

## Usman Ali

Assistant Professor

College of Electrical & Mechanical Engineering

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## About

Dr. Usman Ali is working as Assistant Professor in the College of Electrical & Mechanical Engineering. Dr. Usman Ali has a PhD in Electrical Engineering/Signal Processing. Dr. Usman Ali has published 22 research articles & conference papers having a citation count of 316, carried out 2 projects and filed 0 intellectual property.

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## Qualifications

<b>PhD in Electrical Engineering/Signal Processing</b> NUST, Islamabad , Pakistan	2007 - 2012
<b>MS in Electrical Engineering/Signal Processing</b> NUST, Islamabad , Pakistan	2005 - 2007
<b>BE in Electrical Engineering</b> NUST, Islamabad , Pakistan	2001 - 2005

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## Experience

<b>Assistant Professor</b> College of Electrical & Mechanical Engineering	2012- Present
<b>Lecturer</b> College of Electrical & Mechanical Engineering	2011 - 2012

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## Awards

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## Professional Memberships

<b>PEC</b>	Since 2012
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## Research Projects

<b>National Projects</b>	
<b>3 Phase Solar Inverter with VFD For Induction Motor Using Space Vector Pulse Width Modulation</b> <b>Funding Agency:</b> IGNITE <b>Amount:</b> PKR 52,320.00 <b>Status:</b> Completed	2019
<b>Dual Stage High Frequency Cascaded H-Bridge Multi-level Inverter.</b> <b>Funding Agency:</b> IGNITE <b>Amount:</b> PKR 57,500.00 <b>Status:</b> Completed	2018

## International Projects

## Research Articles

- Analysis of the Dual Active Bridge-Based DC-DC Converter Topologies, High-Frequency Transformer, and Control Techniques** 2022  
*Haris Ataullah Taosif Iqbal Ihsan Ullah Khalil Usman Ali Vojtech Blazek Lukas Prokop Nasim Ullah*  
*Energies* , Volume 15(23), Article Number 8944  
**Impact Factor:** 3.252 | **Quartile:** 3 | **Citations:** 24  
**DOI:** 10.3390/en15238944
- Frequency Limited & Weighted Model Reduction Algorithm With Error Bound: Application to Discrete-Time Doubly Fed Induction Generator Based Wind Turbines for Power System** 2021  
*Sajid Bashir Muhammad Imran Sammana Batool Muhammad Imran Mian Ilyas Ahmed Fahad Mumtaz Malik Muhammad Salman Abdul Wakeel Usman Ali*  
*IEEE Access* , Volume 9, Pages 9505-9534  
**Impact Factor:** 3.476 | **Quartile:** 2 | **Citations:** 13  
**DOI:** 10.1109/ACCESS.2021.3049575
- Variants of the Sliding Mode Control in Presence of External Disturbance for Quadrotor** 2020  
*Muwahida Liaquat Irfan Ahmed Fahad Mumtaz Usman Ali Hameed Ullah*  
*IEEE Access* , Volume 8, Pages 227810-227824  
**Impact Factor:** 3.367 | **Quartile:** 2 | **Citations:** 17  
**DOI:** 10.1109/ACCESS.2020.3041678
- Development of Frequency Weighted Model Reduction Algorithm with Error Bound: Application to Doubly Fed Induction Generator Based Wind Turbines for Power System** 2020  
*Sajid Bashir Sammana Batool Muhammad Imran Muhammad Imran Mian Ilyas Ahmed Fahad Mimitaz Malik Usman Ali*  
*Electronics* , Volume 10(1), Article Number 44  
**Impact Factor:** 2.397 | **Quartile:** 3 | **Citations:** 14  
**DOI:** <https://doi.org/10.3390/electronics10010044>
- A Novel Convolutional Neural Network-Based Approach for Fault Classification in Photovoltaic Arrays** 2020  
*Azhar -ul-Haq Farkhanda Aziz Yousef Mahmoud Marium Jalal Farkhanda Aziz Shahzor Ahmad Yousef Mahmoud Marium Jalal Usman Ali*  
*IEEE Access* , Volume 8, Pages 41889-41904  
**Impact Factor:** 3.367 | **Quartile:** 2 | **Citations:** 208  
**DOI:** 10.1109/ACCESS.2020.2977116
- Design and analysis of triple band circular patch antenna** 2019  
*Tahira Parveen Qasim Umar Khan Dilaawaiz Fazal Usman Ali Nuaman Akhtar*  
*International Journal of Electronics and Communications (AEU)*, Volume: 112, Article Number: UNSP 152960  
**Impact Factor:** 2.924 | **Quartile:** 2 | **Citations:** 14  
**DOI:** DOI: 10.1016/j.aeue.2019.152960
- Empirical Mode Decomposition on T-Wave Alternans Detection** 2016  
*Muhammad Latif Asim D. Bakhshi Usman Ali Raees A. Siddiqui*  
*Journal of Image and Graphics*, Vol. 4, No. 2, Pages 110-115  
**Impact Factor:** -  
**DOI:** -
- Hardware/software co-design of a real-time kernel based tracking system** 2010  
*Muhammad Bilal Malik Usman Ali*  
*Journal of Systems Architecture* , Volume 56, Issue 8, Pages 317-326, Special Issue: SI  
**Impact Factor:** 0.667 | **Quartile:** 3 | **Citations:** 26  
**DOI:** 10.1016/j.sysarc.2010.04.008

## Conference Proceedings

- Design and Analysis of an Efficient ESPWM Based Induction Motor Drive** 2023  
*Shafqat Abbas Usman Ali Taosif Iqbal*  
*2023 25th International Multi Topic Conference, INMIC 2023 - Proceedings*, res.country(177,)  
**Citations:** N/A  
**DOI:** 10.1109/INMIC60434.2023.10465969
- Periodic Substrate Integrated Waveguide Based Leaky Wave Antenna for Backward Endfire Radiation** 2019  
*Qasim Umar Khan Muhammad Zaka Ali Usman Ali Qasim Umar Khan Muhammad Zaka Ali Usman Ali Qasim Umar Khan Muhammad Zaka Ali*  
*IEEE International Symposium on Phased Array System & Technology (PAST)*, res.country(233,)

<b>Citations:</b> N/A <b>DOI:</b> 10.1109/PAST43306.2019.9020961	
<b>Duplex Dual-Ring Radio Over Fiber System with Centralized Light Source and Local Oscillator for millimeter-wave Transmission</b> <i>Anisa Qasim Tayyab Mehmood Usman Ali Qasim Umar Khan Salman Ghafoor</i> 2017 International Multi-topic Conference (INMIC 2017), res.country(177,) <b>Citations:</b> N/A <b>DOI:</b> 10.1109/INMIC.2017.8289469	2017
<b>Dual-ring radio over fiber system with centralized light sources and local oscillator for millimeter-wave transmission</b> <i>Anisa Qasim Tayyab Mehmood Usman Ali Qasim Umar Khan Salman Ghafoor</i> 20th International Multi-topic Conference (INMIC) 2017, res.country(177,) <b>Citations:</b> N/A <b>DOI:</b> 10.1109/INMIC.2017.8289469	2017
<b>Assessment of papilledema using fundus-images</b> <i>Shahzad Amin Sheikh Kamran Yousaf Muhammad Usman Akram Usman Ali</i> 2016 IEEE International Conference on Imaging Systems and Techniques (IST), res.country(88,) <b>Citations:</b> N/A <b>DOI:</b> 10.1109/IST.2016.7738273	2016
<b>Assessment of Papilledema Using Fundus Images</b> <i>Usman Ali Kamran Yousaf Muhammad Usman Akram Shahzad Amin Sheikh</i> 2016 IEEE International Conference on Imaging Systems and Techniques (IST), res.country(88,) <b>Citations:</b> N/A <b>DOI:</b> 10.1109/IST.2016.7738273	2016
<b>Empirical Mode Decomposition on T-Wave Alternans Detection</b> <i>Usman Ali Muhammad Latif Asim D. Bakhshi Raees A. Siddiqui</i> 2016 International Conference on Biomedical Signal and Image Processing (ICBIP 2016), res.country(99,) <b>Citations:</b> N/A <b>DOI:</b> 10.18178/joig.4.2.110-115	2016
<b>Using Adaptive filtering for three phase distorted grid connected system</b> <i>Usman Ali Ume Hani Arbab Waleed Muhammad Salman</i> 2016 International Conference on Computing, Electronic and Electrical Engineering (ICE Cube), res.country(177,) <b>Citations:</b> N/A <b>DOI:</b> 10.1109/ICECUBE.2016.7495231	2016
<b>An active Power Factor Correction technique for bridgeless boost AC-DC converter</b> <i>Usman Ali Mukhzan Mobeen Ali Sardar Shazali Sikander Arbab Waleed</i> 2016 International Conference on Intelligent Systems Engineering (ICISE), res.country(177,) <b>Citations:</b> N/A <b>DOI:</b> 10.1109/INTELSE.2016.7475174	2016
<b>Carrier and symbol synchronization in digital receivers using feedback compensation loop and early late gate on FPGA</b> <i>Usman Ali Bilal Ahmed Bhatti Muhammad Umer Waqar Ahmed Muhammad Hammad Tariq</i> 2014 International Conference on Robotics and Emerging Allied Technologies in Engineering (iCREATE), res.country(177,) <b>Citations:</b> N/A <b>DOI:</b> 10.1109/iCREATE.2014.6828355	2014
<b>Adaptive flight control of an aircraft with actuator faults</b> <i>Sana Syed Z. H. Khan Muhammad Salman Arsalan Aziz Usman Ali</i> 2014 International Conference on Robotics and Emerging Allied Technologies in Engineering (iCREATE), res.country(177,) <b>Citations:</b> N/A <b>DOI:</b> 10.1109/iCREATE.2014.6828374	2014
<b>Adaptive Trajectory Control of a Wheeled Mobile Robot</b> <i>USMAN ALI Kanwal Naveed Zeashan Khan M. Salman M. Bilal malik</i> ICOMS-2013 , res.country(177,) <b>Citations:</b> N/A <b>DOI:</b> <a href="https://www.researchgate.net/publication/258998911_Adaptive_Trajectory_Control_of_Wheeled_Mobile_Robot_WMR">https://www.researchgate.net/publication/258998911_Adaptive_Trajectory_Control_of_Wheeled_Mobile_Robot_WMR</a>	2013

**Adaptive Thresholding using Particle Filter for Tracking Small and Low Contrast Objects**

2010

*Usman Ali Mohammad Bilal Malik*

*10th International Conference on Information Science, Signal Processing and their Applications (ISSPA 2010)*, res.country(157,)

**Citations:** N/A

**DOI:** 10.1109/ISSPA.2010.5605539

**FPGA/Soft-Processor Based Real-Time Object Tracking System**

2009

*Usman Ali M. B. Malik Khalid Munawar*

*2009 5th Southern Conference on Programmable Logic (SPL)* , res.country(31,)

**Citations:** N/A

**DOI:** 10.1109/SPL.2009.4914888