

Riaz Ahmad

Professor

School of Mechanical & Manufacturing Engineering

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About

Dr. Riaz Ahmad is working as Professor in the School of Mechanical & Manufacturing Engineering. Dr. Riaz Ahmad has a PhD in Aeronautical Manufacturing. Dr. Riaz Ahmad has published 38 research articles & conference papers having a citation count of 706, carried out 1 projects and filed 0 intellectual property.

Qualifications

PhD in Aeronautical Manufacturing Beijing University of Aeronautics and Astronautics , China	2003 - 2007
MS in Aeronautical Manufacturing Beijing University of Aeronautics and Astronautics , China	1997 - 1999
BE in Aerospace NED UET Karachi , Pakistan	1980 - 1984
F.Sc in Pre-Engineering BISE, Hyderabad , Pakistan	1977 - 1979
Matric (SSC) in Science Subjects BISE, Hyderabad , Pakistan	1975 - 1977

Experience

Professor School of Mechanical & Manufacturing Engineering	2022- Present
Director Quality Assurance & NUST International Office University Main Office (UMO)	2022 - 2022
Director QA University Main Office (UMO)	2016 - 2022
Director Research University Main Office (UMO)	2014 - 2016
Director Research University Main Office (UMO)	2014 - 2014
Director Research University Main Office (UMO)	2012 - 2014
Defence Faculty School of Mechanical & Manufacturing Engineering	2010 - 2012
HoD Aerospace SMME NUST , SMME NUST Islamabad	2022 - 2023
Director QA National University of Science & Technology , NUST Islamabad	2016 - 2022
Director Research National University of Sciences & Technology , NUST Islamabad	2012 - 2016
Vice Principal & HoD SMME NUST , SMME NUST Islamabad	2010 - 2012
HoD CAE NUST , CAE NUST	2007 - 2010
HoD CAE NUST , CAE NUST	2000 - 2003
Mid level Mangt Mid level Mangt , PAF Academy Risalpur	1994 - 1997
Instructional Duties School Aeronautics , School Aeronautics Karachi	1990 - 1994
PAC Kamra PAC Kamra , PAC Kamra, Attock	1986 - 1990
Field Assignment Pakistan Air Force , PAF Base Rafiqui	1984 - 1986

Awards

NIL	
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Professional Memberships

PEC	Since 1984
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Research Projects

National Projects

Building Internationalization in Pakistan (B International)

2020

Funding Agency: EU

Amount: PKR 16,646,816.00

Status: Completed

International Projects

Research Articles

Sustainability analysis of tool wear, energy efficiency, surface quality, and energy during dry, MQL, and wet turning of Inconel 718

2025

Muhammad Adnan Khan Riaz Ahmad Syed Hussain Imran Jaffery Shahid Ikram Ullah Butt Muhammad Salman Khan Danyal Zahid
International Journal of Sustainable Energy, Volume: 44, Issue:1, Article: 2515447, Pages:33

Impact Factor: 2.7 | **Quartile:** 4

DOI: <https://doi.org/10.1080/14786451.2025.2515447>

Modeling and Analysis of Shock Reduction through Counterflow Plasma Jets

2021

Adnan Maqsood Shuaib Salamat Rizwan Riaz Riaz Ahmad Shagufta Rashid Fahad Nawaz Laurent Dala
Mathematical Problems in Engineering, Volume 2021, Article ID 5592855, 17 Pages

Impact Factor: 1.430 | **Quartile:** 3 | **Citations:** 5

DOI: <https://doi.org/10.1155/2021/5592855>

Motor Training Using Mental Workload (MWL) With an Assistive Soft Exoskeleton System: A Functional Near-Infrared Spectroscopy (fNIRS) Study for Brain–Machine Interface (BMI)

2021

Umer Asgher Muhammad Jawad Khan Muhammad Hamza Asif Nizami Khurram Khalil Riaz Ahmad Yasar Ayaz Noman Naseer Muhammad Hamza Asif Nizami
Frontiers in Neurobotics, Volume 15, Article Number 605751

Impact Factor: 2.650 | **Quartile:** 2 | **Citations:** 20

DOI: <https://doi.org/10.3389/fnbot.2021.605751>

Enhanced Accuracy for Multiclass Mental Workload Detection Using Long Short-Term Memory for Brain-Computer Interface

2020

Muhammad Jawad Khan Umer Asgher Khurram Kahlil Riaz Ahmad Shahid Ikram Ullah Butt Yasar Ayaz Noman Naseer Salman Nazir
Frontiers in Neuroscience, Volume 14, Article Number: 584

Impact Factor: 4.677 | **Quartile:** 2 | **Citations:** 75

DOI: 10.3389/fnins.2020.00584

Multi-objective optimization of turning titanium-based alloy Ti-6Al-4V under dry, wet, and cryogenic conditions using gray relational analysis (GRA)

2020

Syed Husain Imran Jaffery Muhammad Younas Shahid I Butt Riaz Ahmad Muhammad Ali Khan Mushtaq Khan Salman Sagheer Warsi
The International Journal of Advanced Manufacturing Technology, Volume 106, Issue 7-8, Pages 3897-3911

Impact Factor: 3.226 | **Quartile:** 2 | **Citations:** 77

DOI: 10.1007/s00170-019-04913-6

Development of specific cutting energy map for sustainable turning: a study of Al 6061 T6 from conventional to high cutting speeds

2020

Riaz Ahmad Syed Husain Imran Jaffery Mujtaba Hassan Agha Salman Sagheer Warsi Mushtaq Khan
The International Journal of Advanced Manufacturing Technology, Volume 106, Issue 7-8, Pages 2949-2960

Impact Factor: 3.226 | **Quartile:** 2 | **Citations:** 16

DOI: 10.1007/s00170-019-04836-2

Statistical analysis of energy consumption, tool wear and surface roughness in machining of Titanium alloy (Ti-6Al-4V) under dry, wet and cryogenic conditions

2019

Muhammad Ali Khan Syed Husain Imran Jaffery Mushtaq Khan Muhammad Younas Shahid Ikramullah Butt Riaz Ahmad Salman Sagheer Warsi
Mechanical Sciences, Volume 10, Pages 561-573

Impact Factor: 1.015 | **Quartile:** 4 | **Citations:** 46

DOI: 10.5194/ms-10-561-2019

Multi-objective optimization for sustainable turning Ti6Al4V alloy using grey relational analysis (GRA) based on analytic hierarchy process (AHP)

2019

Muhammad Younas Syed Husain Imran Jaffery Mushtaq Khan Muhammad Ali Khan Riaz Ahmad Aamir Mubashar Liaqat Ali
International Journal of Advanced Manufacturing Technology, Volume 105, Issue 1-4, Pages 1175-1188

Impact Factor: 2.633 Quartile: 2 Citations: 84 DOI: https://doi.org/10.1007/s00170-019-04299-5	
Assessment and Classification of Mental Workload in the Prefrontal Cortex (PFC) using Fixed-Value Modified Beer-Lambert Law <i>Umer Asgher RIAZ AHMAD Noman Naseer Yasar Ayaz Muhammad Jawad Khan Muhammad Kamal Amjad IEEE Access</i> , Volume 7, Pages 143250-143262 Impact Factor: 3.745 Quartile: 1 Citations: 37 DOI: DOI: 10.1109/ACCESS.2019.2944965	2019
Life Cycle Assessment for food production and manufacturing: Recent trends, global applications and future prospects <i>Shamraiz Ahmad Kuan Yew Wong Riaz Ahmad Procedia Manufacturing</i> , Volume 34, Pages 49-57 Impact Factor: N/A Citations: 25 DOI: https://doi.org/10.1016/j.promfg.2019.06.113	2019
Tool Wear Progression and its Effect on Energy Consumption in Turning of Titanium Alloy (Ti-6Al-4V) <i>Muhammad Younas Syed Husain Imran Jaffery Mushtaq Khan Riaz Ahmad Liaqat Ali Zarak Khan Aftab Khan Mechanical Sciences</i> , Volume 10, Issue 2, Pages 373-382 Impact Factor: 1.015 Quartile: 4 Citations: 30 DOI: 10.5194/ms-10-373-2019	2019
Sustainable turning using multi-objective optimization: a study of Al6061 T6 at high cutting speeds <i>Salman Sagheer Warsi Mujtaba Hassan Agha Riaz Ahmad Syed Husain Imran Jaffery Mushtaq Khan International Journal of Advanced Manufacturing Technology</i> , Volume 100, Issue 1–4, Pages 843–855 Impact Factor: 2.633 Quartile: 2 Citations: 51 DOI: 10.1007/s00170-018-2759-2	2019
Development of energy consumption map for orthogonal machining of Al 6061-T6 alloy <i>Salman Sagheer Warsi Syed Husain Imran Jaffery Riaz Ahmad Mushtaq Khan Mujtaba Hassan Agha Sohail Akram Liaqat Ali Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture</i> , Volume 232, Issue 14, Pages 2510-2522 Impact Factor: 1.752 Quartile: 3 Citations: 45 DOI: 10.1177/0954405417703424	2018
Development and analysis of energy consumption map for high-speed machining of Al 6061-T6 alloy <i>Salman Sagheer Warsi Syed Husain Imran Jaffery Riaz Ahmad Mushtaq Khan Mujtaba Hassan Agha Liaqat Ali The International Journal of Advanced Manufacturing Technology</i> , Volume 96, Issue 1-4, Pages 91-102 Impact Factor: 2.496 Quartile: 2 Citations: 39 DOI: 10.1007/s00170-018-1588-7	2018
Recent Research Trends in Genetic Algorithm based Flexible Job Shop Scheduling Problems <i>Shahid Ikramullah Butt Rubeena Kousar Riaz Ahmad Zhang Faping Naveed Anjum Umer Asgher Muhammad Kamal Amjad Mujtaba Hassan Agha Mathematical Problems in Engineering</i> , Article Number 9270802, 32 pages Impact Factor: 1.179 Quartile: 3 Citations: 120 DOI: 10.1155/2018/9270802	2018
Intelligent Machine Vision based Modeling and Positioning System in Sand Casting Process <i>Umar Mushtaq Mohsin Jamil Muhammad Kamal Amjad Shahid Ikramullah Butt Umer Asgher Riaz Ahmad Faping Zhang Yasar Ayaz Advances in Materials Science and Engineering</i> , Volume 2017, Article Number 3192672 Impact Factor: 1.372 Quartile: 3 Citations: 10 DOI: DOI:10.1155/2017/3192672	2017
A Heuristic Approach for Type 2 Assembly Line Balancing Problem <i>Pakeeza Bukhari Riaz Ahmad Muhammad Umer Applied Mechanics and Materials</i> , Volumes 789-790, Pages 1279-1300 Impact Factor: - DOI: DOI:10.4028/www.scientific.net/AMM.789-790.1296	2015
Intelligent pheromone up gradation mechanism through Neural augmented Ant Colony Optimization (NaACO) meta heuristic in machine scheduling <i>Muhammad Umer Riaz Ahmad Shahid Ikram Ullah Butt Scientia Iranica B</i> , Volume 21(5), Pages 1726-1731 Impact Factor: 1.025 Quartile: 2 DOI: -	2014

Intelligent Scheduling in Food Production/Processing Facilities through Neural Augmented Ant Colony Optimization (NaACO) Technique <i>Muhammad Umer Riaz Ahmad Amir Farhan</i> <i>Mitteilungen Klosterneuburg</i> , Volume 7, No. 64, Pages 65-76 Impact Factor: 0.045 Quartile: 4 DOI: -	2014
Optimization of Makespan and Mean Flow Time for Job Shop Scheduling Problem FT06 Using ACO <i>Nasir Mehmood Muhammad Umer Riaz Ahmad Amer Farhan Rafique</i> <i>Life Science Journal</i> , Volume 10(4), Pages 477-484 Impact Factor: N/A DOI: Life Science Journal 2013;10(4)	2013
Unsupervised Artificial Neural Network (ANNs) for Intelligent Pheromone Up- gradation, Further Evolution of Neural Augmented Ant Colony Optimization (NaNCO) <i>Muhammad Umar Riaz Ahmad Imran Chaudhry</i> <i>Life Science Journal</i> , Volume 10(3) Pages Pages 318-327 Impact Factor: 0.165 DOI: http://www.lifesciencesite.com/ljsj/life1003/050_19470life1003_318_327.pdf	2013
Six Sigma Implementation to reduce rejection rate of Pump Casings at local Manufacturing Company <i>Faheem Yousaf Shahid Ikram Ullah Butt Riaz Ahmad</i> <i>IOSR Journal of Mechanical and Civil Engineering</i> , Volume 7, Issue 4, Pages 96-112 Impact Factor: N/A DOI: https://www.iosrjournals.org/iosr-jmce/papers/vol7-issue4/N07496112.pdf	2013
Review of Scheduling Techniques in a Manufacturing Environment <i>Dr. Imran Ali Chaudhar Dr. Muizuddin Shami Riaz Ahmad</i> <i>Journal of Engineering and Applied Sciences</i> , Vol. 23, No. 1, Pages. 19-40 Impact Factor: 0 DOI: -	2004

Conference Proceedings

Efficient Extreme Learning Machine (ELM) Based Algorithm for Electrocardiogram (ECG) Heartbeat Classification <i>Khurram Khalid Umer Asgher Yasar Ayaz Riaz Ahmad Salman Nazir Sara Babar Sofia Scataglini Noriyuki Oka</i> <i>AHFE Virtual Conferences on Neuroergonomics and Cognitive Engineering, and Industrial Cognitive Ergonomics and Engineering Psychology, 2020</i> , res.country(233,)	2020
Cognitive Computing for Human-Machine Interaction: An IBM Watson Implementation <i>Yasar Ayaz Sara Ali Muhammad Sajid Khurram Khalil Umer Asgher Riaz Ahmad Jose Arzola Ruiz Noriyuki Oka</i> <i>International Conference on Applied Human Factors and Ergonomics</i> , res.country(233,)	2020
Sustainability Analysis of Turning Aerospace Alloy Ti-6Al-4V under Dry, Wet and Cryogenic Condition <i>Muhammad Ali Khan Syed Hussain Imran Jaffery Mushtaq Khan Riaz Ahmad Shahid Ikram Ullah Butt</i> <i>2020 IEEE 11th International Conference on Mechanical and Intelligent Manufacturing Technologies (ICMIMT)</i> , res.country(247,)	2020
Classification of Mental Workload (MWL) using Support Vector Machines (SVM) and Convolutional Neural Networks (CNN) <i>Umer Asgher Khurram Khalil Yasar Ayaz Riaz Ahmad Muhammad Jawad Khan</i> <i>IEEE International Conference on Computing, Mathematics and Engineering Technologies (iCoMET)</i> , res.country(177,)	2020
Sustainability Analysis of Turning Aerospace Alloy Ti-6Al-4V under Dry, Wet and Cryogenic Conditions <i>Muhammad Ali Khan Syed Hussain Imran Jaffery Mushtaq Khan Riaz Ahmad</i> <i>2020 IEEE 11th International Conference on Mechanical and Intelligent Manufacturing Technologies, ICMIMT 2020</i> , res.country(247,)	2020

DOI: 10.1109/ICMIMT49010.2020.9041160

- Sustainability Analysis of Turning Aerospace Alloy Ti-6Al-4V under Dry, Wet and Cryogenic Conditions** 2020
Muhammad Ali Khan Syed Hussain Imran Jaffery Mushtaq Khan Riaz Ahmad Shahid Ikram Ullah Butt
2020 IEEE 11th International Conference on Mechanical and Intelligent Manufacturing Technologies (ICMIMT), res.country(247.)
Citations: N/A
DOI: 10.1109/ICMIMT49010.2020.9041160
- Novel metaheuristic approach: integration of variables method (IVM) and human-machine interaction for subjective evaluation** 2019
Umer Asgher Rolando Simeón Riaz Ahmad José Arzola-Ruiz
International Conference on Neuroergonomics and Cognitive Engineering, 2019 and the AHFE International Conference on Industrial Cognitive Ergonomics and Engineering Psychology, 2019 , res.country(233.)
Citations: N/A
DOI: 10.1007/978-3-030-20473-0_46
- Analyzing various functions of prefrontal cortex (PFC) in decision making via brain imaging techniques** 2017
Umer Asgher Riaz Ahmad Yasar Ayaz Noman Naseer Liaqat Ali José Arzola Ruiz Maureen Kole
Advances in Intelligent Systems and Computing, res.country(233.)
Citations: N/A
DOI: 10.1007/978-3-319-60747-4_23
- Analysis of power and specific cutting energy consumption in orthogonal machining of al 6061-T6 alloys at transitional cutting speeds** 2015
Syed Husain Imran Jaffery Riaz Ahmad Mushtaq Khan Salman Sagheer Warsi
ASME International Mechanical Engineering Congress and Exposition, Proceedings (IMECE), res.country(233.)
Citations: N/A
DOI: 10.1115/IMECE2015-53290
- Assembly Line Balancing Type-2 Using Unequal Multiple Operators** 2013
Usman Attique Abdul Ghafoor Riaz Ahmad Shahid Ikram Ullah Butt
International Conference on Manufacturing Science and Technology (ICMST 2013), res.country(2,)
Citations: N/A
DOI: doi.org/10.4028/www.scientific.net/AMR.816-817.1169
- A Survey of Recent Developments for JSSP and FJSSP Using ACO** 2013
Nasir Mehmood Umer Asgher Riaz Ahmad
International Conference on Manufacturing Science and Technology (ICMST 2013), res.country(2,)
Citations: N/A
DOI: https://doi.org/10.4028/www.scientific.net/AMR.816-817.1133
- Optimization of a Screw Press using Linear Programming techniques** 2013
Abbas Ihsan Riaz Ahmad Umer Asgher
International Conference on Manufacturing Science and Technology (ICMST 2013), res.country(2,)
Citations: N/A
DOI: doi.org/10.4028/www.scientific.net/AMR.816-817.1265
- Mathematical Modelling of Manufacturing Process Plan, Optimization analysis with Stochastic and DSM modelling Techniques** 2013
ume Asgher Riaz Ahmad Shahid Ikram Ullah Butt
International Conference on Manufacturing Science and Technology (ICMST 2013), res.country(2,)
Citations: N/A
DOI: doi.org/10.4028/www.scientific.net/AMR.816-817.1174
- Analysis of vendor's satisfaction level and generating an optimized vendor relationship model in public sector organizations of Pakistan** 2012
Umer Asgher Farooq Akbar Riaz Ahmad Aamer Ahmed Baqai Muhammad Qasim Khan
2012 World Congress on Engineering and Computer Science, WCECS 2012, res.country(233,)
Citations: N/A
DOI: 978-988192524-4
- Minimizing Makespan for Machine Scheduling and Worker Assignment problem in Identical Parallel Machine Models Using GA** 2010
Imran Ali Chaudhry Sultan Mahmood Riaz Ahmad
World congress on Engineering 2010, res.country(231,)

