

# Dr. Awais Mehmood Kamboh

Director Academics

University Main Office (UMO)

Email: awais.kamboh@seecs.edu.pk

Contact:

LinkedIn: <https://www.linkedin.com/in/awais-m-kamboh-b4468592/>



## About

Dr. Dr. Awais Mehmood Kamboh is working as Director Academics in the University Main Office (UMO). Dr. Dr. Awais Mehmood Kamboh has a PhD in Electrical Engineering. Dr. Dr. Awais Mehmood Kamboh has published 21 research articles & conference papers having a citation count of 483, carried out 6 projects and filed 0 intellectual property.

## Qualifications

<b>PhD in Electrical Engineering</b> Michigan State University , United States	2006 - 2010
<b>MS in Electrical Engineering</b> University of Michigan - Ann Arbor , United States	2004 - 2006
<b>BE in Electrical Engineering</b> NUST, Islamabad , Pakistan	1999 - 2003

## Experience

<b>Director Academics</b> University Main Office (UMO)	2025- Present
<b>Professor</b> University Main Office (UMO)	2022 - 2025
<b>Director Quality Assurance &amp; NUST International Office</b> University Main Office (UMO)	2022 - 2022
<b>Associate Professor</b> School of Electrical Engineering and Computer Science	2019 - 2019
<b>Associate Professor</b> School of Electrical Engineering and Computer Science	2017 - 2019
<b>Assistant Professor</b> School of Electrical Engineering and Computer Science	2012 - 2017
<b>Assistant Professor</b> School of Electrical Engineering and Computer Science	2011 - 2012
<b>Associate Professor</b> University of Jeddah , University of Jeddah, PO Box 80327, Jeddah, Saudi Arabia	2019 - 2022
<b>ASIC Design Engineer</b> Evigia Systems, USA , 3810 Varsity Drive – Ann Arbor, MI, USA	2007 - 2008
<b>Lab Demonstrator</b> Army Public College of Management and Sciences , APCOMS, Ordnance Road, Rawalpindi	2003 - 2004

## Awards

<b>Charles Wallace Trust</b>	2017
<b>Senior Member IEEE</b>	2017
<b>Best Research Paper</b>	2010
<b>Rector's Gold Medal</b>	2003

Professional Memberships

PEC

Since 2003

Research Projects

National Projects

<b>Wearable EEG for pre-Diagnostic Screening of Mental Diseases in Rural areas</b> Funding Agency: DAAD Amount: PKR 12,226,040.00 Status: Approved_inprocess	2018
<b>Finite Control Set-Model Predictive Control (FCS-MPC) of Dual Active Bridge (DAB) Bidirectional Converters for Renewable Energy Systems</b> Funding Agency: HEC Amount: PKR 2,755,000.00 Status: Completed	2017
<b>Design and Development of General purpose processor</b> Funding Agency: NESCOM Amount: PKR 180,000.00 Status: Completed	2017
<b>Biometric Vaccination Record Management System</b> Funding Agency: IGNITE Amount: PKR 68,000.00 Status: Completed	2015
<b>Design of a Non-invasive Blood Glucose Meter using Hybrid Near Infrared and Photo Acoustic Spectroscopy</b> Funding Agency: IGNITE Amount: PKR 100,000.00 Status: Completed	2013
<b>Design and Implementation of Plug-in Series Hybrid Electric Vehicle</b> Funding Agency: IGNITE Amount: PKR 71,000.00 Status: Completed	2012

International Projects

Research Articles

<b>NeuroAssist: Open-Source Automatic Event Detection in Scalp EEG</b> <i>Mohammad Ali Alqarni Hira Masood Adil Jowad Qureshi Muiz Alvi Haziq Arbab Hassan Aqeel Khan Awais Mehmood Kamboh Saima Shafait Faisal Shafait</i> <i>IEEE Access</i> , Volume 12, Pages 170321-170334 Impact Factor: 3.400   Quartile: 2   Citations: 2 DOI: 10.1109/ACCESS.2024.3492673	2024
<b>The NMT Scalp EEG Dataset: An Open-Source Annotated Dataset of Healthy and Pathological EEG Recordings for Predictive Modeling</b> <i>Rahat Ul Ain Hassan Aqeel Khan Hammad Tanveer Butt Awais Mehmood Kamboh Saima Shafait Wasim Alamgir Didier Stricker Faisal Shafait</i> <i>Frontiers in Neuroscience</i> , Volume 15, Article Number 755817 Impact Factor: 5.152   Quartile: 2   Citations: 21 DOI: 10.3389/fnins.2021.755817	2022
<b>ForASec: Formal Analysis of Hardware Trojan-Based Security Vulnerabilities in Sequential Circuits</b> <i>Faiq Khalid Imran Hafeez Abbassi Semeen Rehman Awais Mehmood Kamboh Osman Hasan Muhammad Shafique</i> <i>IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems</i> , - Impact Factor: 2.565   Quartile: 3   Citations: 7 DOI: 10.1109/TCAD.2021.3061524	2021
<b>Epileptic Seizure Detection with a Reduced Montage: A Way Forward for Ambulatory EEG Devices</b> <i>Raheel Asif Sajid Saleem Syed Ali Hassan Soltan Alharbi Awais Mehmood Kamboh</i> <i>IEEE Access</i> , Volume 8, Pages 65880-65890 Impact Factor: 3.367   Quartile: 2   Citations: 16	2020

DOI: 10.1109/ACCESS.2020.2983917	
<b>Computationally efficient fully-automatic online neural spike detection and sorting in presence of multi-unit activity for implantable circuits</b> <i>Taimoor Tariq M. Hashim Satti Hamid M. Kamboh Maryam Saeed Awais Mehmood Kamboh</i> <i>Computer Methods and Programs in Biomedicine</i> , Volume: 179, Article Number: UNSP 104986 <b>Impact Factor: 3.632   Quartile: 1   Citations: 6</b> <b>DOI: <a href="https://doi.org/10.1016/j.cmpb.2019.104986">https://doi.org/10.1016/j.cmpb.2019.104986</a></b>	2019
<b>Using gate-level side channel parameters for formally analyzing vulnerabilities in integrated circuits</b> <i>Imran Hafeez Abbasi F. K. Lodhi Osman Hasan A. Kamboh</i> <i>Science of Computer Programming</i> , Volume 171, Pages 42-66 <b>Impact Factor: 0.775   Quartile: 4   Citations: 8</b> <b>DOI: 10.1016/j.scico.2018.11.001</b>	2019
<b>Dynamic Mode Decomposition Based Epileptic Seizure Detection from Scalp EEG</b> <i>Muhammad Sohaib J Solaija Khawar Khurshid Sajid Saleem Syed Ali Hassan Awais Mahmood Kamboh</i> <i>IEEE Access</i> , Volume 6, Page 38683 - 38692 <b>Impact Factor: 4.098   Quartile: 1   Citations: 76</b> <b>DOI: 10.1109/ACCESS.2018.2853125</b>	2018
<b>McSeVIC: A Model Checking Based Framework for Security Vulnerability Analysis of Integrated Circuits</b> <i>Imran Hafeez Abbasi Awais Mehmood Kamboh Osman Hasan Faiq Khalid Muhammad Shafique</i> <i>IEEE Access</i> , Volume 6, Pages 32240-32257 <b>Impact Factor: 4.098   Quartile: 1   Citations: 11</b> <b>DOI: 10.1109/ACCESS.2018.2846583</b>	2018
<b>Mallat's Scattering Transform Based Anomaly Sensing for Detection of Seizures in Scalp EEG</b> <i>Muhammad Zubair Ahmad Awais Mehmood Kamboh Sajid Saleem Amir Ali Khan</i> <i>IEEE Access</i> , Volume 5, Pages 16919-16929 <b>Impact Factor: 3.557   Quartile: 1   Citations: 37</b> <b>DOI: DOI:10.1109/ACCESS.2017.2736014</b>	2017
<b>Comparison of Classifier Architectures for Online Neural Spike Sorting</b> <i>Maryam Saeed Awais Mehmood Kamboh Amir Ali Khan</i> <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , Volume 25 Issue: 4 Pages: 334-344 <b>Impact Factor: 3.972   Quartile: 1   Citations: 10</b> <b>DOI: 10.1109/TNSRE.2016.2641499</b>	2017
<b>Neuro-Cognitive Virtual Environment for Children with Autism (VECA)</b> <i>Eisha Waseem Khawar Khurshid Ghalib W. Janjua Imran Abeel Kiran Khurshid Munazza A. Mirza Awais Mehmood Kamboh</i> <i>International Journal of Signal Processing Systems</i> , Volume 4, No. 6, Pages 469-474 <b>Impact Factor: N/A</b> <b>DOI: NA</b>	2016
<b>A scalable architecture for geometric correction of multi-projector display systems</b> <i>Kamran Babar Rehan Hafiz Khawar Khurshid Awais M. Kamboh Ali Hassan Farhan Riaz Byeungwoo Jeon</i> <i>Displays</i> , Volume 40, Pages 104-112 <b>Impact Factor: 1.903   Quartile: 1   Citations: 3</b> <b>DOI: 10.1016/j.displa.2015.05.009</b>	2015
<b>Adaptive Threshold Neural Spike Detector Using Stationary Wavelet Transform in CMOS</b> <i>Yuning Yang C. Sam Boling Awais Mehmood Kamboh Andrew Mason</i> <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , Volume 23, No. 6, Pages 946-955 <b>Impact Factor: 3.188   Quartile: 1   Citations: 22</b> <b>DOI: DOI:10.1109/TNSRE.2015.2425736</b>	2015
<b>A CMOS Micro-power and Area Efficient Neural Recording and Stimulation Front-End for Biomedical Applications</b> <i>Sami ur Rehman Awais Mehmood Kamboh</i> <i>Circuits, Systems, and Signal Processing</i> , Volume 34, Issue 6, Pages 1725-1746 <b>Impact Factor: 1.178   Quartile: 3   Citations: 16</b> <b>DOI: doi:10.1007/s00034-014-9935-x</b>	2015
<b>American Sign Language Translation through Sensory Glove; SignSpeak</b> <i>Jan Fizza Bukhari Maryam Rehman Saman Ishtiaq Malik Awais Mehmood Kamboh Ahmad Salman</i>	2015

**Impact Factor:** N/A

**DOI:** <http://dx.doi.org/10.14257/ijunesst.2015.8.1.12>

**A configurable realtime DWT-based neural data compression and communication VLSI system for wireless implants**

2013

Yuning Yang Awais Mehmood kamboh Andrew Mason

*Journal of Neuroscience Methods*, Volume: 227 Pages: 140-150

**Impact Factor:** 1.959 | **Quartile:** 3 | **Citations:** 5

**DOI:** 10.1016/j.jneumeth.2014.02.009

**A Power and Area Efficient 8-Channel Neural Signal Front End for Biomedical Applications**

2013

Sami ur Rehman Awais Mehmood Kamboh

*International Journal of Electronics and Electrical Engineering*, Volume 1, Issue 1

**Impact Factor:** N/A

**DOI:** 10.12720/ijeee.1.1.26-30

**Computationally Efficient Neural Feature Extraction for Spike Sorting in Implantable High-Density Recording Systems**

2013

Awais Mehmood Kamboh Andrew Mason

*IEEE Transactions on Neural Systems and Rehabilitation Engineering*, Volume: 21, Issue: 1, Pages: 1-9

**Impact Factor:** 2.821 | **Quartile:** 1 | **Citations:** 67

**DOI:** 10.1109/TNSRE.2012.2211036

**Analysis of Lifting and B-Spline DWT Implementations for Implantable Neuroprosthetics**

2008

Awais Mehmood Kamboh Andrew Mason Karim Oweiss

*Journal of Signal Processing Systems*, Volume 52, Pages 249–261

**Impact Factor:** N/A | **Citations:** 7

**DOI:** <https://doi.org/10.1007/s11265-007-0155-5>

**A Scalable Wavelet Transform VLSI Architecture for Real-Time Signal Processing in High-Density Intra-Cortical Implants**

2007

Karim Oweiss Andrew Mason Yasir Suhail Awais Mehmood Kamboh Kyle Thomson

*IEEE Transactions on Circuits and Systems I: Regular Papers*, Volume 54, Issue 6, Pages 1266-1278

**Impact Factor:** 1.204 | **Quartile:** 2 | **Citations:** 104

**DOI:** 10.1109/TCSI.2007.897726

**Area-Power Efficient VLSI Implementation of Multichannel DWT for Data Compression in Implantable Neuroprosthetics**

2007

Awais Mehmood Kamboh Matthew Raetz Karim Oweiss Andrew Mason

*Transactions on Biomedical Circuits and Systems*, Volume 1, Issue 2, Pages 128-135

**Impact Factor:** N/A | **Citations:** 65

**DOI:** 10.1109/TBCAS.2007.907557