Dr. Bhola Jha
Professor
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1. **Educational Qualification:**
   - Ph.D (Electrical Engineering) from Osmania University, Hyderabad, 2013
   - M.Tech (Electrical Engineering-HVE) first class with distinction from JNTU, Kakinada, Hyderabad, 2004
   - B.Tech (Electrical Engineering) first class with distinction from MIT, Muzaffarpur, 1998

2. **Teaching Experience:**
   - Professor, SoEE, SMVDU from June 5, 2025 to till dtae
   - Associate Professor, G. B. Pant Institute of Engineering and Technology, Pauri (An Autonomous Govt. Institution of Uttarakhand) from 20/04/2019 to 05/06/2025
   - Assistant Professor, G. B. Pant Institute of Engineering and Technology, Pauri (An Autonomous Govt. Institution of Uttarakhand) from 22/02/2011 to 19/04/2019
   - Associate Professor, K. L. University, Vaddeswaram, Vijayawada from 10/11/2006 to 19/02/2011

3. **Administrative Experience:**
   - TEQIP-III Coordinator, G. B. Pant Institute of Engineering and Technology, Pauri
   - Controller of Examination, G. B. Pant Institute of Engineering and Technology, Pauri
   - NBA Coordinator, G. B. Pant Institute of Engineering and Technology, Pauri
   - Member Secretary of Academy Autonomy, G. B. Pant Institute of Engineering and Technology, Pauri
   - NAAC Coordinator, G. B. Pant Institute of Engineering and Technology, Pauri
   - Nodal Officer of Centre for Alternate Energy, G. B. Pant Institute of Engineering and Technology, Pauri
   - Coordinator of Continuing Education Centre, G. B. Pant Institute of Engineering and Technology, Pauri
   - Officer In-Charge of Electrical Maintenance, G. B. Pant Institute of Engineering and Technology, Pauri

4. **Journal Publications:**
   - A Novel Approach of Threshold Setting for the Detection of Islanding in Distribution Generation-based Micro Grid, Advances in Electrical and Computer Engineering, Vol.24, Nov.2024. 1582-7445 **(SCI/SCIE)**
   - Photovoltaic Partial Shading Performance Evaluation With a DSTATCOM Controller, IEEE Access, 2022, Digital Object Identifier 10.1109/ACCESS.2022.3186906 **(SCI/SCIE)**

- Design of an evolving Fuzzy PID controller for optimal trajectory control of a 7 DOF redundant manipulator with prioritized sub-tasks, Elsevier: Expert Systems with Applications, 2019 https://doi.org/10.1016/j.eswa.2019.113021, 2019 **(SCI/SCIE)**
- Centroid Analogy-Based MPPT Technique for Uniformly Shaded Solar Photovoltaic Array, Springer: Iranian Journal of Science and Technology, Transaction of Electrical Engg.,2019, https://doi.org/10.1007/s40998-019-00267-7 **(SCI/SCIE)**
- Interval Type-2 Fuzzy Logic Control-Based Frequency Control of Hybrid Power System Using DMGS of PI Controller Applied Sciences, MDPI, 2021, https://doi.org/10.3390/app112110217 **(SCI/SCIE)**
- An ECG classification using DNN classifier with modified pigeon inspired optimizer, Multimedia Tools and Applications, 2022 **(SCI/SCIE)**
- Arrhythmia classification based on improved monarch butterfly optimization algorithm, Journal of King Saud University-Computer and Information Sciences, 2022 **(SCI/SCIE)**
- Operation and Control of a Hybrid Isolated Power System with Type-2 Fuzzy PID Controller, Springer: Iranian Journal of Science and Technology, Transaction of Electrical Engg, 2018, DOI 10.1007/s40998-018-0070-8 **(SCI/SCIE)**
- Moth-Flame Optimization Based Fuzzy-PID Controller For Optimal Control of Active Magnetic Bearing System, Springer: Iranian Journal of Science and Technology, Transaction of Electrical Engg., 2018, doi.org/10.1007/s40998-018-0077-1 **(SCI/SCIE)**
- A Novel Approach for Islanding Detection in Distributed Generation Systems using the 3-Parameter Sine Fit Algorithm to Improve Power System Reliability, *Accepted* in GMSARN International Journal, *ISSN*:1905-9094
- ECG Arrhythmia Classification Algorithms, International Journal of Recent Technology and Engineering, Vol.8, Issue 3, Sept. 2019
- Comparative study of LVQ and BPN ECG Classifier, Inderscience International Journal of Computational Systems Engineering, Vol 4, 2018 doi.org/10.1504/IJCSYSE.2018.091393
- A Novel Approach for Islanding Detection in Distributed Wind Energy Generators within Renewable Energy Integrated Smart Grid Using the 3-parameter Sine Fit, International Journal of Electrical and Electronic Research, Vol. 12, March 2024, eISSN: 2347-470X
- Doubly Fed Induction Generator Analysis Through Wavelet Technique, Journal of Engineering Science and Technology Review 2(1) and 2009.
- DFIG-Based Wind Farms and Their Performance with Thermal Connected Grid, Thammasat Int. Journal of Science Tech. (0859-4074), Vol.15(1) and 2010.
- Detailed Dynamic Modeling and Vector Control of Doubly Fed Induction Generator, International Journal of Applied Engineering Research, 2010
- FRT Analysis of Doubly Fed Induction Generator, International Journal of Futuristic Trends in Engineering & Technology, Vol.2(2), Jan.2015, http://ijftet.wix.com/research#!vol-ii-issue-ii-jan15/c16t3
- Load Modeling - A Case Study, International Journal Of Advanced Research In Engineering Technology & Sciences, 2015, Vol.2, Issue 8, Aug.2015
- Selection of Optimal Mother Wavelet for Fault Detection Using Discrete Wavelet Transform, International Journal of Advanced Research in Electrical, Electronics & Instrumentation Engg., Vol.2(6) June 2013

- Steady State Modeling of Doubly Fed Induction Generator, International Journal of Enhanced research in Science Technology & Engg,, Vol.2(1), Jan. 2013
- Transient Modeling of Doubly Fed Induction Generator, International Journal of Enhanced research in Science, Technology & Engg. Vol.2(1), Jan. 2013
- Compensation Techniques for Improving FRT Capability of DFIG, International Journal of Engineering, Science and Technology Vol.3, No.1, Jan.2011
- Inertial Response of Doubly-Fed Induction Generator and Its Investigation during Voltage Sags, International Journal of Electronic and Electrical Engineering Vol.10, No.1, 2010
- Robust Controllers-Based Power Control of Doubly Fed Induction Generator for Wind Energy, International Journal of Electrical Engineering Vol.3, No.1, 2010.
- Investigation of Fault Ride Through Capability of Doubly Fed Induction Generator, International Journal of Electrical Engineering and Electrical Systems, Vol. 1, No 1, 2010
- An Efficient Narrow Speed Control of Wound Rotor Induction Machine, Engineering Today (2180-0995), Vol. IX and 2007.
- An Iterative Technique for the Analysis of Self Excited Induction Generator, Engineering Today (2180-0995), Vol. VIII & 2006

5. Conference Publications:

- Modelling of Charging and Discharging of Electric Vehicle, INOCON 2023-IEEE, Mar. 3-5, 2023
- Particle Swarm Optimization-Based Intelligent Controller for Maximum Point Tracking of a Standalone Solar Photovoltaic Power System, ICCC-2020 at AITM, Tekkali, Andhra Pradesh, Aug.7-8,2020
- ECG Classification Using DNN and GA Optimized Algorithm, Integrated Intelligence Enable Networks and Computing. Springer, 2021.
- Performance Comparison of Indirect Vector Controlled Induction Motor Drives, SMARTCOM 2020, June 26-27, 2020
- Online-based Approach of Frequency Control of Micro-grid using GWO, SMARTCOM 2020, June 26-27, 2020
- Modified Least-Square based Model Reduction using Time Moments and Markov Parameters, IEEE TENSYMP 2019, June7-9, 2019.
- Stability Improvement in power system integrated with WECS using Dolphin Echolocation optimized hybrid PID plus FLC based PSS, International Conference on Innovation in Electrical Power Engineering, Communication and Computer Technology (IEPCCT 2019), Dec.13-14, 2019
- Vector Controlled Induction Motor Drives Using RST Controller, Springer: Advances in Intelligent Systems and Computing (International Conference on Cognitive Informatics and Soft Computing), Dec.20-21, 2017.
- Comparative Study of Tachyarrhythmia ECG and Normal ECG, RICE, 2017.
- Morphological changes in congestive heart failure ECG, IEEE International Conference on Advances in Computing, Communication, & Automation (ICACCA), Sept30-Oct.1, 2016.
- Load Frequency Control of a Renewable Hybrid Power System with Simple Fuzzy Logic Controller, IEEE-ICCCA, April29-30, 2016.
- PSO-Based Online Vector Controlled Induction Motor Drives, IEEE- ICEEOT, Mar.3rd -5th , 2016.
- A Novel Tracking Control Technique of Capacitive Switching for Transient Mitigation, IEEE- ICEEOT, Mar.3rd -5th , 2016.
- Evaluation of Voltage Unbalance Factor for the Performance Analysis of Induction Motor, IEEE-NSC, 14-16 Dec., 2015.
- Vector Control of Induction Motor Using Indirect Method, International Conference on Advances in Engineering Science and Management, Nov.2015.

- Harmonics Reduction and Disturbance Rejections of Doubly Fed Induction Generator Using Robust Controller, IEEE Conference "Indicon 2009.
- An Experiment-Doubly Fed Induction Machine for Variable Speed Constant Frequency Applications, International Conference "PSACO" in Association with IEEE, 13-15 March 2008.
- A Non-Conventional Approach for Generating Small Amount of Electricity, ICORE at New Delhi "Renewable: Fuelling the Economic Growth, 27-28 Nov. 2007.
- Simplified Approach of the Analysis of Power Flow of Doubly Fed Induction Generator, CORE, 08-11 Feb.,2006.
- Direct Torque Control of Induction Motor, National Conference on Contemporary Control, Nov.20-21, 2014.
- Vector Control of Induction Motor Using Internal Mode Control, National Conference on Contemporary Control, Nov.20-21, 2014.
- Effect of Reactance to Resistance Ratio on the Performance of Transmission Lines, National Conference on Technological Revolution in Electrical Engg.,(TREE), 22nd – 23rd May, 2014.
- Performance of Wound Rotor Induction Motor using PWM Technique, National Conference on Technological Revolution in Electrical Engg.,(TREE), 22nd – 23rd May, 2014.
- Experimental Analysis of Doubly Fed Induction Machine. National Conference on Power System Today, 29-30 June 2010

6. Book Chapters:

- Online-based approach for frequency control of microgrid using biologically inspired intelligent controller, Elsevier, 2022, ISBN: 978-0-323-91228-0
- Optimal Control Strategies for Mitigating Frequency Deviation in Micro-Grid Based Smart Village Systems, IGI 2023, ISSN:2326-9103, EISSN:2326-9111

7. Book:

- Smart Computing as an Editor by CRC (Taylor and Francis) Press, 2021,

8. Research Project:

- Titled "Power System Stabilizer Testing and Tuning in HIL with Wind Integrated Power System for Inter-area Oscillations Damping" (Project ID: 1-5763999291)" Grant: Rs.13.09 Lakh from AICTE

9. Consultancies:

- Electrical works of canteen of HNB Pauri Campus by CPWD, project cost-Rs. 980090/-
- Electrical works of 120 Bed Girls Hostel of HNB Srinagar Campus by CPWD, project cost Rs.73,16,640/-
- Electrical works of Faculty Development Centre of HNB Chauras Campus CPWD, project cost-Rs.16,17,726/-

10. Patent:

- Title of invention: A system with centroid analogy-based MPPT technique for uniformly shaded solar PV array**,** Application No.202341053958 A, The Indian Patent Office Journal No. 39/2023, Publication Date: 29/09/2023

11. Invited Lectures:

- FACTS Devices at BTKIT (Govt. Institution), Dwarahaat, Nov.18-23, 2017
- Energy Conservation, Sept.15,2016 Organized by Uttrakhand Renewable Energy Development Agency (UREDA)-Govt. Organization.
- Energy Conservation Tips in Domestic Appliances, Sept.20, 2016, Organized by Uttrakhand Renewable Energy Development Agency (UREDA)-Govt. Organization.
- Renewable Energy Sources, Sept.21, 2016, Organized by Uttrakhand Renewable Energy Development Agency (UREDA)-Govt. Organization
- A novel tracking control technique of capacitive switching for transient mitigation, Short Term Courses (STC), May 22-26, 2014 at GBPEC, Pauri
- Steady state modelling of DFIM: Grid analysis, Short Term Courses (STC), May 22-26, 2014 at GBPEC, Pauri
- Performance of Induction motor under voltage unbalance condition, Short Term Courses (STC), Oct28-Nov.1, 2015, GBPEC, Pauri
- Role of Education for Holistic Development, Induction Program, Aug14-31,2018 at GBPIET, Pauri
- SCADA operation and Control, April2-May12, 2015, SEE-GBPEC, Pauri
- MATLAB-Simulink, Mar20-May20, 2016, SEE-GBPEC, Pauri

12. Ph.D Thesis Supervised:

- Intelligent Load Frequency Control of Multiarea Hybrid Power System by Swati Rawat (150090105005) awarded in 2022
- Design of Intelligent Controllers for Maximum Power Point Tracking of Solar Photovoltaic Power Systems by B. B. Rath (1500090105003) awarded in 2022
- Feature Extraction and Interpretation of ECG Signals by Ashish Nainwal (1500090105001) awarded in 2022

13. M. Tech Thesis Supervised:

- Comparison of ROCOF and ROCOPAD Techniques for Islanding Detection in Distributed Generation by Piyush Mehta (205606), GBPIET, 2022
- Simulation of Fuzzy Logic Controlled Harmonics Filter using Lab VIEW by Rajneesh Kumar (195601), GBPIET, 2021
- Modelling of HVDC Systems by M. Dinesh (Y7MTPS206), KLU, 2008-09
- Decoupled Active & Reactive Power Control of DFIG by Y. Sumanth (Y8MTPS216), KLU,2009-10
- Impact of Frequency Modulated PWM Switching Converter on Input Power Supply Quality by N. Babji Satish (09102130), KLU, 2010-11
- Performance of Wind Electric Generator using DFIG in Power System by R. Punyavathi (09102150), KLU, 2010-11
- Dynamic Performance of DFIG by K. Santhi (09102156), KLU, 2010-11
- Family of Soft Switching PWM Converter with Current Sharing in Switches by G. Jaya Krishna (09102135), KLU, 2010-11

14. Conference/STC/Work-Shop/Seminar Organized:

- International Conference on SMARTCOM, June 26-27, 2020 at GBPIET, Pauri - organizing secretary
- National Conference on Technological Revolution in Electrical Engineering (TREE), May 22-23, 2014 at GBPEC, Pauri - Convener
- Short Term Course on Recent Trends in Renewable Energy, Nov.26-31, 2019 at GBPIET, Pauri - Organizing Member
- Short Term Courses on Smart Grid Technology, Sept. 22-26, 2014 at GBPEC, Pauri – Coordinator
- Short Term Courses on Smart Grid Technology and Its Application, Oct.28-Nov.1, 2015 at GBPEC, Pauri – Coordinator
- Induction Program, Aug. 14-31, 2018 at GBPIET, Pauri – Coordinator

15. STC/Work-Shop Attended:

- Professional Development Training from Nov. 25-29, 2019 at IIM, Bodh Gaya
- Active Learning, Autonomy, Academic Governance and R&D, July 2-6, 2018 at IIT, Roorkee
- Professional Development Training from Feb. 5-9, 2018 at IIM, Kashipur.
- Energy Resources from Nov.8-12, 2014 at IIT, Roorkee
- Smart Grid Technology and Applications from March 10-14, 2014 at Central Power Research Institute (CPRI), Banglore.

16. Awards/Honours/Recognition:

- Acted as one of the expert committee members in Technology Exposition organized by National Research Development Corporation (NRDC), Govt. of India, and April 27, 2014.
- Appointed as a Coordinator by Uttarakhand Renewable Energy Development Agency (UREDA) – Govt. Organization for the Energy Conservation Program from Sept.15-21, 2016.
- Acted as a session chair in the International Conference on Advances in Communications, Computing & Electronic Systems (ACCES-2022), May 6-7, 2022 at AIET, Vizianagaram.

17. Professional Societies Membership:

- Life Member of Solar Energy Society of India (SESI)
- Life Member of Indian Society for Technical Education (ISTE)

Information furnished above are true to the best of my knowledge and belief.

Dr. Bhola Jha
(Professor)