



## Arnab Pal, Ph.D.

**Name** : Arnab Pal

**Designation** : Assistant Professor

**Department** : Department of Electrical and Electronics Engineering  
(JOINED THE INSTITUTE IN 2022)

**Contact** : +91-8101823807 / +91-8910055643

**Email** : arnab.pal@silicon.ac.in

### RESEARCH INTERESTS

Electric Vehicle, Distributed Generation, Distribution Network, Power System, Renewable Energy, Demand Side Management, Engineering Optimization and Application of Machine Learning.

### Academic Qualifications

Ph. D. (Electrical Engineering), National Institute of Technology Agartala, India.

M. Tech (Power System), National Institute of Technology Agartala, India.

B. Tech (Electrical Engineering), Govt. College of Engineering and Textile Technology, Berhampore, India.

### Teaching Experience/Industrial Experience/Research Experience

- ✓ 5 years, Teaching Assistant (NIT Agartala).
- ✓ 5 years, Junior Research Fellowship (JRF) and Senior Research Fellowship (SRF) (NIT Agartala).

## PUBLICATIONS

### JOURNAL & CONFERENCES

- [1]. Arvind Kumar, **Arnab Pal**, and Ram Naresh Rai. "MOGA optimisation of wear performance of stir cast AA7050/B4C-T6 ex-situ metal matrix composite", International Journal of Materials and Product Technology 60.2-4 (2020): 180-194. **(SCI Impact Factor 0.743)**.
- [2]. **Arnab Pal**, Aniruddha Bhattacharya, and Ajoy Kumar Chakraborty; "Allocation of electric vehicle charging station considering uncertainties", Sustainable Energy, Grids and Networks, Elsevier; vol. 25, pp. 100422; 2021. **(SCI Impact Factor 5.405)**.
- [3]. **Arnab Pal**, Aniruddha Bhattacharya, and Ajoy Kumar Chakraborty. "Placement of Electric Vehicle Charging Station and Solar DG in Distribution System considering Uncertainties", Article in Press, Scientia Iranica, 2021. **(SCI Impact Factor 1.416)**.
- [4]. **Arnab Pal**, Aniruddha Bhattacharya, and Ajoy Kumar Chakraborty.

- "Placement of Public Fast-Charging Station and Solar Distributed Generation with Battery Energy Storage in Distribution Network Considering Uncertainties and Traffic Congestion", Journal of Energy Storage, vol. 41, pp. 102939; 2021. **(SCI Impact Factor 8.907)**.
- [5]. **Arnab Pal**, Aniruddha Bhattacharya, and Ajoy Kumar Chakraborty. "Allocation of EV Public Charging Station in Renewable based Distribution Network using HHO Considering Uncertainties and Traffic Congestion" Soft computing; 2021. (Preprint). **(SCI Impact Factor 3.732)**.
- [6]. Bishwajit Dey, Sourav Basak, **Arnab Pal**. "Demand-side management based optimal scheduling of distributed generators for clean and economic operation of a microgrid system", International Journal of Energy Research, Wiley, 2022. **(SCI Impact Factor 4.672)**.
- [7]. **Arnab Pal**, Aniruddha Bhattacharya, and Ajoy Kumar Chakraborty. "Planning of EV Charging Station with Distribution Network Expansion Considering Traffic Congestion and Uncertainties" IEEE transactions on industry applications, 2023. **(SCI Impact Factor 4.079)**.
- [8]. Bishwajit Dey, Sourav Basak, **Arnab Pal**, Fausto Pedro García Márquez, "Better compromised solution between cost and emission of nonlinear dynamic system", Journal of Electrical Engineering & Technology, 2023. (Communicated). **(SCI Impact Factor 1.528)**.
- [9]. **Arnab Pal**, Ajoy Kumar Chakraborty, and Arup Ratan Bhowmik. "Optimal placement and sizing of DG considering power and energy loss minimization in distribution system." International Journal on Electrical Engineering and Informatics 12.3 (2020): 624-653.
- [10]. **Arnab Pal**, Ajoy Kumar Chakraborty, Arup Ratan Bhowmik, Bhaskar Bhattacharya, "New Algorithms for DG Allocation with Less Execution Time to Minimize the Power Loss". Proceedings of IEEE International Conference on Electrical, Electronics, Communication, Computer and Optimization Techniques (ICEECCOT), Mysure, 15th – 16th December, 2017.
- [11]. **Arnab Pal**, Ajoy Kumar Chakraborty, Arup Ratan Bhowmik, Bhaskar Bhattacharya, "Optimal Placement of DG Units in Distribution Network Using APCSA and OBOSA for Power Loss and Execution Time Minimization". Proceedings of IEEE International Conference on Computer, Electrical and Communication Engineering (ICCECE-2017), Kolkata, 22nd – 23rd December, 2017.
- [12]. **Arnab Pal**, Ajoy Kumar Chakraborty, Arup Ratan Bhowmik, Bhaskar Bhattacharya, "Optimal DG Allocation for Minimizing Active Power Loss with Better Computational Speed and High Accuracy". Proceedings of IEEE International Conference on Recent Advances in Information Technology, IIT Dhanbad, 15th – 17th, 2018.
- [13]. **Arnab Pal**, Soumesh Chatterjee, Aniruddha Bhattacharya, and Ajoy Kumar Chakraborty; "Optimal Design of Microgrid with Demand Side Management in Presence of Electric Vehicle"; 2020 IEEE First International Conference on Smart Technologies for Power, Energy and Control (STPEC), VNIT Nagpur, India, 25th - 26th September, 2020.
- [14]. **Arnab Pal**, Aniruddha Bhattacharya, and Ajoy Kumar Chakraborty; "Allocation of EV Fast Charging Station with V2G

- Facility in Distribution Network"; 2019 8th International Conference on Power Systems (ICPS), MNIT Jaipur, India, 20th – 22nd December, 2019.
- [15]. **Arnab Pal**, Aniruddha Bhattacharya, and Ajoy Kumar Chakraborty; "Planning of EV Charging Station with Renewable based Generation in an Overlaid Network Considering Uncertainty and Traffic Flow"; 2021 IEEE International Conference on Computing, Power and Communication Technologies (GUCON), Kuala Lumpur, Malaysia 2021.
- [16]. **Arnab Pal**, Sourav Das, Ajoy Kumar Chakraborty, Parimal Acharjee and Aniruddha Bhattacharya "Cost Benefit Analysis of EV Charging Scheduling under Stochastic Framework Considering PV and Battery Energy Storage" IEEE International Conference on Smart Technologies for Power, Energy and Control (STPEC 2021), Bilaspur, C.G. India.
- [17]. Sourav Das, **Arnab Pal**, Parimal Acharjee, Ajoy Kumar Chakraborty and Aniruddha Bhattacharya, "Uncertainty based Electric Vehicle Charging Scheduling with V2G feature considering Photovoltaic and Battery Energy Storage" IEEE International conference on "Power Electronics, Smart Grid and Renewable Energy (PESGRE 2022), Trivandrum, Kerala, India.
- [18]. Dhritiman Adhya, **Arnab Pal**, Ajoy Kumar Chakraborty, Aniruddha Bhattacharya, "Machine Learning Application for Prediction of EV Charging Demand for the Scenario of Agartala, India" IEEE 4th International Conference on Energy, Power and Environment (ICEPE 2022), NIT Meghalaya.
- [19]. Sourav Das, **Arnab Pal**, Parimal Acharjee, Ajoy Chakraborty and Aniruddha Bhattacharya, "Planning for Allocating Renewable Supported Charging Station with Intelligent Charging Scheduling in Distribution Network" IEEE 1st International Conference on Sustainable Technology for Power and Energy Systems (STPES 2022), NIT Srinagar, IIT Jammu.
- [20]. **Arnab Pal**, Sourav Das, Ajoy Kumar Chakraborty, Parimal Acharjee and Aniruddha Bhattacharya, "Optimal Allocation of Parking Lot with Intelligent Charging Scheduling of Electric Vehicles in Distribution System" IEEE 1st International Conference on Sustainable Technology for Power and Energy Systems (STPES 2022) NIT Srinagar, IIT Jammu.
- [21]. **Arnab Pal**, Ajoy Kumar Chakraborty, and Aniruddha Bhattacharya; "Planning of EV Charging Station with Renewable based Generation in an Overlaid Network Considering Uncertainty and Traffic Flow"; IEEE IAS Global Conference on Renewable Energy and Hydrogen Technologies (GlobConHT), Male City (Maldives) 2023. (Accepted for presentation)
- [22]. **Arnab Pal**, Ajoy Kumar Chakraborty, Aniruddha Bhattacharya, "Wind Energy and Hybrid Power System: A review". All India Seminar on Scope and Opportunity of Small Hydro & Wind Power in NER of India, NIT Mizoram, 2nd – 3rd August 2019.
- [23]. Kaustav Bhattacharjee, **Arnab Pal**, Ajoy Kumar Chakraborty, Aniruddha Bhattacharya, Arup Ratan Bhowmik, "Electric Vehicle Charging and Vehicle to Grid Technology: A review paper". All India Seminar on Scope and Opportunity of Small Hydro & Wind Power in NER of India, NIT Mizoram, 2nd – 3rd August 2019.

**Book / Book Chapters**

- [1]. **Arnab Pal**, Aniruddha Bhattacharya, and Ajoy Kumar Chakraborty, "Planning of Electric Vehicle Charging Station with Integration of Renewables in Distribution Network", Planning of Hybrid Renewable Energy Systems, Electric Vehicles and Microgrid: Modeling, Control and Optimization, Springer-Book, 2022.
- [2]. Sourav Das, **Arnab Pal**, Parimal Acharjee, Ajoy Kumar Chakraborty and Aniruddha Bhattacharya, "Multilevel Planning for Smart Charging Scheduling for On Road Electric Vehicles Considering Seasonal Uncertainties", Planning of Hybrid Renewable Energy Systems, Electric Vehicles and Microgrid: Modeling, Control and Optimization, Springer-Book, 2022.