# **CURRICULUM VITAE**

# Dr. Manoja Kumar Behera

**Assistant Professor** 

Department of Electrical Engineering

Maulana Azad National Institute of Technology Bhopal

Link Road Number 3, Near Kali Mata Mandir, Bhopal, Madhya Pradesh, India 462003

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# **ACADEMIC PROFILE**

**PhD** Electrical Engineering

National Institute of Technology Silchar, Assam, India

M. Tech Electrical and Electronics Engineering

Specialization in Power Systems and Power Electronics

Institute of Technical Education and Research

SOA Deemed to be University, Bhubaneswar, Odisha, India

B. Tech Electrical Engineering

Institute of Technical Education and Research

SOA Deemed to be University, Bhubaneswar, Odisha, India

**Diploma** Electrical Engineering

Nilachal Polytechnic SCTE&VT, Odisha, India

**10th** Matriculation

Ashadevi High School

# RESEARCH INTERESTS

My research focuses on innovative solutions for integrating renewable energy into power systems, microgrid control, advanced grid-forming inverters, and energy management strategies for electric vehicle (EV) integration. I am also keenly involved in developing resilient microgrid solutions for rural and urban applications. With experience in academia and industry, I aim to contribute to advancing clean energy technologies and addressing the challenges of a dynamic grid environment. My research is aligned with fostering a sustainable future through applied power electronics and renewable energy innovations.

### RESEARCH EXPERIENCE

- I have worked as a Project Post Doctoral Fellow in the Department of Electrical Engineering at IIT Kanpur, where I led product development for the "New Gen Photovoltaic Power Conditioning System (PVPCS) for Indian Market". This project was carried out in collaboration with Toshiba Mitsubishi-Electric Industrial Systems Corporation (TMEIC) India, focusing on industry-driven innovation and market-specific solutions for photovoltaic systems.
- **Ph.D Dissertation title:** Studies on Various Controls Topologies of Distributed Solar PV Systems and Microgrids Using Integer and Fractional Order Controllers.
- **M.Tech Dissertation title:** Short-Term Forecasting of Photovoltaic Power in Islanding & Grid Connected System.

#### TEACHING AND MENTORING EXPERIENCE

As a Teaching Assistant (TA) during my Ph.D., I taught Electrical Machine-I, Electrical Machine-II, Switchgear and Industrial Protection, Electrical Machine Lab, and Power System Lab. I conducted lectures, guided practical sessions, and facilitated learning for both

- undergraduate and postgraduate students, ensuring they developed a strong grasp of theoretical concepts and hands-on skills.
- During my Ph.D., I mentored three masters and two undergraduate student groups under the guidance of my supervisor. This collaborative effort resulted in the publication of several conference and journal papers.

#### **PUBLICATIONS**

## Journal Publications (SCI/SCIE)

- 1. **M. K. Behera** and L. C. Saikia, "A seamless control of grid-connected PV system for alleviating PV penetration in rural grid using supercapacitor accompanying with DSTATCOM and improved CTF control," *IEEE Transactions on Industry Applications*, vol. 60, no. 2, pp. 3588–3602, Mar. 2024.
- 2. **M. K. Behera** and L. C. Saikia, "An unprecedented control of 3-phase grid tied solar photovoltaic-hydrogen/bromine-supercapacitor composite storage microgrid for pulse power load regulation under nonideal grid conditions," *International Journal of Numerical Modelling: Electronic Networks, Devices and Fields*, vol. 36, no. 6, pp. e3118, Nov. 2023.
- 3. **M. K. Behera** and L. C. Saikia, "A novel spontaneous control for Autonomous Microgrid VSC system using BPF Droop and improved hysteresis band Control Scheme," *Electric Power Systems Research*, vol. 220, pp. 109262, Mar. 2023.
- 4. **M. K. Behera** and L. C. Saikia, "A novel resilient control of grid-integrated solar PV-hybrid energy storage microgrid for power smoothing and pulse power load accommodation," *IEEE Transactions on Power Electronics*, vol. 38, no. 3, pp. 3965-3980, Mar. 2023.
- 5. **M. K. Behera** and L. C. Saikia, "Anti-windup filtered second-order generalized integrator-based spontaneous control for single-phase grid-tied solar PV-H<sub>2</sub>/Br<sub>2</sub> redox flow battery storage microgrid system," *Journal of Energy Storage*, vol. 55, pp. 105551, Sep. 2022.
- M. K. Behera and L. C. Saikia, "An improved voltage and frequency control for islanded microgrid using BPF based droop control and optimal third harmonic injection PWM scheme," *IEEE Transactions on Industry Applications*, vol. 58, no. 2, pp. 2483–2496, Mar. 2022.
- 7. **M. K. Behera** and L. C. Saikia, "Combined voltage and frequency control for diverse standalone microgrid networks using flexible IDC with novel FOC: A real-time validation," *IETE Journal of Research*, vol. 69, no. 9, pp. 6431–6456, Sep. 2021.
- 8. **M. K. Behera** and L. C. Saikia, "An intelligent hybrid GMPPT integrating with accurate PSC detection scheme for PV system using ESSA optimized AWFOPI controller," *Sustainable Energy Technologies and Assessments*, vol. 46, pp. 101233, Aug. 2021.
- 9. **M. K. Behera** and L. C. Saikia, "A new combined extreme learning machine variable steepest gradient ascent MPPT for PV system based on optimized PI-FOI cascade controller under uniform and partial shading conditions," *Sustainable Energy Technologies and Assessments*, vol. 42, pp. 100859, Dec. 2020.
- 10. **M. K. Behera** and N. Nayak, "A comparative study on short-term PV power forecasting using decomposition based optimized extreme learning machine algorithm," *Engineering Science and Technology, an International Journal*, vol. 23, no. 1, pp. 156–167, Feb. 2020.
- 11. **M. K. Behera**, I. Majumder, and N. Nayak, "Solar photovoltaic power forecasting using optimized modified extreme learning machine technique," *Engineering Science and Technology, an International Journal*, vol. 21, no. 3, pp. 428–438, Jun. 2018.
- 12. A. Ranjan, **M. K. Behera**, and L. C. Saikia, "An advance control of grid integrated wind turbine driven DFIG-battery system with grid power shaping under Gust Wind Variation," *IETE Journal of Research*, vol. 70, no. 3, pp. 3030–3051, Feb. 2023.

## **Patents**

1. S. K. Ramoji, L. C. Saikia, B. Dekaraja, N. R. Babu, S. K. Bhagat, and M. K. Behera, "Isolated power system and method consisting CCGT and DSTS plant for frequency and voltage control", Australian Patent, Reference No. 2021104488, filed on Jul. 23, 2021, Status: Published.

# **Book Chapters**

- 1. **M. K. Behera**, L. C. Saikia, S. K. Ramoji, B. Dekaraja, A. Saha, S. K. Bhagat, and N. R. Babu, "A QSSA optimized fractional-order controller for improving transient response in AC autonomous microgrid VSC system," *Advances in Smart Energy Systems*, pp. 255–275, Sep. 2022.
- 2. **M. K. Behera**, L. C. Saikia, S. K. Ramoji, B. Dekaraja, S. K. Bhagat, and N. R. Babu, "A novel effective single sensor MPPT technique for a uniform and partially shaded solar PV system via MSCA approach," *Modeling, Simulation and Optimization Smart Innovation, Systems and Technologies*, pp. 247–260, Mar. 2021.
- 3. S. K. Ramoji, L. C. Saikia, B. Dekaraja, **M. K. Behera**, S. K. Bhagat, N. R. Babu, and A. Saha, "Conflated voltage–frequency control of multi-area multi-source system using fuzzy TID controller and its real-time validation," *Advances in Smart Energy Systems*, pp. 277–294, Sep. 2022.
- 4. B. Dekaraja, L. C. Saikia, S. K. Ramoji, **M. K. Behera**, S. K. Bhagat, A. Saha, and N. R. Babu, "Impact of electric vehicles and wind turbine in combined ALFC and AVR studies using AFA-optimized CFPD-PIDN controller," *Advances in Smart Energy Systems*, pp. 233–253, Sep. 2022.
- 5. A. Saha, L. C. Saikia, N. R. Babu, S. K. Bhagat, **M. K. Behera**, S. K. Ramoji, and B. Dekaraja, "Presentation of real-time lab analysis for multiple-area renewable sources-thermal-hydro system by implementation of cat swarm optimization," *Advances in Smart Energy Systems*, pp. 221–231, Sep. 2022.
- 6. S. K. Ramoji, L. C. Saikia, B. Dekaraja, N. R. Babu, S. K. Bhagat, and **M. K. Behera**, "Modeling and simulation of an isolated CCGT and DSTS plant using BWO optimized piλdμ controller for amalgamated control of voltage and frequency," *Modeling, Simulation and Optimization Smart Innovation, Systems and Technologies*, pp. 297–309, Mar. 2021.
- 7. B. Dekaraja, L. C. Saikia, S. K. Ramoji, N. R. Babu, S. K. Bhagat, and **M. K. Behera**, "Modeling and simulation of a multi-area hydro-thermal interconnected system using fopiµ controller for integrated voltage and frequency control," *Modeling, Simulation and Optimization Smart Innovation, Systems and Technologies*, pp. 275–285, Mar. 2021.
- 8. S. K. Bhagat, L. C. Saikia, D. K. Raju, N. R. Babu, S. K. Ramoji, B. Dekaraja, and **M. K. Behera**, "Maiden application of hybrid particle swarm optimization with genetic algorithm in AGC studies considering optimized TIDN controller," *Modeling, Simulation and Optimization Smart Innovation, Systems and Technologies*, pp. 335–346, Mar. 2021.
- 9. N. R. Babu, L. C. Saikia, S. K. Bhagat, S. K. Ramoji, B. Dekaraja, and **M. K. Behera**, "LFC of a solar thermal integrated thermal system considering CSO optimized TI-DN controller," *Modeling, Simulation and Optimization Smart Innovation, Systems and Technologies*, pp. 323–334, Mar. 2021.

#### Conference Papers

- 1. **M. K. Behera**, L. C. Saikia, S. K. Ramoji, S. K. Bhagat, and B. Dekaraja, "Design and analysis of combined control strategy for grid integrated PV-hybrid system with sparrow search optimized seamless control," 2023 IEEE International Conference on Energy Technologies for Future Grids (ETFG), Dec. 2023.
- 2. **M. K. Behera**, L. C. Saikia, S. K. Ramoji, S. K. Bhagat, B. Dekaraja, and G. M. Meseret, "Implementation of sparrow search algorithm tuned AWFOPI controller for three phase grid-tied SPV-DSTATCOM under dynamic loading conditions," 2022 IEEE Silchar Subsection Conference (SILCON), Nov. 2022.
- 3. **M. K. Behera**, L. C. Saikia, S. K. Ramoji, B. Dekaraja, and S. K. Bhagat, "An improved control of grid integrated solar PV system using fractional order PI controller combined with active current detection scheme," 2022 4th International Conference on Energy, Power and Environment (ICEPE), Apr. 2022.
- 4. **M. K. Behera**, L. C. Saikia, S. K. Ramoji, B. Dekaraja, and S. K. Bhagat, "A novel decentralized FO voltage and current control scheme for voltage and frequency regulation in inverter dominated islanded microgrids using improved droop control," *IFAC-PapersOnLine*, vol. 55, no. 1, pp. 679–684, Jan. 2022.
- 5. **M. K. Behera**, L. C. Saikia, S. K. Ramoji, B. Dekaraja, S. K. Bhagat, and N. R. Babu, "A modified droop control for AC microgrids to improve dynamic performance with linear and unbalanced

- loads," 2021 International Conference on Computational Performance Evaluation (ComPE), Dec. 2021.
- 6. **M. K. Behera**, L. C. Saikia, S. K. Ramoji, B. Dekaraja, S. K. Bhagat, and N. R. Babu, "Voltage and frequency control for DG inverter in low voltage islanded microgrid with improved virtual impedance droop control scheme," 2020 IEEE 17th India Council International Conference (INDICON), Dec. 2020.
- 7. **M. K. Behera**, R. Raj, and L. C. Saikia, "A novel decentralized virtual impedance droop integrating phase-locked loop (PLL) control scheme for parallel DG inverter in an islanded microgrid," 2020 IEEE 17th India Council International Conference (INDICON), Dec. 2020.
- 8. **M. K. Behera**, I. Majumder, and N. Nayak, "Extreme learning forecast model for grid connected MPPT based photovoltaic station," *International Journal of Pure and Applied Mathematics*, 114(10), pp. 373-81. 2017.
- 9. S. K. Bhagat, L. C. Saikia, **M. K. Behera**, S. K. Ramoji, B. Dekaraja and G. M. Meseret, "Effect of several mayfly optimized tilt controllers in AGC of RES integrated system," *2023 IEEE International Conference on Energy Technologies for Future Grids (ETFG)*, Dec, 2023.
- 10. S. R. Singh, **M. K. Behera**, and L. C. Saikia, "Improved variable step size P&O MPPT for Wind Energy Conversion Systems," *2023 IEEE Silchar Subsection Conference (SILCON)*, Nov. 2023.
- 11. S. R. Singh, **M. K. Behera**, L. C. Saikia, R. Borthakur, T. Mallik and J. Gogoi, "Implementation of solar PV-battery based Electric Vehicle Charging Station," 2023 IEEE Silchar Subsection Conference (SILCON), Nov. 2023.
- 12. S. R. Singh, S. Kumar Bhagat, L. C. Saikia, **M. K. Behera**, A. Kalita and S. Gogoi, "Application of a artificial hummingbird algorithm optimized tilted integral double derivative controller for a multi-area Thermal Power System," *2023 IEEE Silchar Subsection Conference (SILCON)*, Nov. 2023.
- 13. B. Dekaraja, L. C. Saikia, S. K. Ramoji, S. K. Bhagat, **M. K. Behera**, and G. Mesfin, "AGC of hybrid multiarea power systems using AC-AHVDC links," 2023 IEEE Guwahati Subsection Conference (GCON). Jun. 2023.
- 14. S. K. Ramoji, L. C. Saikia, B. Dekaraja, **M. K. Behera**, G. M. Meseret, and S. K. Bhagat, "Modified TID controller for concerted voltage and frequency control of Two-area power system," *2023 IEEE Guwahati Subsection Conference (GCON)*. Jun. 2023.
- 15. B. Dekaraja, L. C. Saikia, S. K. Ramoji, **M. K. Behera**, S. K. Bhagat, and G. M. Meseret, "Electric vehicle to grid support on combined frequency and voltage control of multiarea power system considering renewable energy," 2022 IEEE International Power and Renewable Energy Conference (IPRECON). Dec. 2022.
- 16. G. M. Meseret, L. C. Saikia, **M. K. Behera**, S. K. Ramoji, B. Dekaraja, and S. K. Bhagat, "Optimized intelligent based controller for LFC of multi-area hydrothermal system incorporating wind firm and HVDC links," 2022 IEEE Silchar Subsection Conference (SILCON), Nov. 2022.
- 17. S. K. Ramoji, L. C. Saikia, B. Dekaraja, **M. K. Behera**, G. M. Meseret, and S. K. Bhagat, "Impact of TCSC and ESS on unified ALFC-AVR study of multi-area interconnected power system using 2DOF-TIDD controller," 2022 IEEE Silchar Subsection Conference (SILCON), Nov. 2022.
- 18. S. K. Bhagat, L. C. Saikia, G. M. Meseret, **M. K. Behera**, S. K. Ramoji, N. R. Babu, and B. Dekaraja, "Effect of PWTS and AHVDC link on multi-area AGC system considering TIDD controller," 2022 IEEE Silchar Subsection Conference (SILCON), Nov. 2022.
- 19. S. K. Ramoji, L. C. Saikia, B. Dekaraja, **M. K. Behera**, and S. K. Bhagat, "Repercussions of SMES and HVDC link in amalgamated voltage and frequency regulation of multi-area multi-unit interconnected power system," 2022 4th International Conference on Energy, Power and Environment (ICEPE), Apr. 2022.
- 20. S. K. Bhagat, L. C. Saikia, N. R. Babu, B. Dekaraja, S. K. Ramoji, **M. K. Behera**, and S. Das, "Effect of various FACTS devices and HVDC link on multi-area power system utilizing 2DOF TIDN controller," 2022 4th International Conference on Energy, Power and Environment (ICEPE), Apr. 2022.
- 21. S. K. Ramoji, L. C. Saikia, B. Dekaraja, **M. K. Behera**, and S. K. Bhagat, "Performance comparison of various tilt controllers in coalesced voltage and frequency regulation of multi-area multi-unit power system," *2022 IEEE Delhi Section Conference (DELCON)*, Feb. 2022.

- 22. B. Dekaraja, S. K. Bhagat, L. C. Saikia, **M. K. Behera**, and S. K. Ramoji, "Combined frequency and voltage regulation of a renewable and energy storage integrated multi area systems using cascade controller," 2022 IEEE Delhi Section Conference (DELCON), Feb. 2022.
- 23. B. Dekaraja, L. C. Saikia, S. K. Ramoji, **M. K. Behera**, and S. K. Bhagat, "Performance analysis of diverse energy storage on combined ALFC and AVR control of multiarea multiunit system with AC/HVDC interconnection," *IFAC-PapersOnLine*, vol. 55, no. 1, pp. 479–485, Jan. 2022.
- 24. S. K. Bhagat, L. C. Saikia, N. R. Babu, S. K. Ramoji, D. Raja, and **M. K. Behera**, "The application of various PID controllers and the effect of AHVDC and DSTS on dynamics responses in a multi-area AGC," *IFAC-PapersOnLine*, vol. 55, no. 1, pp. 473–478, Jan. 2022.
- 25. S. K. Bhagat, L. C. Saikia, N. R. Babu, B. Dekaraja, **M. K. Behera**, and S. K. Ramoji, "Effect of DSTS and HVDC on multi-area AGC system considering BSA optimized 2DOF-TID controller," 2021 IEEE 18th India Council International Conference (INDICON), Dec. 2021.
- 26. S. K. Ramoji, L. C. Saikia, B. Dekaraja, **M. K. Behera**, N. R. Babu, and S. K. Bhagat, "Combined voltage and frequency control of a multi-area multi-source power system using CFOPI-TIDN controller," 2021 International Conference on Computational Performance Evaluation (ComPE), Dec. 2021.
- 27. N. R. Babu, L. C. Saikia, S. K. Bhagat, S. K. Ramoji, D. Raja, and M. K. Behera, "Impact of wind system and redox flow batteries on LFC studies under deregulated scenario," 2020 3rd International Conference on Energy, Power and Environment: Towards Clean Energy Technologies, Mar. 2021.
- 28. S. K. Bhagat, L. C. Saikia, N. R. Babu, S. K. Ramoji, B. Dekaraja, and **M. K. Behera**, "Integration of STP and WTS in multi-area AGC studies considering GHA optimized TIDF controller," 2020 3rd International Conference on Energy, Power and Environment: Towards Clean Energy Technologies, Mar. 2021.
- 29. S. K. Ramoji, L. C. Saikia, B. Dekaraja, **M. K. Behera**, S. K. Bhagat, and N. R. Babu, "Optimal unified frequency and voltage control of multi-area multi-source power system using the cascaded PIDN-TIDF controller," 2020 IEEE 17th India Council International Conference (INDICON), Dec. 2020.
- 30. B. Dekaraja, L. C. Saikia, S. K. Ramoji, N. R. Babu, S. K. Bhagat, and **M. K. Behera**, "Coordinated control of voltage and frequency in a three-area multisource system integrated with smes using FOI-FOPDF controller," 2020 IEEE 17th India Council International Conference (INDICON), Dec. 2020.
- 31. N. R. Babu, L. C. Saikia, S. K. Bhagat, S. K. Ramoji, B. Dekaraja, and **M. K. Behera**, "Optimal location of AC-HVDC tie-line in a multi-area LFC system incorporated with renewable and ESD considering CA optimized PI-TID cascade controller," 2020 IEEE 17th India Council International Conference (INDICON), Dec. 2020.
- 32. T. K. Behera, M. K. Behera, and N. Nayak, "Spider monkey based improve P&O MPPT controller for photovoltaic generation system," 2018 Technologies for Smart-City Energy Security and Power (ICSESP), Mar. 2018.
- 33. M. Parida, **M. K. Behera**, and N. Nayak, "Combined EMD-ELM and OS-ELM techniques based on feed-forward networks for PV power forecasting," *2018 Technologies for Smart-City Energy Security and Power (ICSESP)*, Mar. 2018.
- 34. I. Majumder, **M. K. Behera**, and N. Nayak, "Solar power forecasting using a hybrid EMD-ELM method," 2017 International Conference on Circuit, Power and Computing Technologies (ICCPCT), Apr. 2017.

#### HONORS AND AWARDS

- Recipient of best paper award for the paper entitled "A Modified Droop Control for AC Microgrids to Improve Dynamic Performance with Linear and Unbalanced Loads," **2021 International Conference on Computational Performance Evaluation (ComPE)**, at North-Eastern Hill University (NEHU) during 1st-3rd Dec. 2021.
- Recipient of **Ministry of Education India Fellowship** as a junior research fellow (**JRF**) from Jun 2018 and was promoted to senior research fellow (**SRF**) in Dec 2021.

#### PROFESSIONAL MEMBERSHIP AND RESPONSIBILITY

• Member IEEE, No. 95604457.

# Reviewer for various Peer-Reviewed Journals

- Renewable and Sustainable Energy Reviews.
- Applied Energy.
- IEEE Transactions on Power Electronics.
- IEEE Transaction on Smart Grid.
- Solar Energy.
- International Transactions on Electrical Energy Systems.
- Electrical Engineering.

# Reviewer (International Conferences)

- 2022 IEEE Silchar Subsection Conference (**IEEE Silcon-2022**), 4-5 Nov 2022, Assam, India.
- 2022 International Conference on Intelligent Controller and Computing for Smart Power (ICICCSP). Jul. 21 23, 2022. Hyderabad · India.
- 4th International Conference on Energy, Power and Environment (ICEPE 2022). NIT Meghalaya, Shillong, India.
- 2020 International Conference on Smart Energy Systems and Technologies (**SEST**), Sep 7 Sep 9, **2020**. Istanbul, Turkey.
- 1st International Conference on Advances in Electrical Control & Signal Systems (AECSS-2019), 8th-9th Nov 2019. ITER, SOA Deemed to be University, Odisha, India.

#### PROFESSIONAL TRAINING

## Conference Attended

- 1. 2022 IEEE Silchar Subsection Conference (IEEE SILCON-2022) during 4-6 November 2022, organized by NIT Silchar, Assam, India.
- 2. 4th International Conference on Energy, Power and Environment (ICEPE) during Apr 29-May 1 2022 organized by NIT Meghalaya, Shillong, India.
- 3. Advances in Control & Optimization of Dynamical Systems (ACODS 2022) during23-25 Feb 2022, organized by NITS and IIT Guwahati, Assam, India.
- 4. 2nd International Conference on Computational Performance Evaluation (ComPE-2021) during1st-3rd Dec 2021, organized by NEHU, Shillong, Meghalaya, India.
- 5. 2020 IEEE 17th India Council International Conference (INDICON) on 10-13 Dec 2020, NSUT, Delhi, India.
- 6. International Conference on Modeling, Simulation and Optimization, at NIT Silchar, Assam, India, during 03-05 Aug 2020.
- 7. Joint International Conference on Artificial Intelligence and Evolutionary Computations in Engineering Systems (ICAIECES-2017) & Power, Circuit and Information Technologies (ICPCIT-2017) during 27-29 April 2017, organized by MITS, Madanapalle, Andhra Pradesh, India
- 8. IEEE International Conference on Circuit, Power and Computing Technologies (ICCPCT-2017) during 20th & 21st April 2017, organized by Baselios Mathews II College of Engineering, Kollam, Kerala, India.

#### Poster Presented

1. A new golden ratio search maximum power point tracking (MPPT) for PV system using fractional order integral controller under PV uncertainty at ANVESHAN 2.0 Student Research Convention 10-12 Jan 2020, NIT Silchar, Assam, India.

# Workshop and Webinar Attended

- 1. One Week Faculty Development Program on "Advances in Renewable Energy and Electric Vehicles" from 26th Mar 2022 to 30th Mar 2022, at NIT Silchar, Assam.
- 2. Five days GAIN course on "Advance Permanent Magnet Machine-drive Technologies for Transport Electrification and Renewable Energy" by Dr. Rukmi Dutta, University of New South Wales, Sydney, Australia, during 21 to 25 Mar 2022 at NIT Silchar, Assam.

- 3. One Week Workshop on "Optimization Techniques for Engineering Applications (OTEA 2022)" during 28th Feb to 4th Mar 2022, at Rajkiya Engineering College Sonbhadra.
- 4. One-week Short Term Course on, "Energy Conservation for Sustainable Society: Innovation and Entrepreneurial Opportunity", held online from Feb 27 to Mar 04, 2022, at NIT Silchar, Assam.
- 5. Elementary FDP on "Recent Trends of Control Systems in Power Electronics Converter" from 03/01/2022 to 07/01/2022, at NIT Manipur.
- 6. Elementary FDP on "Power Electronic Converters And Control For Renewable Power And Microgrid System" from 14/12/2021 to 18/12/2021, at IIT Goa.
- 7. Elementary FDP on "Fundamentals of Electric Vehicle Technology" from 06/12/2021 to 10/12/2021, IIIT Bhagalpur.
- 8. Elementary FDP on "Green Technology for Sustainable Life: Indian Perspective" from 2021-07-19 to 2021-07-23, at NIT Silchar, Assam.
- 9. One Week Faculty Development Programme on "Advanced Control Strategies: Design and Applications (ACSDA 2021)" during 28th June to 2nd July 2021, Rajkiya Engineering College Sonbhadra.
- 10. Five-day workshop on "Recent Trends in Power Systems (RTPS-2021)" during February 23-27, 2021, at NIT Sikkim.
- 11. FDP on "Green Technology & Sustainability Engineering" from 2020-10-5 to 2020-10-9, at NSUT, Delhi.
- 12. One-Day Webinar on "Global Renewable Power Generation Scenario and Challenges in Microgrids" by Dr. Jimmy Chih-Hsien Peng from National University of Singapore on 21st September 2020, at NIT Silchar, Assam.
- 13. Six days short term training programme on "Recent Trends in Artificial Intelligence and Soft Computing-III" from 14.09.2020 to 19.09.2020, at R.M.D. Engineering College.
- 14. Five Day Workshop on the Development of the Energy Internet of Things (eIoT) in Green Energy Infrastructure held during 01st to 05th Sep 2020, at NIT Silchar, Assam.
- 15. Five Day Faculty Development Programme on "Soft Computing" during 02-Sep to 06-Sep, 2020, at Amrapali Institute of Technology & Sciences.
- 16. One Week Workshop on "Engineering Applications of Optimization Techniques 2020" (EAOT 2020) held during 05-09th Sep 2020, at NIT Silchar, Assam.
- 17. Short-Term Training Program on "Power Electronics Applications to Industrial Systems" from 7th Sep 2020 to 11th Sep 2020, at NIT Silchar, Assam.
- 18. One week STTP on "Application of Artificial Intelligence in Electrical Energy Systems" From 17th Aug to 21st Aug 2020, NIT Srinagar, J&K, India.
- 19. Five days Workshop on "Advancements in Electrical Engineering: An Academic & Industrial Approach" from 3rd to 7th Aug, 2020, at NIT Silchar, Assam.
- 20. One Week Hands-on-Training on "Real Time Simulator" during 5-9 Feb, 2020 at NIT Silchar, Assam.
- 21. A Short Term Course On "Challenges in Operation and Control of Distributed Energy Resources (COCDER'19)" during 26<sup>th</sup>-30<sup>th</sup> July, 2019, at NIT Silchar, Assam.
- 22. A workshop On "Synchrophasor Measurement Technology for Smart Grid-Present Scenario and Implementation in Indian Power System" during 19-23 Jan, 2019, at NIT Silchar, Assam.
- 23. A Workshop On "Recent Challenges on Integration and Energy Management of Wind and Solar PV Generation Under The Paradigm of Smart Grid" during 17-21 Nov, 2018, at NIT Silchar, Assam.
- 24. Hands on Training using "Mi-Power Software for Power System Analysis" during 2-6 Oct, 2018, at NIT Silchar, Assam.

#### Leadership and Management Skills

- 1. Served as a lead volunteer for the Advances in Control & Optimization of Dynamical Systems (ACODS 2022) during 23-25 Feb 2022, organized by NITS and IIT Guwahati, Assam, India.
- 2. Served as a lead volunteer for the One Week Hands-on-Training on "Real Time Simulator" during 5-9 Feb, 2020 at NIT Silchar, Assam.

# PERSONAL INFORMATION

- Google Scholar: https://scholar.google.com/citations?user=VqeY5zkAAAAJ&hl=en
- Vidwan Id: https://vidwan.inflibnet.ac.in/profile/586858/NTg2ODU4
- Linked In: https://www.linkedin.com/in/manoja-kumar-behera-6080b5127/
- Orcid Id: https://orcid.org/0000-0002-1660-7101
- Researcher Id: AAM-9018-2020
- Scopus Id: 57195506169

# **Declaration**

I hereby declare that the information mentioned above is correct to the best of my knowledge, and I bear the responsibility for the correctness of the above-mentioned particulars.

Date: 11.12.2024

Place: Bhopal, India. Manoja Kumar Behera