# Khurram Kamal

Professor

Pakistan Navy Engineering College

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**LinkedIn:**

## About

Dr. Khurram Kamal is working as Professor in the Pakistan Navy Engineering College. Dr. Khurram Kamal has a PhD in Mechatronics. Dr. Khurram Kamal has published 60 research articles & conference papers having a citation count of 798, carried out 2 projects and filed 6 intellectual property.

## Qualifications

**PhD in Mechatronics**                                           2004 - 2008
  Loughborough University , Pakistan

**MSc in Computer Science**                                       2001 - 2003
  University of Karachi , Pakistan

**BE in Mechanical Engineering**                                  1997 - 2001
  NED UET Karachi , Pakistan

## Experience

**Professor**                                                     2022- Present
  Pakistan Navy Engineering College

**Associate Professor**                                           2019 - 2022
  Pakistan Navy Engineering College

**Assistant Professor**                                           2017 - 2019
  Pakistan Navy Engineering College

**Assistant Professor**                                           2012 - 2017
  College of Electrical & Mechanical Engineering

**Senior Lecturer**                                               2010 - 2012
  University Technology Malaysia , University Technology Malaysia

**Assistant Professor**                                           2009 - 2010
  National University of Sciences and Technology, Islamabac , College of Electrical and Mechanical Engineering (C of E&ME), Peshawar Road, Rawalpindi, Pakistan

**PhD Researcher**                                                2004 - 2008
  Loughborough University United Kingdom , Loughborough University United Kingdom

**Project Engineer**                                              2002 - 2003
  Pro-Plan Associated Pvt. Ltd. Karachi Pakistan. , PRO PLAN ASSOCIATES (PVT) LTD.68-C, 2nd Floor, 13th Comm. St. Phase-II Ext., D.H.A., Karachi 75500.

**Project Engineer**                                              2001 - 2001
  Pro-Plan Associates Pvt. (Ltd), Karachi, Pakistan , PRO PLAN ASSOCIATES (PVT) LTD.68-C, 2nd Floor, 13th Comm. St. Phase-II Ext., D.H.A., Karachi 75500.

## Awards

**EPSRC Scholarship**
  Awarded an Engineering and Physical Sciences Research Council (EPSRC) - UK scholarship for the PhD study by Loughborough University UK.

# Research Projects

## National Projects

**Hydrogen-Electric Energy Storage Mechanisms and Robustness Enhancement Research in Standalone Renewable Energy Systems with Wind and Solar**
2024

    **Funding Agency:** PAKISTAN SCIENCE FOUNDATION AND NATIONAL NATURAL SCIENCE FOUNDATION CHINA
    **Amount:** PKR 9,942,000.00
    **Status:** Approved_inprocess

**An Advanced Traffic Monitoring System using airborne data collection**
2022

    **Funding Agency:** HEC
    **Amount:** PKR 9,050,000.00
    **Status:** Approved_inprocess

## International Projects

# Research Articles

**Mathematical modelling of a sustainable energy system for restaurant communities: Waste-to-H2 conversion, CO2 sequestration, clean fuel production, and power generation**
2025

    *Syed Muhammad Aun Rizvi Khurram Kamal Tahir Abdul Hussain Ratlamwala*

    *Computers and Chemical Engineering*, Volume 199, Article Number 109038

    **Impact Factor:** 3.900 | **Quartile:** 2 | **Citations:** 1
    **DOI:** https://doi.org/10.1016/j.compchemeng.2025.109038

**Integrated energy, exergy, and environment (3E) analysis, and life cycle assessment of renewable sourced multigeneration system for optimized performance and environmental impact assessment**
2025

    *Sheikh Muhammad Ali Haider Tahir Abdul Hussain Ratlamwala Khurram Kamal Mohammed Alkahtani Muhammad Abid Haifeng Liu*

    *Sustainable Energy Technologies and Assessments*, Volume:80, Article Number 104368

    **Impact Factor:** 7.00 | **Quartile:** 2
    **DOI:** https://doi.org/10.1016/j.seta.2025.104368

**Decarbonization pathways for Gas Turbines: A thermodynamic and lifecycle evaluation of hydrogen and biogas blends**
2025

    *Abdul Rafay Khokhar Tahir Abdul Hussain Ratlamwala Khurram Kamal Mohammed Alkahtani Sayem Zafar*

    *International Journal of Hydrogen Energy*, Volume:143, Pages561-581

    **Impact Factor:** 8.300 | **Quartile:** 1
    **DOI:** https://doi.org/10.1016/j.ijhydene.2025.03.320

**Numerical prediction of ureter stone size using an integrated CFD-ML approach**
2025

    *Muhammad Mubashar Ashraf Khurram Kamal Muhammad Fahad N. F. M. Noor Tahir Abdul Hussain Ratlamwala*

    *Neural Computing and Applications*, Volume:37, Issue:7, Pages 5325-5341

    **Impact Factor:** 4.500 | **Quartile:** 2
    **DOI:** https://doi.org/10.1007/s00521-024-10880-1

**Comparative analysis of a multi-generation system using different conventional & nano based working fuels**
2024

    *Tahir Abdul Hussain Ratlamwala Hafsa Javed Sana Naseem Khurram Kamal*

    *International Journal of Hydrogen Energy*, Volume:52, Part A Page:1-12

    **Impact Factor:** 7.2 | **Quartile:** 1 | **Citations:** 2
    **DOI:** 10.1016/j.ijhydene.2023.07.170

**Tool Health Classification in Metallic Milling Process Using Acoustic Emission and Long Short-Term Memory Networks: A Deep Learning Approach**
2023

    *Fawad Khan Khurram Kamal Tahir Abdul Hussain Ratlamwala Mohammed Alkahtani Mohammed Almatani Senthan Mathavan*

    *IEEE Access*, Volume 11, Pages 126611-126633

    **Impact Factor:** 3.9 | **Quartile:** 2 | **Citations:** 6
    **DOI:** 10.1109/ACCESS.2023.3328582

**Sustainable operations of a combined cycle power plant using artificial intelligence based power prediction**
2023

    *Adeel Asghar Tahir Abdul Hussain Ratlamwala Khurram Kamal Mohammed Alkahtani Emad Mohammad Senthan Mathavan*

    *Heliyon*, Volume 9, Issue 9, Article Number e19562

    **Impact Factor:** 4.0 | **Quartile:** 2 | **Citations:** 7
    **DOI:** https://doi.org/10.1016/j.heliyon.2023.e19562

**Stirnol Engine: A combination of Nitinol (shape memory alloy) and Gamma Stirling Engine**                                  2023

*Humayun Arif Syed Aqueel shah Tahir Abdul Hussain Ratlamwala Khurram Kamal Maqsood Ahmed*

*Revista Mexicana de Fisica*, Volume 69, Issue 3, Pages 1-8

**Impact Factor:** 1.702 | **Quartile:** 3

**DOI:** 10.31349/RevMexFis.69.030601

**Effect of Material Change on Stirnol Engine: A Combination of NiTiNOL (Shape Memory Alloy) and**                          2023
**Gamma Stirling Engine**

*Syed Aqueel shah Tahir Abdul Hussain Ratlamwala Khurram Kamal Maqsood Ahmed Khan Humayun Arif*

*Materials* , Volume 16, Issue 8, Article Number 3257

**Impact Factor:** 3.748 | **Quartile:** 1 | **Citations:** 3

**DOI:** 10.3390/ma16083257

**Clean Energy Based Multigeneration System for Sustainable Cities: Thermodynamic, and Stability**                          2023
**Analyses**

*Uzair Bhatti Hamza Aamir Khurram Kamal Tahir Abdul Hussain Ratlamwala Fahad Alqahtani Mohammed Alkahtani Emad Mohammad Moath Alatefi*

*Membranes* , Volume 13(3), Article Number 358

**Impact Factor:** 4.562 | **Quartile:** 1 | **Citations:** 4

**DOI:** https://doi.org/10.3390/membranes13030358

**Tool Health Monitoring of a Milling Process Using Acoustic Emissions and a ResNet Deep Learning**                          2023
**Model**

*Mustajab Ahmed Khurram Kamal Tahir Abdul Hussain Ratlamwala Ghulam Hussain Mejdal Alqahtani Mohammed Alkahtani Moath Alatefi Ayoub Alzabidi*

*Sensors* , Volume 23(6), Article Number 3084

**Impact Factor:** 3.847 | **Quartile:** 2 | **Citations:** 15

**DOI:** https://doi.org/10.3390/s23063084

**Energy and Exergy Analysis of a Geothermal Sourced Multigeneration System for Sustainable City**                          2023

*Sheikh Muhammad Ali Haider Tahir Abdul Hussain Ratlamwala Khurram Kamal Fahad Alqahtani Mohammed Alkahtani Emad Mohammad Moath Alatefi*

*Energies* , Volume 16, Issue 4, Article Number 1616

**Impact Factor:** 3.252 | **Quartile:** 3 | **Citations:** 6

**DOI:** https://doi.org/10.3390/en16041616

**Simulation and modeling of copper-chlorine cycle, molten carbonate fuel cell alongside a heat**                          2022
**recovery system named regenerative steam cycle and electric heater with the incorporation of PID**
**controller in MATLAB/SIMULINK**

*Haseeb Kamran Uzair Mudassir Abdul Moiz Ali Khurram Kamal Tahir Abdul Hussain Ratlamwala M Abbas Raza Karam Khan*

*International Journal of Hydrogen Energy* , Article in Press

**Impact Factor:** 7.139 | **Quartile:** 2 | **Citations:** 5

**DOI:** https://doi.org/10.1016/j.ijhydene.2022.04.178

**Modeling and Simulation of Solid Oxide Fuel Cell Integrated with Anaerobic Digester, Thermal Storage**                    2022
**Unit and Solar Collector: A Net Zero Emission System**

*Muhammad Nihal Naseer Khurram Kamal Muhammad Abid Asif Iqbal Hamdullah Khan Ch. Muhammad Zubair Sagar Kumar Tahir Abdul Hussain*
*Ratlamwala Malik Muhammad Nauman*

*International Journal of Photoenergy* , Volume 2022, Article ID 8790631, 17 pages

**Impact Factor:** 2.535 | **Quartile:** 3 | **Citations:** 1

**DOI:** https://doi.org/10.1155/2022/8790631

**Fault classification of power plants using artificial neural network**                                                    2022

*Muhammad Sabbar Hassan Khurram Kamal Tahir Abdul Hussain Ratlamwala*

*Energy Sources, Part A: Recovery, Utilization and Environmental Effects*, Volume 44, No. 3, Pages 7665-7680

**Impact Factor:** 2.902 | **Quartile:** 3 | **Citations:** 4

**DOI:** 10.1080/15567036.2022.2113936

**Aerodynamic Analyses of Airfoils Using Machine Learning as an Alternative to RANS Simulation**                            2022

*Shakeel Ahmed Khurram Kamal Tahir Abdul Hussain Ratlamwala Senthan Mathavan Ghulam Hussain Mohammed Alkahtani Marwan Bin Muhammad*
*Alsultan*

*Applied Sciences* , Volume 12(10), Article Number 5194

**Impact Factor:** 2.9 | **Quartile:** 2 | **Citations:** 21

**DOI:** https://doi.org/10.3390/app12105194

**Pothole 3D Reconstruction With a Novel Imaging System and Structure From Motion Techniques**                              2022

*Adeel Ahmed Moez Ashfaque Muhammad Uzair Ul Haq Senthan Mathavan Khurram Kamal Mujib Rahman*

*IEEE Transactions on Intelligent Transportation Systems*, Volume: 23, Issue: 5, Page(s): 4685-4694, May 2022

**Impact Factor:** 6.492 | **Quartile:** 2 | **Citations:** 39
**DOI:** 10.1109/TITS.2021.3054026

**Prediction of fatigue crack growth rate in aircraft aluminum alloys using optimized neural networks** 2022

*Hassan Bin Younis Khurram Kamal Muhammad Fahad Sheikh Ameer Hamza*

*Theoretical and Applied Fracture Mechanics*, Volume 117, Article Number 103196

**Impact Factor:** 4.017 | **Quartile:** 1 | **Citations:** 49
**DOI:** https://doi.org/10.1016/j.tafmec.2021.103196

**A Hybrid Approach for Noise Reduction in Acoustic Signal of Machining Process Using Neural Networks and ARMA Model** 2021

*Tayyab Zafar Khurram Kamal Ghulam Hussain Mohammed Alkahtani Fahad M. Alqahtani Mohamed K. Aboudaif Senthan Mathavan*

*Sensors* , Volume 21(23), Article Number 8023

**Impact Factor:** 3.576 | **Quartile:** 1 | **Citations:** 8
**DOI:** 10.3390/s21238023

**Corrosion detection and severity level prediction using acoustic emission and machine learning based approach** 2021

*Muhammad Fahad Sheikh Khurram Kamal Faheem Rafique Salman Sabir Hassan Zaheer Kashif Khan*

*Ain Shams Engineering Journal*, Volume 12, Issue 4, Pages 3891-3903

**Impact Factor:** 3.180 | **Quartile:** 2 | **Citations:** 55
**DOI:** https://doi.org/10.1016/j.asej.2021.03.024

**Failure classification in natural gas pipe-lines using artificial intelligence: A case study** 2021

*Abdul Manan Khurram Kamal Tahir Abdul Hussain Ratlamwala Muhammad Fahad Sheikh Abdul Ghani Abro Tayyab Zafar*

*Energy Reports* , Volume 7, Pages 7640-7647

**Impact Factor:** 6.870 | **Quartile:** 1 | **Citations:** 20
**DOI:** https://doi.org/10.1016/j.egyr.2021.10.093

**Power prediction of waste heat recovery system for a cement plant using back propagation neural network and its thermodynamic modeling** 2021

*Ahmer Ali Khurram Kamal Tahir Abdul Hussain Ratlamwala Muhammad Fahad Sheikh Muhammad Arsalan*

*International Journal of Energy Research*, Volume 45(6), Pages 9162-9178

**Impact Factor:** 4.672 | **Quartile:** 1 | **Citations:** 10
**DOI:** https://doi.org/10.1002/er.6444

**Tool Health Monitoring Using Airborne Acoustic Emission and Convolutional Neural Networks: A Deep Learning Approach** 2021

*Khurram Kamal Tahir Abdul Hussain Ratlamwala Ghulam Hussain Muhammad Arslan Muhammad Fahad Sheikh Mahmood Anwar Khan Mohammed Alkahtani*

*Applied Sciences* , Volume 11(6), Article Number 2734

**Impact Factor:** 2.838 | **Quartile:** 2 | **Citations:** 7
**DOI:** https://doi.org/ 10.3390/app11062734

**Modeling and Simulation of a Proton Exchange Membrane Fuel Cell Alongside a Waste Heat Recovery System Based on the Organic Rankine Cycle in MATLAB/SIMULINK Environment** 2021

*Sharjeel Ashraf Ansari Mustafa Khalid Khurram Kamal Tahir Abdul Hussain Ratlamwala Ghulam Hussain Mohammed Alkahtani*

*Sustainability* , Volume 13(3), Article Number 1218

**Impact Factor:** 3.889 | **Quartile:** 2 | **Citations:** 40
**DOI:** https://doi.org/10.3390/su13031218

**Stereo-Based 3D Reconstruction of Potholes by a Hybrid, Dense Matching Scheme** 2019

*Muhammad Uzair Ul Haq Moeez Ashfaque Senthan Mathavan Khurram Kamal Adeel Ahmed*

*IEEE Sensors Journal*, Volume: 19 , Issue: 10, Pages 3807-3817

**Impact Factor:** 3.073 | **Quartile:** 2 | **Citations:** 31
**DOI:** DOI: 10.1109/JSEN.2019.2898375

**Optimization of aircraft maintenance routing using uninformed and informed search algorithms** 2019

*Ali Babar K. Kamal M. Usman Mah-e-Zehra*

*International Journal of Mechanical Engineering and Robotics Research*, Vol. 8, No. 1, Pages 141-145

**Impact Factor:** 0 | **Citations:** 2
**DOI:** 10.18178/ijmerr.8.1.141-145

**Performance assessment of Kinect as a sensor for pothole imaging and metrology** 2018

*Khurram Kamal Senthan Mathavan Tayyab Zafar Imran Moazzam Ahsan Ali S. Usman Ahmad Mujib Rahman*

*International Journal of Pavement Engineering*, Volume 19, Issue 7, Pages 565-576

**Impact Factor:** 2.298 | **Quartile:** 1 | **Citations:** 34
**DOI:** DOI:10.1080/10298436.2016.1187730

**Detection of pavement cracks using tiled fuzzy Hough transform**                                     2017

*Senthan Mathavan Kanapathippillai Vaheesan Akash Kumar Chanjief Chandrakumar Mujib Rahman Martyn Stonecliffe-Jones Khurram Kamal*

*Journal Of Electronic Imaging*, Volume: 26, Issue: 5, Article Number: 053008

**Impact Factor:** 0.780 | **Quartile:** 4 | **Citations:** 23
**DOI:** 10.1117/1.JEI.26.5.053008

**Wood defects classification using laws texture energy measures and supervised learning approach**     2017

*Khurram Kamal Rizwan Qayyum Senthan Mathavan Tayyab Zafar*

*Advanced Engineering Informatics*, Volume 34, Pages 125-135

**Impact Factor:** 3.358 | **Quartile:** 1 | **Citations:** 89
**DOI:** https://doi.org/10.1016/j.aei.2017.09.007

**A neural network based approach for background noise reduction in airborne acoustic emission of a      2017
machining process**

*Tayyab Zafar Khurram Kamal Z. Sheikh S. Mathavan U. Ali H. Hashmi*

*Journal of Mechanical Science and Technology*, Volume 31 (7), Pages 3171-3182

**Impact Factor:** 1.194 | **Quartile:** 3 | **Citations:** 14
**DOI:** 10.1007/s12206-017-0606-2

**Fast simulated annealing hybridized with quenching for solving job shop scheduling problem**          2016

*Kashif Akram Khurram Kamal Alam Zeb*

*Applied Soft Computing*, Volume 49, Pages 510-523

**Impact Factor:** 3.541 | **Quartile:** 1 | **Citations:** 40
**DOI:** https://doi.org/10.1016/j.asoc.2016.08.037

**Fast segmentation of industrial quality pavement images using Laws texture energy measures and k-      2016
means clustering**

*Senthan Mathavan Akash Kumar Khurram Kamal Michael Nieminen Hitesh Shah Mujib Rahman*

*Journal of Electronic Imaging*, Volume 25(5), Article Number 053010

**Impact Factor:** 0.754 | **Quartile:** 4 | **Citations:** 16
**DOI:** 10.1117/1.JEI.25.5.053010

**A Review of Three-Dimensional Imaging Technologies for Pavement Distress Detection and                 2015
Measurements**

*Senthan Mathavan Khurram Kamal Mujib Rahman*

*IEEE Transactions on Intelligent Transportation Systems*, Volume 16, Issue 5, Pages 2353-2362

**Impact Factor:** 2.534 | **Quartile:** 1 | **Citations:** 149
**DOI:** 10.1109/TITS.2015.2428655

**Use of a Self-Organizing Map for Crack Detection in Highly Textured Pavement Images**                  2015

*S. Mathavan M. Rahman S. Mathavan M. Rahman Khurram Kamal*

*Journal of Infrastructure Systems,*, Volume 21, Issue 3, Article Number: 04014052

**Impact Factor:** 1.234 | **Quartile:** 2 | **Citations:** 50
**DOI:** doi:10.1061/(ASCE)IS.1943-555X.0000237

**Pavement Raveling Detection and Measurement from Synchronized Intensity and Range Images**             2014

*Senthan Mathavan Mujib Rahman M. Stonecliffe-Jones Senthan Mathavan Mujib Rahman M. Stonecliffe-Jones Khurram Kamal*

*Transportation Research Record*, Volume 3, Pages 3-11

**Impact Factor:** 0.544 | **Quartile:** 4 | **Citations:** 39
**DOI:** DOI:10.3141/2457-01

**Application of texture analysis and Kohonen map for region segmentation of pavement images for          2012
crack detection**

*S. Mathavan M. Rahman Khurram Kamal*

*Transportation Research Record*, Volume 2304(1), Pages 150-157

**Impact Factor:** 0.442 | **Quartile:** 3 | **Citations:** 6
**DOI:** https://doi.org/10.3141/2304-17

## Conference Proceedings

**Mathematical Modeling of A Sustainable Energy System for Restaurant Communities: Waste-To-H2 Conversion, Co2 Mitigation, Clean Fuel Production, and Power Generation** — 2023

*Syed Muhammad Aun Rizvi Khurram Kamal Tahir Abdul Hussain Ratlamwala Muhammad Fahad Sheikh*

*14th International Conference on Hydrogen Production*, res.country(186,)

**Citations:** N/A

**DOI:** https://www.hbku.edu.qa/en/ICH2P23

**A Net-Zero Emission System with Biogas-Fed Solid Oxide Fuel Cell for Hydrogen Production to Advance Sustainability in the Textile Industry** — 2023

*Baraka Abbas Hooreen Ansari Kabsha Zain Wasifa Umer Abeeha Fatima Khurram Kamal Tahir Abdul Hussain Ratlamwala*

*14th International Conference on Hydrogen Production*, res.country(186,)

**Citations:** N/A

**DOI:** https://www.hbku.edu.qa/en/ICH2P23

**An Integrated Life Cycle Assessment and Supply Chain Analysis of A Multi-Generation System for Renewable Clean Power and Green Hydrogen Production** — 2023

*Tahir Abdul Hussain Ratlamwala Sheikh Muhammad Ali Haider Khurram Kamal*

*14th International Conference on Hydrogen Production*, res.country(186,)

**Citations:** N/A

**DOI:** https://www.hbku.edu.qa/en/ICH2P23

**Thermodynamic Analysis of A Geothermal Based Integrated Multigeneration System and Prediction of Outputs Via Back Propagation Neural Network using Matlab** — 2022

*Abdul Shakoor Tahir Abdul Hussain Ratlamwala Khurram Kamal Assad Anis*

*13th International Conference on Hydrogen Production*, res.country(177,)

**Citations:** N/A

**DOI:** Nil

**Investigation of Waste Heat Recovery from Proton Exchange Membrane Fuel Cell using Organic Rankine Cycle with Zeotropic** — 2022

*Tahir Abdul Hussain Ratlamwala Muhammad Furqan Siddiqui Syed Muhammad Ali Muhammad Muneeb Vohra Abdul Sami Khurram Kamal*

*23rd World Hydrogen Energy Conference*, res.country(224,)

**Citations:** N/A

**DOI:** Nil

**Comparative Analysis of a Multi-Generation System Using Different Conventional and Nanobased Working Fluids** — 2022

*Tahir Abdul Hussain Ratlamwala Hafsa Javed Sana Naseem Khurram Kamal*

*23rd World Hydrogen Energy Conference*, res.country(224,)

**Citations:** N/A

**DOI:** Nil

**Artificial Intelligence Based Prediction of Outputs of Geothermal Energy Based Multigeneration System** — 2021

*Qasim Nawab Haider Syed Muhammad Ali Khurram Kamal Tahir Abdul Hussain Ratlamwala*

*TUBA World Conference on Energy Science and Technology (TUBA WCEST-2021)*, res.country(224,)

**Citations:** N/A

**DOI:** 10.53478/TUBA.2021.017

**Modelling and Simulation of Molten Carbonate Fuel Cell and Copper-Chlorine Cycle Based Power Generation System with The Incorporation of PID Controller** — 2021

*Haseeb Kamran Uzair Mudassir Abdul Moiz Ali M Abbas Raza Karam Khan Khurram Kamal Tahir Abdul Hussain Ratlamwala*

*TUBA World Conference on Energy Science and Technology (TUBA WCEST-2021)*, res.country(224,)

**Citations:** N/A

**DOI:** 10.53478/TUBA.2021.017

**Automated MAchine Tool Prognostics for Turning Operation using Acoustic Emission and Learning** — 2019

*M. Arslan Khurram Kamal M. Fahad Senthan Mathavan M. A Khan*

*2019 5th International Conference on Control, Automation and Robotics (ICCAR)*, res.country(48,)

**Citations:** N/A

**DOI:** 2019 5th International Conference on Control, Automation and Robotics (ICCAR)

**Automated MAchine Tool Prognostics for Turning Operation using Acoustic Emission and Learning Vector Quantization.** — 2019

*M. Arslan Khurram Kamal M. Fahad Senthan Mathavan M A Khan*

*2019 5th International Conference on Control, Automation and Robotics (ICCAR)*, res.country(48,)

**Citations:** N/A
**DOI:** 10.1109/ICCAR.2019.8813739

### Biometric Identification Through ECG Signal Using a Hybridized Approach
2019

*Ubaid-ur-Rehman Khurram Kamal Javaid Iqbal Muhammad Fahad Sheikh*

*ICCAI '19: 2019 5th International Conference on Computing and Artificial Intelligence*, res.country(100,)

**Citations:** N/A
**DOI:** https://doi.org/10.1145/3330482.3330496

### A meticulous approach for selection of airfoils to prepare a blended wing body aircraft
2019

*Qais H Suhail H Nayyer J Younis Khurram Kamal*

*INTERNATIONAL MECHANCIAL ENGINEERING CONFERENCE -2019*, res.country(177,)

**Citations:** N/A
**DOI:** https://imec.neduet.edu.pk/sites/default/files/Proceeding%20IMEC-2019.pdf

### Prediction of fatigue crack growth rate in aircraft aluminum alloys using radial basis function neural network.
2018

*Hassaan Bin Younis Muhammad Fahad Sheikh Amir Hamza Tayyab Zafar Khurram Kamal*

*2018 10th International Conference on Advanced Computational Intelligence (ICACI)*, res.country(48,)

**Citations:** N/A
**DOI:** 10.1109/ICACI.2018.8377568

### Road crack detection using the particle filter.
2017

*Khurram Kamal Nida Hassan S.Mathavan*

*Automation and Computing (ICAC), 2017 23rd International Conference on(pp. 1-5). IEEE.*, res.country(231,)

**Citations:** N/A
**DOI:** 10.23919/IConAC.2017.8082050

### Identifying tree species from google earth imagery: Detection of Palmyra trees in northern Sri Lanka.
2017

*Senthan Mathavan Khurram Kamal*

*Automation and Computing (ICAC), 2017 23rd International Conference on(pp. 1-5). IEEE.*, res.country(231,)

**Citations:** N/A
**DOI:** https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=8081957

### An Inspection Approach for Casting Defects Detection Using Image Segmentation
2017

*Faisal Riaz Rizwan Qayyum Khurram Kamal Tayyab Zafar*

*International Conference on Mechanical, System and Control Engineering*, res.country(190,)

**Citations:** N/A
**DOI:** 10.1109/ICMSC.2017.7959451

### Wood Defects Classification using GLCM Based Features and PSO Trained Neural Network
2016

*R. Qayyum Khurram Kamal Tayyab Zafar S. Mathavan*

*22nd IEEE International Conference on Automation and Computing*, res.country(231,)

**Citations:** N/A
**DOI:** 10.1109/IConAC.2016.7604931

### Control of a Ball-Bot using a PSO Trained neural network
2016

*M. Shaheer H. Hashmi S. Khan M. Atif Z. Shabbir A. Ali Khurram Kamal Tayyab Zafar A. Awan*

*2nd International Conference on Control, Automation and Robotics*, res.country(94,)

**Citations:** N/A
**DOI:** 10.1109/ICCAR.2016.7486692

### Stabilization of 3D pavement images for pothole metrology using the Kalman filter
2015

*Abdullah Rasheed Khurram Kamal Tayyab Zafar Senthan Mathavan Mujib Rahman*

*18th IEEE International Conference on Intelligent Transportation Systems*, res.country(68,)

**Citations:** N/A
**DOI:** 10.1109/ITSC.2015.429

### Tool Health Monitoring for Wood Milling Process using Airborne Acoustic Emission
2015

*Tayyab Zafar Khurram Kamal Z. Sheikh S. Mathavan A. Jehanghir U. Ali*

*11th Annual IEEE International Conference on Automation Science and Engineering*, res.country(196,)

**Citations:** N/A
**DOI:** 10.1109/CoASE.2015.7294315

### Stabilization of an Aerial Robot for Indoor Environments using a Vision-based Approach
2015

*Akash Kumar Khurram Kamal Tayyab Zafar M. Abbas Kararvi Hassaan Afzal Asad Naseer Senthan Mathavan*

*7th IEEE International Conference on Fluid Power and Mechatroncis*, res.country(48,)

**Citations:** N/A
**DOI:** 10.1109/FPM.2015.7337230

**A Bio Inspired UAV Model based on Corvus Splendens**                                    2015

*A. Jameel S. Khalid S.Khalid Khurram Kamal Anas Aqeel S. Mathavan T. Awais Tayyab Zafar*

*7th IEEE International Conference on Fluid Power and Mechatroncis*, res.country(48,)

**Citations:** N/A
**DOI:** 10.1109/FPM.2015.7337223

**Tool Health Monitoring using Airborne Acoustic Emission and a PSO-optimized Neural Network**          2015

*Tayyab Zafar Khurram Kamal R Kumar Z Sheikh S Mathavan U. Ali*

*2nd IEEE International Conference on Cybernetics*, res.country(178,)

**Citations:** N/A
**DOI:** 10.1109/CYBConf.2015.7175945

## Book Chapters

**Multiobjective particle swarm optimization of geothermal power plants**                 2021

*Khurram Kamal Tahir Abdul Hussain Ratlamwala Muhammad Afzal Sheikh Sharjeel AshrafAnsari Muhammad NoumanSaleem*

In: *Thermodynamic Analysis and Optimization of Geothermal Power Plants*, Chapter 15, Pages 249-262

**Citations:** 2
**DOI:** https://doi.org/10.1016/B978-0-12-821037-6.00016-0

## Editorial Activities

2020

Reviewed Papers for Journals
**Impact Factor:** 4.139

2020

Reviewed Papers for Journals
**Impact Factor:** -

2020

Reviewed Papers for Journals
**Impact Factor:** 6.725

2020

Reviewed Papers for Journals
**Impact Factor:** 4.139

2020

Reviewed Papers for Journals
**Impact Factor:** 6.725

2019

Reviewed Papers for Journals
**Impact Factor:** 6.725

2019

Reviewed Papers for Journals
**Impact Factor:** 4.139

2019

Reviewed Papers for Journals
**Impact Factor:** 5.603

2018

Reviewed Papers for Journals

2018

Reviewed Papers for Journals
**Impact Factor:** 2.218

2018

Reviewed Papers for Journals
**Impact Factor:** 2.218

Reviewed Papers for Journals 2018

Reviewed Papers for Journals 2018

Reviewed Papers for Journals 2018

Reviewed Papers for Journals 2018

Reviewed Papers for Journals 2018

Reviewed Papers for Journals 2018

Reviewed Papers for Journals 2018

Reviewed Papers for Journals 2018

Reviewed Papers for Journals 2018

Reviewed Papers for Journals 2018

Reviewed Papers for Journals 2018

Reviewed Papers for Journals 2017
**Impact Factor:** 1.194

## Intellectual Property

### Copyrights

### Patents

### Industrial Designs

**Pipe Inspection Robot** 2021
  **Status:** Granted Filed

**Autonomous VTOL UAV** 2020
  **Status:** Filed

**Pipe Inspection Robot** 2020
  **Status:** Granted Filed

**Smart portable Thermoelectric Vaccine Carrier** 2020
  **Status:** Granted Filed

**The Smart Shoe(Class-10)** 2019
  **Status:** Granted Filed

**Spring force Adjustable Clamp for Pipes (Class-01)** 2019
  **Status:** Granted Filed

### Trademarks