

# CURRICULUM VITAE

## Dr. Dipesh Kumar

Assistant Professor, Department of Electrical Engineering,

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## CAREER OBJECTIVE

To work in an innovative and challenging environment there by helping the organization to achieve its objective in the most efficient manner by applying my skills and abilities and thereby grow with the organization.

## EDUCATION

Name of Degree	Branch / Specialization	University / Institution	Year of Passing (Month & Year)	CGPI / Percentage
Ph.D.	Electrical Engineering / Wind Energy	Indian Institute of Technology (Indian School of Mines), Dhanbad	November, 2019	NA
	Thesis Title: Active Power Control Strategies for Wind Energy System			
M.E.	Electrical Engineering / Power System	Birla Institute of Technology Mesra, Ranchi	June, 2012	8.38 CGPA 83.80 %
	Thesis Title: Fault Detection, Classification and Relay Testing for Real Time Analysis			
B.E.	Electrical and Electronics Engineering	Chhattisgarh Swami Vivekanand Technical University, Bhilai	June, 2010	7.91 CGPA 71.67 %
	Major Project: Tesla Coil		Minor Project: Time Domain Reflectometer (TDR)	

## WORK & RESEARCH EXPERIENCE

University / Institution	Designation	Period			Responsibility
		From	To	Total	
BIT Sindri, Dhanbad	Assistant Professor	24 January 2023	Present	1 Years 6 Months	<ul style="list-style-type: none"><li>Teaching and Research</li><li>Time Table Coordinator</li><li>B.Tech Project Coordinator</li><li>Departmental Exam Coordinator</li><li>Departmental Website &amp; IT Support Coordinator</li><li>Sports Club Committee Member</li><li>Prof.-in-Charge of Power System Protection Lab</li><li>Addl. Prof.-in-Charge of Power System Lab</li><li>Addl. Prof.-in-Charge of Electrical Drives Lab</li></ul>
B.M.S. College of Engineering, Bengaluru	Assistant Professor	02 November, 2020	23 January 2023	2 Years 2 Months 22 Days	<ul style="list-style-type: none"><li>Teaching and Research</li><li>NBA (UG) Coordinator</li><li>Time Table Coordinator</li><li>Internship Coordinator</li><li>BOE Coordinator</li><li>Feedback Coordinator</li><li>Project Evaluation Committee</li></ul>
Centre for Advanced Studies, Dr.	Assistant Professor	23 July, 2019	31 October, 2020	1 Year 3 Months	<ul style="list-style-type: none"><li>Teaching and Research</li><li>Coordinator of University Research, Award &amp; Welfare Schemes</li></ul>

A.P.J. Abdul Kalam Technical University, Uttar Pradesh, Lucknow					<ul style="list-style-type: none"> <li>• Dy. Coordinator of PhD Cell</li> <li>• Dy. Lab In-charge of Energy Conversion &amp; Storage Lab and Electrochemical Lab</li> <li>• Dy. In-charge of Industrial Training Presentation/Minor Project</li> </ul>
IIT (ISM) Dhanbad	Senior Research Fellow	July, 2016	July, 2019	3 Years	Research and Teaching Assistance
IIT (ISM) Dhanbad	Junior Research Fellow	August, 2014	July, 2016	2 Years	Research and Teaching Assistance
B.A. College of Engg. & Tech., Jamshedpur	Assistant Professor	01 July, 2012	31 July, 2014	2 Years 1 Month	<ul style="list-style-type: none"> <li>• Teaching and Research</li> <li>• Member of Examination Department</li> </ul>
BIT Mesra, Ranchi	M.E. Student	May, 2011	May, 2012	1 Year	Research and Teaching Assistance

## RESEARCH INTEREST

Wind Energy System, Wind Integrated Power System, Load Frequency Control, Hybrid Energy System, Smart Grid, Swarm Intelligence Technique, Advanced Control System, Power System Protection and Stability

## SUBJECT & LABORATORY CLASSES TAKEN

- **Subject:** Power System Protection & Switchgear, Computer Aided Power System, Power System Stability, Industrial Electronics, Circuit Theory, Control System, Energy Sources, Wind Energy Conversion Systems, Elements of Electrical Engineering, Wind and Solar Energy System, Utilization of Electrical Power, Basic Electrical Engineering, Soft Computing Technique
- **Laboratory:** Basic Electrical Engineering, Power System Simulation, Computer Aided Power System, Switchgear & Protection, Power System I and II, Energy Conversion and Storage, Digital Electronic Circuits, Electrical Energy Systems, Elements of Electrical Engineering, Electrical Machine, Power System Protection, Electrical Workshop, Fundamental of Measurement & Sensor

## RESEARCH ARTICLE REVIEWER

- *IET Generation, Transmission & Distribution*
- *IET Renewable Power Generation*
- *IET Electronics Letters*
- *International Transactions on Electrical Energy Systems*
- *Engineering Reports*
- *IEEE Transactions on Energy Conversion*
- *Energy*
- *IEEE Access*
- *IET Networks*
- *Wind Engineering*
- *ISA Transactions*
- *Asian Journal of Control*

## ACHIEVEMENTS & EXTRA CURRICULAR ACTIVITIES

- Delivered an **invited talk** for Two-week Value Added Course on “Simulink Modelling Applications” at BMSCE Bengaluru.
- Delivered an **invited talk** for Two-week Value Added Course on “Introduction to MATLAB” at BMSCE Bengaluru.
- **Faculty Coordinator** in the National Level Annual Technical Symposium Phase Shift 2021 held at BMSCE Bengaluru on 26<sup>th</sup> and 27<sup>th</sup> November 2021.
- Organized and Coordinated a TEQIP-III sponsored One-week FDP on “Materials for Semiconductor Devices and PV Modules” from 8<sup>th</sup> March to 13<sup>th</sup> March, 2021.
- Organized and Coordinated a TEQIP-III sponsored Two-week FDP on “Advanced and New Generation Materials in Electrical and Electronics Engineering” from 8<sup>th</sup> Feb to 19<sup>th</sup> Feb, 2021.

- Organized and Coordinated a TEQIP-III sponsored One-week Workshop on “Recent Trends in Materials for Next Generation Applications” from 1<sup>st</sup> Feb to 5<sup>th</sup> Feb, 2021.
- Delivered an **invited talk** for Two-week FDP on Renewable Energy Forecasting Indian Scenario and Future Prospects at MVIT Bengaluru.
- Delivered an **invited talk** for Two-week online FDP on Renewable Energy: Research to Industry at NIT Patna.
- Worked as **Assistant Centre Superintendent** for PhD Entrance Examination in Session 2020-21.
- **Event Coordinator** in the State Level Dr. Abdul Kalam Technical, Literary and Management Fest, 2019.
- Contributed as **Organizing Committee** in the “International Conference on Contemporary Computing and Applications (IC3A2020)” held on 5-7 February 2020 at AKTU Uttar Pradesh, Lucknow.
- Laboratory setup of “**Radial Feeder Protection**” for Power System Laboratory at BIT Mesra, Ranchi.
- Guided **Major & Mini Project** of B.Tech and M.Tech Final Year students for completion of their degree.
- Awarded **MHRD fellowship** for 2 years (2010-2012) during M.E. degree and 5 years (2014-2019) during Ph.D. degree.
- Secured **First Class with Distinction** in M.E. degree.
- Qualified in **GATE 2010** and **2012** with a percentile of **97.04** and **92.68** respectively.

## MEMBERSHIP OF SCIENTIFIC & PROFESSIONAL SOCIETIES

- IEEE (Annual Membership since 2016)
- IEI (Life Membership since 2018)
- ISTE (Life Membership since 2016)
- ISRD (Life Membership since 2018)
- International Association of Engineers (Life Membership since 2015)

## TRAINING

- Completed eight online modules of MOOCs in SWAYAM as per the AICTE Teacher Training Policy organized by NITTT in September 2023.
- Two-days training on “Design & analysis of experiments for research” organized by QIP/NDF Cell, Research and Development Centre, BMSCE Bengaluru on 22 and 23 April 2021.
- 18th National Training Course on “Wind Energy Technology” conducted by **National Institute of Wind Energy (NIWE), Chennai** during 26-30 October 2015.
- National Training Programme on “Advances in New and Renewable Energy Materials and Technology” organized by **IIT (ISM) Dhanbad** during 23-27 March 2015.
- Six weeks vocational training at **CSEB, Durg**, Chhattisgarh from 1st May to 10th June 2008.
- One month vocational training at **NTPC, Korba**, Chhattisgarh from 1st June to 30th June 2009.

## COURSES / PROGRAMME / WORKSHOPS ATTENDED

Title	Organized by	Duration	No. of Days
FDP on “Entrepreneurship” organized by Innovation & Incubation Center, BIT Sindri, Dhanbad	BIT Sindri, Dhanbad	05-15 July, 2021	2 Weeks
International Seminar on “Performance and Economic Analysis of Hydrogen based Fuel Cell with Photovoltaic Tracking System”	DEC Dumka	14 February, 2022	1
edX course on “Solar Energy”	Delft University of Technology, Netherland	23 May-23 July, 2021	8 Weeks
Webinar on “DFIG based Wind Emulator using WAVECT”	Entuple Technologies Pvt. Ltd. Bengaluru	02 June, 2021	1

FDP on “Materials for Semiconductor Devices and PV Modules”	BMSCE Bengaluru	08-13 March, 2021	5
FDP on “Advanced and New Generation Materials in Electrical and Electronics Engineering”	BMSCE Bengaluru	08-19 February, 2021	11
Workshop on “Recent Trends in Materials for Next Generation Applications”	BMSCE Bengaluru	01-05 February, 2021	5
Webinar on “Writing Project Proposals, Journal Papers and IPR”	BMSCE Bengaluru	28-29 January, 2021	2
Live Masterclass on “Patent Drafting”	Turnip Innovations Pvt. Ltd., Mumbai	28 November, 2020	1
Workshop on “Virtual Lab Conduction”	BMSCE Bengaluru	23-24 November, 2020	2
Short Term Course on “Large Scale Grid Integration of Renewable Energy Sources: Challenges, Issues, Modeling and Solutions”	NIT Srinagar	23-27 September, 2020	5
Short Term Course on “Application of Artificial Intelligence in Electrical Energy Systems”	NIT Srinagar	17-21 August, 2020	5
FDP on “Energy Conservation and Renewable Energy”	IGNOU New Delhi	08-12 June, 2020	5
FDP on “Advancement and Application of Soft Computing in Electrical System”	NIT Patna & BIT Sindri, Dhanbad	13-17 July, 2018	5
Workshop on “Design & Style of a PhD Thesis and Reference Management using Open Source Solutions”	IIT (ISM) Dhanbad	29-31 March, 2018	3
GIAN Course on “Integration of Electronically-Coupled Energy Resources and Apparatus in Electrical Power Systems”	IIT Bhubaneswar	19-23 February, 2018	5
GIAN Course on “Synchronized Phasor Measurements for Enhancing Situation Awareness in Smart Grid”	BIT Mesra, Ranchi	09-13 October, 2017	5
TEQIP Programme on “Stepping into Next Generation Grids”	IIT Delhi	04 March, 2016	1
Professional Development Programme on “Fundamentals of Soft Computing and its Applications”	IIT (ISM) Dhanbad	09-13 September, 2015	5
Professional Skills Development Programme on “MATLAB and Simulink for Engineering Applications”	IIT (ISM) Dhanbad	05-10 December, 2014	5
Short Term Course on “Power Converter & Applications”	BIT Mesra, Ranchi	04-06 July, 2013	3
Workshop on “DSP Based Real Time Control”	BIT Mesra, Ranchi	13-16 September, 2010	4

## PUBLICATIONS

### SCI Indexed Journals:

- **D. Kumar** and K. Chatterjee, “Analysis and enhancement of small signal stability on DFIG based wind integrated power system through optimal design of linear quadratic regulator” **IET Renewable Power Generation**. Vol. 14, No. 4, pp. 628-639, 2020. doi:10.1049/iet-rpg.2018.6095 [**IF- 3.034**]
- **D. Kumar**, R. Bhushan and K. Chatterjee, “Improving the Dynamic Response of Frequency and Power in a Wind Integrated Power System by Optimal Design of Compensated Superconducting Magnetic Energy Storage”, **International Journal of Green Energy (Taylor & Francis)**. Vol. 15, No. 3, pp. 208-221, 2018. doi:10.1080/15435075.2018.1434524 [**IF- 2.642**]
- **D. Kumar** and K. Chatterjee, “Design and Analysis of Artificial Bee Colony based MPPT Algorithm for DFIG based Wind Energy Conversion Systems”, **International Journal of Green Energy (Taylor & Francis)**. Vol. 14, No. 4, pp. 416-429, 2017. doi:10.1080/15435075.2016.1261709 [**IF- 2.642**]

- **D. Kumar** and K. Chatterjee, “A review of conventional and advanced MPPT algorithms for wind energy systems”, **Renewable and Sustainable Energy Reviews (Elsevier)**. Vol. 55, pp. 957–970, 2016. doi:10.1016/j.rser.2015.11.013 [IF- 16.799]
- R. Bhushan, **D. Kumar** and K. Chatterjee, “Disturbance rejection of the powers and DC-link voltage of a doubly-fed induction generator using state-space based linear quadratic integral optimal control approach”, **International Transactions on Electrical Energy Systems (Elsevier)**. Vol. 31, No. 5, pp. 1–26, 2021. doi: 10.1002/2050-7038.12865 [IF- 2.639]

#### International Conferences:

- **D. Kumar** and K. Chatterjee, “Artificial bee colony based MPPT algorithm for wind energy conversion system”, **IEEE 6th International Conference on Power Systems, 2016 (ICPS 2016)**, New Delhi, India, pp. 1-6. doi:10.1109/ICPES.2016.7584157
- **D. Kumar**, A. Mishra and K. Chatterjee, “Power and Frequency Control of a Wind Energy Power System using Artificial Bee Colony Algorithm”, **IEEE Third International Conference on Science, Technology, Engineering and Management, 2017 (ICONSTEM 2017)**, Chennai, India, pp. 561-565. doi:10.1109/ICONSTEM.2017.8261385
- Vishal H J, **Dipesh Kumar**, Saurabh Dutta, “Fault-tolerant step-down DC-DC converter for Aircraft applications”, 2nd International Conference on Emerging Frontiers in Electrical and Electronic Technologies (ICEFEET 2022), Patna, India, pp. 1-5. doi: 10.1109/ICEFEET51821.2022.9847923
- Jagriti Dey, Saurabh Dutta, Arijit Baral, Asha Kira, **Dipesh Kumar**, “Estimation of Insulation Condition Sensitive Parameters from Polarization Current using DFA”, 2nd International Conference on Emerging Frontiers in Electrical and Electronic Technologies (ICEFEET 2022), Patna, India, pp. 1-6. doi: 10.1109/ICEFEET51821.2022.9847873
- Ahir Jay Satish, Gourav Kumar Patel, Pathak Krutarth Dhimant, Prajwal S C, **Dipesh Kumar**, “Smart Irrigation System using AGRIBOT”, International Conference on Power, Control, and Sustainable Energy Systems (ICPCSES-2022), Bengaluru, India, Article No. 35. doi: <https://doi.org/10.13052/rp-9788770229630>

Google Scholar Profile: [https://scholar.google.co.in/citations?user=E\\_VXRqYAAAAJ&hl=en](https://scholar.google.co.in/citations?user=E_VXRqYAAAAJ&hl=en)

Scopus Profile: <https://www.scopus.com/authid/detail.uri?authorId=57203367094>

### PERSONAL DETAILS

Father's Name : Late Bhudeo Prasad Choudhary  
 Mother's Name : Renu Devi  
 Spouse Name : Ankita  
 Permanent Address : H. No. 15, AT + P.O. – Chulhiya, Dist. – Deoghar, Jharkhand – 814157, India  
 Date of Birth : 24 February 1986  
 Nationality : Indian  
 Sex : Male  
 Marital Status : Married  
 Languages Known : English, Hindi

### DECLARATION

I hereby declare that the above mentioned information is true to the best of my knowledge and can produce testimonials whenever asked for.

Date: 01 June 2024

Place: Sindri, Dhanbad

(Dr. Dipesh Kumar)