

RESUME

NEERAJ KUMAR SINGH

(IEEE Member)

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Career Objective :

To make the best use of my technical knowledge in Renewable Energy in Research based career, hence to acquire and apply advance knowledge in a particular field, “Renewable Technology”

Working Experiences :

- College Name: **People Education Society College of Engineering, Aurangabad, Maharashtra (NAAC “B+”)**
Job Description: **Teaching and Career Guidance**
Position: **Asst. Professor**
Duration: **1Jan 2017-Till Date**
- College Name: **Government College of Engineering, Aurangabad, Maharashtra**
Job Description: **Teaching**
Position: **Visiting Faculty**
Duration: **10 Aug 2017- Till Date**
- Company Name: **Wind World India Ltd (Enercon India Ltd)**
Job Description: **33 kV OH Transmission line laying out, Maintenances, Site Engineering**
Position: **Graduate Engineer Training**
Duration: **1Oct 2012-28 Dec 2013**

Academic Background :

S. No.	Exam passed/ appeared	Subjects	School/College	Board/University	Year of passing	%of Marks
1	M.E	Electrical Power Systems	Government College of Engineering, Aurangabad, Maharashtra	Dr.BAMU	2016	87.2 Distinction
2	B.Tech	Electrical Engineering	B.B.D National Institute Of Technology & Management, Lucknow	GBTU	2012	76.34 Honours
3	HSC	Physics, Chemistry, Maths, English, Hindi	The Aditya Birla Public School, Renusagar	CBSE	2008	76.7 Distinction
4	SSC	English, Hindi, Math's, Science, Social science,	The Aditya Birla Public School, Renusagar	CBSE	2006	83.4 Distinction

Research Area:

- Integration of Solar and Wind Energy Converters with Pumped Hydro Storage
- Power Quality improvement for Renewables

Scholarship Awarded:

- GATE Scholarship from MHRD

Research Publication :

- **“Public opinion on solar photovoltaic energy utilization- A simple survey based study”**, International Conference on **“Smart and Sustainable Initiatives for Energy within Environmental Constraints”**, Malaysia, 13-14 Dec, 2017. (Selected, Scopus Index conference)
- **“Study on Energy and Environmentally Efficient Cogeneration and Trigeration Methods”**, Conference Proceedings of **6th World Conference on Applied Sciences, Engineering & Technology**, UMPO, Indonesia, pp-201-205.
- **“Solar Tracking for Optimizing Conversion Efficiency Using ANN”**, Selected and going to publish in **SPRINGER- AISC on 21 May 2018 (Scopus Index)**.
- **“Wind Turbine Conditional Monitoring Using ANN”**, **6TH International Conference on Frontiers of Intelligent Computing: Theory and Application held at KIIT University, India** 14-15 Oct, 2017 (SPRINGER-Conference).
- **“Coordination and Performance analysis of Pumped Hydro system integrated with Solar and Wind Hybrid System”**, IEEE-International Conference on Energy, communication, data analytics and soft computing, SKR Engineering College, **India** 1-2 Aug. 2017.
- **“A Novel Two layer Constant Power Control Strategy for Renewable Energy System with Reversible Pumped Hydro System”**, IEEE- International Conference on Intelligent Computing, Instrumentation and Control Technologies, Vimal Jyoti Engg. College, **India** 6-7 July, 2017.
- **“A Novel Fault detection and Classification technique for double circuit transmission line using ANN”**, IEEE- International Conference on Intelligent Computing, Instrumentation and Control Technologies, Vimal Jyoti Engg. College, **India** 6-7 July, 2017.
- **“Power Quality Improvement of Renewable Grid Using UPFC”**, selected in **International Journal of Engineering & Technology (Scopus, EBSCO)** on 25 March 2018.
- **“Internet of Things (IoT): An Opportunity for Energy-Food-Water Nexus”** selected in **IEEE-ICPEEIC-2018**.
- **“Performance Study on a 20 kW Roof Mount Residential Photovoltaic System”** selected in **IEEE-ICPEEIC-2018**.
- **“Emission Reduction from Solar PV Plants in India”** selected in **IEEE-ICPEEIC-2018**.
- **“Design of 500 kW Single phase Grid Connected Solar PV System for Improved Performance”** under Review in **Springer**.
- **“A Review on Mathematical Modeling of Solar, Wind and Hydro Pumped Energy Storage System”**

published in IJAREEIE Vol. 4, Issue 12, December 2015.

Software Tool Knowledge:

- MATLAB
- PVSYS
- PVWATT
- DILUX

M.E Project:

- **Title:** “Coordination and Performance Analysis of Pumped Hydro Storage System Integrated with Solar, Wind Hybrid System”
- **Abstract:** Power generation and energy needs of consumers will always be uneven; there exists a mismatch between two terms. Renewable energy sources are widely and increasingly applied in the electrical power generation. Connecting these sources to the power network improves flexibility, reliability, security, efficiency and it releases substations from some constraints. With the increasing penetration of solar and wind power into electric power grid, to match the demand requirement a dynamically stable energy storage system is required which can response to the system with in less time as well as can make the overall system more stable. Energy storage can be used to mitigate the problems associated with the fluctuating output power of the Wind turbines and Solar PV arrays due to changing wind speed and solar irradiation intensity. Using renewable generation in combination with storage systems is one way to tackle voltage and frequency regulation issues. Pumped Hydro Storage Systems are more stable, help in making Grid more stable and safe from different types of disturbances. This paper deals with coordination and performance analysis of Hybrid system consists of solar, wind and Pumped Hydro Storage Systems (PHSS).

Extra Curricular Activities:

- Faculty Symposium on “**Engineering Curriculum Innovation**” held at PESCOE Aurangabad on 29 June-1 July 2017
- Faculty Development Program on “**Enlightening for Future, Decoding success with Emotional Intelligence**” held at PESCOE Aurangabad on 12-13 August 2017.
- At college level-presented college at **IIT BOMBAY** for **2nd IEEE International Workshop on Electronic Devices and Semiconductor Technology**
- At school level: 3rd position in “**MENTAL MATHS**”
- Volunteer in “**SURYKHUBH-2016**” held in Aurangabad.

Strengths:

- I access myself as hardworking, sincere, team player & have leadership skills.
- Quick learner
- Good Knowledge of Solar technologies and Electrical Core Subjects

Industries Visited for Research work and Training:

- **Suzlon India**
- **Enercon India**
- **Vikraam Solar**
- **Lanco Power**
- **Hindalco Industries**
- **Jayakwadi Dam Aurangabad**
- **Mahagenco Solar Park (250 MW)**

Personal Information :

- Date of Birth: 02 Nov 1990
- Marital status: Unmarried
- Sex: Male
- Nationality: Indian
- Languages Known: English, Hindi
- Father's Name: Mr.Jagdish Singh
- Permanent Address: S/o Mr. Jagdish Singh
F-13, Renusagar Colony
Distt- Sonebhadra (UP)
PIN – 231218

Notification :

I certify that to the best of my knowledge and belief, this resume correctly describes me and my qualifications.

Place: Aurangabad

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