Muhammad Numan

Assistant Professor

US-Pakistan Center for Advanced Studies in Energy

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LinkedIn:

About

Dr. Muhammad Numan is working as Assistant Professor in the US-Pakistan Center for Advanced Studies in Energy. Dr. Muhammad Numan has a PhD in Electrical Power. Dr. Muhammad Numan has published 30 research articles & conference papers having a citation count of 549, carried out 1 projects and filed 0 intellectual property.

Qualifications

PhD in Electrical Power 2016 - 2021
Shanghai Jiaotong University , China

MS in Electrical Power 2013 - 2016
North China Electric Power University , China

BE in Electrical Power 2009 - 2013
NUST, Islamabad , Pakistan

Experience

Assistant Professor 2023- Present
US-Pakistan Center for Advanced Studies in Energy

Assistant Professor 2022 - 2022
US-Pakistan Center for Advanced Studies in Energy

Assistant Professor 2022 - 2023
US-Pakistan Center for Advanced Studies in Energy

Assistant Professor 2021 - 2022
US-Pakistan Center for Advanced Studies in Energy

Assistant Professor 2021 - 2022
NUST , USPCAS-E, NUST

Awards

PhD Studentship Grant 2016
Recipient of Highly Competitive Shanghai Government Scholarship PhD Studentship Grant from Shanghai Municipality Council

FDP Abroad 2013
Selected for the NUST FDP program in the field of Electrical Power Engineering from North China Electric Power University, Beijing, China

CSC Scholar 2013
Awarded with the Chinese Scholarship council (CSC) scholarship for the entire MS degree in the field of Electric Power Systems and its Automation

Academic Scholar 2009
Academic Scholar of Shell Pakistan Pvt (ltd) for the entire Bachelor Degree in Electrical Power Engineering (2009-2013).

Research Projects

National Projects

Socio-Economic Assessment and Low Carbon Expansion planning model for Energy Projects under CPEC 2024

Funding Agency: HEC
Amount: PKR 9,057,528.00
Status: Approved_inprocess

International Projects

Research Articles

Optimal distributed energy resources accommodation with techno-economic benefits using cheetah optimizer 2025

Muhammad Shaarif Muhammad Yousif Muhammad Numan Muhammad Zubair Iftikhar Izhar us Salam Thamer A. H. Alghamdi
IET Generation, Transmission & Distribution, Volume19, Issue 1, Article Number e13322
Impact Factor: 2.000 | **Quartile:** 3 | **Citations:** 1
DOI: http://dx.doi.org/10.1049/gtd2.13322

Enhancing sustainability in electric mobility: Exploring blockchain applications for secure EV charging and energy management 2024

Muhammad Tayyab Rana Muhammad Numan Muhammad Yousif Tanveer Hussain Akif Zia Khan Xianxian Zhao
Computers & Electrical Engineering, Volume 119, Part A, Article Number 109503
Impact Factor: 4.000 | **Quartile:** 1 | **Citations:** 11
DOI: https://doi.org/10.1016/j.compeleceng.2024.109503

Enhancing grid flexibility with coordinated battery storage and smart transmission technologies 2024

Ayesha Muhammad Numan Musaed Alhussein Muhammad Faisal Baig Khursheed Aurangzeb
Journal of Energy Storage, Volume 100, Part B, Article Number 113607
Impact Factor: 8.900 | **Quartile:** 1 | **Citations:** 3
DOI: https://doi.org/10.1016/j.est.2024.113607

Design islanded hybrid micro-grid and analyzing its socio-economic technical and environmental aspects for off-grid electrification in developing countries 2024

Saleem Ullah Muhammad Yousif Muhammad Zeeshan Abid Muhammad Numan Mubashar Aslam Kataria
Energy and Environment, Pages 1-29
Impact Factor: 3.154 | **Quartile:** 3 | **Citations:** 6
DOI: https://doi.org/10.1177/0958305X221133256

Decentralized Smart Energy Management in Hybrid Microgrids: Evaluating Operational Modes, Resources Optimization, and Environmental Impacts 2023

Moatasim Billah Muhammad Yousif Muhammad Numan Izhar Us Salam SYED ALI ABBAS KAZMI THAMER A. H. ALGHAMDI
IEEE Access, Volume:11, Page:143530-143548
Impact Factor: 3.9 | **Quartile:** 2 | **Citations:** 10
DOI: 10.1109/ACCESS.2023.3343466

Optimal Control and Communication Strategies in Multi-Energy Generation Grid 2023

Muhammad Waseem Khan Guojie Li Keyou Wang Muhammad Numan Linyuin Xiong Muhammad Azam Khan
IEEE Communications Surveys & Tutorials, Volume 25, Issue 4, Pages 2599-2653
Impact Factor: 35.6 | **Quartile:** 1 | **Citations:** 15
DOI: 10.1109/COMST.2023.3304982

Optimizing Distributed Generation Placement and Sizing in Distribution Systems: A Multi-Objective Analysis of Power Losses, Reliability, and Operational Constraints 2023

Izhar Us Salam Muhammad Yousif Muhammad Numan Kamran Zeb Moatasim Billah
Energies, Volume 16, Issue 16, Article Number 5907
Impact Factor: 3.2 | **Quartile:** 3 | **Citations:** 24
DOI: 10.3390/en16165907

Site suitability for solar and wind energy in developing countries using combination of GIS- AHP; a case study of Pakistan 2023

Muhammad Ali Raza Muhammad Yousif Muhammad Hassan Muhammad Numan Syed Ali Abbas Kazmi
Renewable Energy, Volume 206, Pages 180-191

Impact Factor: 8.634 | **Quartile:** 1 | **Citations:** 66
DOI: https://doi.org/10.1016/j.renene.2023.02.010

Backstepping based real twisting sliding mode control for photovoltaic system 2023

Sarmad Majeed Malik Mansoor Asif Muhammad Numan Sahid Ullah Yingyun Sun Junjie Hu Muhammad Kamran Bodla

Frontiers in Energy Research, Volume 10, Article Number :1087593

Impact Factor: 3.858 | **Quartile:** 3 | **Citations:** 1
DOI: 10.3389/fenrg.2022.1087593

Impact of Dynamic Thermal Rating on optimal siting and sizing of energy storage systems under Renewable Portfolio Standards requirements 2022

Muhammad Numan Mansoor Asif Muhammad Waseem Khan Sarmad Majeed Malik Fakhar Uddin Khilji

Sustainable Energy, Grids and Networks, Volume 32, Article Number 100881

Impact Factor: 5.405 | **Quartile:** 1 | **Citations:** 14
DOI: https://doi.org/10.1016/j.segan.2022.100881

Optimal Restoration Sequence of Parallel Power System Using Genetic Algorithm † 2022

Saad Ullah Aftab Muhammad Numan Hasaan Farooq Naseer Ahmed Zain Ul Hassan

Engineering Proceedings , Volume 20, Issue 1, Article Number 38

Impact Factor: N/A | **Citations:** 2
DOI: https://doi.org/10.3390/ engproc2022020038

Exploiting the Inherent Flexibility in Transmission Network for Optimal Scheduling, Wind Power Utilization, and Network Congestion Management 2021

Akif Zia Khan Kashif Imran Muhammad Numan Mansoor Asif Sarmad Majeed Malik

IEEE Access , Volume 9, Pages 88746-88758

Impact Factor: 3.476 | **Quartile:** 2 | **Citations:** 22
DOI: 10.1109/ACCESS.2021.3090089

Network overloading management by exploiting the in-system batteries of electric vehicles 2021

Usama Rahman Donghan Feng Hao Su Muhammad Numan Farukh Abbas

International Journal of Energy Research, Volume 45, Issue 4, Pages 5866-5880

Impact Factor: 4.672 | **Quartile:** 1 | **Citations:** 10
DOI: 10.1002/er.6207

Coordinated operation of reconfigurable networks with dynamic line rating for optimal utilization of renewable generation 2021

Muhammad Numan DongHan Feng Farukh Abbas Salman Habib Su Hao

International Journal of Electrical Power and Energy Systems, Volume 125, Article Number 106473

Impact Factor: 5.659 | **Quartile:** 1 | **Citations:** 41
DOI: doi:10.1016/j.ijepes.2020.106473

Optimal energy management of residential battery storage under uncertainty 2021

Hao Su Yun Zhou Donghan Feng Hengjie li Muhammad Numan

International Transactions on Electrical Energy Systems, Volume 31, Issue 2, Article Number e12713

Impact Factor: 2.860 | **Quartile:** 2 | **Citations:** 6
DOI: 10.1002/2050-7038.12713

Impact assessment of a co-optimized dynamic line rating and transmission switching topology on network expansion planning 2020

Muhammad Numan Donghan Feng Farukh Abbas Usama Rahman Waqas Ahmad Wattoo

International Transactions on Electrical Energy Systems, Volume 30, Issue 8, Article Number e12457

Impact Factor: 2.86 | **Quartile:** 2 | **Citations:** 16
DOI: https://doi.org/10.1002/2050-7038.12457

Enhanced control strategies of VSG for EV charging station under a low inertia microgrid 2020

Aazim Rasool Xiangwu Yan Urfa Rasool Farukh Abbas Muhammad Numan Haaris Rasool Mohsin Jamil

IET Power Electronics , Volume 13, Issue 13

Impact Factor: 2.641 | **Quartile:** 2 | **Citations:** 18
DOI: doi: 10.1049/iet-pel.2019.1592

A framework for stochastic estimation of electric vehicle charging behavior for risk assessment of distribution networks 2020

Salman Habib Muhammad Mansoor Khan Farukh Abbas Muhammad Numan Yaqoob Ali

Frontiers in Energy, Volume 14, Issue 2, Pages 298–317

Impact Factor: 2.709 | **Quartile:** 3 | **Citations:** 35
DOI: 10.1007/s11708-019-0648-5

A heuristically optimized comprehensive charging scheme for large-scale EV integration 2020
Farukh Abbas Donghan Feng Salman Habib Muhammad Numan Usama Rahman
International Transactions on Electrical Energy Systems, Volume 30, Issue 5, Article Number e12313
Impact Factor: 2.860 | **Quartile:** 2 | **Citations:** 5
DOI: DOI: 10.1002/2050-7038.12313

Mobilizing grid flexibility through optimal transmission switching for power systems with large-scale renewable integration 2020
Muhammad Numan DongHan Feng Farukh Abbas Salman Habib Aazim Rasool
International Transactions on Electrical Energy Systems, Volume 30, Issue 3, Article Number e12211
Impact Factor: 2.86 | **Quartile:** 2 | **Citations:** 12
DOI: https://doi.org/10.1002/2050-7038.12211

An Improved Optimal Forecasting Algorithm for Comprehensive Electric Vehicle Charging Allocation 2019
Farukh Abbas Donghan Feng Salman Habib Aazim Rasool Muhammad Numan
Energy Technology, Volume 7, Issue 10, Article Number 1900436
Impact Factor: 3.631 | **Quartile:** 3 | **Citations:** 22
DOI: 10.1002/ente.201900436

Optimal asset allocation of wind energy units in conjunction with demand response for a large-scale electric grid 2019
Waqas Ahmad Wattoo Muhammad Yousif Muhammad Tuoqeer Anwar Muhammad Numan Donghan Feng Sohaib Tahir
International Journal of Energy Research, Volume 43, Issue 10, Pages 5447-5459
Impact Factor: 3.741 | **Quartile:** 1 | **Citations:** 3
DOI: https://doi.org/10.1002/er.4663

Conference Proceedings

Machine Learning based Fault Classification using Stray Flux and Stator Current in Induction Motor 2023
Najeeb Ullah Muhammad Farasat Abbas Syed Ali Abbas Kazmi Muhammad Numan Hassan Abdullah Khalid
2023 3rd International Conference on Artificial Intelligence (ICAI), res.country(282,)
Citations: N/A
DOI: 10.1109/ICAI58407.2023.10136678

Impact Analysis of Future Probabilistic Growth of Rooftop PV in Gulshan-e-Iqbal Feeder of LESCO 2022
Raveena Kumari Kashif Imran Arqam Ilyas Farah ul Ain Muhammad Numan Sohail Khan
6th International Conference on Energy, Environment, and Sustainable Development 2022 (EESD2022), res.country(177,)
Citations: N/A
DOI: Not Available

Book Chapters

Agents-Based Energy Scheduling of EVs and Smart Homes in Smart Grid 2023
Muhammad Waseem Khan Guojie Li Keyou Wang Muhammad Numan Linyuin Xiong Sunhua Huang Muhammad Azam Khan
In: *Book on Smart Grid 3.0: Computational and Communication Technologies*, 1st Edition, Chapter 8, Page:185-219
Citations: 1
DOI: https://doi.org/10.1007/978-3-031-38506-3_8

A Comprehensive Topological Assessment of Power Electronics Converters for Charging of Electric Vehicles 2021
Salman Habib Farheen Ehsan Haoming Liu Muhammad Haroon Nadeem Farukh Abbas Muhammad Numan
In: *Book on Flexible Resources for Smart Cities*, First Edition, Chapter 7, Pages 133-183
Citations: 6
DOI: 10.1007/978-3-030-82796-0_7

Editorial Activities

2022

Reviewed Papers for Journals
Impact Factor: 2.503

2022

Reviewed Papers for Journals
Impact Factor: -

2022

Reviewed Papers for Journals
Impact Factor: 5.659

2022

Reviewed Papers for Journals
Impact Factor: -

2022

Reviewed Papers for Journals
Impact Factor: 3.858

2021

Reviewed Papers for Journals
Impact Factor: 3.367