

Karam Dad

Assistant Professor

School of Mechanical & Manufacturing Engineering

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About

Dr. Karam Dad is working as Assistant Professor in the School of Mechanical & Manufacturing Engineering. Dr. Karam Dad has a PhD in Intelligent Control And Automation System. Dr. Karam Dad has published 31 research articles & conference papers having a citation count of 721, carried out 0 projects and filed 0 intellectual property.

Qualifications

PhD in Intelligent Control And Automation System Pusan National University , South Korea	2015 - 2019
MS in Mechatronics Air University , Pakistan	2012 - 2014
BE in Mechatronics Air University , Pakistan	2007 - 2011

Experience

Assistant Professor School of Mechanical & Manufacturing Engineering	2025- Present
Assistant Professor School of Mechanical & Manufacturing Engineering	2023 - 2023
Assistant Professor School of Mechanical & Manufacturing Engineering	2023 - 2023
Assistant Professor School of Mechanical & Manufacturing Engineering	2020 - 2023
Assistant Professor School of Mechanical & Manufacturing Engineering	2019 - 2020
Lab Engineer Air University , E-9, Islamabad	2011 - 2015

Awards

Pusan National University BEST RESEARCHER AWARD 2018, SCHOOL OF MECHANICAL ENGINEERING, PUSAN NATIONAL UNIVERSITY, BUSAN, SOUTH KOREA	2019
Air University, Islamabad MEMBER OF ORGANIZING TEAM OF TECHKRITI 2013, GRC PAKISTAN ROUND AT AIR UNIVERSITY, ISLAMABAD	2013
Air University, Islamabad WINNER OF LINE TRACKING ROBOTS COMPETITION HELD AT AIR UNIVERSITY, ISLAMABAD.	2010

Professional Memberships

PEC	Since 2011
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Research Articles

Urban traffic signal control optimization through Deep Q Learning and double Deep Q Learning: a novel approach for efficient traffic management Qazi Umer Jamil Karam Dad Kallu Muhammad Jawad Khan Muhammad Safdar Amad Zafar Muhammad Umair Ali	2024
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Correlation-Filter-Based Channel and Feature Selection Framework for Hybrid EEG-fNIRS BCI Applications <i>Muhammad Umair Ali Amad Zafar Karam Dad Malik Muhammad Naeem Mannan Malik Muhammad Ibrahim Sangil Kim Muhammad Attique Khan Haris Masood</i> <i>IEEE Journal of Biomedical and Health Informatics</i> , Volume 28, Issue 6 Impact Factor: 7.7 Quartile: 1 Citations: 19 DOI: 10.1109/JBHI.2023.3294586	2024
Numerical approximations for fluid flow and heat transfer in the boundary layer with radiation through multiple Lie similarity transformations <i>Muhammad Bilal Muhammad Safdar Shoaib Ahmed Karam Dad Amad Zafar Muhammad Umair Ali Kwang Su Kim Jong Hyuk Byun</i> <i>Frontiers in Physics</i> , Volume 11, Article Number 1210827 Impact Factor: 3.1 Quartile: 2 Citations: 1 DOI: 10.3389/fphy.2023.1210827	2023
An Isolated CNN Architecture for Classification of Finger-Tapping Tasks Using Initial Dip Images: A Functional Near-Infrared Spectroscopy Study <i>Muhammad Umair Ali Amad Zafar Karam Dad Muhammad Atif Yaqub Haris Masood Keum-Shik Hong Muhammad Raheel Bhutta</i> <i>Bioengineering</i> , Volume 10(7), Article Number 810 Impact Factor: 4.6 Quartile: 2 Citations: 1 DOI: https://doi.org/10.3390/bioengineering10070810	2023
OptEF-BCI: An Optimization-Based Hybrid EEG and fNIRS–Brain Computer Interface <i>Muhammad Umair Ali Kwang Su Ki Karam Dad Amad Zafar Seung Won Lee</i> <i>Bioengineering</i> , Volume 10(5), Article Number 608 Impact Factor: 5.046 Quartile: 2 Citations: 7 DOI: https://doi.org/10.3390/bioengineering10050608	2023
A CNN-Based Chest Infection Diagnostic Model: A Multistage Multiclass Isolated and Developed Transfer Learning Framework <i>Muhammad Umair Ali Karam Dad Kallu Haris Masood Usama Tahir Chandu V. V. Muralee Gopi Amad Zafar Seung Won Lee</i> <i>International Journal of Intelligent Systems</i> , Volume 2023, Article ID 6850772, 12 pages Impact Factor: 8.993 Quartile: 1 Citations: 18 DOI: https://doi.org/10.1155/2023/6850772	2023
A Hybrid GCN and Filter-Based Framework for Channel and Feature Selection: An fNIRS-BCI Study <i>Karam Dad Kallu Muhammad Atif Yaqub Muhammad Umair Ali Amad Zafar Jong Hyuk Byun Min Yoon Kawang Su Kim</i> <i>International Journal of Intelligent Systems</i> , Volume 2023, Article ID 8812844 Impact Factor: 8.993 Quartile: 1 Citations: 21 DOI: https://doi.org/10.1155/2023/8812844	2023
A Robust Computer-Aided Automated Brain Tumor Diagnosis Approach Using PSO-ReliefF Optimized Gaussian and Non-Linear Feature Space <i>Muhammad Umair Ali Karam Dad Kallu Haris Masood Shaik Javeed Hussain Safee Ullah Jong Hyuk Byun Amad Zafar Kawang Su Kim</i> <i>Life</i> , Volume 12(12), Article Number 2036 Impact Factor: 3.251 Quartile: 2 Citations: 4 DOI: https://doi.org/10.3390/life12122036	2022
Evaluation of a Sustainable Urban Transportation System in Terms of Traffic Congestion-A Case Study in Taxila, Pakistan <i>Arsalan Raza Muhammad Umair Ali Ubaid Ullah Muhammad Fayaz Muhammad Junaid Alvi Karam Dad Amad Zafar Sarvar Hussain Nengroo</i> <i>Sustainability</i> , Volume 14(19), Article Number 12325 Impact Factor: 3.889 Quartile: 2 Citations: 20 DOI: https://doi.org/10.3390/su141912325	2022
Isolated Convolutional-Neural-Network-Based Deep-Feature Extraction for Brain Tumor Classification Using Shallow Classifier <i>Yassir Edrees Almalki Muhammad Umair Ali Karam Dad Manzar Masud Amad Zafar Sharifa Khalid Alduraibi Muhammad Irfan Mohammad Abd Alkhalik Basha Hassan A. Alshamrani Alaa Khalid Alduraibi Mervat Aboualkheir</i> <i>Diagnostics</i> , Volume 12(8), Article Number 179 Impact Factor: 3.992 Quartile: 2 Citations: 27	2022

DOI: <https://doi.org/10.3390/diagnostics12081793>

Robust Gaussian and Non-Linear Hybrid Invariant Clustered Features Aided Approach for Speeded 2022

Brain Tumor Diagnosis

Yassir Edrees Almalki Muhammad Umair Ali Waqas Ahmed Karam Dad Amad Zafar Sharifa Khalid Alduraibi Muhammad Irfan Mohammad Abd Alkhalik Basha Hassan A. Alshamrani Alaa Khalid Alduraibi
Life , Volume 12(7), Article Number 1084

Impact Factor: 3.251 | **Quartile:** 2 | **Citations:** 12

DOI: <https://doi.org/10.3390/life12071084>

A Hybrid Data-Driven Approach for Multistep Ahead Prediction of State of Health and Remaining Useful 2022

Life of Lithium-Ion Batteries

Muhammad Umair Ali Amad Zafar Haris Masood Karam Dad Kallu Muhammad Attique Khan Usman Tariq Ye Jin Kim Byoungchol Chang
Computational Intelligence and Neuroscience , Volume 2022, Article ID 1575303, 14 pages

Impact Factor: 3.633 | **Quartile:** 1 | **Citations:** 17

DOI: <https://doi.org/10.1155/2022/1575303>

An Asymmetric Bargaining Model for Natural Gas Distribution 2022

Shahmir Janjua Muhammad Umair Ali Dr Karam Dad Kallu Amad Zafar Shaik Javeed Hussain Hasnain Gardezi Seung Won Lee
Applied Sciences , Volume 12(11), Article Number 5677

Impact Factor: 2.679 | **Quartile:** 2 | **Citations:** 3

DOI: <https://doi.org/10.3390/app12115677>

An adaptive state of charge estimator for lithium-ion batteries 2022

Karam Dad Kallu Muhammad Umair Ali Hafiz F. Khan Haris Masood Malik M. Ibrahim Amad Zafar Semin Oh Sangil Kim
Energy Science & Engineering , Pages 1-15

Impact Factor: 4.170 | **Quartile:** 2 | **Citations:** 11

DOI: <http://doi.org/10.1002/ese3.1141>

Kernel Recursive Least Square Tracker and Long-Short Term Memory Ensemble Based Battery Health 2021

Prognostic Model

Muhammad Umair Ali Dr Karam Dad Kallu Haris Masood Kamran Ali Khan Niazi Muhammad Junaid Alvi Usman Ghafoor Amad Zafar
iScience , Volume 24, Issue 11, Article Number 103286

Impact Factor: 5.458 | **Quartile:** 1 | **Citations:** 12

DOI: <https://doi.org/10.1016/j.isci.2021.103286>

Early hotspot detection in photovoltaic modules using color image descriptors: An infrared 2021

thermography study

Muhammad Umair Ali Sajid Saleem Haris Masood Karam Dad Kallu Manzar Masud Muhammad Junaid Alvi Amad Zafar
International Journal of Energy Research , Pages 1-12

Impact Factor: 4.672 | **Quartile:** 1 | **Citations:** 56

DOI: <http://doi.org/10.1002/er.7201>

Photovoltaic Panels Classification Using Isolated and Transfer Learned Deep Neural Models Using 2021

Infrared Thermographic Images

Waqas Ahmed Aamir Hanif Karam Dad Kallu Abbas Z. Kouzani Muhammad Umair Ali Amad Zafar
Sensors , Volume 21(16), Article Number 5668

Impact Factor: 3.847 | **Quartile:** 2 | **Citations:** 54

DOI: <https://doi.org/10.3390/s21165668>

Robust Position Control of Assistive Robot for Paraplegics 2021

Karam Dad Kallu Hamza Khan Saad Jamshed Abbasi Hyun Hee Kim Young-Jun An Min Cheol Lee
International Journal of Control Automation and Systems , Pages 1-12

Impact Factor: 2.964 | **Quartile:** 2 | **Citations:** 6

DOI: <http://dx.doi.org/10.1007/s12555-020-0049-x>

A Game-Theoretic Approach for Electric Power Distribution during Power Shortage: A Case Study in 2021

Pakistan

Karam Dad Kallu Shahmir Janjua Muhammad Umair Ali Malik Muhammad Ibrahim Amad Zafar Sangil Kim
Applied Sciences , Volume 11(11), Article Number 5084

Impact Factor: 2.838 | **Quartile:** 2 | **Citations:** 2

DOI: <https://doi.org/10.3390/app11115084>

Robust Controller for Pursuing Trajectory and Force Estimations of a Bilateral Tele-Operated Hydraulic 2021

Manipulator

Karam Dad Kallu Amad Zafar Muhammad Umair Ali Shahzad Ahmed Min Cheol Lee

<p><i>Remote Sensing</i> , Volume 13(9), Article Number 1648</p> <p>Impact Factor: 5.349 Quartile: 1 Citations: 1</p> <p>DOI: https://doi.org/10.3390/rs13091648</p>	
<p>Hand Gestures Recognition Using Radar Sensors for Human-Computer-Interaction: A Review</p> <p><i>Shahzad Ahm2d Sarfaraz Ahmed Sung Ho Cho Karam Dad Kallu</i></p> <p><i>Remote Sensing</i> , Volume 13(3), Article Number 527</p> <p>Impact Factor: 5.349 Quartile: 1 Citations: 166</p> <p>DOI: https://doi.org/10.3390/rs13030527</p>	2021
<p>Dynamic Response of an Inverted Pendulum System in Water under Parametric Excitations for Energy Harvesting: A Conceptual Approach</p> <p><i>Karam Dad Kallu Saqib Hasnain Muhammad Haq Nawaz Naseem Abbas Catalin Iulin Pruncu</i></p> <p><i>Energies</i> , Volume 13(19), Pages 5215</p> <p>Impact Factor: 3.004 Quartile: 3 Citations: 4</p> <p>DOI: https://doi.org/10.3390/en13195215</p>	2020
<p>A machine learning framework to identify the hotspot in photovoltaic module using infrared thermography</p> <p><i>Muhammad Umair Ali Hafiz Farhaj Khan Manzar Masud Karam Dad Kallu Amad Zafar Muhammad Umair Ali Hafiz Farhaj Khan Manzar Masud Amad Zafar</i></p> <p><i>Solar Energy</i> , Volume 208, Pages 643-651</p> <p>Impact Factor: 5.742 Quartile: 2 Citations: 150</p> <p>DOI: https://doi.org/10.1016/j.solener.2020.08.027</p>	2020
<p>Implementation of a TSMCSPO Controller on a 3-DOF Hydraulic Manipulator for Position Tracking and Sensor-Less Force Estimation</p> <p><i>Karam Dad Kallu Saad Jamshed Abbasi Hamza Khan Jie Wang Min Cheol Lee</i></p> <p><i>IEEE Access</i> , Volume: 7, Pages 177035-17704723</p> <p>Impact Factor: 3.745 Quartile: 1 Citations: 15</p> <p>DOI: DOI: 10.1109/ACCESS.2019.2956778</p>	2019
<p>Tele-operated bilateral control of hydraulic manipulator using a robust controller based on sensorless estimated reaction force</p> <p><i>Min Cheol Lee Saad Jamshed Abbasi Jie Wang Hamza Khan Karam Dad Kallu Min Cheol Lee Saad Jamshed Abbasi Jie Wang Hamza Khan</i></p> <p><i>Applied Sciences</i> , Volume 9(10), Article Number 1995</p> <p>Impact Factor: 2.474 Quartile: 2 Citations: 12</p> <p>DOI: https://doi.org/10.3390/app9101995</p>	2019
<p>Trajectory tracking control of a hydraulic system using SMCSPO and TSMCSPO based on sliding perturbation observer</p> <p><i>Karam Dad Kallu Min Cheol Lee Jie Wang Min Cheol Lee Jie Wang Saad Jamshed Abbasi Seokyoung Ahn</i></p> <p><i>Applied Sciences</i> , Volume 9(7), Article Number 1455</p> <p>Impact Factor: 2.474 Quartile: 2 Citations: 13</p> <p>DOI: https://doi.org/10.3390/app9071455</p>	2019
<p>Efficient control of non-linear system using modified sliding mode control</p> <p><i>Karam Dad Kallu Min Cheol Lee Saad Jamshed Abbasi Min Cheol Lee Saad Jamshed Abbasi</i></p> <p><i>Applied Sciences</i> , Volume 9(7), Article Number 1284</p> <p>Impact Factor: 2.474 Quartile: 2 Citations: 13</p> <p>DOI: https://doi.org/10.3390/app9071284</p>	2019
<p>Estimated reaction force based bilateral control between 3DOF master and hydraulic slave manipulators for dismantlement</p> <p><i>Karam Dad Kallu Min Cheol Lee Jie Wang Saad Jamshed Abbasi Min Cheol Lee Jie Wang Saad Jamshed Abbasi</i></p> <p><i>Electronics</i> , Volume 7(10), Article Number 256</p> <p>Impact Factor: 1.764 Quartile: 3 Citations: 18</p> <p>DOI: https://doi.org/10.3390/electronics7100256</p>	2018
<p>Sensorless reaction force estimation of the end effector of a dual-arm robot manipulator using Sliding Mode Control with Sliding Perturbation Observer</p> <p><i>Min Cheol Lee Wang Jie Karam Dad Kallu</i></p> <p><i>International Journal of Control Automation and Systems</i>, Volume 16, No. 3, Pages 1367-1378</p> <p>Impact Factor: 2.181 Quartile: 3 Citations: 38</p> <p>DOI: https://doi.org/10.1007/s12555-017-0154-7</p>	2018

Karam Dad Kallu Min Cheol Lee Min Cheol Lee Wang Jie Muhammad Jawad Khan

Journal of Robotics, Networking and Artificial Life, Volume 3, No. 4, Pages 221-226

Impact Factor: -

DOI: <https://doi.org/10.2991/jrnl.2017.3.4.3>

Conference Proceedings

Tele-operated bilateral control of hydraulic servo system using TSMCSPO based estimated reaction force of end effector

2018

Karam Dad Kallu Min Cheol Lee M Atif Yaqub Jie Wang

Intelligent systems Conference (IntelliSys), res.country(231,)

Citations: N/A

DOI: https://doi.org/10.1007/978-3-030-01057-7_75

Editorial Activities

Reviewed Papers for Journals

Impact Factor: 1.647

2022

Reviewed Papers for Journals

Impact Factor: 3.314

2020

Reviewed Papers for Journals

Impact Factor: 3.745

2019