

# Curriculum Vitae



**Dr. NIHAR KARMAKAR**

**(Ph.D.)**

*Department of Electrical Engineering,  
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## Permanent Address

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## Objective

To work in an educational and research environment where I can learn constantly and successfully deliver my best to the institution/ organization.

## Qualification

➤ **Ph.D** in the area of Power Systems.  
*Institute: IIT (ISM) Dhanbad, India.*

➤ Completed **Master in Technology (M.Tech)** in **Power Electronics and Electrical Drives** with **72.30%** in 2016.  
*Institute: IIT (ISM), Dhanbad, India.*

➤ Completed **Bachelor of Technology (B.Tech)** in **Electrical Engineering** with **72.60%** in 2013.  
*Institute: Birbhum Institute of Engineering and Technology (BIET), Suri (Affiliated to West Bengal University of Technology, Kolkata, India).*

## Experience (Teaching)

☐ Working as an Assistant Professor at Adamas University Barasat, West Bengal, India from 02.03.2022.

## Participation and Achievements

- ✓ **Awarded best session paper in conference ICEFEET 2020, NIT Patna, India.**
- ✓ Member of Anti-Ragging committee in **BIET** during 2012-2013.
- ✓ Participated in Birbhum Institute of Engineering & Technology annual technical festival **PRAYOG-2011.**



### Personal Data

Mrs. Sadhana Karmakar (**Mother**)

Mr. Nemai Chand Karmakar (**Father**)

**Date of Birth:** March 07' 1988

**Sex:** Male

**Nationality:** Indian

**Marital Status:** Married

**Language Known:** Bengali, Hindi,  
English

### Hobbies

- Playing Tabla
- Swimming
- Cooking
- Internet Surfing

### Research Interests

- Power System Planning
- FACTS device
- Power System Optimization

### Certifications

- ☑ Completed Industrial training on optimization techniques used in "**Renewable Resources & Power System**" from NSIC India
- ☑ Online certification course on "**Cyber Security for Power Professionals**" from Central Board of Irrigation & Power, India.

✓ Runner up Prize in quiz competition organized by Department of Information & Culture **Govt. of West Bengal, India.**

✓ Participated in Student's Science Seminar-2004 organized by Department of Youth Services, **Govt. of West Bengal,**

### **Publications**

#### International Journals:

[1] **Karmakar Nihar** and B. Bhattacharyya, "Techno-economic Strategy for Reactive Power Planning using Series-shunt Compensation in Power Transmission Network" **Sustainable Energy Technologies and Assessments, Elsevier**, 49, 101677. (2022), **IF: 8, SCIE\_Q2**  
<https://doi.org/10.1016/j.seta.2021.101677>

[2] **Karmakar Nihar** and B. Bhattacharyya, "Techno-Economic Model for Reactive Power Planning using Series-Shunt Compensation Devices under Load demand in Power Transmission Network." **Energy Technology, Wiley** 9, no. 7, (2021). **IF: 3.8, SCIE\_Q3**  
<https://doi.org/10.1002/ente.202100156>

[3] **Karmakar Nihar** and B. Bhattacharyya, "Optimal reactive power planning in power transmission system considering FACTS devices and implementing hybrid optimisation approach." **IET Generation, Transmission & Distribution** 14, no. 25 (2020): 6294-6305. **IF: 2.503, SCIE\_Q3**  
<https://doi.org/10.1049/iet-gtd.2020.1356>

[4] B. Bhattacharyya and **Karmakar Nihar**, "Optimal Reactive Power Management Problem: A Solution Using Evolutionary Algorithms." **IETE Technical Review, Taylor & Francis**, 37, no. 5 (2020): 540-548. **IF: 2.200, SCIE\_Q3**  
<https://doi.org/10.1080/02564602.2019.1675541>

[5] **Karmakar Nihar** and B. Bhattacharyya, "Optimal reactive power planning in power transmission network using sensitivity based

### Experiences

Working as an Assistant Professor in Adamas University Kolkata, India from 02.03.2022

### Key skills

- ✓ Knowledge in power system analysis, modeling and simulation.
- ✓ Knowledge in optimization algorithms and/or control strategies.
- ✓ Knowledge in power systems planning, operation and control.
- ✓ Strong technical writing and verbal communication skills.
- ✓ Ability to collaborate and co-supervising graduate and masters students.
- ✓ Ability to work independently and as part of a dynamic team.

### Subject Taught

- Basic Electrical Engineering
- HVDC & HVAC transmission
- Electromagnetic Field Theory
- Electric Vehicle
- Power Systems

bi-level strategy." **Sustainable Energy, Grids and Networks, Elsevier**, 23 (2020): 100383. IF: 5.405, SCIE\_Q1 <https://doi.org/10.1016/j.segan.2020.100383>

[6] **Karmakar Nihar** and B. Bhattacharyya, "Hybrid intelligence approach for multi-load level reactive power planning using VAR compensator in power transmission network." **Protection and Control of Modern Power Systems, IEEE Xplore** 6 (2021): 2367-0983. IF: 11, SCIE\_Q1 <https://doi.org/10.1186/s41601-021-00202-1>

[7] **Karmakar Nihar**, and B. Bhattacharyya, "Techno-economic approach towards reactive power planning ensuring system security on energy transmission network." **International Journal of Emerging Electric Power Systems** 22, no. 3 (2021): 309-324. ESCI <https://doi.org/10.1515/ijeeps-2020-0260>

[8] B. Bhattacharyya and **Karmakar Nihar**, "A planning strategy for reactive power in power transmission network using soft computing techniques." **International Journal of Power & Energy System**, 40, no. 3 (2020): 141-148. ESCI <https://doi.org/10.2316/J.2020.203-0214>

[9] **Karmakar Nihar**, and B. Bhattacharyya. "Modeling of active and reactive power steady state load in optimal reactive power planning." **e-Prime-Advances in Electrical Engineering, Electronics and Energy Elsevier** 2 (2022): 100077. <https://doi.org/10.1016/j.prime.2022.100077>

### International Conferences:

[1] **Karmakar Nihar**, S. Raj, and B. Bhattacharyya. "Hybrid intelligence technique for reactive power planning using FACTS devices." In *2020 International Conference on Emerging Frontiers in Electrical and Electronic Technologies (ICEFEET)*, pp. 1-6. IEEE, 2020.

[2] **Karmakar Nihar**, A. Gupta and B. Bhattacharyya. "Loss Sensitivity based Reactive Power Planning using Hybrid Intelligence Technique." In *2019 8th International Conference on Power Systems (ICPS)*, pp. 1-6. IEEE, 2019.

[3] **Karmakar Nihar**, and B. Bhattacharyya. "A memory based meta-heuristic optimizer for optimal VAR management in power transmission system." In *2018 5th IEEE Uttar Pradesh Section International Conference on Electrical, Electronics and Computer Engineering (UPCON)*, pp. 1-5. IEEE, 2018.

### **Book chapters:**

[1] **Karmakar, Nihar**, B. Dey, and B. Bhattacharyya. "A Planning Framework for Reactive Power in Power Transmission System Using Compensation Devices." *Control Applications in Modern Power Systems*, pp. 209-218. **Springer**, 2022. ISBN: 978-981-19-0193-5

[2] **Karmakar Nihar** and B. Bhattacharyya. "Optimal Planning of Reactive Power in Power Transmission System Ensuring System Security Using Probabilistic-CSAJAYA." *Renewable Energy and Future Power Systems*, **Springer**, (2021): 219-239. ISBN: 978-981-33-6753-1

## **Declaration**

I consider myself familiar with Electrical Engineering aspects. I am also confident of my ability to work in an Institute/ research organization. I hereby declare that the information mentioned here is true and correct to my knowledge, and I take complete responsibility for the accuracy of the particulars mentioned.

14<sup>th</sup> January, 2024  
Kolkata, India

*Nihar Karmakar.*  
(Nihar Karmakar)