

# Anjum Naeem Malik

Assistant Professor

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## About

Dr. Anjum Naeem Malik is working as Assistant Professor in the College of Electrical & Mechanical Engineering. Dr. Anjum Naeem Malik has a PhD in Biomedical Sciences and Engineering. Dr. Anjum Naeem Malik has published 17 research articles & conference papers having a citation count of 121, carried out 2 projects and filed 0 intellectual property.

## Qualifications

<b>PhD in Biomedical Sciences and Engineering</b> Koc University , Turkey	2017 - 2021
<b>MS in Mechatronics Engineering</b> NUST, Islamabad , Pakistan	2013 - 2017
<b>Post Grad Diploma in Mechatronics Engineering</b> Air University , Pakistan	2007 - 2011

## Experience

<b>Assistant Professor</b> College of Electrical & Mechanical Engineering	2022- Present
<b>Postdoctoral Research Assistant</b> Koc University , Istanbul, Turkey	2021 - 2022
<b>Research and Teaching Assistant</b> koc University , Istanbul, Turkey	2017 - 2021
<b>Senior Service Engineer</b> Analytical Measuring Systems Pvt. Ltd. , Office No: 4&5, 3rd Floor, Huzaiifa Center, Plot 32, 1-8 Markaz, Islamabad, Pakistan.	2015 - 2017
<b>Technical Support Supervisor</b> Pakistan Microbiological Associates Pvt. Ltd. , Mall Plaza, Mall Road Saddar RWP	2013 - 2015
<b>Field Service Engineer</b> Pakistan Microbiological Associates Pvt. Ltd. , Mall Plaza, Mall Road Saddar RWP	2012 - 2013

## Research Projects

<b>National Projects</b>	
<b>Process health monitoring of CNC machines using Artificial Intelligence (AI)</b> Funding Agency: PSF-TUBITAK Amount: PKR 20,000,000.00 Status: Approved_inprocess	2025
<b>Development of a Level-5 Autonomous Ground Vehicle targeted for logistics operation</b> Funding Agency: NUST Amount: PKR 6,322,000.00 Status: Approved_inprocess	2023

## International Projects

## Research Articles

<b>Frost detection and defrost control: Emerging trends, methods, and experimental evaluations</b> Hassan Akbar Anjum Naeem Malik Tahir Habib Nawaz Hassan Elahi Hammad Ur Rahman Ismail Lazoglu Huzzam Hassan International Journal of Refrigeration , Volume:179, Page:121-141	2025
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<b>Impact Factor:</b> 3.800   <b>Quartile:</b> 1 <b>DOI:</b> <a href="https://doi.org/10.1016/j.ijrefrig.2025.08.005">https://doi.org/10.1016/j.ijrefrig.2025.08.005</a>	
<b>Ice growth detection and the de-icing using dual functional capacitive sensor</b> <i>Anjum Naeem Malik Hammad ur Rahman Ismail Lazoglu</i> <i>Measurement</i> , Volume 237, Article Number 115208 <b>Impact Factor:</b> 5.200   <b>Quartile:</b> 1   <b>Citations:</b> 6 <b>DOI:</b> <a href="https://doi.org/10.1016/j.measurement.2024.115208">https://doi.org/10.1016/j.measurement.2024.115208</a>	2024
<b>Health monitoring of CNC machining processes using machine learning and wavelet packet transform</b> <i>Abbas Hussain Taha Al Muhammadiyah Janjua Anjum Naeem Malik Antash Najib Shaheryar Atta Khan</i> <i>Mechanical Systems and Signal Processing</i> , Volume 212, Article Number 111326 <b>Impact Factor:</b> 8.400   <b>Quartile:</b> 1   <b>Citations:</b> 12 <b>DOI:</b> <a href="https://doi.org/10.1016/j.ymssp.2024.111326">https://doi.org/10.1016/j.ymssp.2024.111326</a>	2024
<b>Effective image processing-based technique for frost detection and quantification in domestic refrigerators</b> <i>Hammad ur Rahman Hassan Akbar Anjum Naeem Malik Tahir Habib Nawaz Ismail Lazoglu</i> <i>International Journal of Refrigeration</i> , Volume:160, Pages 217-228 <b>Impact Factor:</b> 3.9   <b>Quartile:</b> 2   <b>Citations:</b> 6 <b>DOI:</b> <a href="https://doi.org/10.1016/j.ijrefrig.2024.01.026">10.1016/j.ijrefrig.2024.01.026</a>	2024
<b>A novel smart disinfection system using 3D-printed and electrically conductive composite hydrogel</b> <i>Shaheryar Atta Khan Anjum Naeem Malik Basak Velioglu Seref Gul Ibrahim Halil Kavakli Ismail Lazoglu</i> <i>Emergent Materials</i> , Pages: 12 <b>Impact Factor:</b> 4.800   <b>Quartile:</b> 2   <b>Citations:</b> 2 <b>DOI:</b> <a href="https://doi.org/10.1007/s42247-024-00632-1">10.1007/s42247-024-00632-1</a>	2024
<b>Comparison of constant and variable discharge flow and force coefficients for reciprocating compressor</b> <i>Pouya Pashak Ahmet Yasin Karabay Caglar Sahin Anjum Naeem Malik Ismail Lazoglu</i> <i>International Journal of Refrigeration</i> , Volume 151, Pages 370-384 <b>Impact Factor:</b> 3.9   <b>Quartile:</b> 1   <b>Citations:</b> 5 <b>DOI:</b> <a href="https://doi.org/10.1016/j.ijrefrig.2023.02.019">https://doi.org/10.1016/j.ijrefrig.2023.02.019</a>	2023
<b>Ruthenium-induced corneal collagen crosslinking under visible light</b> <i>Ayesha Gulzar Erdost Yıldız Hümeýra N. Kaleli Muhammad A. Nazeer Noushin Zibandeh Anjum Naeem Malik Ayse Y. Tas Ismail Lazoglu Afsun Sahin Seda Kizilel</i> <i>Acta Biomaterialia</i> , Volume 147, Pages 198-208 <b>Impact Factor:</b> 10.163   <b>Quartile:</b> 1   <b>Citations:</b> 20 <b>DOI:</b> <a href="https://doi.org/10.1016/j.actbio.2022.05.040">https://doi.org/10.1016/j.actbio.2022.05.040</a>	2022
<b>Comparison of the Morphologic and Mechanical Features of Human Cranial Dura and Other Graft Materials Used for Duraplasty</b> <i>Anjum Naeem Malik Safiye Cavdar Selcuk Surucu Mazhar Ozkan Busra Kose Evren Aydogmus Ozgul Tanis Ismail Lazoglu</i> <i>World Neurosurgery</i> , Volume 159, Pages e199-e207 <b>Impact Factor:</b> 2.210   <b>Quartile:</b> 3   <b>Citations:</b> 1 <b>DOI:</b> <a href="https://doi.org/10.1016/j.wneu.2021.12.029">https://doi.org/10.1016/j.wneu.2021.12.029</a>	2022
<b>Impact of the Amyotrophic Lateral Sclerosis Disease on the Biomechanical Properties and Oxidative Stress Metabolism of the Lung Tissue Correlated With the Human Mutant SOD1G93A Protein Accumulation</b> <i>Anjum Naeem Malik Duygu Aydemir Ibrahim Kulac Ayse Nazli Basak Ismail Lazoglu Nuriye Nuray Ullusu</i> <i>Frontiers in Bioengineering and Biotechnology</i> , Volume 10, Article Number 810243 <b>Impact Factor:</b> 6.064   <b>Quartile:</b> 1   <b>Citations:</b> 10 <b>DOI:</b> <a href="https://doi.org/10.3389/fbioe.2022.810243">https://doi.org/10.3389/fbioe.2022.810243</a>	2022
<b>A novel demand-actuated defrost approach based on the real-time thickness of frost for the energy conservation of a refrigerator</b> <i>Anjum Naeem Malik Shaheryar Atta Khan Ismail Lazoglu</i> <i>International Journal of Refrigeration</i> , Volume:131, Page:168-177 <b>Impact Factor:</b> 3.629   <b>Quartile:</b> 2   <b>Citations:</b> 25 <b>DOI:</b> <a href="https://doi.org/10.1016/j.ijrefrig.2021.07.032">10.1016/j.ijrefrig.2021.07.032</a>	2021

**A novel hybrid frost detection and defrosting system for domestic refrigerators Nouveau système hybride de détection de givre et de dégivrage pour les réfrigérateurs domestiques** 2020  
*Shaheryar Atta Khan Anjum Naeem Malik Ismail Lazoglu*  
*International Journal of Refrigeration*, Volume 117, Pages 256-268  
**Impact Factor:** 3.629 | **Quartile:** 2 | **Citations:** 34  
**DOI:** 10.1016/j.ijrefrig.2020.05.016

**Temporal based EEG Signals Classification for Talocrural and Knee Joint Movements using Emotive Head Set** 2016  
*Anjum Naeem Malik Mohsin Islam Tiwana Javaid Iqbal*  
*Journal of Biomedical Engineering and Medical Imaging*, Volume 2, Issue no 6  
**Impact Factor:** 0  
**DOI:** 10.14738/jbemi.26.1730

## Conference Proceedings

**Robust State of Charge Estimation of Lithium-Ion Batteries Using a Nonlinearity-Aware PID Observer** 2024  
*Hafiz Muhammad Jawaad Muhammad Saeed Hamid Jabbar Anjum Naeem Malik Hassan Elahi Umar Shahbaz Khan*  
*2024 International Conference on Robotics and Automation in Industry (ICRAI)*, res.country(177,)  
**Citations:** N/A  
**DOI:** 10.1109/ICRAI62391.2024.10894055

**Physics-Informed Machine Learning for State of Charge Estimation of Lithium-Ion Batteries** 2024  
*Hafiz Muhammad Jawaad Muhammad Saeed Anjum Naeem Malik Arash Khalatbarisoltani Hassan Elahi Umar Shahbaz Khan*  
*2024 International Conference on Robotics and Automation in Industry (ICRAI)*, res.country(177,)  
**Citations:** N/A  
**DOI:** 10.1109/ICRAI62391.2024.10894277

**Deep Learning-Based Approach for Frost Quantification in Domestic Refrigerators** 2024  
*Hassan Akbar Huzzam Hassan Anjum Naeem Malik Tahir Habib Nawaz*  
*2024 International Conference on Robotics and Automation in Industry (ICRAI)*, res.country(177,)  
**Citations:** N/A  
**DOI:** 10.1109/ICRAI62391.2024.10894264

**A Low-cost Photoelectric Based Displacement Measurement System To Quantify Valve Lift Motion In Reciprocating Type Compressors** 2022  
*Anjum Naeem Malik Pouya Pashak Caglar Sahin Ismail Lazoglu*  
*26th International Compressor Engineering Conference at Purdue*, res.country(233,)  
**Citations:** N/A  
**DOI:** Nil

**EEG signals classification and determination of optimal feature-classifier combination for predicting the movement intent of lower limb** 2016  
*Anjum Naeem Malik Javaid Iqbal Mohsin Islam Tiwana*  
*2016 2nd International Conference on Robotics and Artificial Intelligence (ICRAI)*, res.country(177,)  
**Citations:** N/A  
**DOI:** 10.1109/ICRAI.2016.7791226

## Editorial Activities

**PLOS One** 2024  
Reviewed Papers for Journals  
**Impact Factor:** 2.9