



Department of Electrical and Electronics
 Polytechnic Cuttack
 School of Technology
 Maulana Azad National Urdu University (Central University)
 Gachibowli, Hyderabad, Telangana-500032, India

+91-9718964287

mdehtesham87@gmail.com

Follow me on:

DR. MD EHTESHAM | LECTURER

CURRENT DESIGNATION/ INVOLVEMENT Currently working as a Lecturer in Department of Electrical and Electronics, Polytechnic Cuttack, School of Technology, Maulana Azad National Urdu University (Central University), Hyderabad, Telangana, India.

AREA OF SPECIALIZATION Power Electronics and Drives.
 Expertise in exploring power converters & Industrial drives.
 Further introducing power electronic device in photovoltaic system

ONGOING ACADEMIC RESEARCH/PROJECTS Research work continues in extending the area of PhD work based on Integrating Solar PV power in distribution network.

INNOVATION WITH FIELD OF STUDY AND COLLABORATIVE EFFORTS Designed enhanced MPPT algorithms for PV power tracking in dynamic conditions.
 Inverter control strategy for grid connected PV system

ACADEMIC AND ADMINISTRATIVE EXPERIENCE

- **11 YEARS OF TEACHING EXPERIENCE**
 Have been teaching various electrical engineering subjects and also taking Labs for both B.tech and Diploma courses.
- **ADMINISTRATIVE EXPERIENCE (VARIOUS RESPONSIBILITIES)**
 Departmental In Charge for EEE
 Lab In Charge for Power Electronics Lab
 Lab Establishment at MANUU Polytechnic Cuttack-EEE Dept. / other common labs
 Member Maintenance Committee
 NAAC Coordinator
 Member Local Purchase Committee
 Mentor for students.

EDUCATIONAL QUALIFICATION

- **DOCTOR OF PHILOSOPHY (Ph.D.), 2019**
 Electrical Engineering Department, Jamia Millia Islamia, New Delhi
- **MASTER OF TECHNOLOGY (M.TECH), 2012**
 Electrical Department, National Institute of Technology, NIT- Rourkela.
- **BACHELOR OF TECHNOLOGY (B.TECH), 2010**
 Electrical Engineering Department, Jamia Millia Islamia, New Delhi

TEACHING PROFICIENCY

- Sound knowledge of core Electrical Engineering Subjects like Electrical Machines, Electrical Circuits, Power Electronics.
- Very Proficient in explaining technical aspects in simple terms.
- Making lucid use of latest teaching techniques like demonstrating videos, animations or ppt.
- Exploring laboratories for practical based learning.

RESEARCH PUBLICATION DETAILS

1. M. Ehtesham, M. Ahmad, S. Kirmani, M. Jamil, "Enhancing Solar Inverter Performance for both Stand-Alone and Grid-Connected Systems, Applied Solar Energy, **Springer, Scopus** (Under Publication)
2. M. Ehtesham, M. Jamil, "Control techniques for enhancing performance of PV system under dynamic conditions" International Journal of Energy Sector Management, **ESCI and Scopus**, 15 (1), pp. 119-138, 2021.
3. M.Ehtesham, M. Junaid, "Advanced compensation scheme for enhancing photovoltaic power quality", Indonesian Journal of Electrical Engineering and Computer Science, **ESCI and Scopus**, 27 (3), pp. 1223-1230, 2022.
4. M. Ehtesham, M. Junaid, "Reactive power control strategy for integrated photovoltaic inverter, International Journal of Power Electronics and Drive Systems, **ESCI and Scopus**, 13 (3), pp. 1713-1720,2022.
5. M. Ehtesham, M. Jamil, "Control Techniques to Optimize PV System Performance for Smart Energy Applications, Lecture Notes in Civil Engineering, **Springer, Scopus**, 58, pp. 91–105, 2020.
6. M.Ehtesham, M Ahmad, M Jamil, "Enhancing PV inverter performance while interfacing with distribution network", International Journal of Electrical Engineering and Technology, **Scopus**, 12 (8), pp. 50-59, 2021.
7. M. Ehtesham, "Introducing Dynamic Capability in Photovoltaic System Maximum Power Point Tracking Algorithm", ITEE Journal, **UGC Approved**, 10(5), pp. 1-8, 2021.
8. M. Ehtesham, "Enhanced model based algorithm to reinforce PV system with dynamic MPPT capability", International Journal of Advances in Applied Sciences, **UGC Approved**, 10 (3), 261-270, 2021.
9. M.Ehtesham, M Ahmad, M Jamil, "Enhancing PV inverter performance while interfacing with distribution network", International Journal of Electrical Engineering and Technology, **Scopus**, 12 (8), pp. 50-59, 2021.
10. M.Ehtesham, M Jamil, "Control Algorithm for Regulating Voltage and Frequency of Grid Connected PV System", International Journal of Interdisciplinary Research and Innovations, **UGC Approved**, 6(4), pp. 275-283, 2018.
11. M.Ehtesham, M. Ahmad, S. Kirmani, "Analyzing performance of stand-alone and grid connected PV systems for different power factor loads", International Journal of Electrical Engineering and Technology, **Scopus**, 12 (8), pp. 50-59, 2021.

12. M. Ehtesham, M. Ahmad, "Improving Inverter Performance for Stand-Alone and Integrated Photovoltaic System, VW Engineering International, 4 (3), pp. 66-71, 2022.(To be included in Scopus)

DETAILS OF
CONFERENCE/SEMINAR
/WORKSHOP/ FDP
(ATTENDED/PRESENTED)

1. M. Ahmad, S. Kirmani and **M. Ehtesham**, "Simulation and Analysis of an Improved Quality Multilevel Inverter for Linear Types of Load," 2021 **IEEE** 6th International Conference on Computing, Communication and Security (ICCCS), Las Vegas, NV, **USA**, 2021, pp. 1-6, doi: 10.1109/ICCCS51487.2021.9776345.
2. **M. Ehtesham** and M. Jamil, "Enhancement of Power Quality Using Active Power Filter for PV Systems with Model Based MPPT," 2017 **IEEE** 17th India Council International Conference (INDICON), IIT Roorkee, India, 2017, pp. 1-6, doi: 10.1109/INDICON.2017.8487544.
3. M. S. Hassan, **M. Ehtesham**, A. Haq, M. Jamil, "Enhanced AI Based FLC MPPT Algorithm and its Comparative Analysis with P&O", International **IEEE** Conference on Recent Advances in Electrical, Electronics, and Digital Healthcare Technologies2023 (REEDCON-2023), 1-3 May, 2023 Jamia Millia Islamia, New Delhi (Under Publication)
4. **M. Ehtesham**, S. A. Rana, S. Ali and M. Jamil, "Inverter Control Strategy for Enabling Voltage and Frequency Regulation of Grid Connected PV System," 2018 **IEEE** 8th Power India International Conference (PIICON), NIT Kurukshetra, 2018, pp. 1-6, doi: 10.1109/POWERI.2018.8704429.
5. M. Jamil and **M. Ehtesham**, "Optimizing PV system performance considering the impacts of non-uniform irradiance and partial shading," 2015 **IEEE** International Conference on Energy Economics and Environment (ICEEE), Greater Noida, India, 2015, pp. 1-6, doi: 10.1109/EnergyEconomics.2015.7235090.
6. One week online Faculty Development Program (FDP) on "Power Quality and Reactive Power Management", organized by the Department of Electrical Engineering, **Delhi Technological University**, Delhi in association with Clariant Power System Ltd. , Pune, during 06th to 10th July 2020.
7. One week online short term course on "Advanced Control of Stand-Alone Energy Systems" organized by Department of Electrical Engineering, **NIT Srinagar**, Jammu & Kashmir, 13th to 17th June 2022.
8. Five-day on-line workshop on "Fuzzy Logic Systems in Engineering Applications (FLSEA 21)" organized by the Department of Electrical and Electronics Engineering in association with Mechanical Engineering, Computer Science and Engineering, **National Institute of Technology Sikkim** in collaboration with TEQIP-III, during March 15-19, 2021.
9. Ten days online Faculty Induction Program (FIP) as per UGC mandate, organized by Task Group (Gurudakhsta), Maulana Azad National Urdu University, Hyderabad, between 13.11.2020 to 18.12.2020.
10. One week online short term course on "Recent Trends in Renewable Energy Systems and Their Control" from 14/09/2020 to 18/09/2020, jointly organized by Department of Electrical Engineering and Department of Instrumentation and Control Engineering, Dr. B. R. Ambedkar **National Institute of Technology, Jalandhar**, Punjab.

11. One week AICTE-QIP sponsored Short Term Course (STC) on 'Issues and Challenges of Grid Connected Renewable Energy Sources (ICGCRE-22)' held during 21st-25th February, 2022 through online mode, organized by **Jamia Millia Islamia**, New Delhi.
12. One week Workshop on "Active Distribution Networks-Challenges And Solutions" from 11-07-2022 to 15-07-2022 organized by the Department of Electrical Engineering, **BIT Sindri**.
13. One week online Faculty Development Program (FDP) on "Emerging Trends in Power Electronics and Power Systems", organized by the Department of Electrical Engineering, **O. P. Jindal University**, Raigarh, Chattisgarh, from 24th to 29th August 2020.
14. One week AICTE recognized Short Term Course on "MATLAB and its Hardware Interface through ICT", conducted by NIET, Greater Noida in association with **NITTTR Chandigarh** from 11.01.2016 to 15.01.2016.
15. R. Dubey, A. Tripathy and **M. Ehtesham**, "A novel algorithm for asymmetrical fault detection in DFIG based wind-farm using wavelet singular entropy function," 2012 **IEEE** Students Conference on Engineering and Systems, **NIT Allahabad**, India, 2012, pp. 1-6, doi: 10.1109/SCES.2012.6199020.
16. **M. Ehtesham**, M. Jamil, "Application of Model-Based Technique for Improved MPPT of PV System under Dynamic Conditions", 2017 **IEEE** International Conference on Nanotechnology for Instrumentation and Measurement Workshop (NANOIFIM-2017), 2017, organized by **Gautam Buddha University (GBU)**, Greater Noida on 16th & 17th Nov. 2017.
17. Presented a paper titled "Application of Discrete Kalman Filter in Reference Current Estimation for Single Phase Shunt APF" in an International Conference on Information Communication & Embedded Systems (ICICES-2012), organized by **S. A. Engineering College, Chennai**, held on 24th & 25th Feb. 2012.
18. R. Dubey, S. R. Samantaray, A. Tripathy, B. C. Babu and **M. Ehtesham**, "Wavelet based energy function for symmetrical fault detection during power swing," 2012 **IEEE** Students Conference on Engineering and System, NIT Allahabad, 2012, pp. 1-6, doi: 10.1109/SCES.2012.6199019.

DETAILS OF KEYNOTE
SPEAKER/RESOURCE
PERSON/ SESSION CHAIR ETC.

1. Resource Person as speaker in Deeksharambh Student Induction Programme-2022, on topic "Introduction About Courses of Polytechnic", organized by Maulana Azad National Urdu University from 31st Oct. to 5th Nov. 2022.
2. Resource Person as speaker in Deeksharambh Student Induction Programme-2022, on topic "Extra Curricular Activity", organized by Maulana Azad National Urdu University from 31st Oct. to 5th Nov. 2022.
3. Resource Person as speaker in Deeksharambh Student Induction Programme-2022, on topic "Role of Technocrats in Nation Building", organized by Maulana Azad National Urdu University from 31st Oct. to 5th Nov. 2022.
4. Resource Person as speaker in Deeksharambh Student Induction Programme-2020, on topic "Cultural Activities", organized by Maulana

Azad National Urdu University from 16th to 17th Nov. 2020.

ACHIEVEMENTS

1. AIR 799, with 99.91 percentile in GATE 2012 in Electrical Engineering.
2. AIR 1173, with 99.47 percentile in GATE 2010 in Electrical Engineering.
3. Successfully cleared the examination of Bhabha Atomic Research Centre (BARC), in Electrical Engineering, held on 29.04.2012.
4. Obtained Silver Medal in Elite category in examination of “Electric Drives” conducted by NPTEL (funded by Ministry of HRD), in Sep. 2019.
5. Obtained Silver Medal in Elite category in examination of “Accreditation and Outcome Based Education” conducted by NPTEL (funded by Ministry of HRD), in Oct. 2019.
6. Received Appreciation Letter Two Times for Best Teaching Performance in NIET College, Greater Noida during academic session 2012-13.

DETAILS OF SUPERVISION
(M.PHIL/M.TECH/P.HD.)

Nil

PROFESSIONAL
MEMBERSHIPS

▪ NIL

PERSONAL DETAILS

Father's Name : S M RAUHULLAH
Date of Birth : 14.09.1987
Gender : Male
Marital Status : Married
Nationality : Indian
Languages Known : English, Hindi, Urdu

Date: 06. 06. 2023

Place: Cuttack

(Dr. MD EHTESHAM)

[Last update on: 06th June 2023]