Dr. Rabi Narayan Mishra, Ph.D.

Name : Rabi Narayan Mishra

Designation : Associate Professor

Department : Department of Electrical and Electronics Engineering

(JOINED THE INSTITUTE IN 2006)

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RESEARCH INTERESTS

Machine drives and Power electronics control and its application, Application of nonlinear control to power electronics and drives, Control of induction motor drive using soft computing technique, Renewable energy and its application to induction motor drive.

ACADEMIC QUALIFICATIONS

Ph. D. (Electrical engineering), National Institute of Technology Rourkela, India

M. Tech. (Electrical engineering) KIIT University, India

Specialization: Power Electronics and Machine drives

Teaching Experience/Industrial Experience/Research Experience

✓ Teaching experience- 14 years(from 2005 to 2006- VSSUT, Burla (formerly UCE, Burla) and from 2006 to till date- Silicon Institute of Technology, Bhubanewar)
✓ Industry experience- 3 years
✓ Research experience- 3 years (Research scholar at NIT Rourkela)

PUBLICATIONS

JOURNALS & CONFERENCES

[1]. K. B. Mohanty, A. Sahu, and **R. N. Mishra**, "A Discrete Linearization-Based Predictive Intelligence Technique for Direct Torque and Flux Control of Induction Motor Drive with Feedback Linearization," *Electric Power Components and Systems (Taylor & Francis),* vol. 51, no. 1, pp. 92-111, Jan. 2023, DOI: 10.1080/15325008.2022.2163004.

[2]. A. Sahu, K. B. Mohanty, and **R. N. Mishra**, "Development and Experimental Realization of an Adaptive Neural-based Discrete Model Predictive Direct Torque and Flux Controller for Induction Motor Drive," *Applied Soft*

Computing (Elsevier), vol. 108, pp. 1-15, April 2021, DOI: 10.1016/j.asoc.2021.107418.

[3]. **R. N. Mishra** and K. B. Mohanty, "Development and implementation of induction motor drive using sliding-mode based simplified neuro-fuzzy control," *Engineering Applications of Artificial Intelligence (Elsevier),* vol. 91, pp. 1-15, https://doi.org/10.1016/j.engappai.2020.103593, Mar. 2020.

[4]. **R. N. Mishra** and K. B. Mohanty, "Design and realization of an auto-tuned modified neuro-fuzzy sliding-mode-based IM drive deploying feedback linearization," *European Power Electronics and Drives (Taylor & Francis),* vol. 28, no. 1, pp. 28-42, Jan. 2018.

[5]. **R. N. Mishra** and K. B. Mohanty, "Design and implementation of a feedback linearization controlled IM drive via simplified neuro-fuzzy approach," *IETE Journal of Research (Taylor & Francis),* vol. 64, no. 2, pp. 209-230, July 2017.

[6]. **R. N. Mishra** and K. B. Mohanty, "Development of a hybrid fuel cell system operated simplified neuro-fuzzy sliding-mode control based IM drive deploying linearization approach: An effort to enhance the performance," *Journal of Renewable and Sustainable Energy (American Institute of Physics),* vol. 9, no. 6, Dec. 2017, DOI: 10.1063/1.4989796.

[7]. **R. N. Mishra** and K. B. Mohanty, "Implementation of feedback linearization modelled induction motor drive through an adaptive simplified neuro-fuzzy approach," *Sadhana (Springer)*, vol. 42, no. 12, pp. 2113-2135, Dec. 2017.

[8]. **R. N. Mishra** and K. B. Mohanty, "Real time implementation of an ANFIS-based induction motor drive via feedback linearization for performance enhancement," *Engineering Science and Technology, an International Journal (Elsevier),* vol. 19, no. 4, pp. 1714-1730, Dec. 2016.

[9]. **R. N. Mishra,** A. Sahu, K. B. Mohanty, and I. Pahi, "TLO-based Neural Discrete Predictive Approach for DTFC Induction Motor Drive," in *Proc. 19th OITS International Conference on Information Technology (OCIT 2021)*, Silicon Institute of Technology, Bhubaneswar, India, Dec. 2021, 10.1109/OCIT53463.2021.00091.

[10]. A. Sahu, K. B. Mohanty, and **R. N. Mishra,** " Neural Network Model-based Direct Torque and Flux Predictor for Induction Motor Drive," in *Proc. 47th Annual Conference of the IEEE Industrial Electronics Society (IECON 2021)*, Toronto, Canada, Oct. 2021, DOI : 10.1109/ICNTE51185.2021.9487785.

[11]. K. B. Mohanty, A. Sahu, and **R. N. Mishra,** "Development of MPC-ACO based Direct Torque Controller for Induction Motor Drive," in *Proc. IEEE & IAS 4th Biennial Internal Conference on Nascent Technologies in Engineering (ICNTE)*, Fr. C. Rodrigues Institute of Technology, Navi Mumbai, India, Jan. 2021, 10.1109/ICNTE51185.2021.9487785.

[12]. A. Sahu, K. B. Mohanty, and **R. N. Mishra,** "Design of MPC-PSO based Torque Regulator for DTC-SVM Induction Motor Drive," in *Proc. IEEE 1st International Conference On Power Electronics and Energy (ICPEE)*, KIIT University, Bhubaneswar, India, Jan. 2021, 10.1109/ICPEE50452.2021.9358559.

[13]. A. Sahu, K. B. Mohanty, and **R. N. Mishra,** "Adaptive fuzzzy sliding mode based torque and speed compensator for DTC IM drive," in *Proc. 29th IEEE International Symposium on Industrial Electronics (ISIE)*, Delft University, Netherlands, June 2020, pp. 245-250.

[14]. K. B. Mohanty and **R. N. Mishra**, "Robust modified structured NFC integrating with GA for linearized induction motor drive," in *Proc. 15th IEEE International Workshop on Advanced Motion Control (AMC),* Tokyo, Japan, Mar. 2018, pp. 193-197.

[15]. **R. N. Mishra**, K. B. Mohanty, K. Thakre, and P. R. Sahu, "Design of a simplified neuro-fuzzy-GA-based IM drive deploying linearization approach," in *Proc. 14th Annual IEEE India Conf. (INDICON),* IIT, Roorkee, Dec. 15-17, 2017, pp. 1-6.

[16]. K. Thakre, K. B. Mohanty, V. Sagar, and **R. N. Mishra**, "Symmetrical and asymmetrical multilevel inverter using less number of switches," in *Proc. IEEE Region 10 Conf. (TENCON),* Malaysia, 2017, pp. 1032 - 1036.

[17]. A. K Nayak, K. B. Mohanty, K. Thakre, V. Kommukuri, and **R. N. Mishra**, "Probabilistic Estimation of Capacity Value of Photovoltaic System," in *Proc. 6th Int. Conf. on Computer Applications in Electrical Engineering-Recent Advances (CERA)*, IIT, Roorkee, 2017, pp. 123 - 127.

[18]. K. Thakre, K. B. Mohanty, A. K. Nayak, and **R. N. Mishra**, "Design and implementation of symmetric and asymmetric structure for multilevel inverter," in *Proc. National Power Electronics Conference (NPEC)*, Pune, 2017, pp. 31-36.

[19]. **R. N. Mishra**, K. B. Mohanty, K. Thakre, and A. K. Nayak, "Modelling and design of a modified neuro-fuzzy control-based IM drive via feedback linearization," in *Proc. 7th Power India Int. Conf. (PIICON),* Bikaner, 2016, pp. 1-6.

[20]. **R. N. Mishra**, K. B. Mohanty, P. Ray, and D. P. Mishra, "A reduced MF-based self-tuned robust neuro-fuzzy control of a decoupling linearized IM Drive," in *Proc. Int. Conf. on Next Generation Intelligent Systems (ICNGIS)*, Kerala, 2016, pp. 1-6.

[21]. K. Thakre, K. B. Mohanty, A. K. Nayak, and **R. N. Mishra**, "Hybrid topology for multilevel inverter with reduced circuit switches using carrier based PWM scheme," in *Proc. 7th Power India Int. Conf. (PIICON),* Bikaner, 2016, pp. 1-5.

[22]. **R. N. Mishra** and K. B. Mohanty, "Performance enhancement of a linearized induction motor drive using ANFIS based torque controller," in *Proc. 12th Annual IEEE India Conf. (INDICON),* New Delhi, 2015, pp. 1-6.

[23]. K. B. Mohanty and **R. N. Mishra**, "Power quality improvement through harmonics mitigation using shunt hybrid power filter," in *Proc. 9th Int. Conf. on Industrial and Information Systems (ICIIS)*, Gwalior, India, 2014, pp. 1-6.

[24]. **R. N Mishra,** B. K. Nayak, and N. Guru, "Comparison of performance analysis of induction motor with v/f speed control with look up table Vboost and constant slip speed control technique, " in *Proc. National Conf. on Advances in Electrical Power and Energy Systems (NCEPES),* SOA University, Bhubaneswar, 2010.

[25]. D. Mohanty, **R. N Mishra**, and P. K. Rout, "Design of TCSC Controller for SMIB using Bacteria foraging," in *Proc. National Conf. on Advances in Computational Intelligence, Applications in Power, Control, Signal Processing and Telecommunications (NCACI)*, Silicon Institute of Technology, Bhubaneswar, 2009.

BOOK/BOOK CHAPTER

1. **R. N. Mishra**, K. B. Mohanty, A. Sahu, and P. S. Behera, "Hybrid sliding-mode based simplified NFC for fuel cell-powered linearized IM drive," *International Conference on Advances in Electrical Control and Signal Systems (AECSS)*, *Springer*, Bhubaneswar, India, vol. 665, chapter 27, pp. 373-386, Nov. 2019.
2. A. Sahu, K. B. Mohanty, and **R. N. Mishra,** "Improved sector based DTC-SVM for induction motor drive using hybrid Fuzzy-PI," *International Conference on Advances in Electrical Control and Signal Systems (AECSS)*, *Springer*, Bhubaneswar, India, vol. 665, chapter 30, pp. 415-428, Nov. 2019.
3. **R. N. Mishra** and K. B. Mohanty, "Design and implementation of a feedback linearization controlled IM drive via simplified neuro-fuzzy approach," The Institute of Electronics and Telecommunication Engineers **(Taylor & Francis Group)**, pp. 209-230 **(ISSN 0377-2063).**
4. **R. N. Mishra** and N. K. Guru, Electric Drives, EM Publication, 2013 **(ISBN: 81-7406-013-08)**.
5. **R. N. Mishra** and S. K. Sahu, Electrical Machines II, EM Publication, 2012 **(ISBN: 81-7406-011-1)**.

ANY OTHER

CONFERENCES/SEMINARS/WORKSHOPS/STTP ATTENDED

1. 16 no. of webinar/FDP/STTP (virtual mode) attended from July 2020 to June 2021.
2. STTP on Management Issues of Laboratory and Workshop Class, Nov. 4-8, 2019.
3. One day workshop on MATLAB, SIT, Bhubaneswar, Aug. 30, 2019.
4. FDP (Language Training and Workshop) on Effective Writing Skills, SIT, Bhubaneswar, April 26-27, 2019.
5. One day workshop on Safe Working Practices on Substation Equipment, SIT and SPARK (Power Engineers' group), April 13, 2019.
6. FDP on Communication and Life Skills for professionals, Silicon Institute of Technology, Bhubaneswar, Jan 5, 2019.
7. 7th Power India Int. Conf. (PIICON), Bikaner, India, Nov. 25-27, 2016.
8. 12th Annual IEEE India Conf. (INDICON), Jamia Mallia Islamia Unversity, New Delhi, Dec. 17-20, 2015
9. 9th Int. Conf. on Industrial and Information Systems (ICIIS), IIIT, Gwalior, India, Dec. 15-17, 2014.
10. National Conf. on Advances in Electrical Power and Energy Systems (NCEPES), SOA University, Bhubaneswar, Oct. 1-2, 2010.
11. National Conf. on Advances in Computational Intelligence, Applications in Power, Control, Signal Processing and Telecommunications (NCACI), Silicon Institute of Technology, Bhubaneswar, Mar. 20-22, 2009.
12. National Seminar on Recent Trends in Renewable Energy Systems (RTRES), TAT, Bhubaneswar, Nov. 9-10, 2013.
13. National Seminar on Recent Trends in Contemporary Communucations (RTCC), SIT, Bhubaneswar, Mar. 3-14, 2010.

14. National Workshop on Emerging Technologies in Electrical Power Engineering (NWET), Silicon Institute of Technology, Bhubaneswar, Odisha, India, Feb. 8-10, 2018.
15. Author Workshop by Elsevier, NIT, Rourkela, Aug. 23, 2017.
16. ISTE Workshop on Signals and Systems, IIT, Kharagpur, India, Jan. 2-12, 2014.
17. 7th National Workshop on Emerging Technologies in Electrical Power Engineering (NWET): With focus on Recent trends in modern power system protection, Silicon Institute of Technology, Bhubaneswar, Odisha, India, Feb. 27-Mar. 1, 2014.
18. National Workshop on Emerging Technologies in Electrical Power Engineering (NWET): With focus on Modern Grid Management : Issues in Transmission, Distribution & Industrial Systems, SIT, Bhubaneswar, Odisha, India, Feb. 1-3, 2013.
19. National Workshop on Engineering and Science Innovation and summit by National Instruments, Bhubaneswar, Nov. 26, 2013.
20. National Workshop on Swarm Intelligence: Theory and Applications, IIT, Bhubaneswar, Odisha, India, May 25-27, 2012.
21. National Workshop on Numerical Optimization & its Engineering Applications (WNOEA), SIT, Bhubaneswar, Odisha, India, July 7-10, 2011.
22. National Workshop on Emerging Technologies in Electrical Power Engineering (NWET): With focus on Energy Conservation, SIT, Bhubaneswar, Odisha, India, Jan. 21-23, 2011.
23. National Workshop on Emerging Technologies in Electrical Power Engineering (NWET, SIT, Bhubaneswar, Odisha, India, Jan. 15-17, 2010.
24. TEQIP Sponsored STTP on Grid Integration of Energy Sources and Power Quality, NIT, Rourkela, Oct. 1-3, 2016.
25. Short Term Course on Recent Trends in Power Electronics, Drives and Power Quality, NIT, Rourkela, June 23-27, 2014.
26. Refresher Course on Power Electronics, Drives and Power Quality Issues, NIT, Rourkela, Dec. 23-27, 2013.
27. ISTE-SRM FDP on Advanced Control System Engineering, REC, Bhubaneswar, June 17-22, 2013.
28. STTP on Experiments on Power Electronics, NITTR, Kolkata (by MHRD), Feb. 6-10, 2012.
29. MHRD-AICTE FDP on LabVIEW & APPLICATIONS, NIT, Calicut, Kerla, India, June 13-19, 2010.

REVIEWER FOR PAPERS
Journals:
1. Model Predictive Control Approach to Reduce Torque Ripple and Current Harmonics in a Standalone DFIG-DC System, ISA Transaction (Elsevier), Apr., 2022.
2. Online Tuning Weighting Factor based on P Controller for Predictive Torque Control, ISA Transaction (Elsevier), Feb., 2022.
3. Direct Torque Control of Non-salient Pole AFPMSMs with SVPWM Inverter, International Transactions on Electrical Energy Systems (Wiley), Aug., 2021.
4. Sinusoidal-Exponential Torque Sharing Function based Torque Ripple Minimization by DFPID in Switched Reluctance Motor, Electric Power Componts and Systems (EPCS) (Taylor and Fransis), May 2021.

5. Bat-optimized fuzzy controller with fractional order adaptive super-twisting sliding mode control for fuel cell/battery hybrid power system considering fuel cell degradation, Journal of Renewable and Sustainable Energy (AIP), April 2021.

6. Bat-optimized fuzzy controller with fractional order adaptive super-twisting sliding mode control for fuel cell/battery hybrid power system considering fuel cell degradation, Journal of Renewable and Sustainable Energy (AIP), April 2021.

7. Optimal Siting of Solar Based Distributed Generation (DG) in Distribution System for Constant Power Load Model, International Journal of Emerging Electrical Power Systems (IJEEPS), April 2021.

8. Three-State Switching Cell Boost Converter Using H-inf Controller, International Journal of Emerging Electrical Power Systems (IJEEPS), April 2021.

9. Characteristics Analysis of Symmetric Dual Switch Converter Considering Non-Ideal Device Models, IEEE Transaction on Power Electronics, Oct., 2020.

10. Design of robust battery charge controller using SPV system through ZOIC MPPT scheme, ISA Transaction (Elsevier), Aug., 2020.

11. Application of NFCF for optimal power flow management of MG-connected system with energy storage, International Journal of Numerical Modelling: Electronic Networks, Devices and Fields (Wiley), June, 2020.

12. Higher-Order Terminal Sliding Mode Controller for Fault Accommodation of Lipschitz Second-Order Nonlinear Systems using Fuzzy Neural Network, Engineering Applications of Artificial Intelligence (Elsevier), June, 2020.

13. Virtual model control for quadruped robots, ISA Transaction (Elsevier), May, 2020.

14. Disturbance Rejection Control for PMSM Using Integral Sliding Mode Based Composite Nonlinear Feedback Control with Load Observer, ISA Transaction (Elsevier), Oct., 2019.

15. Hybrid Torque Sharing Function-based Torque Ripple Minimization by DFPID in Switched Reluctance Motor, International Transactions on Electrical Energy Systems (Wiley), Oct., 2019.

16. An Effective Speed Controller and GPRS Based Data Acquisition System Design for DC Motors, Review of Scientific Instruments (AIP), July, 2019.

17. Fault-Tolerant Control of a Non-Salient Pole PMSG Driven by a Wind Turbine and Subject to Sensor Faults, ISA Transaction (Elsevier), Aug., 2019.

18. Disturbance Rejection Control for PMSM Using Integral Sliding Mode Based Composite Nonlinear Feedback Control with Load Observer, ISA Transaction (Elsevier), June, 2019.

19. Trajectory Tracking Controller for Unmanned Helicopter Under Environmental Disturbances. ISA Transaction (Elsevier), Jan., 2019.

20. Adaptive tracking control of an unmanned aerial system based on a dynamic neural-fuzzy disturbance estimator, ISA Transaction (Elsevier), Dec., 2018.

21. Exact Feedback Linearization-Based Nonlinear Direct Torque Control of IPMSM with Torque and Flux Ripple Reduction, IEEE Transaction on Power Electronics, Nov., 2018.

22. New delay-dependent stability criteria and dynamic output feedback control for nonlinear T-S fuzzy systems with time-varying delays and unmatched disturbances, ISA Transaction (Elsevier), May, 2018.

23. Indirect Adaptive Fuzzy Fault-Tolerant Tracking Control for MIMO Nonlinear Systems with Actuator and Sensor Failures, ISA Transaction (Elsevier), Mar., 2018.

24. Disturbance-observer-based fast terminal sliding mode control of underactuated systems: an experimental validation, ISA Transaction (Elsevier), Aug., 2017.

25. Research on Advanced Robust Control for Speed System of Switched Reluctance Motor, Journal of Renewable and Sustainable Energy (American Institute of Physics), Oct., 2017.

26. Wind turbine pitch angle control for above rated wind speed using Fuzzy Logic and Model Predictive Control, International Journal of Power Electronics (Inder Science), July, 2017.

27. Sensorless Direct Torque Control of PMSM Drive, International Journal of Modelling and Simulation (Taylor & Fransis), Dec. 2017.

28. Application of Adaptive Wavelet Network to Fuzzy Sliding Mode Control of Isolated Microgrids with Low-Inertia Wind/PV Units, ISA Transaction (Elsevier), Sep., 2016.

29. Robust adaptive control of coaxial octorotor UAV using interval type-2 fuzzy logic systems subject to actuator faults, ISA Transaction (Elsevier), May, 2016.

30. Active Fault Tolerant Control Based on Interval Type-2 Fuzzy Sliding Mode Controller and Non Linear Adaptive Observer for 3-DOF Laboratory Helicopter, ISA Transaction (Elsevier), Apr., 2016.

31. Almost Strict Passivity Based Robust Simple Adaptive Control with Parallel Feedforward Configuration of the OS4 Quadrotor under Realistic Environment, ISA Transaction (Elsevier), Apr., 2016.

Conferences:

1. Reviewed 4 papers for 2nd IEEE International Conference on Power Electronics and Energy (ICPEE 2023), Jan. 2023.

2. Reviewed 6 papers for 1st IEEE International Conference on Industrial Electronics: Developments & Applications (ICIDeA 2022), Apr. 2022.

3. Reviewed 4 papers for IEEE India Council Sectional Conference (INDISCON 2022), Apr. 2022.

4. Reviewed 2 papers for 3rd Electric Power and Renewable Energy Conference (EPREC-2022), Springer, Apr. 2022.

5. OITS International Conference on Information Technology) (OCIT-2021), Oct. 2021.

6. Power System Fault Detection Using Image Processing And Pattern Recognition, IEEE 2nd International Conf. on Applied Electromagnetics, Signal Processing & Communication (AESPC), Oct. 2021.

7. Analysis of Frequency Regulation for a Hydro-Thermal System with ALFC-DR Mode, IEEE International Conference on Power Electronics and Energy (ICPEE-2021), Aug. 2020.

8. Implementation of Hybrid STATCOM System for Power System Performance Enhancement, IEEE International Conference on Power Electronics and Energy (ICPEE-2021), Aug. 2020.

9. Power System fault Classification with imbalanced learning for distribution systems, IEEE International Conference on Power Electronics and Energy (ICPEE-2021), Nov. 2020.

10. Parameter Estimation of Power Transformer in Presence of Bad Measurement Data, IEEE International Conference on Power Electronics and Energy (ICPEE-2021), Nov. 2020.

11. Modeling and Simulation of Cuk Converter operating in CCM, IEEE International Conference on Power Electronics and Energy (ICPEE-2021), Nov. 2020.

12. Frequency Control of PV and Fuel Cell Microgrid System, IEEE International Conference on Power Electronics and Energy (ICPEE-2021), Nov. 2020.

13. Fifteen level Inverter with Reduced Harmonic Distortion using Phase Disposition-PWM Technique, IEEE International Conference on Power Electronics and Energy (ICPEE-2021), Nov. 2020.
14. Tuning of Power System Stabilizer Parameters by Using Binary Particle Swarm Optimization in a Multi-machine Power System, IEEE International Conference on Power Electronics and Energy (ICPEE-2021), Nov. 2020.
15. Prediction of Photovoltaic Power using Online-Sequential ELM technique, a Comparative Study, IEEE International Conference on Power Electronics and Energy (ICPEE-2021), Nov. 2020.
16. Load Frequency Controller Design using DOF-PID Controller Optimized by Adaptive SOS Algorithm, IEEE International Conference on Power Electronics and Energy (ICPEE-2021), Nov. 2020.
17. Performance analysis of Solar PV under Different Environmental Factors, IEEE International Women in Engineering Conference on Electrical and Computer (WIECONECE-2020), Dec. 2020.

CONTINUING EDUCATION

1. Organized (Convener) Two-Day Hands-on Skill Development Program on 'Electric Vehicle Powertrain', 28-29 Dec. 2022 by EEE department, Silicon Institute of Technology, Bhubaneswar in association with IEEE Student chapter.
2. Organized 13th National Workshop on Emerging Technologies and All India Power Engineers' Meet (NWET & AIPEM 2022) in Electrical Power Engineering with focus on 'Grid Modernisation & Digitalisation... A step forward to Green Technology', 24th-27th Nov. 2022 with technical sponsorship from IEEE Bhubaneswar Sub section, IES and PES chapter.
3. Organized a Talk on "EnergyPedia: Technical Discussion on Energy Conservation, 19 Sep. 2022 by EEE dep. SIT, Bhubaneswar in association with Petrolium Conservation Research Association (PCRA) and IEEE Student Branch, SIT, BBSR.
4. Coordinator for the AICTE Training and Learning FDP (ATALFDP) in Energy Engineering on 'Integration of Sustainable Energy to Microgrid and its Control (ISEMC)', 29th Aug. - 9th Sep., 2022.
5. Organizer of half-day awareness session on Energy Conservation, ISO 50001:2018EnMS, 31 March 2022 by EEE dep. SIT, Bhubaneswar in association with Petrolium Conservation Research Association (PCRA) and IEEE, Student Branch, SIT, BBSR.
6. Convener of the STTP on Recend Trends in Electric Vehicle Technologies (RTEVT-2022), 15th-17th March 2022 by EEE department, Silicon Institute of Technology, Bhubaneswar with technical sponsorship from IEEE Bhubaneswar Sub section, PES and IES chapter.
7. Organizer (conference Treasurer and Joint chair Finance) of 2022 1st IEEE International Conference on Industrial Electronics: Developments & Applications (ICIDeA 2022) 15-16 Oct.2022, Bhubaneswar by IEEE Industrial Electronics Society, joint chapter Bhubaneswar SubSection and Kolkata Section.
8. Member of the Sponsoring committee of The 3rd annual India Council International Sub-sectional Conference INDISCON 2022, 15-17 Jul. 2022 by IEEE Bhubaneswar Sub-Section under IEEE Kolkata section.
9. Chief Coordinator for the 12th National Workshop on Emerging Technologies and All India Power Engineers' Meet (NWET & AIPEM 2020) in Electrical Power Engineering with focus on 'Power with Quality, Reliability, Safety and Security

(PQRS)', 27th-30th Feb. 2020 with technical sponsorship from IEEE Bhubaneswar Sub section and PES chapter.

10. Chief Coordinator for the 11th National Workshop on Emerging Technologies (NWET 2019) in Electrical Power Engineering with focus on 'Smart Energy Management and Protection System', 31st Jan.-2nd Feb., 2019 with technical sponsorship from IEEE Bhubaneswar Sub section and PES chapter.

11. Organising committee member for the National Workshop on Emerging Technologies (NWET) in Electrical Power Engineering, 2009-2014.

12. Course Co-ordinator for the Short-Term Training Course on 'Simulation techniques Using PSIM and PSCAD software' 22-6-2011 to 27-6-2011.

13. Organising committee member for the National Conference on Advance Computational Intelligence-2009, 20-22nd March 2009.

14. Organising committee member for the National Seminar on Electrical Power System, 26th-28th Sept. 2008.

RESEARCH SCHOLARS
Ph. D. Students

1. Ipsita Pahi, NIT Rourkela (Co-supervisor) (Ongoing)
   Dissertation: Renewable energy application to power electronics and drives.

2. Debendra Dehury, Silicon Institute of Technology, Bhubaneswar (Supervisor) (Ongoing)

   Dissertation: Power Quality Improvement and Performance Enhancement of Induction Motor Drive using Different Control Strategies.

M. Tech. Students

1. Debendra Dehury, Silicon Institute of Technology, Bhubaneswar (Supervisor)
   Thesis title : Power quality improvement by shunt active power filter using different control strategies. (completed on 2021)
2. Sachin Das, Silicon Institute of Technology, Bhubaneswar (Supervisor)
   Thesis title: Analysis of multilevel inverter fed induction motor drive. (Completed on 2012)

OUTREACH ACTIVITIES

1. DSC committee member for Ph. D. programme of Electrical engineering at Parala Maharaja Engineering college, Berhampur nominated, by BPUT, 7th Mar. 2022.
2. Keynote Speaker on **Neural Predictive Intelligence Technique in Drive Systems** organized by Department of EEE (ITER) Siksha 'O' Anusandhan (Deemed to be University) Bhubaneswar, Odisha, India, 6th Nov. 2021.
3. Keynote Speaker on **Application of Predictive Intelligence Technique in Drive Systems** organized by Department of Electrical Engineering (ITER) Siksha 'O' Anusandhan (Deemed to be University) Bhubaneswar, Odisha, India, 25th Sep. 2021.
4. Invited talk on **NN-Predictive Intelligence-based DTFC for Induction Motor Drive** organized by Joint Chapter IEEE IES Kolkata Section and Bhubaneswar Subsection on 8th July 2021.

5. Invited talk (Webinar) on **Application of Artificial Intelligence in Induction Motor Drive** organized by department of EEE, Madanapalle Institute of Technology and Science in association with ISTE student chapter on 17th July 2021.

ACHIEVEMENT (AWARDS/HONORS)

1. Honoured with high society ISSN International Research Awards **(IIRA-2022)** in association with **World Research Council and Times of Research** under the title, "INTERNATIONAL BEST RESEARCHER AWARD" in the field of Electrical Engineering.
2. Conferred with **J C Bose Memorial Award** (2019) by the Institute of Electronics and Telecommunication Engineers (IETE) for the best engineering oriented paper.
3. Nominated as **Vice Chair – Membership** (office bearer 2020) by IEEE – Industrial Electronics Society (IES) Joint Chapter Bhubaneswar Subsection and Kolkata Section.
4. Nominated as **Treasurer** (office bearer 2021) by IEEE – Industrial Electronics Society (IES) Joint Chapter Bhubaneswar Subsection and Kolkata Section.
5. Recognition as a **certified reviewer for International Journal of Numerical Modelling: Electronic networks, Devices and Fields** (**WILEY**), 2020.
6. **Certified as a recognized reviewer for ISA Transactions** (**Elsevier**).
7. **Certified as a recognized reviewer for Engineering Applications of Artificial Intelligence** (**Elsevier**).
8. Recognition as a **certified reviewer for International Transactions on Electrical Energy Systems** (**WILEY**), 4th April 2022.

MEMBERSHIPs

1. Member IEEE (MIEEE)
2. Life Member ISTE (LMISTE)