

Usman Ghafoor

Assistant Professor
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About

Dr. Usman Ghafoor is working as Assistant Professor in the NUST Business School. Dr. Usman Ghafoor has a PhD in Data analytics intelligent control and automation. Dr. Usman Ghafoor has published 30 research articles & conference papers having a citation count of 763, carried out 0 projects and filed 0 intellectual property.

Qualifications

PhD in Data analytics intelligent control and automation	2016 - 2021
Pusan National University , South Korea	
MSc in industrial management and manufacturing engineering	2012 - 2016
UET Taxila , Pakistan	
BE in mechatronics	2007 - 2011
Air University , Pakistan	

Experience

Assistant Professor	2024- Present
NUST Business School	
Postdoc fellow	2021 - 2023
Pusan National University, Busan, South Korea , Pusan National University, Busan, South Korea	
Lecturer	2016 - 2016
Institute of Space Technology, Islamabad, Pakistan , Institute of Space Technology, Islamabad, Pakistan	
Teaching/Research Associate	2012 - 2016
Institute of Space Technology, Islamabad, Pakistan , Institute of Space Technology, Islamabad, Pakistan	
Lab Engineer	2011 - 2012
School of Engineering and Management Sciences, Rawalpindi, Pakistan , School of Engineering and Management Sciences, Rawalpindi, Pakistan	

Research Articles

Aeroelastic Tailoring Framework of Pazy Wing with Variable Stiffness of Composites Spar	2024
Ahsan Ayaz Iqbal Rasool Memon Fahad Ali Sheharyar Malik Umer Hameed Shah Usman Ghafoor Muhammad Umer Usama Waleed Qazi	
IEEE Access , Volume:12, Page:106042-106055	
Impact Factor: 3.4 Quartile: 2	
DOI: 10.1109/ACCESS.2024.3435961	
DDPG-Based Adaptive Sliding Mode Control with Extended State Observer for Multibody Robot Systems	2023
Hamza Khan Sheraz Ali Khan Min Cheol Lee Usman Ghafoor Fouzia Gillani Umer Hameed Shah	
Robotics , Volume 12, Issue 6, Article Number 161	
Impact Factor: 2.900 Quartile: 2 Citations: 7	
DOI: https://doi.org/10.3390/robotics12060161	
Investigation of Hardness and Microanalysis of Sintered Aluminum-Based Supplemented Metal Matrix Machined Composites	2023
Muhammad Raheel Bhutta Fouzia Gillani Taiba Zahid Saira Bibi Usman Ghafoor	
Crystals , Volume 13(9), Article Number 1347	
Impact Factor: 2.7 Quartile: 2 Citations: 1	
DOI: https://doi.org/10.3390/cryst13091347	

Effectiveness assessment of repetitive transcranial alternating current stimulation with concurrent EEG and fNIRS measurement <i>Dalin Yang Usman Ghafoor Adam Thomas Eggebrecht Keum-Shik Hong</i> <i>Health Information Science and Systems</i> , Volume 11, Issue 1, Article Number 35 Impact Factor: 4.700 Quartile: 1 Citations: 8 DOI: 10.1007/s13755-023-00233-y	2023
Thermal Management of Microelectronic Devices Using Nanofluid with Metal foam Heat Sink <i>Muhammad Teham Tahir Shahzaib Anwar Naseem Ahmad Mariyam Sattar Usama Waleed Qazi Usman Ghafoor Muhammad Raheel Bhutta</i> <i>Micromachines</i> , Volume 14, Issue 7, Article Number 1475 Impact Factor: 3.000 Quartile: 2 Citations: 8 DOI: 10.3390/mi14071475	2023
Effect of Various Dusts and Humidity on the Performance of Renewable Energy Modules <i>Anis Ahmad Sher Naseem Ahmad Mariyam Sattar Usman Ghafoor Umer Hameed Shah</i> <i>Energies</i> , Volume 16, Issue 13, Article Number 4857 Impact Factor: 3.000 Quartile: 3 Citations: 12 DOI: 10.3390/en16134857	2023
IoT malware detection architecture using a novel channel boosted and squeezed CNN <i>Muhammad Asam Saddam Hussain Khan Altaf Akbar Sameena Bibi Tauseef Jamal Asifullah Khan Usman Ghafoor M. Raheel Bhutta</i> <i>Scientific Reports</i> , Volume 12, Issue 1, Article Number: 15498 Impact Factor: 4.600 Quartile: 2 Citations: 59 DOI: 10.1038/s41598-022-18936-9	2022
EEG-fNIRS-based hybrid image construction and classification using CNN-LSTM <i>Nabeeha Ehsan Mughal Muhammad Jawad Khan Khurram Khalil Kashif Javed Hasan Sajid Noman Naseer Usman Ghafoor Keum-Shik Hong</i> <i>Frontiers in Neurorobotics</i> , Volume 16, Article Number 873239 Impact Factor: 3.493 Quartile: 2 Citations: 26 DOI: https://doi.org/10.3389/fnbot.2022.873239	2022
Acupuncture enhances brain function in patients with mild cognitive impairment: Evidence from a functional-near infrared spectroscopy study <i>M. N. Afzal Khan Usman Ghafoor Ho-Ryong Yoo Keum-Shik Hong</i> <i>Neural Regeneration Research</i> , Volume 17, Issue 8, Pages 1850-1856 Impact Factor: 6.100 Quartile: 1 Citations: 33 DOI: 10.4103/1673-5374.332150	2022
Neuromodulatory Effects of HD-tACS/tDCS on the Prefrontal Cortex: A Resting-State fNIRS-EEG Study <i>Usman Ghafoor Dalin Yang Keum-Shik Hong</i> <i>IEEE Journal of Biomedical and Health Informatics</i> , Volume 26, Issue 5, Pages 2192-2203 Impact Factor: 7.700 Quartile: 1 Citations: 33 DOI: 10.1109/JBHI.2021.3127080	2022
A New Deep Hybrid Boosted and Ensemble Learning-Based Brain Tumor Analysis Using MRI <i>Mirza Mumtaz Zahoor Shahzad Ahmad Qureshi Sameena Bibi Saddam Hussain Khan Asifullah Khan Usman Ghafoor M. Raheel Bhutta</i> <i>Sensors</i> , Volume 22, Issue 7, Article Number 2726 Impact Factor: 3.900 Quartile: 2 Citations: 105 DOI: 10.3390/s22072726	2022
Parametric Optimization for Quality of Electric Discharge Machined Profile by Using Multi-Shape Electrode <i>Fouzia Gillani Taiba Zahid Sameena Bibi Samiullah Khan Muhammad Raheel Bhutta Usman Ghafoor</i> <i>Materials</i> , Volume 15(6), Article Number 2205 Impact Factor: 3.623 Quartile: 1 Citations: 8 DOI: 10.3390/ma15062205	2022
Synchromodal Transportation Analysis of the One-Belt-One-Road Initiative Based on a Bi-Objective Mathematical Model <i>Taiba Zahid Fouzia Gillani Usman Ghafoor Raheel Bhutta</i> <i>Sustainability</i> , Volume 14(6), Article Number 3201 Impact Factor: 3.251 Quartile: 2 Citations: 7 DOI: https://doi.org/10.3390/su14063201	2022

Effect of Tin Oxide/Black Paint Coating on Absorber Plate Temperature for Improved Solar Still Production: A Controlled Indoor and Outdoor Investigation <i>Rana Sami Ullah Khan Sayfar Rasachak Laveet Kumar Taiba Zahid Usman Ghafoor Jeyraj selvaraj Rehana Nasrin Shakeel Ahmed</i> <i>International Journal of Photoenergy</i> , Volume 2022, Article ID 6902783, 12 pages Impact Factor: 2.113 Quartile: 4 Citations: 17 DOI: 10.1155/2022/6902783	2022
A Decision Framework for Solar PV Panels Supply Chain in Context of Sustainable Supplier Selection and Order Allocation <i>Raja Awais Liaqait Salman Sagheer Warsi Taiba Zahid Usman Ghafoor Muhammad Shakeel Ahmad Jeyraj Selvaraj</i> <i>Sustainability</i> , Volume 13(23), Article Number 13216 Impact Factor: 3.251 Quartile: 2 Citations: 11 DOI: doi.org/10.3390/su132313216	2021
Redefining Critical Tasks for Responsive and Resilient Scheduling–An Intelligent Fuzzy Heuristic Approach <i>Taiba Zahid Mujtaba Hasan Agha Salman Sagheer Warsi Usman Ghafoor</i> <i>IEEE Access</i> , Volume 9, Pages 145513-145521 Impact Factor: 3.367 Quartile: 2 Citations: 2 DOI: 10.1109/ACCESS.2021.3123138	2021
Sustainability-Based Analysis of Conventional to High-Speed Machining of Al 6061-T6 Alloy <i>Salman Sagheer Warsi Taiba Zahid Hassan Elahi Raja Awais Liaquat Saira Bibi Fouzia Gillani Usman Ghafoor</i> <i>Applied Sciences</i> , Volume 11(19), Article Number 9032 Impact Factor: 2.679 Quartile: 2 Citations: 8 DOI: 10.3390/app11199032	2021
A Systematic Indoor and Outdoor Study of the Effect of Particle Size and Concentration of TiO2 in Improving Solar Absorption for Solar Still Application <i>Heng Semneang Laveet Kumar Amad Zafar Muhammad Umair Ali Taiba Zahid Saira Bibi Shakeel Ahmed Usman Ghafoor Jeyraj Selvaraj</i> <i>Frontiers in Materials</i> , Volume 8, Article Number 683490 Impact Factor: 3.515 Quartile: 2 Citations: 6 DOI: https://doi.org/10.3389/fmats.2021.683490	2021
Meta-Heuristic Approach for the Development of Alternative Process Plans in a Reconfigurable Production Environment <i>Iqra Sadaf Khan Usman Ghafoor Taiba Zahid</i> <i>IEEE Access</i> , Volume 9, Pages 113508-113520 Impact Factor: 3.367 Quartile: 2 Citations: 9 DOI: 10.1109/ACCESS.2021.3104116	2021
Effect of molybdenum disulfide on the performance of polyaniline based counter electrode for dye-sensitized solar cell applications <i>Usman Ghafoor Anas Bin Aqeel Uzair Khaleeq uz Zaman Taiba Zahid Muhammad Noman Muhammad Shakeel Ahmed</i> <i>Energies</i> , Volume 14, Issue 13, Article Number 3786 Impact Factor: 3.004 Quartile: 3 Citations: 7 DOI: https://doi.org/10.3390/en14133786	2021
Improved ablative properties of nanodiamond-reinforced carbon fiber–epoxy matrix composites <i>Umar Farooq Muhammad Umair Ali Shaik Javeed Hussain Muhammad Shakeel Ahmad Amad Zafar Usman Ghafoor Tayyab Subhani</i> <i>Polymers</i> , Volume 13, Issue 13, Article Number 2035 Impact Factor: 4.967 Quartile: 1 Citations: 12 DOI: 10.3390/polym13132035	2021
Indoor and outdoor performance study of metallic zinc particles in black paint to improve solar absorption for solar still application <i>Muhammad Shakeel Ahmad Shwe Sin Han Amad Zafar Usman Ghafoor Nasrudin Abd Rahim Muhammad Umair Ali You Seung Rim</i> <i>Coatings</i> , Volume 11, Issue 5, Article Number 536 Impact Factor: 3.236 Quartile: 2 Citations: 11 DOI: 10.3390/coatings11050536	2021
Brain-machine interfaces using functional near-infrared spectroscopy: a review <i>Muhammad Jawad Khan Keum-Shik Hong Usman Ghafoor</i> <i>Artificial Life and Robotics</i> , Volume 25, Issue 2, Pages 204-218 Impact Factor: N/A Citations: 53	2020

DOI: 10.1007/s10015-020-00592-9

Effects of acupuncture therapy on MCI patients using functional near-infrared spectroscopy2019

Usman Ghafoor Jun-Hwan Lee Keum-Shik Hong Sang-Soo Park Jieun Kim Ho-Ryong Yoo

Frontiers in Aging Neuroscience, Volume:11, Article Number 237

Impact Factor: 4.364 | Quartile: 1 | Citations: 96

DOI: <https://doi.org/10.3389/fnagi.2019.00237>

Early Detection of Hemodynamic Responses Using EEG: A Hybrid EEG-fNIRS Study2018

M. Jawad Khan Usman Ghafoor Keum-Shik Hong

Frontiers in Human Neuroscience, Volume: 12, Article Number: 479

Impact Factor: 2.870 | Quartile: 2 | Citations: 61

DOI: 10.3389/fnhum.2018.00479

Selectivity and longevity of peripheral-nerve and machine interfaces: A review2017

Usman Ghafoor Sohee Kim Keum-Shik Hong

Frontiers in Neurobotics, Volume 11, Article Number 59

Impact Factor: 2.606 | Quartile: 2 | Citations: 82

DOI: <https://doi.org/10.3389/fnbot.2017.00059>

Conference Proceedings

Soft Manipulator for Minimally Invasive Surgery2024

Muhammad Asim Huzefa Turab Usman Ghafoor Yumna Qureshi Ruqia Ikram Muhammad Raheel Bhutta

International Conference on Control, Automation, and Systems (ICCAS), res.country(259,)

Citations: N/A

DOI: 10.23919/ICCAS63016.2024.10773012

Editorial Activities

Journal of Engineering Design Reviewed Papers for Journals Impact Factor: 3.1	2025
PLOS ONE Reviewed Papers for Journals Impact Factor: 3.3	2025
IEEE Transactions on Neural Systems & Rehabilitation Engineering Reviewed Papers for Journals Impact Factor: 5.2	2025
Psychology of Sport and Exercise Reviewed Papers for Journals Impact Factor: 3.3	2025
Frontiers in Robotics and AI Reviewed Papers for Journals Impact Factor: 3.00	2025
PLOS One Edited Journal Issue / Proceeding / Book Impact Factor: 2.6	2025
PLOS One Edited Journal Issue / Proceeding / Book Impact Factor: 2.6	2025
IEEE Access Reviewed Papers for Journals Impact Factor: 3.4	2024
Asian Journal of Management Cases Reviewed Papers for Journals Impact Factor: 0.1	2024
IEEE Access Reviewed Papers for Journals Impact Factor: 3.4	2024