#### **Aamir Mubashar**

#### Professor

School of Mechanical & Manufacturing Engineering

Email: aamir@smme.nust.edu.pk

Contact: 009200000

LinkedIn: https://www.linkedin.com/in/aamir-mubashar/



1998

### **About**

Dr. Aamir Mubashar is working as Professor in the School of Mechanical & Manufacturing Engineering. Dr. Aamir Mubashar has a PhD in Computational Solid Mechanics. Dr. Aamir Mubashar has published 53 research articles & conference papers having a citation count of 595, carried out 2 projects and filed 1 intellectual property.

#### Qualifications

PhD in Computational Solid Mechanics Loughborough University , United Kingdom	2006 - 2010
MS in Manufacturing Technology University of Manchester , United Kingdom  B.Sc (Hon) in Mechanical Engineering UET Taxila , Pakistan	2005 - 2006 1994 - 1999
Professor	2020- Present
School of Mechanical & Manufacturing Engineering	
Professor	2020 - 2020
School of Mechanical & Manufacturing Engineering	
Associate Professor	2017 - 2020
School of Mechanical & Manufacturing Engineering	
Assistant Professor	2014 - 2017
School of Mechanical & Manufacturing Engineering	
General Manager Technical	2011 - 2013
NESCOM , H-11/4	
Manager Technical	2005 - 2011
NESCOM, H-11/4	
Assistant Manager Technical	1999 - 2004
NESCOM , H-11/4	
Awards	
Best Teacher Award SMME	2016
SMME best teacher of the year award	
Young Researcher Award	2009

## **Professional Memberships**

**Software Competition** 

PEC Since 2014

3rd International Conference on Advanced Computational Engineering and Experimenting, ACE-X 2009, Rome, Italy. Winner of Young Researcher Award

4th All Pakistan Software Competition - Foundation for Applied Science and Technology (FAST). Lahore, Pakistan, 1998. 2nd Prize Winner

IMECHE UK Since 2016

# **Research Projects**

National Projects	
Investigation of Energy harvesting EEL of power generation Funding Agency: HEC Amount: PKR 500,000.00 Status: Completed	2016
Design and Development of Multilayered Armour Protection System Funding Agency: HEC Amount: PKR 13,980,000.00 Status: Completed	2019
International Projects	
Research Articles	
Investigation of Compression, Impact and Post-impact Behavior of Carbon/Flax Bio-hybrid Laminates:  Effects of Stacking Sequence and Fiber Hybridization  Manzar Masud Aamir Mubashar Emad Ud Din Zaib Ali Dr. Adnan Tariq  Fibers and Polymers, Volume: 26, Pages:4115-4132  Impact Factor: 2.3   Quartile: 2  DOI: https://doi.org/10.1007/s12221-025-01072-2	2025
Additively manufactured hybrid auxetic structures for enhanced low frequency acoustic performance through experiments and modelling  Ali Bin Naveed Aamir Mubashar Muhammad Khizer Ali Khan Adnan Munir Kamran A. Khan  Scientific Reports, Volume:15, Issue:1, Article number: 23460  Impact Factor: 3.900   Quartile: 1  DOI: 10.1038/s41598-025-06970-2	2025
Experimental Study on Multi-Cell Counting Using an Inertial Microfluidic Device  Muhammad Zulfiqar Muhammad danish Manshad Emad Ud Din Aamir Mubashar Zaib Ali Muhammad Irfan Sibghat Ullah Jingmin Li  Applied Sciences, Volume 15(10), Article Number 5701  Impact Factor: 2.500   Quartile: 1  DOI: https://doi.org/10.3390/app15105701	2025
Optimizing bio-hybrid composites for impact resistance using machine learning  Aamir Mubashar Salman Sagheer Warsi Saqib Anwar Volkan Esat Manzar Masud  Journal of the Brazilian Society of Mechanical Sciences and Engineering, Volume 47, Article Number 217  Impact Factor: 1.800   Quartile: 3  DOI: https://doi.org/10.1007/s40430-025-05524-x	2025
Effect of process parameters and material composition of Al2O3-HAP composite using powder metallurgy  Muhammad Tayyab Bhutta Sadaqat Ali Malik Adeel Umer Aamir Mubashar Emad Ud Din Adnan Munir Abdul Basit Results in Materials, Volume:25, Article Number 100669  Impact Factor: N/A DOI: https://doi.org/10.1016/j.rinma.2025.100669	2025
Material characterization of Ti6Al4V alloy additively manufactured using selective laser melting technique  Syed Waqas Ali Shah Sadaqat Ali Himayat Ullah Muhammad Saad Aamir Mubashar Emad ud Din Journal of Materials Research and Technology, Volume 33, Pages 1756-1763  Impact Factor: 6.200   Quartile: 1   Citations: 6  DOI: https://doi.org/10.1016/j.jmrt.2024.09.164	2024
Fe-Ni binder modified NbC cermets: A cost-effective solution with superior mechanical properties  Abdul Basit Furqan Anwar Sadaqat Ali Malik Adeel Umer Tauheed Shahbaz Emad ud Din Aamir Mubashar  Ceramics International, Volume: 50, Issue: 22, Part C, Pages: 47768-47779  Impact Factor: 5.100   Quartile: 1   Citations: 1  DOI: https://doi.org/10.1016/j.ceramint.2024.09.121	2024
Effect of cork powder concentration and service temperature on strength characteristics and failure modes of tubular adhesively bonded joints	2024

Shamsheer Haider Hassan Ejaz Aamir Mubashar Manzar Masud	
Theoretical and Applied Fracture Mechanics, Volume 131, Article Number: 104377	
Impact Factor: 5.3   Quartile: 1   Citations: 2  DOI: 10.1016/j.tafmec.2024.104377	
Role of stacking sequence, metal sheets, and nano particle on strength and toughness of FMLs	2024
Syed Hameed Hussain Aqeel Ahsan Khurram Adnan Munir Muhammad Salman Khan Aamir Mubashar	
Journal of Reinforced Plastics and Composites, Pages 1-11	
Impact Factor: 3.100   Quartile: 2 DOI: https://doi.org/10.1177/07316844241250182	
Numerical analysis of stress & strain and thickness variation in single point incremental forming of	2024
tailor welded steel blanks	
Usman Attique Shahid Ikramullah Butt Aamir Mubashar Liaqat Ali Ghulam Hussain	
International Journal of Advanced Manufacturing Technology, Volume 132, Issue 3-4, Pages 791-1807	
Impact Factor: 2.900   Quartile: 2   Citations: 3  DOI: doi.org/10.1007/s00170-024-13422-0	
Effect of hybridization on the mechanical performance and cost efficiency of carbon/flax bio-hybrid composites	2024
Manzar Masud Aamir Mubashar	
Polymer Composites , Pages: 19	
Impact Factor: 5.2   Quartile: 1   Citations: 12  DOI: 10.1002/pc.28437	
Effect of Fibre Hybridization and Stacking Sequence on the Low Velocity Impact Response of	2024
Flax/Basalt/Aluminum Composite-Metal Joints	
Muhammad Umar Bin Ashraf Aamir Mubashar Manzar Masud Hassan Ejaz Syed Hameed Hussain Muhammad Subhan Dilawar	
Composite Structures, Volume 331, Article Number 117925	
Impact Factor: 6.3   Quartile: 1   Citations: 16  DOI: 10.1016/j.compstruct.2024.117925	
The mechanical behavior of modified epoxy adhesive using GNPs, MWCNTs, and RGO nanomaterials	2023
Hassan Ejaz Aamir Mubashar Ahsan Tanveer Emad Ud Din Zaib Ali Nabeel Arif	
Journal of Adhesion Science and Technology , Pages 1-21	
Impact Factor: 2.3   Quartile: 3   Citations: 6  DOI: doi.org/10.1080/01694243.2023.2268230	
Structural optimization of orthopedic hip implant using parametric and non-parametric optimization	2023
techniques	2020
Muhammad Abdullah Aamir Mubashar Emad Uddin	
Biomedical Physics and Engineering Express, Volume 9, Issue 5, Article Number 055026	
Impact Factor: 1.300   Quartile: 3   Citations: 5	
<b>DOI:</b> 10.1088/2057-1976/aced0d	
An experimental and simulation study of RGO effects on mechanical behaviour of structural adhesive and lap shear joints strength	2023
Hassan Ejaz Aamir Mubashar Emad Ud Din Zaib Ali Nabeel Arif Saad Wagar	
International Journal of Adhesion and Adhesives, Volume 126, Article Number 103480	
Impact Factor: 3.4   Quartile: 2   Citations: 9	
<b>DOI:</b> https://doi.org/10.1016/j.ijadhadh.2023.103480	
Effect of cork powder concentration and service temperature on strength characteristics and failure modes of adhesively bonded lap joints	2023
Hassan Ejaz Yousaira Muqbool Zar Afshan Aamir Mubashar	
Theoretical and Applied Fracture Mechanics, Volume 126, Article Number 103955	
Impact Factor: 4.374   Quartile: 1   Citations: 4	
DOI: doi.org/10.1016/j.tafmec.2023.103955	
Impact of solid and hollow bluff bodies on the performance and dynamics of flag-based energy harvester	2023
Usman Latif M Yamin Younis Emad Uddin Zaib Ali Aamir Mubashar A. Abdelkefi	
Sustainable Energy Technologies and Assessments, Volume 55, Article Number 102882	
Impact Factor: 7.632   Quartile: 2   Citations: 11	

**DOI:** https://doi.org/10.1016/j.seta.2022.102882

Experimental investigation of effect of welding parameters on surface roughness, micro-hardness and tensile strength of AlSI 316L stainless steel welded joints using 308L filler material by TIG welding  Khubaib Zafar Ghumman Sadaqat Ali Emad Ud Din Aamir Mubashar Niaz Bahadur Khan Syed Waqar Ahmed  Journal of Materials Research and Technology, Volume 21, Pages 220-236  Impact Factor: 6.267   Quartile: 1   Citations: 35  DOI: https://doi.org/10.1016/j.jmrt.2022.09.016	2022
Effect of Temperature and Al2O3 NanoFiller on the Stress Field of CFRP/Al Adhesively Bonded Single-	2022
Lap Joints  Muhammad Hassan Aamir Mubashar Manzar Masud Amad Zafar Muhammad Umair Ali You Seung Rim  Coatings, Volume 12(12), Article Number 1865  Impact Factor: 3.236   Quartile: 2   Citations: 3  DOI: https://doi.org/10.3390/coatings12121865	
A comparative study of GNPs and MWCNTs additives on dispersion behavior and strength	2022
characteristics of the adhesively bonded joints	
Hassan Ejaz Aamir Mubashar Emad Ud Din Zaib Ali	
Journal of Dispersion Science and Technology, Pages 1-12	
Impact Factor: 2.057   Quartile: 4   Citations: 4  DOI: doi.org/10.1080/01932691.2022.2143369	
Effect of functionalised and non-functionalised GNPs addition on strength properties of high viscous	2022
epoxy adhesive and lap shear joints	
Hassan Ejaz Aamir Mubashar Emad Ud Din Zaib Ali Nabeel Arif	
Polymer Testing, Volume 113, Article Number 107680	
Impact Factor: 4.931   Quartile: 1   Citations: 32	
DOI: https://doi.org/10.1016/j.polymertesting.2022.107680	
Influence of MWCNTs on strength properties of high viscous epoxy adhesive and fracture behavior of	2022
adhesively bonded joints	
Hassan Ejaz Aamir Mubashar Emad Ud Din Zaib Ali Nabeel Arif	
Theoretical and Applied Fracture Mechanics, Volume 120, Article Number 103412	
Impact Factor: 4.017   Quartile: 1   Citations: 21	
<b>DOI:</b> https://doi.org/10.1016/j.tafmec.2022.103412	
Investigating relative density effects on quasi-static response of high-density Rigid Polyurethane Foam (RPUF)	2022
Naveed Iqbal Aamir Mubashar Sohail Ahmed Nabeel Arif Emad Uddin	
Materials Today Communications, Volume 31, Article Number 103320	
Impact Factor: 3.662   Quartile: 3   Citations: 14  DOI: https://doi.org/10.1016/j.mtcomm.2022.103320	
	0001
Prediction of the Ultimate Strength of Notched and Unnotched IM7/977-3 Laminated Composites Using a Micromechanics Approach	2021
Moosa S. M. Al Kharusi Muhammad Umair Ali Aamir Mubashar Manzar Masud Shaik Javeed Hussain Adnan Tariq Gulfam Ul Rehman Mahmood H	lassan
Akhtar Shama Javeed	
Polymers , Volume 13(20), Article Number 3491	
Impact Factor: 4.329   Quartile: 1   Citations: 7	
<b>DOI:</b> 10.3390/polym13203491	
An Investigation of the Experimental and Numerical Ballistic Response of 12.7mm AP tracer Projectile	2021
Against Al2O3/Al 5083-H116 Bi-layer Armour	
Haseeb Ahmed Aamir Mubashar Emad Uddin Syed Waheed UI Haq	
International Journal of Multiphysics, Volume 15(2), Pages 119-138	
Impact Factor: N/A   Citations: 6  DOI: 10.21152/1750-9548.15.2.119	
Numerical investigation of hydrodynamic and hydro-acoustic performance of underwater propeller	2020
operating in off-design flow conditions	2020
Muhammad Rehan Naseer Emad Uddin Aamir Mubashar Muhammad Sajid Zaib Ali Khalid Akhtar	
Journal of Marine Engineering and Technology, Pages 1-10	
Impact Factor: 3.192   Quartile: 1   Citations: 4	
<b>DOI:</b> https://doi.org/10.1080/20464177.2020.1865250	

International Journal of Impact Engineering, NULL Impact Factor: 3.344 | Quartile: 1 | Citations: 25

Comparison of cohesive zone elements and smoothed particle hydrodynamics for failure prediction of 2017 single lap adhesive joints Aamir Mubashar I. A. Ashcroft Journal of Adhesion, Volume 93, Issue 6, Pages 444-460 Impact Factor: 1.936 | Quartile: 2 | Citations: 24 DOI: DOI:10.1080/00218464.2015.1081819 A numerical study of the effect of ply-layup on the strength and stiffness of a composite T-joint under 2017 three point bending Ammar Azam Aamir Mubashar lan Anthony Ashcroft Emad Uddin Syed Husain Imran Jaffery Journal of Adhesion Science and Technology, NULL Impact Factor: 1.039 | Quartile: 3 | Citations: 6 DOI: 10.1080/01694243.2017.1278818 Analysis of weld characteristics of micro-plasma arc welding and tungsten inert gas welding of thin 2016 stainless steel (304L) sheet Syed Husain Imran Jaffery Sadaf Batool Mushtaq Khan Ashfaq Khan Aamir Mubashar Liaqat Ali Nawar Khan Muhammad Nabeel Anwar Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications, Volume 230, Issue 6, Pages, 1005-1017 Impact Factor: 1.625 | Quartile: 3 | Citations: 27 DOI: 10.1177/1464420715592438 Use of wear map approach in optimization of drilling parameters for petroleum exploration 2015 Syed Husain Imran Jaffery Shahid Sadiq Mushtaq Khan Liaqat Ali Muhammad Nabeel Anwar Aamir Mubashar International Journal of Mechanical and Production Engineering, Volume 3, Issue 6, Pages 63-65 Impact Factor: 0 **DOI:** 00-00 Effect of Cu addition on microstructure and transformation temperatures of Ti25Ni25Pd25 high 2015 temperature shape memory alloys Saifur Rehman Mushtag Khan Liagat Ali Syed Husain Imran Jaffery Aamir Mubashar International Journal of Mechanical and Production Engineering, Volume 3, Issue 6, Pages 96-100 Impact Factor: -DOI: -Improvement in the Mechanical Properties of High Temperature Shape Memory Alloy (Ti50Ni25Pd25) by 2015 Copper Addition Saif-ur-Rehman Mushtaq Khan A. Nusair Khan Syed Husain Imran Jaffery Liaqat Ali Aamir Mubashar Advances in Materials Science and Engineering, Volume 2015, Article ID 434923, 7 pages Impact Factor: 1.01 | Quartile: 3 DOI: -2015 A Numerical Investigation of Effects of Cutting Velocity and Feed Rate on Residual Stresses in **Aluminum Alloy Al-6061** Sohail Akram Syed Husain Imran Jaffery Mushtaq Khan Aamir Mubashar Liaqat Ali International Journal of Materials, Mechanics and Manufacturing, Volume 3, No. 1, Pages 26-30 Impact Factor: -DOI: DOI:10.7763/IJMMM.2015.V3.160 **Conference Proceedings** Prediction of Low Velocity Impact Performance of Carbon/Flax Bio-Hybrid Composites Using 2024 **Experimental and Neural Network Approaches** Manzar Masud Aamir Mubashar 2024 21st International Bhurban Conference on Applied Sciences and Technology (IBCAST), res.country(177,) Citations: N/A DOI: 10.1109/IBCAST61650.2024.10877201 2024 Tree-Based Machine Learning Approach for Predicting the Impact Behavior of Carbon/Flax Bio-Hybrid Fiber-Reinforced Polymer Composite Laminates Manzar Masud Aamir Mubashar Shahid Iqbal Hassan Ejaz Saad Abdul Raheem International Conference on Advances in Mechanical Engineering - 2024, res.country(177,)

DOI: https://doi.org/10.3390/engproc2024075023

Citations: N/A

Investigating Stacking Configuration and Fiber Hybridization Effects on Low-Velocity Impact Behavior

2024
in Twill Woven Carbon/Flax Composites

Manzar Masud Aamir Mubashar

2nd International Conference on Modern Technologies in Mechanical & Materials Engineering (MTME-2024), res.country(177,)

Citations: N/A

DOI: doi.org/10.1051/matecconf/202439801009

Effect of GNP and MWCNT Addition on Lap Shear Strength of Adhesively Bonded Joints

2022

Hassan Ejaz Aamir Mubashar Muhammad A. M. Saad Waqar

2022 19th International Bhurban Conference on Applied Sciences and Technology, IBCAST 2022, res.country(177,)

Citations: N/A

DOI: 10.1109/IBCAST54850.2022.9990107

Metal erosion due to particles at high velocity and temperature

2019

Bushra Zaheer Emad Uddin Aamir Mubashar Zaib Ali Nabeel Arif Bushra Zaheer Emad Uddin Aamir Mubashar Zaib Ali Nabeel Arif 6th International Conference of Fluid Flow, Heat and Mass Transfer (FFHMT'19), res.country(38,)

Citations: N/A

DOI: 10.11159/ffhmt19.104

**Turbulent Cold Flow Analysis of Spark Ignition Engine** 

2018

Emad Ud Din Muhammad Farooq Samiur Rehman Shah Aamir Mubashar 3rd Thermal and Fluids Engineering Conference (TFEC), res.country(233,)

Citations: N/A

DOI: 10.1615/TFEC2018.cmd.022778

A Numerical Investigation of High Speed Projectile Impact on Ceramic Plates

2018

Haseeb Ahmed Aamir Mubashar Emad Uddin Syed Waheed-ul-Haq Haseeb Ahmed Aamir Mubashar Emad Uddin Syed Waheed-ul-Haq 15th International Bhurban Conference Applied Sciences and Technology (IBCAST), res.country(177,)

Citations: N/A

DOI: 10.1109/IBCAST.2018.8312220

Design and development of low-speed water tunnel

2018

2017

Mujahid Saeed Dr. Emad Uddin Dr. Aamir Mubashar Salim Uddin Zahir Ali Abbas Zaidi

15th International Bhurban Conference Applied Sciences and Technology (IBCAST), res.country(177,)

Investigation of the flow around uncambered airfoils at 1000 Reynolds number using computational

Citations: N/A

**DOI:** 10.1109/IBCAST.2018.8312288

## fluid dynamics for micro air vehicles

Dr. Emad Uddin Muhammad Adil Naseem Dr. Muhammad Saif Ullah Khalid Dr. Aamir Mubashar Dr. Sami-ur-Rahman Shah 2017 World Congress on Advances in Structural Engineering and Mechanics (ASEM17), Seoul, South Korea. 2017, res.country(121,)

Citations: N/A

DOI:

 $https://www.researchgate.net/publication/321300829\_Investigation\_of\_the\_flow\_around\_uncambered\_airfoils\_at\_1000\_Reynolds\_number\_using\_computational\_fluid\_dynamics\_for\_micro\_air\_vehicles$ 

Experimental and numerical investigation of the energy harvesting flexible flag in the wake of a bluff

2017

body

Chaudary Abdullah Emad Uddin Aamir Mubashar Muhammad Sajid Samiur Rehman Shah M. Yamin Younis 2017 World Congress on Advances in Structural Engineering and Mechanics (ASEM17), Seoul, South Korea res.country(121,)

Citations: 10

DOI: 10.12989/was.2018.26.5.279

**Intellectual Property** 

Copyrights

**Patents** 

Industrial Designs

Suture free Strip bond patch for suture-less wound closure

2019

Status: Granted Filed

**Trademarks**