

CURRICULUM VITAE

Dr. RAHUL KUMAR

Assistant Professor

Department of Electrical Engineering

B.I.T Sindri

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OBJECTIVE:

To leverage my teaching skills in a dynamic, forward-thinking environment that fosters growth and innovation, benefiting both the organization and society. Committed to delivering my best efforts and making informed decisions to achieve excellence in my work.

ACADEMIC PROFILE

Course	Institution	Board/University	Year of Passing	Percentage /CGPA
Ph.D. (Power Electronics & Machine Drives)	IIT (ISM), Dhanbad Jharkhand	IIT(ISM), Dhanbad Jharkhand	November, 2020	NA
M. Tech. (Power System)	B.I.T, Sindri Jharkhand	Vinoba Bhave University, Hazaribag, Jharkhand	2014	8.55
B. Tech. (Electrical & Electronics Engg.)	R.V.S.C.E.T, Jamshedpur, Jharkhand	Ranchi University, Ranchi, Jharkhand	2010	8.1
12TH	Saraswati Vidya Mandir, Sindri	C.B.S.E	2004	71%
10th	Saraswati Vidya Mandir, Sindri	C.B.S.E	2001	81%

ACADEMIC/TEACHING EXPERIENCE & RESPONSIBILITIES

Sl. No.	Post	Organization/University	From	To	Experience
1.	Assistant Professor	Dept. of Electrical Engg. BIT Sindri, Dhanbad (Higher & Technical Education, Govt. of Jharkhand)	December, 30 th 2022	till date	
2.	Assistant Professor	Dumka Engineering College, Dumka, Jharkhand	October, 4 th 2021	December, 29 th 2022	1 Years, 3 months
3.	Assistant Professor	Bharat Institute of Engineering and Technology, Hyderabad	June, 13 th 2019	July, 21 st 2020	1 Years

PH.D. THESIS TOPIC

- Model Reference Adaptive System Based Sensorless Speed Control of Doubly-Fed Induction Machine Drive under Different Control Regimes.

M. TECH THESIS TOPIC

- Transient Stability of a Two Machine Transmission System with Static Var Compensator (SVC) And Power System Stabilizer(PSS) using MATLAB /Simulink.

RESEARCH AREA

- Power Electronics and Machine Drives.
- Renewable Energy.

PUBLICATIONS

International Journals Published

- Md. Adil, Upendra Prasad, **Rahul Kumar** “Modified Bidirectional Grid Connected Single Power Conversion Converter with Hybrid Input Battery Voltage” *Design Engineering*, vol. 9, pp- 17519- 17529, 2022.
- **R. Kumar** and S. Das “Model Reference Adaptive System Based Sensorless Speed Control of Grid-Connected Doubly-Fed Induction Generator in Wind Energy Conversion System,” *Iranian*

Journal of Science and Technology, Transactions of Electrical Engineering, vol.44, pp-129–140, 2020.

- Upendra Prasad, Ravindra Kumar Yadav, **Rahul Kumar** “Speed Control of Three-Phase Induction Motor Using Switching Table-Based Direct Torque Control Technique” *IJARET, IAEME Publication*, vol. 11, pp-296-304, 2020.
- **R. Kumar**, S. Das and A. Bhaumik, “Speed sensorless model predictive current control of doubly-fed induction machine drive using model reference adaptive system,” *ISA Transactions*, vol. 86, pp. 215-226, 2019.
- **R. Kumar** and S. Das, “MRAS-based speed estimation of grid connected doubly-fed induction machine drive,” *IET Power Electronics*, vol. 10, no. 7, pp. 726–737, Jan. 2017.
- **Rahul Kumar**, Shashi Minz “Transient Stability of a Two Machine Transmission System With Static Var Compensator (Svc) And Power System Stabilizer (Pss) Using Matlab Simulink” *VSRD International Journals*, vol.-3, pp- 379-382, 2013.

International Journal under Consideration

- **R. Kumar** and S. Das “Space-Vector Modulation based Sensorless Direct Torque Control Scheme for Doubly- Fed Induction Machine Drive,” *EPE Journal: European Power Electronics and Drives*, Under review.

International Conferences

- **R. Kumar**, S. Das, and M. Manohar “Sensorless Control of Grid-Connected Doubly-Fed Induction Machine Drive using Model Reference Adaptive Controller,” 2016 *IEEE Uttar Pradesh Section International Conference on Electrical, Computer and Electronics Engineering (UPCON)*, IIT(BHU), Varanasi, India, 09 -11, December, 2016.
- **R. Kumar**, and S. Das, “Sensorless DTC-SVM Strategy for Doubly-Fed Induction Machine Drive using Model Reference Adaptive System,” *14th IEEE India Council International Conference (INDICON)*, IIT Roorkee, India, 15- 17 December, 2017.
- M. Manohar, S. Das and **R. Kumar**, “A robust current sensor fault detection scheme for sensorless induction motor drive,” *IEEE PES Asia-Pacific Power and Energy Engineering Conference (APPEEC)*, Bangalore, India 08-10 November 2017.

- N. Suman, U. Prasad and **R. Kumar** “Comparison between Direct Torque Control based on Space Vector Modulation with Conventional Direct Torque Control Technique for Speed Control of Three-phase Induction Motor1” *Fourth IEEE International Conference on Advances in Electrical, Computing, Communications and Sustainable Technologies (ICAECT 2024)*, Shri Shankaracharya Technical Campus (SSTC), Bhilai, Chhattisgarh, India during 11 – 12, January 2024.

SUBJECT TAUGHT

- Power Semiconductor Drive
- Power Electronics
- Electrical Machine
- Circuit Theory
- Utilization of Electrical Power

TRAININGS

- To study the generation & distribution of power at **Patratu Thermal Power Station**, Patratu, Jharkhand, India, from 16th Sep. 2009 to 15th Oct. 2009 (B. Tech level).
- To study the different equipment’s used in **Grid operation division** at **Chandil**, Jharkhand, India, from 28th Dec. 2009 to 28th Jan. 2010 (B. Tech level).
- Completed one week training course in “Basics of Induction Motor” provided by DesignTech in cooperation with SIEMENS at BIT Sindri during 19-june-2023 to 26-June-2023.
- Completed one week training course in “Electrical Drives” provided by DesignTech in cooperation with SIEMENS at BIT Sindri.

WORKSHOP, FACULTY DEVELOPMENT PROGRAM AND SEMINAR ATTENDED

- Participated in Workshop on “**Advanced Power Electronics and Drives**”, Department of Electrical Engineering, IIT (ISM), Dhanbad, India, 2010.
- Participated in Workshop on “**Professional Skill Development Program on MATLAB & Simulink for Engineering Application**”, Department of Electrical Engineering, IIT(ISM) Dhanbad, India, 2014.
- Participated in Workshop on “**Industrial Automation with Emphasis on PLC & SCADA**”, Department of Electrical and Electronics Engineering, BIET, Hyderabad, India, November, 2019.

- Participated in the AICTE Recognized **Faculty Development Programme On Climate Change and Disaster Management Conducted by Rural Development Department** from 10-02-20 to 14-02-20 (One Week) organized by **NITTTR**, Chandigarh.
- Participated in one week online FDP on **“SCILAB- An Open Source Substitute for MATLAB”** jointly organized by JNTUH College of Engineering, Sultanpur, and Spoken Tutorial Project, IIT, Bombay from 25th May, 2020 to 30th May, 2020.
- Participated in 5-day online FDP on **“NBA and NAAC Accreditation”** organized by Internal Quality Assurance Cell (IQAC), M S Ramaiah Institute of Technology under Margdarshan Scheme from 4th-8th June 2020.
- Participated in 5-day online FDP on **“Recent Innovations and Technologies in Electric Vehicles”** from 8th-12th June 2020, organized by GATES Institutes of Technology, Andhra Pradesh.
- Participated in one week online FDP on **“Course Structuring, Teaching and Evaluation in HEI as per OBE”** organized by Malla Reddy College of Engineering, Hyderabad in association with ISTE and MHRD from 11th -17th June 2020.
- Participated in online Faculty Development Programme for Engineering Colleges on Virtual Labs on 29th June 2020 jointly organized by the Jharkhand Education Grid, Rashtriya Uchcharat Shiksha Abhiyan Jharkhand, Jharkhand University of Technology and BIT Sindri in association with NIT Karnataka, Surathkal.
- Participated in One Day Webinar on **“Issues and Challenges in Wind Power Grid Integration”** on 30th June 2020 Organized by Siddhartha Institute of Engineering and Technology, Hyderabad.
- Participated in International webinar on **“How to get Research Grant for UGC, AICTE”** jointly hosted by MBITS and SMBS, Kerala, India.
- Participated in Two-weeks Faculty Development Programme on **“Entrepreneurship” organized by Innovation & Incubation Center**, BIT Sindri, Dhanbad and sponsored by BIT Sindri Alumni Association of North America (BITSAANA) from 5th-15th July, 2023..
- Participated in One Week Workshop on **Research Methodology and Research Paper writing [RMRPW-2023]** from 13th to 17th February, 2023 organized by the Department of Electrical Engineering, BIT Sindri Dhanbad and technically co-sponsored by IEEE Kolkata Section.
- Participated in One Week FDP on **New Trends In Power Electronics For Microgrids And Electric Vehicles (NTPEME-2024)** from 22nd to 27th January, 2024 organized by the

Department of Electrical & Electronics Engineering, Lendi Institute of Engineering & Technology.

- Participated in Two Week NEP 2020 **Orientation & Sensitization Programme under Malaviya Mission Teacher Training Programme** (MM-TTP) of University Grants Commission (UGC) Organized by IIT (ISM) Dhanbad from 16/02/2024 to 28/02/2024.

EXTRA CURRICULAR ACTIVITIES:

- Worked as an **Academic In-charge** for the department of EEE in Bharat Institute of Engineering and Technology, Hyderabad.
- Worked as a **Renewable Energy College Level In-charge** in Bharat Institute of Engineering and Technology, Hyderabad.
- Worked as a **Lab In-charge** for the Simulation Lab in Bharat Institute of Engineering and Technology, Hyderabad.
- Department level In-charge for Criterion-2 for **NAAC** assessment.
- **Convener** for conducting a One Week Online Faculty Development Program on **Challenges & Opportunities in Electrical Engineering - A Research Perspective** from 15th to 20th June - 2020 Organized by the **Department of Electrical and Electronics Engineering**, Bharat Institute of Engineering and Technology (**BIET**).
- **Convener** for conducting a One Week Online Faculty Development Program on **Recent Advances in Electrical Engineering** from 22nd to 27th June-2020, Organized by the **Department of Electrical and Electronics Engineering**, Bharat Institute of Engineering and Technology (**BIET**), Hyderabad.
- **Organized** a series of webinar on “Coal-Based Power Generation-The Future Scenario, Talk on EHV Circuit breakers & Electrical Engineering in Industry” in Bharat Institute of Engineering and Technology, Hyderabad on 25th, 27th and 29th June, 2020.
- Worked as a **HOD** in Dumka Engineering College (ESTD. By Govt. of Jharkhand & Run By Techno India Under PPP) for **NBA & NAAC**.
- Worked as a **Lab In-charge** for the Network Theory Lab in Dumka Engineering College (ESTD. By Govt. Of Jharkhand & Run by Techno India Under PPP).
- **Coordinator** for conducting One day International Seminar (Online) in “**Performance and Economic Analysis of Hydrogen based Fuel Cell with Photovoltaic Tracking System**” on

14th February 2022, Organized by Department of Electrical Engineering, Dumka Engineering College (ESTD. By Govt. Of Jharkhand & Run by Techno India Under PPP).

- **Coordinator** for conducting Three-Day National Level Workshop on "**Cutting Edge Technologies for Electrical Engineering**" from 10th to 12th March, 2022. Organized by Department of Electrical Engineering, Dumka Engineering College (ESTD. By Govt. Of Jharkhand & Run by Techno India Under PPP).
- Worked as a **Lab In-charge** for the Network Theory Lab in Dumka Engineering College (ESTD. By Govt. Of Jharkhand & Run By Techno India Under PPP).
- Worked as a **Lab In-charge** for the Power Electronics Laboratory in Department of Electrical Engineering, BIT Sindri, Dhanbad from 07/06/2023 to till date.
- Worked as a **Lab In-charge** for the Electrical Drives Laboratory in Department of Electrical Engineering, BIT Sindri, Dhanbad from 07/06/2023 to till date.
- A Speaker in **One Week Workshop** on Research Methodology and Research Paper writing [**RMRPW-2023**] from **13th to 17th February, 2023** organized by the Department of Electrical Engineering, BIT Sindri Dhanbad and technically co-sponsored by IEEE Kolkata Section.
- **Coordinator** for conducting a Three-day event "**VIDYOUTH,23**" on the occasion of "**Science Week**" organized by Department of Electrical Engineering B.I.T Sindri from 22nd to 24th February 2023.
- Worked as **NBA Co-coordinator** in department of Electrical Engineering B.I.T Sindri from 07/06/2023 to till date.
- **Convener** for conducting a Two-day event "**VOLT-EDGE EXPO**" on the occasion of "**Engineer's Day**" organized by Department of Electrical Engineering B.I.T Sindri from 14th to 15th September 2023.
- **Coordinator** for conducting a Expert Talk on "**Social Entrepreneurship & Indigenous Knowledge System**" on the occasion of "**Nation Youth Day**" Organized by Institution's Innovation Council, BIT Sindri, Dhanbad on 12th January,2024.
- **Coordinator** for conducting a Speech Competition "**Arpan**" on the occasion of **Nation Science Day** Organized by Institution's Innovation Council (IIC 6.0), BIT Sindri, Dhanbad on 28th February, 2024.
- **Coordinator** for conducting an "**Innovathon-2024**" Organized by Institution's Innovation Council (IIC 6.0), BIT Sindri, Dhanbad in Association with Department of Production & Industrial Engineering from 29th February to 1st March, 2024.

- **Coordinator** for conducting a Workshop on “**Women Empowerment & Technology**” on the occasion of **International Women’s Day** Organized by Institution’s Innovation Council (IIC 6.0), BIT Sindri, Dhanbad on 16th March, 2024.
- A Speaker in A Five-Day Faculty Development Program on “**Sustainable Power Generation and Advanced Electrical Systems: New Horizons**” from 3rd to 7th June, 2024 organized by the Department of Electrical Engineering, SR University Warangal.

SKILLS

- Programming: C, C++, MATLAB, LATEX.
- Simulation Tools MATLAB, PSPICE, Proteus (PCB circuit design).
- Application of dSPACE for real-time code generation.

PERSONAL DETAILS

Date of Birth	: 05-09-1985
Mother’s Name	: Binota Devi
Father’s Name	: Gora Chand Mahto
Marital Status	: Married
Languages Known	: Hindi, English & Bangla
Address	: Vill- Chitahi, Post- Motinagar, Sindri, Dist.-Dhanbad, Jharkhand, Pin-828120.
Mob. No.	: 8936011950, 8789174259

REFERENCES

Prof (Dr.) Upendra Prasad
 Professor
 Department of Electrical Engineering,
 B.I.T, Sindri, Dhanbad
 Email: uprasad@bitsindri.ac.in

Dr. Murli Manohar
 Assistant Professor
 Department of Electrical Engineering,
 B.I.T, Sindri, Dhanbad
 Email: murlimanohar2012@gmail.com

DECLARATION

I hereby declare that the above-mentioned particulars are true to the best of my knowledge and belief.

Date: 24 June, 2024


 Rahul Kumar

Place: B.I.T Sindri, Dhanbad, Jharkhand

Rahul Kumar