

## CURRICULUM VITAE



**Dr. SANJEEV KUMAR GAGRAI**

C/O-Dubraj Gagrai

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### EDUCATIONAL QUALIFICATIONS:

Degree	Specialization	Board/University	Name of the Institute	Year of Passing / Awarded	% of Marks
Ph.D.	Electrical Engg. (Renewable Energy)	NIT Jamshedpur (Jharkhand)	NIT Jamshedpur (Jharkhand)	2022	77.8%
M.Tech	Electrical Engg. (Power System)	NIT Hamirpur (Himachal Pradesh)	NIT Hamirpur (Himachal Pradesh)	2014	65.3%
B.Sc. (Electrical Engineering)	Electrical Engg.	BRA Bihar University (Bihar)	MIT Muzaffarpur (Bihar)	2008	68.77%
Intermediate (12 <sup>th</sup> )	PHY, CHEM, MAT, RBH, ENG, EL	JIEC, Ranchi (Jharkhand)	Tata College Chaibasa (Jharkhand)	2002	50.22%
Matriculate (10 <sup>th</sup> )	PHY, CHEM, MAT, HND, SNK, HIS, CIV, GEO, ADM	BSEB, Patna (Bihar)	BGS High School Loyabad (Jharkhand)	1999	54.42%

### **Ph.D THESIS DETAILS:**

Topic : **“Study and Design of Controllers for Performance Improvement of DFIG-Based Grid Integrated Small Hydro Power Plant”.**

Supervisor : Dr. (Mrs.) Madhu Singh, Associate Professor, Dept. of Electrical Engineering,  
NIT Jamshedpur, Jharkhand, PIN-831014

Email : [madhu\\_nitjsr@rediffmail.com](mailto:madhu_nitjsr@rediffmail.com) , [madhu.ee@nitjsr.ac.in](mailto:madhu.ee@nitjsr.ac.in)

### **M.Tech THESIS DETAILS:**

Topic : **“Modelling and Simulation of Hydraulic Turbine”**

Supervisor : Dr. Om Prakash Rahi, Associate Professor, Dept. of Electrical Engineering,  
NIT Hamirpur, Himachal Pradesh, PIN-17705

Email : [oprahi@nith.ac.in](mailto:oprahi@nith.ac.in)

### **TECHINICAL SKILLS:**

- C-Language, C+, C++ and Internet Surfing
- MATLAB/Simulink

### **INTEREST SUBJECTS:**

- 1) Basic Electrical Engineering ,
- 2) Electrical Machine
- 3) Power System

### **TEACHING SKILLS:**

- One and half Year (From last Oct.8, 2021 to till date). I have been teaching as a Part Time Lecturer (PTL) in Govt. Polytechnic Adityapur, Saraikela-kharsawan Distt. (Jharkhand), PIN-832109

### **TECHNICAL PROJECTS:**

- Ph.D (Electrical Engineering) Thesis title **“Study and Design of Controllers for Performance Improvement of DFIG-Based Grid Integrated Small Hydro Power Plant”**.
- M.Tech (Power System) Dissertation title: **“Modelling and Simulation of Hydraulic Turbine”**.
- B.Sc. (Engg.) Project on **“Study and Design of 50MVA, 132kV/32kV Grid Sub-station”**.
- For One Month Vocational Training at **Heavy Engineering Corporation Ltd, Ranchi** 2007.

### **AWARDS/ HONOURS:**

- GATE-2012, Qualified.
- Scholarship for M.Tech from MHRD, New Delhi (Aug. 2012- July 2014).
- Scholarship for Ph.D from MHRD, New Delhi for Five Years as a Full Time Research Scholar (Aug. 2014-July 2019).

### **RESEARCH PUBLICATIONS:**

#### **INTERNATIONAL REFERRED SCOPUS JOURNALS:**

- **Sanjeev Kumar Gagrai, Sundram Mishra, and Madhu Singh, “Performance enhancement of DFIG based grid connected SHPP using ANN controller,”** *International Journal of Renewable Energy Research*, vol. 9, no. 3, pp. 1165-1179, 2019. (Scopus Indexed)
- **Sanjeev Kumar Gagrai, Sundram Mishra, and Madhu Singh, “Dynamic modelling and simulation of grid coupled DFIG designed for 2MW SHPP using ANN scheme,”** *Journal of Engineering and Applied Sciences*, vol. 14, no. 11, pp. 3813-3831, 2019. (Scopus Indexed)
- **Sanjeev Kumar Gagrai, Sundram Mishra, Madhu Singh, “Performance analysis of grid integrated doubly fed induction generator for a small hydropower plant,”** *International*

*Journal of Renewable Energy Research*, vol. 8, no. 4, pp. 2311-2323, 2018. (Scopus Indexed)

#### **INTERNATIONAL / NATIONAL CONFERENCES:**

- **Sanjeev Kumar Gagrai** and Madhu Singh, “**Mathematical modelling and steady state analysis of Doubly Fed Induction Generator,**” in *1st International Conference on Power Electronics and Sustainable Development (ICPESD-2022)*, 23-24 April 2022, India. (Accepted)
- Sundram Mishra, **Sanjeev Kumar Gagrai**, and Madhu Singh, “**An ANN based simulation and control of grid integrated DFIG for 2MW small hydro power plant,**” in *2019 6<sup>th</sup> International Conference on Signal Processing and Integrated Networks (SPIN-2019)*, Noida, India, 7-8 March 2019. pp. 540-546.
- O P Rahi, **Sanjeev Kumar Gagrai**, and Sumit Kumar Rawat, “**Simulation of Turbine Governing in Hydro Power Plants,**” *International Journal of Advanced (IJAEEE)*, vol. 3, issue 1, pp. 61-64, January 2014.

#### **BOOK CHAPTERS:**

- Sundram Mishra, **Sanjeev Kumar Gagrai**, Madhu Singh, “**Performance study of grid connected doubly fed induction generator designed for small hydro power plant,**” in *River and Coastal Engineering. Water Science and Technology Library*, pp. 359-375, vol. 117. Springer 2018, Cham. [https://doi.org/10.1007/978-3-031-05057-2\\_31](https://doi.org/10.1007/978-3-031-05057-2_31).

#### **CONFERENCES / WORKSHOP ATTENDED:**

- **Sanjeev Kumar Gagrai**, One day National Workshop on “**Practical Power Flow Controller Brings Benefits for Power Electronics to the Grid**” held at NIT Jamshedpur-831014, organized by Department of Electrical & Electronics Engineering on 9<sup>th</sup> day of November 2015.
- **Sanjeev Kumar Gagrai**, National Workshop on “**Control of Renewable Power System**” held at NIT Rourkela-769008, organized by Centre of Excellence on Renewable Energy Systems, Department of Electrical Engineering, NIT Rourkela during 22-23 February 2016.

- **Sanjeev Kumar Gagrai**, One Week Short Term Course entitled “**Emerging Trends and Future Challenges in Power System Operation and Control-(ETFCPSOC)**” held at NIT Jamshedpur-831014, organized by Department of Electrical & Electronics Engineering, NIT Jamshedpur during 20-24 June 2016.
- **Sanjeev Kumar Gagrai**, The Short Term Course on “**Sustainable Development and Advances in Power Electronics (SDAPE-2016)**” held at NIT Jamshedpur-831014, organized by Department of Electrical & Electronics Engineering, NIT Jamshedpur during 12-14 November 2016, under the aegis of NAMPET phase-II, an initiative of Ministry of Electronics and Information Technology, Govt. of India.

### **PERSONAL SKILLS:**

- Attention to detail and accuracy.
- Ability to work as team with others.
- Good communication, self-motivation & motivating others.

### **PERSONAL DETAILS:**

Name : Sanjeev Kumar Gagrai  
 Father's Name : Dubraj Gagrai  
 Date of Birth : October 28, 1984  
 Gender : Male  
 Marital Status : Married  
 Nationality : Indian  
 Languages Known : English and Hindi.

### **REFERENCES:**

- **Dr. (Mrs.) Madhu Singh**  
 Associate Professor  
 Dept. of Electrical Engineering, NIT Jamshedpur, Jharkhand, India, PIN-831014  
 Ph.D NIT Rourkela  
 Reviewer of IEEE Transactions on Systems Man & Cybernetics

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- **Dr. Niranjana Kumar**

Professor

Dept. of Electrical Engineering, NIT Jamshedpur, Jharkhand-831014

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**DECLARATION:**

I hereby declare that all the information furnished above are in the best of my knowledge and belief, true and correct.

Date : 12/04/2023

Place : Adityapur

(Sanjeev Kumar Gagrai)