2
23	National Seminal on "Recent trends in Contemporary Communications" (RTCC-2010)	Silicon Institute of Technology, Bhubaneswar	Mar-10	2
24	National Workshop on Emerging Technologies in Electrical Power Engineering (NWET-2010)	Silicon Institute of Technology, Bhubaneswar	Jan-10	3
25	Training program on " MATLAB and it's Applications"	NITTTR, Kolkata	Oct-09	5
26	National Workshop on Emerging Technologies in Electrical Power Engineering (NWET-2009)	Silicon Institute of Technology, Bhubaneswar	Jan-09	3
27	The IEEE Colloquium and the third IEEE International Conference on Industrial and Information Systems (ICIIS 2008)	IIT, Kharagpur	Dec-08	3
28	One day workshop on "Real-Time issue on Power Engineering"	NIST, Berhampur, Ganjam, Odisha	Dec-07	1
29	India International Conference on Power Electronics (IICPE-2006)	Numeric Power System Ltd., Chennai	Dec-06	3

30	Short term courses on “Energy Management”	N.I.T.T.T.R, Chandigarh, and M.N.N.I.T, Allahabad	Apr-06	5
31	Workshop on “Circuit Simulation Using SPICE & VHDL”	M.N.N.I.T, Allahabad	Apr-06	3
32	Short term courses on “Power Electronics Laboratory Practices”	N.I.T.T.T.R, Chandigarh and M.N.N.I.T, Allahabad	Mar-05	5
33	S.T.T.P. on “Modern Trends in Opto Electronics”	U.C.P. Engineering School, Berhampur, Ganjan	Nov-02	12
34	S.T.T.P. on “safety Management”	U.C.P. Engineering School, Berhampur, Ganjan	Dec-01	12

Consultancy Projects

- **Neora Hydro Limited (Rs. 50,000/-) 2011**
Power evacuation studies of Neora Hydro System (A grid connected 3 MW small hydro power station) at Neora Valley, West Bengal
- **For M/S RPB Associates, Bhubaneswar, India (Rs. 1,00,000/-) 2012**
Reassessment of Transformer & Transmission Loss at Smelter & CPP Complex of NALCO, Angul, Odisha.
- **For M/S RPB Associates, Bhubaneswar, India (Rs. 1,15,000/-) 2013**
Reassessment of Transformer & Transmission Loss at mines & refinery of NALCO, Damanjodi, Odisha.
- **VADIM Infrastructure Pvt. Limited, Chennai, India. (Rs1,15,000/-) 2016**
Integrated Network Planning and system study for Mega Lift Irrigation project cluster III” under Department of Water Resources, Government of Odisha, for Larsen & Toubro Limited Water & Renewable Energy IC, Chennai
- **Saisanket Enterprises Pvt. Limited, Hyderabad, India. (Rs. 2,00,000/-) 2016**
Integrated Network Planning and system study for Mega Lift Irrigation project cluster I & II” under Department of Water Resources, Government of Odisha, for GVPR Engineers Limited. Hyderabad.
- **Larsen & Toubro Limited, Water & Renewable Energy, Chennai, India. (Rs4,95,000/-) 2016**
Integrated Network Planning and system study for Mega Lift Irrigation project cluster VI, VIII, XI” under Department of Water Resources, Government of Odisha,
- **CPRI, Bangalore, India. (Rs1,00,000/-) 2016**
System Study for proposed 4 MW solar PV power plant at Biju Pattnaik International Airport, Bhubaneswar, India.
- **Power Tech, 1/A-6, Swati Villa, Link Road, Cuttack – 753012, Odisha. (Rs 82,000/-) 2017**
Study the load stability of 132 KV Grid at Choudwar to avoid frequent islanding operation of the units of Indian Metals & Ferro Alloys Ltd, Odisha due to frequent grid disturbances.
- **Larsen & Toubro Limited, Water & Renewable Energy, Chennai, India. (Rs5,00,000/-) 2017**
Integrated Network Planning and system study for Mega Lift Irrigation project cluster IX & XII” under Department of Water Resources, Government of Odisha.

- **Larsen & Toubro Limited, Water & Renewable Energy, Chennai, India. (Rs1,00,000/-) 2017**
Integrated Network Planning and system study for Mega Lift Irrigation project for schemes at Laida and Rengali (Cluster-III)" under Department of Water Resources, Government of Odisha.
- **Saisanket Enterprises Pvt. Limited, Hyderabad, India. (Rs. 1,40,000/-) 2018**
Integrated Network Planning and system study for Mega Lift Irrigation project cluster X" under Department of Water Resources, Government of Odisha, for GVPR Engineers Limited. Hyderabad.
- **Mega Engineering and Infrastructure Ltd. (Hydrabad) (Rs. 2,75,000/-) 2018**
Integrated Network Planning and system study for Mega Lift Irrigation project for schemes (Cluster-VII)" under Department of Water Resources, Government of Odisha.
- **Larsen & Toubro Limited, Water & Renewable Energy, Chennai, India. (Rs2,95,000/-) 2020**
Integrated Network Planning and system study for Mega Lift Irrigation project for schemes at Sonepur and Sambalpur, Subarnapur, Odisha, India, 754023 (Cluster-IV)" under Department of Water Resources, Government of Odisha.
- **Larsen & Toubro Limited, Water & Renewable Energy, Chennai, India. (Rs 1,00,000/-) 2021**
Preparation of engineering drawings and reports for System Load flow study, Short Circuit Analysis and Motor Starting Study for each MSDSS (Main Stepdown Distribution Substation) & its associated Pump Houses at Gangadhar Meher Lift Irrigation Project Bargarh Main Canal Head Regulator Using MiPower Software

Skills

Power System Consultant:

System Analysis
On-grid and off-grid PV solar system

Power system analysis tools:

MiPower, Psim, PSCAD

Awards

Best teacher award for 2017 from ISTE Odisha Chapter

Professional Membership

- Senior Member, IEEE
- Life Member, ISTE
- Secretary, IEEE PES Chapter, Bhubaneswar Sub-Section

