

## Ahsan Shahzad

Assistant Professor

College of Electrical & Mechanical Engineering

**Email:** ahsan.shahzad@ceme.nust.edu.pk

**Contact:** 512167055

**LinkedIn:** <https://www.linkedin.com/in/ahsan-shahzad-05/>



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## About

Dr. Ahsan Shahzad is working as Assistant Professor in the College of Electrical & Mechanical Engineering. Dr. Ahsan Shahzad has a PhD in HealthCare Informatics Machine Learning Biomedical Signal Processing. Dr. Ahsan Shahzad has published 21 research articles & conference papers having a citation count of 432, carried out 2 projects and filed 0 intellectual property.

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## Qualifications

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| <b>PhD in HealthCare Informatics Machine Learning Biomedical Signal Processing</b><br>Gwangju Institute of Science and Technology , South Korea | 2014 - 2019 |
| <b>MS in Signal Processing</b><br>Gwangju Institute of Science and Technology , South Korea   | 2012 - 2014 |
| <b>BS in Electronics And Communication</b><br>UET Lahore , Pakistan   | 2005 - 2009 |

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## Experience

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| <b>Assistant Professor</b><br>College of Electrical & Mechanical Engineering   | 2025- Present |
| <b>Assistant Professor</b><br>College of Electrical & Mechanical Engineering   | 2023 - 2025   |
| <b>Assistant Professor</b><br>College of Electrical & Mechanical Engineering   | 2023 - 2023   |
| <b>Assistant Professor</b><br>College of Electrical & Mechanical Engineering   | 2020 - 2023   |
| <b>Assistant Professor</b><br>College of Electrical & Mechanical Engineering   | 2019 - 2020   |
| <b>Research Assistant</b><br>Gwangju Institute of Science and Technology (GIST) , GIST, cheomdan, buk-gu, Gwangju (500-712), South Korea | 2014 - 2019   |
| <b>Research Assistant</b><br>Gwangju Institute of Science and Technology (GIST) , GIST, cheomdan, buk-gu, Gwangju (500-712), South Korea | 2012 - 2014   |
| <b>Lecturer</b><br>University of Engineering and Technology, Lahore , G.T. Road, Near Shalimar Gardens, Lahore (54890).                  | 2009 - 2012   |

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## Awards

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| <b>Excellent Thesis Award</b><br>Excellent Thesis Award due to outstanding research performance in PhD program at GIST, South Korea. | 2018 |
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Research Projects

National Projects

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|---|------|
| <b>Smart Aerial Drone based Surveillance System</b> | 2022 |
| <b>Funding Agency:</b> IGNITE                       |      |
| <b>Amount:</b> PKR 80,000.00                        |      |
| <b>Status:</b> Completed                            |      |
| <b>UWB Radar Based Detection System</b>             | 2020 |
| <b>Funding Agency:</b> IGNITE                       |      |
| <b>Amount:</b> PKR 76,590.00                        |      |
| <b>Status:</b> Completed                            |      |

International Projects

Research Articles

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|--|------|
| <b>Exploring inertial sensor-based balance biomarkers for early detection of mild cognitive impairment</b>                     | 2024 |
| <i>Mobeena Jamshed Ahsan Shahzad Farhan Riaz Kiseon Kim</i>  |      |
| <i>Scientific Reports</i> , Volume:14, Issue:1, Article Number:9829  |      |
| <b>Impact Factor:</b> 4.6   <b>Quartile:</b> 2   <b>Citations:</b> 2   |      |
| <b>DOI:</b> 10.1038/s41598-024-59928-1   |      |
| <b>IoTAuth: IoT Sensor Data Analytics for User Authentication Using Discriminative Feature Analysis</b>                        | 2022 |
| <i>Samera Batool Ali Hassan Muazzam A. Khan Khattak Ahsan Shahzad Muhammad Umar Farooq</i>                                     |      |
| <i>IEEE Access</i> , Volume 10, Pages 59115-59124  |      |
| <b>Impact Factor:</b> 3.476   <b>Quartile:</b> 2   <b>Citations:</b> 8   |      |
| <b>DOI:</b> 10.1109/ACCESS.2022.3178635  |      |
| <b>Automated Prescreening of Mild Cognitive Impairment Using Shank-Mounted Inertial Sensors Based Gait Biomarkers</b>          | 2022 |
| <i>Ahsan Shahzad Aresh Dadlani Hyeonil Lee Kiseon Kim</i>  |      |
| <i>IEEE Access</i> , Volume10, Pages 15835-15844   |      |
| <b>Impact Factor:</b> 3.367   <b>Quartile:</b> 2   <b>Citations:</b> 27  |      |
| <b>DOI:</b> 10.1109/ACCESS.2022.3149100  |      |
| <b>Convolutional-neural network-based image crowd counting: review, categorization, analysis, and performance evaluation</b>   | 2020 |
| <i>Ahsan Shahzad Naveed Ilyas Kiseon Kim</i>   |      |
| <i>Sensors</i> , Volume 20, Issue 1, Article Numbr 43  |      |
| <b>Impact Factor:</b> 3.576   <b>Quartile:</b> 2   <b>Citations:</b> 87  |      |
| <b>DOI:</b> <a href="https://doi.org/10.3390/s20010043">https://doi.org/10.3390/s20010043</a>                                  |      |
| <b>FallDroid: An automated smart-phone-based fall detection system using multiple kernel learning</b>                          | 2019 |
| <i>Ahsan Shahzad Kiseon Kim</i>  |      |
| <i>IEEE Transactions on Industrial Informatics</i> , Volume 15, Issue 1, Page 35-44  |      |
| <b>Impact Factor:</b> 9.112   <b>Quartile:</b> 1   <b>Citations:</b> 122   |      |
| <b>DOI:</b> 10.1109/TII.2018.2839749   |      |
| <b>Diagnosis of shockable rhythms for automated external defibrillators using a reliable support vector machine classifier</b> | 2018 |
| <i>Ahsan Shahzad Minh Tuan Nguyen Binh Van Nguyen Kiseon Kim</i>   |      |
| <i>Biomedical Signal Processing and Control</i> , Volume 44, Page 258-269  |      |
| <b>Impact Factor:</b> 2.943   <b>Quartile:</b> 2   <b>Citations:</b> 25  |      |
| <b>DOI:</b> <a href="https://doi.org/10.1016/j.bspc.2018.03.014">https://doi.org/10.1016/j.bspc.2018.03.014</a>                |      |
| <b>Quantitative assessment of balance impairment for fall-risk estimation using wearable triaxial accelerometer</b>            | 2017 |
| <i>Ahsan Shahzad Seunguk Ko Samgyu Lee Jeong-A Lee Kiseon Kim</i>  |      |
| <i>IEEE Sensors Journal</i> , Volume 17, Issue 20, Page 6743-6751  |      |
| <b>Impact Factor:</b> 2.617   <b>Quartile:</b> 1   <b>Citations:</b> 55  |      |
| <b>DOI:</b> 10.1109/JSEN.2017.2749446  |      |

Conference Proceedings

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|---|------|
| <b>A Fall Detection Algorithm for Thigh mounted Smartphones using Random Forest and Feature Selection Techniques</b><br><i>Rida Maryam Ahsan Shahzad Mariam Bashir Lismer Andres Caceres-Najarro Minseok Kim</i><br>2022 17th International Conference on Emerging Technologies, ICET 2022, res.country(282,)<br><b>Citations:</b> N/A<br><b>DOI:</b> 10.1109/ICET56601.2022.10004626 | 2022 |
| <b>Enhancement of Depth Map through Weighted Combination of Guided Image Filters in Shape-From-Focus</b><br><i>Zubair Ahmed Ahsan Shahzad Usman Ali</i><br>2022 2nd International Conference on Digital Futures and Transformative Technologies, res.country(177,)<br><b>Citations:</b> N/A<br><b>DOI:</b> 10.1109/ICoDT255437.2022.9787464   | 2022 |
| <b>Automated prescreening of MCI through deep learning models based on wearable inertial sensors data</b><br><i>Hyeonil Lee Ahsan Shahzad Kiseon Kim</i><br>Alzheimer's Association International Conference® (AAIC) 2021 , res.country(233,)<br><b>Citations:</b> N/A<br><b>DOI:</b> DOI: 10.1002/alz.052744   | 2021 |
| <b>Gait Analysis of Elderly People with Mild Cognitive Impairment using Shank Mounted Inertial Sensor</b><br><i>Ahsan Shahzad Kiseon Kim</i><br>Alzheimer's Association International Conference® (AAIC) 2018 , res.country(233,)<br><b>Citations:</b> N/A<br><b>DOI:</b> https://doi.org/10.1016/j.jalz.2018.06.1028   | 2021 |
| <b>Comparative Assessment of Sensor Assisted Mobility Tests for Classification of Falls History</b><br><i>Ahsan Shahzad Mariam Bashir Kiseon Kim</i><br>Korea Information Communication Society (KICS), Winter Conference 2018, res.country(121,)<br><b>Citations:</b> N/A<br><b>DOI:</b> NA  | 2018 |
| <b>Smartphone based Automatic Falls Detection and Emergency Alert System</b><br><i>Ahsan Shahzad Kiseon Kim</i><br>The 10th International Symposium for Aging (ISA) , res.country(121,)<br><b>Citations:</b> N/A<br><b>DOI:</b> NA  | 2016 |
| <b>A New Feature Selection for EEG-based Biometric Identification System using Visual Evoked Potential</b><br><i>Donghyeon Kim Chanmi Yeon Ahsan Shahzad Euiheon Chung Kiseon Kim</i><br>Korean Information and Communication Society (KICS), Summer Conference 2016, res.country(121,)<br><b>Citations:</b> N/A<br><b>DOI:</b> NA  | 2016 |
| <b>A study on a hypertension diagnosis method using PPG and new features by PCA</b><br><i>Byunghak Kong Donghyeon Kim Ahsan Shahzad Kyungae Yoon Kiseon Kim</i><br>Korean Information and Communication Society (KICS), Winter Conference 2016, res.country(121,)<br><b>Citations:</b> N/A<br><b>DOI:</b> NA  | 2016 |
| <b>A Smartphone based Automatic Falls Detection Algorithm using Artificial Neural Networks</b><br><i>Ahsan Shahzad Kiseon Kim</i><br>The 9th International Symposium for Aging (ISA) , res.country(121,)<br><b>Citations:</b> N/A<br><b>DOI:</b> NA   | 2015 |
| <b>Falls Detection with Wearable Inertial Sensor Using Support Vector Machine</b><br><i>Ahsan Shahzad Kiseon Kim</i><br>Korean Information and Communication Society (KICS), Gwangju-Jeonnang Spring Conference 2015, res.country(121,)<br><b>Citations:</b> N/A<br><b>DOI:</b> NA  | 2015 |
| <b>Falls Risk Estimation Using Wireless Body Kinematics Sensors</b><br><i>Ahsan Shahzad SamGyu Lee SeungUK Ko Kiseon Kim</i><br>The 7th International Symposium for Aging (ISA) , res.country(121,)<br>   | 2013 |

Citations: N/A  
DOI: NA

**Data Acquisition for Quantitative Fall Risk Assessment using Instrumented Directed Routine**  
*Ahsan Shahzad Kiseon Kim*  
*Korean Information and Communication Society (KICS), Gwangju-Jeonnam Spring Conference 2013, res.country(121,)*  
Citations: N/A  
DOI: NA

2013

Editorial Activities

**Scientific Reports**  
Reviewed Papers for Journals  
Impact Factor: 4.99

2023

**Archives of Gerontology and Geriatrics**  
Reviewed Papers for Journals  
Impact Factor: 3.98

2022

Reviewed Papers for Journals  
Impact Factor: NA

2022