# Sarmad Majeed Malik

Assistant Professor

College of Electrical & Mechanical Engineering

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# **About**

Dr. Sarmad Majeed Malik is working as Assistant Professor in the College of Electrical & Mechanical Engineering. Dr. Sarmad Majeed Malik has a PhD in Electric Power Systems And Automation. Dr. Sarmad Majeed Malik has published 23 research articles & conference papers having a citation count of 434, carried out 1 projects and filed 0 intellectual property.

#### Qualifications

PhD in Electric Power Systems And Automation  North China Electric Power University , China	2015 - 2019
MS in Electirc Power Sys & Automation  North China Electric Power University , China	2012 - 2014
BE in Electronics Engg)  NUST, Islamabad , Pakistan	2008 - 2012
Experience	
Assistant Professor College of Electrical & Mechanical Engineering	2024- Present
Assistant Professor  College of Electrical & Mechanical Engineering	2023 - 2023
Assistant Professor College of Electrical & Mechanical Engineering	2020 - 2020
Assistant Professor College of Electrical & Mechanical Engineering	2020 - 2024
Assistant Professor College of Electrical & Mechanical Engineering	2019 - 2020
Lecturer College of Electrical & Mechanical Engineering	2014 - 2019
Lecturer NUST, CEME, NUST	2014 - 2015
Awards	
Outstanding Student Outstanding student PhD at North China Electric Power University, Beijing, China	2018
Recipent of FDP 2015	2015

# Selected for MS by NUST

2012

Selected by NUST as one of the top students eligible to pursue MS in Electric Power Systems and Automation at North China Electric Power University, Beijing, China. The program was supported by MoU between NUST and NCEPU.

Selected by NUST under Faculty Development Program (FDP) to pursue PhD in Electrical Power at North China Electric Power University, Beijing, China.

China Scholarship Council

Recipient of China Scholarship Council award for MS at North China Electric Power University, Beijing, China.

2012

### **Professional Memberships**

PEC Since 2014

# **Research Projects**

National Projects	
Power Management and Control of Renewable Penetrated Hybrid Microgrids Funding Agency: North China Electric Power University (NCEPU), Beijing, China Amount: PKR 1,200,000.00 Status: Completed	202
International Projects	
Research Articles	
An Artificial Neural Network Based MPPT Control of Modified Flyback Converter for PV Systems in Active Buildings  Sarmad Majeed Malik Saddam Gul Yingyun Sun Faisal Alsaif  Energy Reports, Volume 12, Pages 2865-2872  Impact Factor: 4.700   Quartile: 2   Citations: 12	2024
DOI: https://doi.org/10.1016/j.egyr.2024.08.082  Scenario Reduction Network Based on Wasserstein Distance with Regularization  Sarmad Majeed Malik Xiaochong Dong Yingyun Sun Tianjiao Pu Ye Li Xinying Wang  IEEE Transactions on Power Systems, Volume: 39, Issue: 1, Pages: 4-13  Impact Factor: 6.6   Quartile: 1   Citations: 13  DOI: 10.1109/TPWRS.2023.3234277	2024
An adaptive virtual capacitive droop for hybrid energy storage system in DC microgrid  Sarmad Majeed Malik Yingyun Sun Junjie Hu  Journal of Energy Storage, Volume 70, Article Number 107809  Impact Factor: 9.4   Quartile: 1   Citations: 17  DOI: https://doi.org/10.1016/j.est.2023.107809	2023
Backstepping based real twisting sliding mode control for photovoltaic system  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	2023
Impact of Dynamic Thermal Rating on optimal siting and sizing of energy storage systems under Renewable Portfolio Standards requirements  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: 13  DOI: https://doi.org/10.1016/j.segan.2022.100881	202;
A novel solid state transformer based control topology for interconnected MV and LV hybrid microgrids  Sarmad Majeed Malik Yingyun Sun Junjie Hu  Energy Reports, Volume 8, Pages 10385-10394  Impact Factor: 4.937   Quartile: 2   Citations: 5  DOI: https://doi.org/10.1016/j.egyr.2022.08.175	2023
Exploiting the Inherent Flexibility in Transmission Network for Optimal Scheduling, Wind Power  Utilization, and Network Congestion Management  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	202
A state of charge-based linearised frequency–voltage droop for interlinking converters in an isolated hybrid microgrid  Sarmad Majeed Malik Yingyun Sun  IET Renewable Power Generation, Volume 15, Issue 2, Pages 354-367	202

Impact Factor: 3.034   Quartile: 4   Citations: 10	
<b>DOI:</b> https://doi.org/10.1049/rpg2.12028	
Integrated Demand Response Characteristics of Industrial Park: a Review	2019
Zhengqi Chen Yingyun Sun Xin Ai Sarmad Majeed Malik Liping Yang	
Journal of Modern Power Systems and Clean Energy, Volume 8, Issue 1, Pages 15-26	
Impact Factor: 3.090   Quartile: 2   Citations: 70	
<b>DOI:</b> 10.35833/MPCE.2018.000776	
Small-Signal Analysis of a Hybrid Microgrid With High PV Penetration	2019
Sarmad Majeed Malik Yingyun Sun Xin Ai Zhengqi Chen Kunyu Wang	
IEEE Access , Volume 7, pp 119631-119643	
Impact Factor: 3.745   Quartile: 1   Citations: 14	
<b>DOI:</b> 10.1109/ACCESS.2019.2937123	
Cost-Based Droop Scheme for Converters in Interconnected Hybrid Microgrids	2019
Sarmad Majeed Malik Yingyun Sun Xin Ai Zhengqi Chen Kunyu Wang	
IEEE Access, Volume 7, Pages 82266-82276	
Impact Factor: 3.745   Quartile: 1   Citations: 16	
<b>DOI:</b> 10.1109/ACCESS.2019.2923600	
Unified method for optimal power flow of AC/DC system with PET based on extended branch model	2019
Yingyun Sun Liping Hu Sarmad Majeed Malik Naishi Chen Tianjiao Pu	
The Journal of Engineering, Volume 2019, Issue 16, Page 1942 - 1946	
Impact Factor: 0	
<b>DOI:</b> 10.1049/joe.2018.8707	
A Generalized Droop Strategy for Interlinking Converter in a Standalone Hybrid Microgrid	2018
Sarmad Majeed Malik Yingyun Sun Wen Huang Xin Ai Zhikang Shuai	
Applied Energy, Volume 226, Pages 1056-1063	
Impact Factor: 8.426   Quartile: 1   Citations: 49	
<b>DOI:</b> 10.1016/j.apenergy.2018.06.002	
Voltage and frequency control strategies of hybrid AC/DC microgrid: a review	2017
Sarmad Majeed Malik Xin Ai Chen Zhengqi Zhou Shupeng Yingyun Sun	

IET Generation Transmission & Distribution, Volume 11, Issue 2, Pages 303-313

Impact Factor:  $2.618 \mid$  Quartile:  $2 \mid$  Citations: 192

DOI: 10.1049/iet-gtd.2016.0791

#### **Conference Proceedings**

# Voltage-Frequency Droop Scheme for Standalone Hybrid Microgrids 2019 Sarmad Majeed Malik Yingyun Sun Xin Ai Chen Zhengqi Jamshed A Ansari 2019 2nd International Conference on Computing, Mathematics and Engineering Technologies (iCoMET), res.country(177,) Citations: N/A DOI: 10.1109/ICOMET.2019.8673528 **Droop-based Converter Scheme for Linking Multiple Hybrid Microgrids** 2019 Sarmad Majeed Malik Yingyun Sun Xin Ai Chen Zhengqi Jamshed A Ansari 2019 2nd International Conference on Computing, Mathematics and Engineering Technologies (iCoMET), res.country(177,) Citations: N/A DOI: 10.1109/ICOMET.2019.8673415 A Small Isolated Power System SCUC Model with State-Controllable Wind Power 2016 Ruomeng Jiang Sarmad Majeed Malik Yingyun Sun Jianliang Zhong 2016 3rd International Conference on Information Science and Control Engineering (ICISCE), res.country(48,) Citations: N/A DOI: 10.1109/ICISCE.2016.174 Logistic regression and feature extraction based fault diagnosis of main bearing of wind turbines 2016 Muhammad Kamran Bodla Sarmad Majeed Malik Muhammad Tahir Rasheed Muhammad Numan Muhammad Zeeshan Ali Jimmy Baimba Brima 2016 IEEE 11th Conference on Industrial Electronics and Applications (ICIEA), res.country(48,) Citations: N/A DOI: 10.1109/ICIEA.2016.7603846 Effect of PI Controller on Efficiency of Dynamic Voltage Restorer for Compensation of Voltage Quality 2014 **Problems** Muhammad Taha Ali Farukh Abbas Akif Nadeem Muhammad Yaqoob Sarmad M. Malik M. Javed Iqbal 2014 16th International Power Electronics and Motion Confrol Conference and Exposition, res.country(224,) Citations: N/A DOI: 10.1109/EPEPEMC.2014.6980663 Automated over speeding detection and reporting system 2014 Sarmad Majeed Malik M. Asad Igbal Zohaib Hassan Tauseef Taugeer Rehan Hafiz Usman Nasir 2014 16th International Power Electronics and Motion Control Conference and Exposition, res.country(224,) Citations: N/A DOI: 10.1109/EPEPEMC.2014.6980657 A Wind Forecast Error Cost Included OPF Model and Its Fast Algorithm 2014 Yingyun Sun Yue Guo Rui Mao Sarmad Majeed Malik 2014 IEEE PES General Meeting | Conference & Exposition, res.country(233,) Citations: N/A DOI: 10.1109/PESGM.2014.6938928 Implementation of Intelligent AGC in PSAT for Optimal Use in Smart Grids 2014 Sarmad Majeed Malik Sun Yingyun Akif Zia Khan 2014 IEEE International Conference on Intelligent Energy and Power Systems (IEPS), res.country(229,) Citations: N/A DOI: 10.1109/IEPS.2014.6874176 Automatic Number Plate Recognition Based on Connected Components Analysis Technique 2014 Sarmad Majeed Malik Rehan Hafiz 2nd International Conference on Emerging Trends in Engineering and Technology (ICETET'2014), res.country(231,) Citations: N/A DOI:

https://www.researchgate.net/publication/282604618\_Automatic Number\_Plate\_Recognition\_Based\_on\_Connected\_Components\_Analysis\_Technique

# **Editorial Activities**

Frontiers in Energy Research	2022
Reviewed Papers for Journals	
Impact Factor: 3.858	
Electric Power Systems Research	2022
Reviewed Papers for Journals	
Impact Factor: 3.818	
	2022
Reviewed Papers for Journals	
Impact Factor: 4.469	