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   2003 - 2007
  Beijing University of Aeronautics and Astronautics , China

MS in Aeronautical Manufacturing   1997 - 1999
  Beijing University of Aeronautics and Astronautics , China

BE in Aerospace   1980 - 1984
  NED UET Karachi , Pakistan

F.Sc in Pre-Engineering   1977 - 1979
  BISE, Hyderabad , Pakistan

Matric (SSC) in Science Subjects   1975 - 1977
  BISE, Hyderabad , Pakistan

Experience

Professor   2022- Present
School of Mechanical & Manufacturing Engineering

Director Quality Assurance & NUST International Office   2022 - 2022
University Main Office (UMO)

Director QA   2016 - 2022
University Main Office (UMO)

Director Research   2014 - 2016
University Main Office (UMO)

Director Research   2014 - 2014
University Main Office (UMO)

Director Research   2012 - 2014
University Main Office (UMO)

Defence Faculty   2010 - 2012
School of Mechanical & Manufacturing Engineering

HoD Aerospace   2022 - 2023
SMME NUST , SMME NUST Islamabad

Director QA   2016 - 2022
National University of Science & Technology , NUST Islamabad

Director Research   2012 - 2016
National University of Sciences & Technology , NUST Islamabad

Vice Principal & HoD   2010 - 2012
SMME NUST , SMME NUST Islamabad

HoD   2007 - 2010
CAE NUST , CAE NUST

HoD   2000 - 2003
CAE NUST , CAE NUST

Mid level Mangt   1994 - 1997
Mid level Mangt , PAF Academy Risalpur

Instructional Duties   1990 - 1994
School Aeronautics , School Aeronautics Karachi

PAC Kamra   1986 - 1990
PAC Kamra , PAC Kamra, Attock

Field Assignment   1984 - 1986
Pakistan Air Force , PAF Base Rafiqui

Awards

NIL

Professional Memberships

PEC   Since 1984

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 Khurrum Khalil Riaz Ahmad Yasar Ayaz Noman Naseer Muhammad Hamza Asif Nizami

   Frontiers in Neurorobotics , 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

Assessment and Classification of Mental Workload in the Prefrontal Cortex (PFC) using Fixed-Value Modified Beer-Lambert Law   2019

Umer Asgher RIAZ AHMAD Noman Naseer Yasar Ayaz Muhammad Jawad Khan Muhammad Kamal Amjad

IEEE Access , Volume 7, Pages 143250-143262

Life Cycle Assessment for food production and manufacturing: Recent trends, global applications and future prospects   2019

Shamraiz Ahmad Kuan Yew Wong Riaz Ahmad

Procedia Manufacturing , Volume 34, Pages 49-57

Tool Wear Progression and its Effect on Energy Consumption in Turning of Titanium Alloy (Ti-6Al-4V)   2019

Muhammad Younas Syed Husain Imran Jaffery Mushtaq Khan Riaz Ahmad Liaqat Ali Zarak Khan Aftab Khan

Mechanical Sciences , Volume 10, Issue 2, Pages 373-382

Sustainable turning using multi-objective optimization: a study of Al6061 T6 at high cutting speeds   2019

Salman Sagheer Warsi Mujtaba Hassan Agha Riaz Ahmad Syed Husain Imran Jaffery Mushtaq Khan

International Journal of Advanced Manufacturing Technology, Volume 100, Issue 1–4, Pages 843–855

Development of energy consumption map for orthogonal machining of Al 6061-T6 alloy   2018

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, Volume 232, Issue 14, Pages 2510-2522

Development and analysis of energy consumption map for high-speed machining of Al 6061-T6 alloy   2018

Salman Sagheer Warsi Syed Husain Imran Jaffery Riaz Ahmad Mushtaq Khan Mujtaba Hassan Agha Liaqat Ali

The International Journal of Advanced Manufacturing Technology, Volume 96, Issue 1-4, Pages 91-102

Recent Research Trends in Genetic Algorithm based Flexible Job Shop Scheduling Problems   2018

Shahid Ikramullah Butt Rubeena Kousar Riaz Ahmad Zhang Faping Naveed Anjum Umer Asgher Muhammad Kamal Amjad Mujtaba Hassan Agha

Mathematical Problems in Engineering , Article Number 9270802, 32 pages

Intelligent Machine Vision based Modeling and Positioning System in Sand Casting Process   2017

Umar Mushtaq Mohsin Jamil Muhammad Kamal Amjad Shahid Ikramullah Butt Umer Asgher Riaz Ahmad Faping Zhang Yasar Ayaz

Advances in Materials Science and Engineering , Volume 2017, Article Number 3192672

A Heuristic Approach for Type 2 Assembly Line Balancing Problem   2015

Pakeeza Bukhari Riaz Ahmad Muhammad Umer

Applied Mechanics and Materials , Volumes 789-790, Pages 1279-1300

Intelligent pheromone up gradation mechanism through Neural augmented Ant Colony Optimization (NaACO) meta heuristic in machine scheduling   2014

Muhammad Umer Riaz Ahmad Shahid Ikram Ullah Butt

Scientia Iranica B , Volume 21(5), Pages 1726-1731

Intelligent Scheduling in Food Production/Processing Facilities through Neural Augmented Ant Colony Optimization (NaACO) Technique

Muhammad Umer Riaz Ahmad Amir Farhan

Mitteilungen Klosterneuburg , 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

Nasir Mehmood Muhammad Umer Riaz Ahmad Amer Farhan Rafique

Life Science Journal , 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)

Muhammad Umar Riaz Ahmad Imran Chaudhry

Life Science Journal , Volume 10(3) Pages Pages 318-327

Impact Factor: 0.165

DOI: http://www.lifesciencesite.com/lsj/life1003/050_19470life1003_318_327.pdf

2013

Six Sigma Implementation to reduce rejection rate of Pump Casings at local Manufacturing Company

Faheem Yousaf Shahid Ikram Ullah Butt Riaz Ahmad

IOSR Journal of Mechanical and Civil Engineering , 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

Dr. Imran Ali Chaudhar Dr. Muizuddin Shami Riaz Ahmad

Journal of Engineering and Applied Sciences , 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

Khurram Khalid Umer Asgher Yasar Ayaz Riaz Ahmad Salman Nazir Sara Babar Sofia Scataglini Noriyuki Oka

AHFE Virtual Conferences on Neuroergonomics and Cognitive Engineering, and Industrial Cognitive Ergonomics and Engineering Psychology, 2020, res.country(233,)

Citations: N/A

DOI: 10.1007/978-3-030-51041-1_41

2020

Cognitive Computing for Human-Machine Interaction: An IBM Watson Implementation

Yasar Ayaz Sara Ali Muhammad Sajid Khurram Khalil Umer Asgher Riaz Ahmad Jose Arzola Ruiz Noriyuki Oka

International Conference on Applied Human Factors and Ergonomics, res.country(233,)

Citations: 5

DOI: 10.1007/978-3-030-51041-1_53

2020

Sustainability Analysis of Turning Aerospace Alloy Ti-6Al-4V under Dry, Wet and Cryogenic Condition

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

2020

Classification of Mental Workload (MWL) using Support Vector Machines (SVM) and Convolutional Neural Networks (CNN)

Umer Asgher Khurram Khalil Yasar Ayaz Riaz Ahmad Muhammad Jawad Khan

IEEE International Conference on Computing, Mathematics and Engineering Technologies (iCoMET), res.country(177,)

Citations: 21

DOI: 10.1109/iCoMET48670.2020.9073799

2020

Sustainability Analysis of Turning Aerospace Alloy Ti-6Al-4V under Dry, Wet and Cryogenic Conditions

Muhammad Ali Khan Syed Hussain Imran Jaffery Mushtaq Khan Riaz Ahmad

2020 IEEE 11th International Conference on Mechanical and Intelligent Manufacturing Technologies, ICMIMT 2020, res.country(247,)

Citations: N/A

2020

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

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

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

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

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

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

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

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

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

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,)

Citations: N/A