

Zaki Uddin

Assistant Professor

College of Electrical & Mechanical Engineering

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Contact:



About

Dr. Zaki Uddin is working as Assistant Professor in the College of Electrical & Mechanical Engineering. Dr. Zaki Uddin has a PhD in Power Electronics, Wind Power Generation. Dr. Zaki Uddin has published 35 research articles & conference papers having a citation count of 452, carried out 0 projects and filed 0 intellectual property.

Qualifications

PhD in Power Electronics, Wind Power Generation Southeast University , China	2016 - 2020
MSc in Power System Stability UET Peshawar , Pakistan	2010 - 2014
BSc in Electrical Engineering UET Peshawar , Pakistan	2004 - 2008

Experience

Assistant Professor College of Electrical & Mechanical Engineering	2024- Present
Assistant Professor College of Electrical & Mechanical Engineering	2024 - 2024
Assistant Professor College of Electrical & Mechanical Engineering	2022 - 2024
Postdoctoral Fellow Southeast University China , School of Electrical Engineering, Southeast University Nanjing, 210096, Jiangsu Province PR China	2020 - 2021
Lecturer Sarhad University of Science & Information Technology , Landi Akhun Ahmad, Adjacent Attock Petroleum, Ring Road (Kohat road-Hayatabad Link), Peshawar)	2012 - 2016
Lab-Engineer Sarhad University of Science & Information Technology , Landi Akhun Ahmad, Adjacent Attock Petroleum, Ring Road (Kohat road-Hayatabad Link), Peshawar)	2010 - 2012

Research Articles

Fault diagnosis and localization in photovoltaic-fed cascaded half-bridge five-level inverter using residual network architecture <i>Iqra Ashfaq Zaki Uddin Naeem Ul Islam Azhar Ul Haq Muhammad nouman Arif</i> <i>Electrical Engineering , Pages 1-24</i> Impact Factor: 1.900 Quartile: 3 DOI: https://doi.org/10.1007/s00202-025-03183-8	2025
Impact of dead-time on resonance in doubly fed induction generator system under weak grid <i>Zakiud Din Jianzhong Zhang Zheng Xu Yaqian Zhang Yipeng Song</i> <i>CSEE Journal of Power and Energy Systems</i> , Volume: 11, Issue: 3, Pages 1070-1079 Impact Factor: 5.900 Quartile: 1 Citations: 2 DOI: doi.10.17775/CSEEJPES.2021.00760	2025
Knacks of marine predator heuristics for distributed energy source-based power systems harmonics estimation <i>Khalid Mehmood Cheema Khizar Mehmood Naveed Ishtiaq Choudhary Zeshan Aslam Kha Muhammad Asif Zahoor Raja Ahmed M. El-Sherbeeny Ahmed</i>	2024

Nadeem Zaki Uddin

Heliyon , Volume 10, Issue 15, Article Number e35776

Impact Factor: 3.400 | **Quartile:** 1 | **Citations:** 9

DOI: 10.1016/j.heliyon.2024.e35776

Open switch fault diagnosis of cascaded H-bridge 5-level inverter using deep learning

2024

Muhammad Nouman Arif Zaki Uddin Azhar Ul Haq Khalid Mehmood Cheema Ahmad H. Milyani Naeem ul Islam Iqra Ashfaq

Frontiers in Energy Research, Volume 12, Article Number 1388273

Impact Factor: 2.600 | **Quartile:** 3

DOI: <https://doi.org/10.3389/fenrg.2024.1388273>

Rectification and converter control of the FPSLGs for energy storage applications

2024

Murad Ali Yu Haitao Saleh Mobayen Jiahui Zhang Anton Zhilenkov Zaki Uddin

IET Renewable Power Generation, Pages 1-15

Impact Factor: 2.600 | **Quartile:** 2

DOI: <https://doi.org/10.1049/rpg2.12998>

Grid-interfaced photovoltaic system with enhanced resilient control schemes for low-voltage ride-through

2024

Asad Khan Muhammad Mansoor Khan Zaki Uddin Jiang Chuanwen Almoataz Y. Abdelaziz

Electrical Engineering, Volume 106, Issue 1, Pages 773-792

Impact Factor: 1.600 | **Quartile:** 3 | **Citations:** 8

DOI: <https://doi.org/10.1007/s00202-023-01994-1>

Integrated metasurface for efficient polarization conversion and high-gain, low-RCS EM radiation

2023

Saeed ur Rehman Hai Deng Muhammad Irshad Khan Naveed Ullah Zaki Uddin

Optics Express, Volume 31, Issue 17, Pages 27880-27893

Impact Factor: 3.8 | **Quartile:** 2 | **Citations:** 4

DOI: <https://doi.org/10.1364/OE.492751>

Anomaly data identification for wind farms based on composite machine learning

2022

Yongbin Wu Jianzhong Zhang Zaki Uddin Shubang Huang

Journal of Renewable and Sustainable Energy, Volume 14, Issue 6, Article Number 063307

Impact Factor: 2.500 | **Quartile:** 4 | **Citations:** 6

DOI: <https://doi.org/10.1063/5.0127640>

Voltage balancing control of hybrid MMC under over-modulation situations with optimal circulating current injection

2022

Yaqian Zhang Jianzhong Zhang Fujin Deng Zakiud Din

International Journal of Electrical Power & Energy Systems, Volume 140, Article Number 108053

Impact Factor: 5.2 | **Quartile:** 1 | **Citations:** 7

DOI: <https://doi.org/10.1016/j.ijepes.2022.108053>

High-Resistance Connection Diagnosis Considering Current Closed-Loop Effect for Permanent Magnet Machine

2022

Zheng Xu Zaki Uddin Yongjiang Jiang Khalid Mehmood Cheema Ahmad H Milyani

Frontiers in Energy Research, Volume 10, Article Number 933246

Impact Factor: 3.4 | **Quartile:** 3 | **Citations:** 4

DOI: doi: 10.3389/fenrg.2022.933246

Overmodulation Operation of Hybrid Modular Multilevel Converter With Reduced Energy Storage Requirement

2022

Jianzhong Zhang Yaqian Zhang Fujin Deng Zaki Uddin

IEEE Journal of Emerging and Selected Topics in Power Electronics, Volume 10, Issue 3, Pages 2946-2958

Impact Factor: 5.5 | **Quartile:** 1 | **Citations:** 11

DOI: DOI: 10.1109/JESTPE.2021.3111013

Recent development and future trends of resonance in doubly fed induction generator system under weak grid

2022

Zaki Uddin Jianzhong Zhang Zheng Xu Yaqian Zhang Ahmad H. Milyani Khalid Mehmood Cheema Arshad Nawaz Yipeng Song

IET Renewable Power Generation, Volume 16, Issue 5, Pages 807-834

Impact Factor: 2.6 | **Quartile:** 4 | **Citations:** 20

DOI: <https://doi.org/10.1049/rpg2.12378>

Fault diagnosis of high voltage circuit breaker based on multi-sensor information fusion with training weights <i>Jianzhong Zhang Yongbin Wu Zheng Xu Zaki uddin Hao Chen</i> <i>Measurement</i> , Volume 192, Article Number 110894 Impact Factor: 5.6 Quartile: 1 Citations: 21 DOI: https://doi.org/10.1016/j.measurement.2022.110894	2022
Open switch fault diagnosis of cascade H-bridge multi-level inverter in distributed power generators by machine learning algorithms <i>Murad Ali Zaki Uddin Evgeny Solomin Khalid Mehmood Cheema Ahmad H Milyani Zhiyuan Che</i> <i>Energy Reports</i> , Volume 7, Pages 8929-8942 Impact Factor: 4.937 Quartile: 2 Citations: 49 DOI: https://doi.org/10.1016/j.egyr.2021.11.058	2021
Lumped parameter model and electromagnetic performance analysis of a single-sided variable flux permanent magnet linear machine <i>Basharat Ullah Faisal Khan Muhammad Qasim Bakhtiar Khan Ahmad H Milyani Khalid Mehmood Cheema Zaki uddin</i> <i>Energies</i> , Volume 14, Issue 17, Article Number 5494 Impact Factor: 3.252 Quartile: 3 Citations: 6 DOI: https://doi.org/10.3390/en14175494	2021
Detection and Discrimination of Incipient Stator Faults for Inverter-Fed Permanent Magnet Synchronous Machines <i>Jianzhong Zhang Zheng Xu Jiayue Wang Jin Zhao Zaki Uddin Ming Cheng</i> <i>IEEE Transactions on Industrial Electronics</i> , Volume 68, Issue 8, Pages 7505-7515 Impact Factor: 8.162 Quartile: 1 Citations: 64 DOI: 10.1109/TIE.2020.3009563	2021
A multi-level gate driver for crosstalk suppression of silicon carbide MOSFETs in bridge arm <i>Yaodong Zhu Yongsheng Huang Haifu Wu Zaki Uddin Jianzhong Zhang</i> <i>IEEE Access</i> , Volume 9, Pages 100185-100196 Impact Factor: 3.476 Quartile: 2 Citations: 9 DOI: DOI: 10.1109/ACCESS.2021.3096547	2021
Realization of fault ride through for doubly fed induction generator system with cascade converter <i>Zaki uddin Jianzhong Zhang Zheng Xu Yaqian Zhang Jin Zhao</i> <i>International Transactions on Electrical Energy Systems</i> , Volume 31, Issue 3, Article Number e12792 Impact Factor: 2.639 Quartile: 3 Citations: 15 DOI: https://doi.org/10.1002/2050-7038.12792	2021
Low voltage and high voltage ride-through technologies for doubly fed induction generator system: Comprehensive review and future trends <i>Zaki Uddin Jianzhong Zhang Zheng Xu Yaqian Zhang Jin Zhao</i> <i>IET Renewable Power Generation</i> , Volume 15, Issue 3, Pages 614-630 Impact Factor: 3.034 Quartile: 4 Citations: 47 DOI: https://doi.org/10.1049/rpg2.12047	2021
Circulating current suppression control for modular multilevel converters based on restricted self-redundant states prediction <i>Xing Hu Jianzhong Zhang Fujin Deng Gui Chen Qiang Chen Zaki Uddin</i> <i>Journal of Power Electronics</i> , Volume 20, Issue 5, Pages 1149-1161 Impact Factor: 1.114 Quartile: 4 Citations: 1 DOI: https://doi.org/10.1007/s43236-020-00104-9	2020
Impact of phase locked loop with different types and control dynamics on resonance of DFIG system <i>Zaki Uddin Jianzhong Zhang Hussain Bassi Muhyaddin Rawa Yipeng Song</i> <i>Energies</i> , Volume 13, Issue 5, Article Number 1039 Impact Factor: 3.004 Quartile: 3 Citations: 17 DOI: https://doi.org/10.3390/en13051039	2020
Active damping of resonances in DFIG system with cascade converter under weak grid <i>Zaki Uddin Jianzhong Zhang Yaqian Zhang Zheng Xu Jin Zhao Yipeng Song</i> <i>International Transactions on Electrical Energy Systems</i> , Volume 29, Issue 11, Article Number e12118 Impact Factor: 1.692 Quartile: 3 Citations: 13	2019

DOI: <https://doi.org/10.1002/2050-7038.12118>

Impact of grid impedance on LVRT Performance of DFIG system with rotor crowbar technology
Zaki Uddin Jianzhong Zhang Yaodong Zhu Zheng Xu Ahmed El-Naggar
IEEE Access , Volume 7, Pages 127999-128008
Impact Factor: 3.745 | **Quartile:** 1 | **Citations:** 66
DOI: DOI: 10.1109/ACCESS.2019.2938207

2019

Hybrid multilevel converters: Topologies, evolutions and verifications
Zaki Uddin Jianzhong Zhang Shuai Xu Xing Hu
Energies , Volume 12, Issue 4, Article Number 615
Impact Factor: 2.702 | **Quartile:** 3 | **Citations:** 73
DOI: <https://doi.org/10.3390/en12040615>

2019

Conference Proceedings

A Novel Feedforward Strategy for the Charge-Modulated LLC Resonant Converter
Jie Chen Yong Wang Jian Wang Zaki Uddin
2025 8th International Conference on Energy, Electrical and Power Engineering (CEEPE), res.country(48,)
Citations: N/A
DOI: 10.1109/CEEPE64987.2025.11033919

2025

Brushless Excitation Technolgies for Doubly Fed Induction Generator System: Survey of Solutions and Future Trends
Zaki Uddin Jian Wang Jianzhong Zhang Xingyuan Song
2025 7th Asia Energy and Electrical Engineering Symposium (AEEES), res.country(48,)
Citations: N/A
DOI: 10.1109/AEEES64634.2025.11019524

2025

Data-driven Adaptive Robust Optimization of Self-Scheduling Problem of Multi-Energy Virtual Power Plant Under Uncertainties
Jian Wang Zaki Uddin Run Cao Xingyuan Song Zibo Wu
THE 2nd INTERNATIONAL CONFERENCE ON SMART GRIDS AND POWER SYSTEMS (ICSGPS 2025), res.country(48,)
Citations: N/A
DOI: 10.1088/1742-6596/3012/1/012035

2025

Impact of Different Parameters on Symmetry and Size of Single Step Anodization Nanopores in Porous Alumina
Nabeela Noor Shah Haider Zaki Uddin Iqra Ashfaq
6th International Conference on Robotics and Automation in Industry, ICRAI 2024, res.country(177,)
Citations: N/A
DOI: 10.1109/ICRAI62391.2024.10893939

2024

Optimizing Wind Speed Estimation with Least Squares Generative Adversarial Networks: A Case Study of Pakistan
Iqra Ashfaq Hasan Zahid Zaki Uddin Fajr Naveed Aaisha Abid
2024 International Conference on Robotics and Automation in Industry (ICRAI), res.country(177,)
Citations: N/A
DOI: 10.1109/ICRAI62391.2024.10894229

2024

Operation and Evaluation of Wind Power Generation System with Constant Frequency Double Rotor Generator
Zakiud Din Dan Su Jianzhong Zhang Zheng Xu
2020 7th International Conference on Electrical and Electronics Engineering (ICEEE), res.country(224,)
Citations: N/A
DOI: 10.1109/ICEEE49618.2020.9102611

2020

Phase angle compensation of virtual impedance for resonance mitigation in DFIG system under weak grid
Zakiud Din Jianzhong Zhang Zheng Xu Yaqian Zhang
8th Renewable Power Generation Conference (RPG 2019), res.country(48,)
Citations: N/A
DOI: 10.1049/cp.2019.0334

2019

A Reactive Compensation Method Using Switch Controlled Capacitor for Wireless Power Transfer

2019

Jin Zhao Jianzhong Zhang Yaqian Zhang Zakiud Din Jatskevich Juri
2019 IEEE Energy Conversion Congress and Exposition, ECCE 2019, res.country(233,)
Citations: N/A
DOI: 10.1109/ECCE.2019.8912183

Desig and Implementation of High Frequency Power Supply with Constant Power Output for Plasma Applications

2018

Jin Zhao Jianzhong Zhang Zakiud Din Zhengguo Qian
2018 IEEE Energy Conversion Congress and Exposition, ECCE 2018, res.country(233,)
Citations: N/A
DOI: 10.1109/ECCE.2018.8557948

Doubly Fed Induction Generator with Cascade Converter for Improving Dynamic Performances

2018

Zakiud Din Jianzhong Zhang Jin Zhao Yongjiang Jiang
2018 IEEE Energy Conversion Congress and Exposition, ECCE 2018, res.country(233,)
Citations: N/A
DOI: 10.1109/ECCE.2018.8558069

A Compound 10kV DVR System based on Solid State Transformer Structure

2018

Yaqian Zhang Jianzhong Zhang Xing Hu Zakiud Din
2018 International Power Electronics Conference, IPEC-Niigata - ECCE Asia 2018, res.country(113,)
Citations: N/A
DOI: 10.23919/IPEC.2018.8507539

Editorial Activities

IEEE Transactions on Sustainable Energy

Reviewed Papers for Journals

Impact Factor: 10.0

2025

IEEE Transactions on Sustainable Energy

Reviewed Papers for Journals

Impact Factor: 3.7

2025

IEEE Transactions on Power Delivery

Reviewed Papers for Journals

Impact Factor: 3.7

2025

Energy Science & Engineering

Reviewed Papers for Journals

Impact Factor: 3.4

2025

IEEE Transactions on Industrial Electronics

Reviewed Papers for Journals

Impact Factor: 7.2

2025

IEEE Transactions on Power Electronics

Reviewed Papers for Journals

Impact Factor: 6.6

2025

IEEE Transactions on Power Electronics

Reviewed Papers for Journals

Impact Factor: 7.5

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IEEE Transactions on Power Electronics

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IET Renewable Power Generation

Reviewed Papers for Journals

Impact Factor: 2.6

2025

IEEE Transactions on Power Electronics

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Impact Factor: 6.7	
IEEE Transactions on Transportation Electrification Reviewed Papers for Journals Impact Factor: 0.7	2025
IEEE Access Reviewed Papers for Journals Impact Factor: 9.4	2025
IEEE Access Reviewed Papers for Journals Impact Factor: 3.4	2025
IEEE Access Reviewed Papers for Journals Impact Factor: 3.4	2025
Energies Reviewed Papers for Journals Impact Factor: 3.2	2025
IEEE Transactions on Transportation Electrification Reviewed Papers for Journals Impact Factor: 7	2024
Electrical Engineering Reviewed Papers for Journals Impact Factor: 1.6	2024
Electric Power Systems Research Reviewed Papers for Journals Impact Factor: 3.9	2024
 Reviewed Papers for Journals Impact Factor: N/A	2024
IEEE Access Reviewed Papers for Journals Impact Factor: 3.9	2024
Engineering Applications of Artificial Intelligence Reviewed Papers for Journals Impact Factor: 8	2024
IEEE Access Reviewed Papers for Journals Impact Factor: 3.9	2024
Engineering Applications of Artificial Intelligence Reviewed Papers for Journals Impact Factor: 7.5	2024
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IEEE Access Reviewed Papers for Journals Impact Factor: 3.4	2024
IEEE Access Reviewed Papers for Journals Impact Factor: 3.9	2024
IEEE Access Reviewed Papers for Journals Impact Factor: 3.9	2024
Sustainability	2024

Edited Journal Issue / Proceeding / Book	
Impact Factor: 3.3	
IEEE Access	2024
Reviewed Papers for Journals	
Impact Factor: 3.9	
Engineering Applications of Artificial Intelligence	2023
Reviewed Papers for Journals	
Impact Factor: 7.5	
Electronics	2023
Reviewed Papers for Journals	
Impact Factor: 2.9	
Sustainability	2023
Reviewed Papers for Journals	
Impact Factor: 3.9	
Journal of Energy Storage	2023
Reviewed Papers for Journals	
Impact Factor: 9.4	
International Journal of Electrical Power & Energy Systems	2023
Reviewed Papers for Journals	
Impact Factor: 5.2	
IEEE Acces	2023
Reviewed Papers for Journals	
Impact Factor: 3.9	
Energies	2023
Reviewed Papers for Journals	
Impact Factor: 3.2	
Engineering Applications of Artificial Intelligence	2023
Reviewed Papers for Journals	
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Energies	2023
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Impact Factor: 3.2	
Energies	2023
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Impact Factor: 3.2	
Energies	2023
Reviewed Papers for Journals	
Impact Factor: 3.2	
Sustainability	2023
Reviewed Papers for Journals	
Impact Factor: 3.9	
Mathematical Problems in Engineering	2023
Reviewed Papers for Journals	
Impact Factor: 1.430	
International Journal of Electrical Power & Energy Systems	2023
Reviewed Papers for Journals	
Impact Factor: 5.2	
International Transactions on Electrical Energy Systems	2023
Reviewed Papers for Journals	
Impact Factor: 2.3	

IEEE Access	2023
Reviewed Papers for Journals	
Impact Factor: 3.9	
Energies	2023
Reviewed Papers for Journals	
Impact Factor: 3.2	
International Journal of Photoenergy	2023
Reviewed Papers for Journals	
Impact Factor: 3.2	
Energies	2023
Reviewed Papers for Journals	
Impact Factor: 3.2	
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International Transactions on Electrical Energy Systems	2023
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Impact Factor: 2.3	
IEEE Access	2023
Reviewed Papers for Journals	
Impact Factor: 3.9	
International Journal of Electrical Power & Energy Systems	2023
Reviewed Papers for Journals	
Impact Factor: 5.2	
Frontiers in Energy Research	2023
Reviewed Papers for Journals	
Impact Factor: 3.4	
International Journal of Electrical Power & Energy Systems	2023
Reviewed Papers for Journals	
Impact Factor: 5.2	
International Journal of Robust and Nonlinear Control	2022
Reviewed Papers for Journals	
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Energies	2022
Reviewed Papers for Journals	
Impact Factor: 3.2	
International Journal of Electrical Power & Energy Systems	2022
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Impact Factor: 3.4	