#### **Muhammad Ayaz Shirazi**

#### Assistant Professor

Pakistan Navy Engineering College

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#### **About**

Dr. Muhammad Ayaz Shirazi is working as Assistant Professor in the Pakistan Navy Engineering College. Dr. Muhammad Ayaz Shirazi has a PhD in Electronics Engineering. Dr. Muhammad Ayaz Shirazi has published 20 research articles & conference papers having a citation count of 207, carried out 0 projects and filed 0 intellectual property.

#### Qualifications

# PhD in Electronics Engineering 2012 - 2018 Kyungpook National University, South Korea **Experience Assistant Professor** 2024- Present Pakistan Navy Engineering College

Assistant Professor	2022 - 2022
Pakistan Navy Engineering College	

Team Lead (Senior Researcher)	2020 - 2022
NED University, Karachi Pakistan	

Postdoctoral fellow	2019 - 2020
Kyungpook National University, Daegu South Korea	

Postdoctoral fellow	2018 - 2019
KAIST, Daejeon South Korea	

2012 - 2018 Researcher Kyungpook National University, Daegu South Korea

#### **Research Articles**

#### Attention-based deep convolutional neural network for classification of generalized and focal epileptic 2024 seizures

Taimur Shahzad Gill Syed Sajjad Haider Zaidi Muhammad Ayaz Shirazi

Epilepsy and Behavior, Volume:155, Article Number 109732

Impact Factor: 2.300 | Quartile: 2 | Citations: 2 DOI: https://doi.org/10.1016/j.yebeh.2024.109732

# Engagement detection and enhancement for STEM education through computer vision, augmented reality, and haptics

Hasnain Ali Poonja Muhammad Ayaz Shirazi Muhammad Jawad Khan Kashif Javed

Image and Vision Computing, Volume 136, Article Number 104720

Impact Factor: 4.7 | Quartile: 1 | Citations: 18 **DOI:** https://doi.org/10.1016/j.imavis.2023.104720

## Small Traffic Sign Detection in Big Images: Searching Needle in a Hay

Yawar Rehman Hafsa Amanullah Muhammad Ayaz Shirazi Min Young Kim

IEEE Access, Volume 10, Pages 18667-18680 Impact Factor: 3.476 | Quartile: 2 | Citations: 15

DOI: 10.1109/ACCESS.2022.3150882

#### Supervised learning based peripheral vision system for immersive visual experiences for extended display

2021

2022

2023

Muhammad Ayaz Shirazi Riaz Uddin Min Young Kim

Applied Sciences, Volume 11, Issue 11, Article Number 4726

Impact Factor: 2.838   Quartile: 2   Citations: 1	
<b>DOI:</b> https://doi.org/10.3390/app11114726	
Renewable energy perspectives of pakistan and turkey: Current analysis and policy recommendations	2021
Riaz Uddin Abdurrahman Javid Shaikh Hashim Raza Khan Muhammad Ayaz Shirazi Athar Rashid Saad Ahmed Qazi	
Sustainablity, Volume 13, Issue 6, Article Number 3349	
Impact Factor: 3.889   Quartile: 2   Citations: 25	
<b>DOI:</b> https://doi.org/10.3390/su13063349	
Energy Storage for Energy Security and Reliability through Renewable Energy Technologies: A New Paradigm for Energy Policies in Turkey and Pakistan	2021
Umar Shahbaz Khan Riaz Uddin Hashim Raza Khan Asad Arfeen Muhammad Ayaz Shirazi Athar Rashid	
Sustainability , Volume 13(5), Article Number 2823	
Impact Factor: 3.889   Quartile: 2   Citations: 12	
<b>DOI:</b> https://doi.org/10.3390/su13052823	
Single shot laser speckle based 3D acquisition system for medical applications	2018
Danish Khan Muhammad Ayaz Shirazi Min Young Kim	
Optics and Lasers in Engineering, Volume 105, Pages 43-53	
Impact Factor: 4.059   Quartile: 1   Citations: 63	
<b>DOI:</b> https://doi.org/10.1016/j.optlaseng.2018.01.001	
Three-dimensional registration for handheld profiling systems based on multiple shot structured light	2018
Muhammad Ayaz Shirazi Danish Khan Min Young Kim	
Sensors , Volume 18, Issue 4, Article Number 1146	
Impact Factor: 3.031   Quartile: 1   Citations: 7	
<b>DOI:</b> https://doi.org/10.3390/s18041146	
Survey on zoom-lens calibration methods and techniques	2017
Muhammad Ayaz Shirazi Min Young Kim Jaechan Park	
Machine Vision and Applications, Volume 28, Issue 8, Pages 803-818	
Impact Factor: 1.306   Quartile: 2   Citations: 21	
<b>DOI:</b> https://doi.org/10.1007/s00138-017-0863-1	
Multiview registration-based handheld 3D profiling system using visual navigation and structured light	2017
Muhammad Ayaz Shirazi Min Young Kim	
International Journal of Optomechatronics, Volume 11, Issue 1, Pages 1-14	
Impact Factor: 0.882   Quartile: 4   Citations: 8	
<b>DOI:</b> https://doi.org/10.1080/15599612.2017.1300968	
Adaptive 3D sensing system based on variable magnification using stereo vision and structured light	2014
Min Young Kim Muhammad Ayaz Shirazi Jaechan Park YoungJun Roh	
Optics and Lasers in Engineering, Volume 55, Pages 113-127	

Impact Factor: 2.237 | Quartile: 1 | Citations: 35

**DOI:** 10.1016/j.optlaseng.2013.10.021

## **Conference Proceedings**

Citations: N/A

DOI: 10.1109/ICCAS.2015.7364593

# Early Detection of Mesothelioma Using Machine Learning Algorithms 2023 Taimur Shahzad Gill Muhammad Ayaz Shirazi Syed Sajjad Haider Zaidi IEEC - International Electrical Engineering Conference 2023, res.country(177,) Citations: N/A DOI: https://doi.org/10.3390/engproc2023046006 **Motor Parametric Calculations for Robot Locomotion** 2022 Abdullah Haider Ali Syed Murtaza Hassan Kazmi Hasnain Ali Poonja Humayun Khan Muhammad Ayaz Shirazi Riaz Uddin The 7th International Electrical Engineering Conference) 2022, res.country(282,) Citations: N/A DOI: https://doi.org/10.3390/engproc2022020008 Walking Algorithm Using Gait Analysis for Humanoid Robot 2022 Hasnain Ali Poonja Muhammad Soleman Ali Shah Riaz Uddin Syed Murtaza Hassan Kazmi Humayun Khan Abdullah Haider Ali Muhammad Ayaz Shirazi The 7th International Electrical Engineering Conference 2022, res.country(282,) DOI: 10.3390/engproc2022020035 Haptic-enabled Virtual Laboratory for Hands-on E-Learning: A Technology for and Beyond the 2021 Muhammad Affan Humayun Khan Subhan Ahmed Riaz Uddin Muhammad Ayaz Shirazi 2021 International Conference on Robotics and Automation in Industry (ICRAI), res.country(282,) Citations: N/A DOI: 10.1109/ICRAI54018.2021.9651428 Evaluation of ECG based Recognition of Cardiac Abnormalities using Machine Learning and Deep 2021 Learning Hasnain Ali Poonja Muhammad Soleman Ali Shah Muhammad Ayaz Shirazi Riaz Uddin 2021 International Conference on Robotics and Automation in Industry (ICRAI), res.country(282,) Citations: N/A DOI: 10.1109/ICRAI54018.2021.9651457 2019 Augmentation of Visual Experiences using Deep Learning for Peripheral Vision based Extended **Display Application** Muhammad Ayaz Shirazi Hochul Cho Woontack Woo 2019 IEEE International Conference on Consumer Electronics (ICCE), res.country(233,) Citations: N/A DOI: 10.1109/ICCE.2019.8662089 3D Handheld Scanning based on Multiview 3D registration using Kinect Sensing Device 2017 Muhammad Ayaz Shirazi Danish Khan Min Young Kim 2017 IEEE International Conference on Multisensor Fusion and Integration for Intelligent Systems (MFI), res.country(121,) Citations: N/A DOI: 10.1109/MFI.2017.8170450 A multi-view stereo based 3D hand-held scanning system using visual inertial navigation and 2015 structured light Muhammad Ayaz Shirazi Danish Khan Bang Joon-Young Soo-In Park YoungJun Roh Min Young Kim International Symposium of Optomechatronics Technology (ISOT) - 2015, res.country(43,) Citations: N/A DOI: http://dx.doi.org/10.1051/matecconf/20153206004 2015 3D registration using inertial navigation system and Kinect for image-guided surgery Bang JoonYoung Muhammad Ayaz Shirazi Danish Khan Soo-In Park Hyunki Lee Min Young Kim 2015 15th International Conference on Control, Automation and Systems (ICCAS), res.country(121,)

# **Editorial Activities**

# Frontiers of Information Technology & Electronic Engineering

Reviewed Papers for Journals

Impact Factor: 2.545

2023

2022

Edited Journal Issue / Proceeding / Book

Impact Factor: N/A