

Nusrat Husain

Assistant Professor

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About

Dr. Nusrat Husain is working as Assistant Professor in the Pakistan Navy Engineering College. Dr. Nusrat Husain has a PhD in Power Electronics and Electrical Power Systems. Dr. Nusrat Husain has published 29 research articles & conference papers having a citation count of 76, carried out 0 projects and filed 0 intellectual property.

Qualifications

PhD in Power Electronics and Electrical Power Systems NED UET Karachi , Pakistan	2014 - 2021
Master in Islamic Studies University of Karachi , Pakistan	2006 - 2008
M.E in Electrical Power Systems Engineering NED UET Karachi , Pakistan	2003 - 2005
BE in Electrical Engineering NED UET Karachi , Pakistan	1997 - 2001

Experience

Assistant Professor Pakistan Navy Engineering College	2011 - Present
Lecturer Pakistan Navy Engineering College	2008 - 2011
Demonstrator Pakistan Navy Engineering College	2008 - 2008
Demonstrator Pakistan Navy Engineering College	2005 - 2008
Assistant Electrical Engineer KESC Limited , KTPS, KESC, Karachi	2004 - 2005
Assistant Manager SUPARCO , Karachi, Pakistan	2003 - 2004
Fellow PAEC , Karachi, Pakistan	2001 - 2002

Awards

Best Teacher Award PNEC Best Teacher Award for the Year 2015	2016
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Professional Memberships

PEC	Since 2001
IEEEP	Since 2003

Research Articles

Novel configurations for cascaded multilevel inverter with hybrid and asymmetric architecture	2025
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Ashraf Yahya Nusrat Husain Syed Aqeel Haider Lubna Moin Zeeshan Ahmad Arfeen
Circuit World , Pages 1-20

Impact Factor: 0.800 | **Quartile:** 4

DOI: <https://doi.org/10.1108/CW-02-2024-0033>

Selection of best apshaltene controlling chemical additive for crude oil using strategic sensitivity of weight criteria importance in TOPSIS method

2025

Nusrat Husain Ashraf Yahya Syed Imran Ali Shaine Mohammadali Lalji Liping Zhang Agha Yasir Ali Muneeb Burney Tariq Jamil Zeeshan Ahmad Arfeen
Journal of Industrial and Engineering Chemistry, Volume 142, Pages 622-634

Impact Factor: 5.900 | **Quartile:** 1 | **Citations:** 3

DOI: <https://doi.org/10.1016/j.jiec.2024.08.005>

A Smart Prediction Platform for Agricultural Crops Using Machine Learning

2025

Nusrat Husain Ammar Rafiq Muhammad Usman Younus Syed Aqeel Haider Kalsoom Safdar Najaf Ali Zeeshan Ahmad Arfeen Faisal Mumtaz Muhammad Asgher Nadeem

International Journal of Innovations in Science and Technology, Volume 07, Issue 01, Pages 98-110

Impact Factor: N/A

Understanding live oil composition effect on asphaltene precipitation as a function of temperature change during depressurization using machine learning techniques

2025

Nusrat Husain Ashraf Yahya Syed Imran Ali Shaine Mohammadali Lalji Zahoor Awan Saud Hashmi Firoz Khan Awatef Salem Balobaid Muneeb Burney Muhammad Qasim Muhammad Asad Muhammad Junaid

Chemical Papers , Volume 79, Pages 353–364

Impact Factor: 2.100 | **Quartile:** 3 | **Citations:** 2

DOI: <https://doi.org/10.1007/s11696-024-03784-w>

AI-Driven Control and Processing System for Smart Homes with Solar Energy

2024

Nusrat Husain Muhammad Hamza Abdur Raheem Syed Mohammad Ali Shah Syed Ali Hasnain Naqvi Zeeshan Ahmad Arfeen Muhammad Salman Saeed Muhammad Rashid

International Journal of Innovations in Science and Technology, Volume 06, Issue 04, Pages 2104-2116

Impact Factor: N/A

Stochastic optimal PV placement and command based power control for voltage and power factor correction using MOPSO algorithm

2024

Nusrat Husain Ashraf Yahya Shehzad Haneef Zeeshan Rashid Syed Aqeel Haider Zeeshan Ahmad Arfeen Muhammad Amjad Hafeez ur Rehman
Ain Shams Engineering Journal, Volume 15, Issue 11, Article Number 102990

Impact Factor: 6.000 | **Quartile:** 1 | **Citations:** 7

DOI: [10.1016/j.asej.2024.102990](https://doi.org/10.1016/j.asej.2024.102990)

Risk ranking of rig up operation activities using multi-criteria decision-making methods based on fuzzy environment

2024

Nusrat Husain Ashraf Yahya Syed Imran Ali Shaine Mohammadali Lalji Syed Muhammad Ali Yassar Kamal Zia Nimra Yousaf Awatef Salem Balobaid Zahoor Awan

Journal of Engineering Research , Volume 12, Issue 1

Impact Factor: 1.0 | **Quartile:** 4 | **Citations:** 1

DOI: <https://doi.org/10.1016/j.jer.2024.01.011>

Risk prioritization in a core preparation experiment using fuzzy VIKOR integrated with Shannon entropy method

2024

Nusrat Husain Ashraf Yahya Syed Imran Ali Shaine Mohammadali Lalji Syed Aqeel Haider Javed Haneef Adnan-ul-Haque Syed Zeeshan Rashid Zeeshan Ahmad Arfeen

Ain Shams Engineering Journal, Volume 15, Issue 2, Article Number: 102421, Pages: 18

Impact Factor: 6.0 | **Quartile:** 1 | **Citations:** 15

DOI: [10.1016/j.asej.2023.102421](https://doi.org/10.1016/j.asej.2023.102421)

An Improved Multimodal Biometric Identification System Employing Score-Level Fuzzification of Finger Texture and Finger Vein Biometrics

2023

Dr. Nusrat Husain Dr. Ashraf Yahya Dr. Muhammad Farhan Khan Syed Aqeel Haider Shahzad Ashraf Raja Masood Larik Hafiz Abdul Muqeet Usman Humayun Zeeshan Ahmad Arfeen

Sensors , Volume: 23, Issue: 24, Article Number 9706

Impact Factor: 3.9 | **Quartile:** 2 | **Citations:** 8

DOI: [10.3390/s23249706](https://doi.org/10.3390/s23249706)

An Improved Gradient-Based Optimization Algorithm for Solving Complex Optimization Problems

2023

Nusrat Husain Ashraf Yahya Lubna Moin Saleh Masoud Abdallah Altbawi Saifulnizam Bin Abdul Khalid Ahmad Safawi Bin Mokhtar Hussain Shareef Syed

Aqeel Haider Rayan Hamza Alsisi

Processes , Volume 11, Issue 2, Article Number 498

Impact Factor: 3.5 | **Quartile:** 2 | **Citations:** 20

DOI: <https://doi.org/10.3390/pr11020498>

Optimal Control of a Single-Stage Modular PV-Grid-Driven System Using a Gradient Optimization

2023

Algorithm

Nusrat Husain Ashraf Yahya Lubna Moin Saleh Masoud Abdallah Altbawi Ahmad Safawi Bin Mokhtar Saifulnizam Bin Abdul Khalid Syed Aqeel Haider Rayan Hamza Alsisi

Energies , Volume 16, Issue 3, Article Number 1492

Impact Factor: 3.252 | **Quartile:** 3 | **Citations:** 20

DOI: <https://doi.org/10.3390/en16031492>

Exposure to Auto-Irrigation System of Pakistan Using Solar PV Power

2022

Muhammad Ovais Akhter Fawad Shaukat Nusrat Husain Zeeshan Ahmad Arfeen

Journal of Xi'an Shiyu University, Natural Science Edition , Volume 18, Issue 7, Pages 318-323

Impact Factor: N/A

DOI: <https://www.xisdjxsu.asia/viewarticle.php?aid=1048>

Prominence of Filtering Techniques for Harmonics Mitigation in Advanced Power Electronics Systems

2022

Muhammad Arslan Sadiq Nusrat Husain Fawad Shaukat Ashraf Yahya Zeeshan Ahmad Arfeen Osama Mehboob Huzaifa Altaf

International Journal of Innovations in Science and Technology (IJIST), Volume 4, Issue 2, Pages 512-525

Impact Factor: N/A

DOI: N.A

Exposure of Electrically Driven Vehicles and Smart Vehicle-to-Grid Technology

2021

Md Pauzi Abdullah Nusrat Husain Mehreen Kausar Azam Najeeb Iqbal M Rashid Zeeshan Ahmad Arfeen

International Journal of Progressive Sciences and Technologies, Volume 30, No. 1, Pages 220-228

Impact Factor: N/A

DOI: 10.52155/ijpsat.v30.1.3859

On Integration of Wind Power into Existing Grids via Modular Multilevel Converter based HVDC

2020

Systems

Nusrat Husain Syed M. Usman Ali

International Journal of Renewable Energy Research, Volume 10, No. 3, Pages 1060-1070

Impact Factor: -

DOI: -

Transmission of Mainland and Offshore Wind Power Through HVDC Underground and Submarine

2018

Cables

Nusrat Husain Ashraf Yahya Syed M Usman Ali

Technocrat , Volume VIII, Pages 06-09

Impact Factor: 0

DOI: -

Wind Energy ? A Promising Renewable Power Resource

2018

Nusrat Husain Ashraf Yahya M. Usman Ali Naqash Khan

Technocat, PNEC Journal, Not Available

Impact Factor: -

DOI: Nil

Wind Energy and HVDC Systems-Promising Technologies

2017

Syed M. Usman Ali Naqash Khan Nusrat Husain ASHRAF YAHYA

Technocrat , -

Impact Factor: 0

DOI: https://www.researchgate.net/publication/332414496_Wind_Energy_and_HVDC_Systems-Promising_Technologies

Load Flow Analysis of an EHT Network Using ETAP?

2016

Muhammad Naveed Malik Ateeb Iftikhar Toor Muhammad Asim Siddiqui Nusrat Hussain Akif Nadeem

Journal of Multidisciplinary Engineering Science and Technology (JMEST), Volume 3 Issue 6, Pages 4978-4984

Impact Factor: -

DOI: -

Hybrid Multilevel Topology Based High Power Quality Inverter

2015

Ashraf Yahya Nusrat Husain Talha Waqar Syed M.Usman Ali

Impact Factor: 0

DOI: -

Multilevel Inverter-a survey for MV and HV applications

2015

Nusrat Husain Syed M Usman Ali Ashraf Yahya

International Journal of Scientific and Engineering Research, Volume 6, Issue 1, Pages 1453 -1460

Impact Factor: 0

DOI: Nil

Conference Proceedings

SCADA Based Differential Protection of Power Transformers

2021

Muhammad Rashid Abdur Raheem Rabia Shakoor Zeeshan Ahmad Arfeen Dr. Nusrat Husain

6th International Multi-Topic ICT Conference 2021 (IMTIC'21), res.country(177,)

Citations: N/A

DOI: N/A

Emergence of Advanced Multi-terminal HVDC Transmission Systems and DC Grids

2021

Ghulam Muhay Ud Din Dr Nusrat Husain Zeeshan Ahmad Arfeen Dr. Ashraf Yahya Najeeb Iqbal Fawad Shaukat

6th International Multi-Topic ICT Conference 2021 (IMTIC'21), res.country(177,)

Citations: N/A

DOI: N/A

Mathematical Analysis of Advanced High Voltage Direct Current Transmission Systems

2021

Ghulam Muhay Ud Din Nusrat Husain Ashraf Yahya Zeeshan Ahmad Arfeen

International Conference on Applied and Engineering Mathematics (ICAEM), res.country(177,)

Citations: N/A

DOI: 10.1109/ICAEM53552.2021.9547195

Modular Multilevel Converters - An Emerging Trend in Advanced HVDC Systems

2016

Nusrat Husain Ashraf Yahya Syed M. Usman Ali

4th International Conference on Energy, Environment and Sustainable Development 2016 (EESD 2016), res.country(177,)

Citations: N/A

DOI: https://www.researchgate.net/publication/313894130_Modular_Multilevel_Converters_-_An_Emerging_Trend_in_Advanced_HVDC_Systems

Interconnection of Asynchronous Power Grids Using VSC-HVDC Systems

2015

Nusrat Husain S Shaheer Khurshid M Arsalan Mushtaq Usman Farooq

International Multi Topic Conference on Wireless Networks, Information Processing and Systems res.country(177,)

Citations: N/A

DOI: N.A

Applications of Advanced Power Electronics in Harnessing Electrical Power from DFIG and PMSG Based Wind Farms and Associated Power Quality Issues

2014

Nusrat Husain Talal Khan Ali Zai Qamar Zia Muhammad Usman

10th IEEE International Conference on Emerging Technologies , ICET 2014 res.country(177,)

Citations: N/A

DOI: N.A

Improving the voltage stability and performance of power networks using power electronics based FACTS controllers

2014

Nusrat Husain S Fahad Bin Shakeel M Daniyal Wasim Shayan Junaid

International Conference on Energy Systems and Policies (ICESP), res.country(177,)

Citations: N/A

DOI: 10.1109/ICESP.2014.7347014

Advanced trends in Harnessing Electrical Power by Wind Farm using DFIG and Back to Back Converters

2014

Nusrat Husain Talal Khan Ali Zai Qamar Zia M Usman

29th IEEEEP All Pakistan Students' Seminar 2014, res.country(177,)

Citations: N/A

DOI: N.A

Editorial Activities

Electric Power Systems Research Reviewed Papers for Journals Impact Factor: 3.9	2024
Electric Power Systems Research Reviewed Papers for Journals Impact Factor: 3.3	2024
Electric Power Systems Research Reviewed Papers for Journals Impact Factor: 3.9	2024
Electric Power Systems Research Reviewed Papers for Journals Impact Factor: 3.9	2024
 Reviewed Papers for Journals Impact Factor: IEEE Xplore	2024
 Reviewed Papers for Journals Impact Factor: IEEE Xplore	2024
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 Reviewed Papers for Journals Impact Factor: IEEE Xplore	2024
Electric Power Systems Research Reviewed Papers for Journals Impact Factor: 3.9	2024
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 Reviewed Papers for Journals Impact Factor: IEEE Xplore	2024
Electric Power Systems Research Reviewed Papers for Journals Impact Factor: 3.9	2024
 Reviewed Papers for Journals Impact Factor: NA	2024
Electric Power Systems Research Reviewed Papers for Journals Impact Factor: 3.818	2024
Electric Power Systems Research Reviewed Papers for Journals Impact Factor: 3.818	2024
Electric Power Systems Research Reviewed Papers for Journals Impact Factor: 3.818	2023
International Journal of Renewable Energy Research Reviewed Papers for Journals Impact Factor: N/A	2023
Electric Power Systems Research Reviewed Papers for Journals Impact Factor: 3.9	2023

Reviewed Papers for Journals Impact Factor: N/A	2023
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Electric Power Systems Research Reviewed Papers for Journals Impact Factor: 3.818	2023
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Edited Journal Issue / Proceeding / Book Impact Factor: NA	2023
Reviewed Papers for Journals Impact Factor: NA	2023
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Reviewed Papers for Journals Impact Factor: 0	2021
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Reviewed Papers for Journals Impact Factor: 0	2021
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Reviewed Papers for Journals Impact Factor: 0.939	2021
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Reviewed Papers for Journals Impact Factor: 1.004	2021
Reviewed Papers for Journals	2020
Reviewed Papers for Journals	2019