

Muhammad Asif

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About

Dr. Muhammad Asif is working as Associate Professor in the Pakistan Navy Engineering College. Dr. Muhammad Asif has a PhD in Mechanical Engineering. Dr. Muhammad Asif has published 32 research articles & conference papers having a citation count of 258, carried out 0 projects and filed 0 intellectual property.

Qualifications

PhD in Mechanical Engineering	2016 - 2019
Auckland University of Technology , New Zealand	
MSc in Maintenance Management	2012 - 2013
Glasgow Caledonian University , United Kingdom	
BE in Mechanical Engineering	2005 - 2009
Quest University , Pakistan	

Experience

Associate Professor	2024- Present
Pakistan Navy Engineering College	
Assistant Professor	2019 - 2019
Pakistan Navy Engineering College	
Lecturer	2019 - 2024
Pakistan Navy Engineering College	
Lecturer	2014 - 2019
Pakistan Navy Engineering College	
Associate Professor	2024 - 2025
PNEC, National University of Sciences and Technology , PNEC, National University of Sciences and Technology, Habib Rehmatullah Road, Karachi	
Assistant Professor	2019 - 2024
PNEC, National University of Sciences and Technology , PNEC, National University of Sciences and Technology, Habib Rehmatullah Road, Karachi	
Lecturer	2014 - 2016
PNEC, National University of Sciences and Technology , PNEC, National University of Sciences and Technology, Habib Rehmatullah Road, Karachi	

Research Articles

Impact of different weight fractions of silica nanoparticles on the surface finish, rheological, and mechanical properties of photopolymer 3D printed nanocomposites using UV lasers	2025
Sohaib Zia Khan Muhammad Asif Syed Asad Ali Zaidi Fitriani Imaduddin Abdulrahman Aljabri Ahmed A. D. Sarhan	
Progress in Additive Manufacturing , Pages 1-18	
Impact Factor: 4.400   Quartile: 2	
DOI: <a href="https://doi.org/10.1007/s40964-025-01093-6">https://doi.org/10.1007/s40964-025-01093-6</a>	
Thermo-Mechanical Process-Induced Residual Stresses and Deformation Analysis during Manufacturing of Hull Structure	2024
Muhammad Asif Syed Asad Ali Zaidi Saad Ahmed	
Memoria Investigaciones en Ingeniería , Volume 26, Pages 91-109	
Impact Factor: 0.400   Quartile: 4	
DOI: <a href="https://doi.org/10.36561/ING.27.7">https://doi.org/10.36561/ING.27.7</a>	
Characterization and Development of Ceramics with Inorganic Additives	2024

<p><i>Mirza Awais Arif Asif Mansoor Imran Shah Murtaza Hussain Muhammad Asif Inventions</i> , Volume: 9, Issue: 6, Article Number: 121, Pages:14</p> <p><b>Impact Factor:</b> 2.1   <b>Quartile:</b> 2</p> <p><b>DOI:</b> <a href="https://doi.org/10.3390/inventions9060121">https://doi.org/10.3390/inventions9060121</a></p>	2024
<p><b>Evaluation of preheating impact on weld residual stresses in AH-36 steel using Finite Element Analysis</b></p> <p><i>Atif Shehzad Muhammad Asif Najam Siddiqui Muhammad Uzair Syed Asad Ali Zaidi Memoria Investigaciones en Ingeniería</i> , Volume 26, Pages 225-243</p> <p><b>Impact Factor:</b> 0.400   <b>Quartile:</b> 4</p> <p><b>DOI:</b> <a href="https://doi.org/10.36561/ING.26.14">https://doi.org/10.36561/ING.26.14</a></p>	2024
<p><b>Fatigue Life Estimation for Different Geometrical Configuration of Load-Carrying Cruciform Joint using ABAQUS and Fe-Safe</b></p> <p><i>Zulqarnain Mukhtar Muhammad Asif Syed Asad Ali Zaidi Memoria Investigaciones en Ingeniería</i> , Volume 26, Pages 98-124</p> <p><b>Impact Factor:</b> 0.400   <b>Quartile:</b> 4</p> <p><b>DOI:</b> <a href="https://doi.org/10.36561/ING.26.7">https://doi.org/10.36561/ING.26.7</a></p>	2024
<p><b>Relaxation response of space lattices in the cubic system designed with architected strut, plate, and shell structural ligaments</b></p> <p><i>Muhammad Nauman Nawaz Muhammad Asif Kamran Ahmed Khan Asad Ali Zaidi Materials Today Communications</i> , Volume 39, Article Number 109006</p> <p><b>Impact Factor:</b> 3.7   <b>Quartile:</b> 2   <b>Citations:</b> 1</p> <p><b>DOI:</b> <a href="https://doi.org/10.1016/j.mtcomm.2024.109006">10.1016/j.mtcomm.2024.109006</a></p>	2024
<p><b>Optimization of Cobalt Nanoparticles for Biogas Enhancement from Green Algae Using Response Surface Methodology</b></p> <p><i>Asad A. Zaidi Sohaib Zia Khan Muhammad Nihal Naseer Hamad Almohammadi Muhammad Asif Yasmin Abdul Wahab Mohammad Aminul Islam Mohd Rafie Johan Hanim Hussin Periodica Polytechnica Chemical Engineering</i> , Volume 67(1), Pages 116-126</p> <p><b>Impact Factor:</b> 1.744   <b>Quartile:</b> 3   <b>Citations:</b> 5</p> <p><b>DOI:</b> <a href="https://doi.org/10.3311/PPch.20375">https://doi.org/10.3311/PPch.20375</a></p>	2023
<p><b>Comparison of Machining Simulations of Aerospace Alloy Al6061-T6 Using Lagrangian and Smoothed Particle Hydrodynamics Techniques</b></p> <p><i>Muhammad Nauman Nawaz Sohaib Zia Khan Muhammad Asif Abdulrahman Aljabri Asad Ali Zaidi Essam R. I. Mahmoud Lubricants</i> , Volume 10, Issue 11, Article Number 310</p> <p><b>Impact Factor:</b> 3.584   <b>Quartile:</b> 2</p> <p><b>DOI:</b> <a href="https://doi.org/10.3390/lubricants10110310">https://doi.org/10.3390/lubricants10110310</a></p>	2022
<p><b>Research Trends in the Use of Polyaniline Membrane for Water Treatment Applications: A Scientometric Analysis</b></p> <p><i>Muhammad Nihal Naseer Kingshuk Dutta Syed Asad Ali Zaidi Muhammad Asif Ali Alqahtani Naief A. Aldossary Rehan Jamil Saleh H. Alyami Juhana Jaafar Membranes</i> , Volume 12, Issue 8, Article Number 777</p> <p><b>Impact Factor:</b> 4.562   <b>Quartile:</b> 1   <b>Citations:</b> 9</p> <p><b>DOI:</b> <a href="https://doi.org/10.3390/membranes12080777">10.3390/membranes12080777</a></p>	2022
<p><b>Influence of thermal treatment on the morphology of zinc oxide NPs synthesized by green method</b></p> <p><i>Danish Majeed Syed Asad Ali Zaidi Muhammad Nihal Naseer Muhammad Asif MRS Advances</i> , Volume 7, Issue 20, Pages 420-426</p> <p><b>Impact Factor:</b> N/A</p> <p><b>DOI:</b> <a href="https://doi.org/10.1557/s43580-022-00279-2">10.1557/s43580-022-00279-2</a></p>	2022
<p><b>Effects of Receiver Misalignment on the Intercept Factor of Parabolic Trough Collectors</b></p> <p><i>Muhammad Uzair Naveed ur Rehman Muhammad Asif Journal of Solar Energy Engineering, Transactions of the ASME</i> , Volume 144, Issue 2, Article Number 024502</p> <p><b>Impact Factor:</b> 2.384   <b>Quartile:</b> 2   <b>Citations:</b> 3</p> <p><b>DOI:</b> <a href="https://doi.org/10.1115/1.4052866">10.1115/1.4052866</a></p>	2022
<p><b>Effect of Architected Structural Members on the Viscoelastic Response of 3D Printed Simple Cubic Lattice Structures</b></p> <p><i>Ahmed Abusabir Muhammad A Khan Muhammad Asif Kamran A Khan Polymers</i> , Vol 14, Issue 3, Article Number 618</p> <p><b>Impact Factor:</b> 4.329   <b>Quartile:</b> 1   <b>Citations:</b> 22</p> <p><b>DOI:</b> <a href="https://doi.org/10.3390/polym14030618">doi.org/10.3390/polym14030618</a></p>	2022

<b>Optical Design of a Novel Polygonal Trough Collector for Solar Concentrating Photovoltaic Applications</b> <i>Naveed ur Rehman Muhammad Uzair Muhammad Asif</i> <i>Arabian Journal for Science and Engineering</i> , Volume 46, Pages 2963–2973 <b>Impact Factor:</b> 2.807   <b>Quartile:</b> 2   <b>Citations:</b> 6 <b>DOI:</b> <a href="https://doi.org/10.1007/s13369-020-05163-5">https://doi.org/10.1007/s13369-020-05163-5</a>	2021
<b>Evaluating the solar flux distribution uniformity factor for parabolic trough collectors</b> <i>Muhammad Uzair Naveed ur Rehman Muhammad Asif</i> <i>Renewable Energy</i> , Volume 157, Pages 888-896 <b>Impact Factor:</b> 8.001   <b>Quartile:</b> 1   <b>Citations:</b> 19 <b>DOI:</b> <a href="https://doi.org/10.1016/j.renene.2020.05.058">https://doi.org/10.1016/j.renene.2020.05.058</a>	2020
<b>Reliability Centered Maintenance (RCM) of a Commercial HVAC Air Handling and Condensing Unit</b> <i>Sohaib Ahmed Muhammad Asif Syed Asad A Zaidi</i> <i>European Journal of Advances in Engineering and Technology</i> , Volume 7(7), Pages 1-6 <b>Impact Factor:</b> - <b>DOI:</b> NA	2020
<b>Pre-Feasibility Study of a Biogas Pant for Cattle Farms Based in Pakistan</b> <i>Syed Tahaul Huda Muhammad Saad Chinoy Muhammad Hamza Zafar Malick Asad Yaqoob Muhammad Asif Asad A Zaidi</i> <i>European Journal of Advances in Engineering and Technology</i> , Volume 7(5), Pages 11-16 <b>Impact Factor:</b> - <b>DOI:</b> N/A	2020
<b>In-Situ Dynamic Response Measurement for Damage Quantification of 3D Printed ABS Cantilever Beam under Thermomechanical Load</b> <i>Hamzah Baqasah Feiyang He Behzad A. Zai Muhammad Asif Kamran A. Khan Vijay K. Thakur Muhammad A. Khan</i> <i>Polymers</i> , Volume 11, Article Number 2079 <b>Impact Factor:</b> 3.426   <b>Quartile:</b> 1   <b>Citations:</b> 25 <b>DOI:</b> <a href="https://doi.org/10.3390/polym11122079">10.3390/polym11122079</a>	2019
<b>Experimental and numerical study of the effect of silica filler on the tensile strength of a 3D-printed particulate nanocomposite</b> <i>Muhammad Asif MaziarRamezani Kamran Ahmed Khan Muhammad Ali Khan Kean Chin Aw</i> <i>Comptes Rendus Mecanique</i> , Volume 347, Issue 9, Pages 615-625 <b>Impact Factor:</b> 1.509   <b>Quartile:</b> 3   <b>Citations:</b> 12 <b>DOI:</b> <a href="https://doi.org/10.1016/j.crme.2019.07.003">10.1016/j.crme.2019.07.003</a>	2019
<b>Investigation of the Strain-Rate-Dependent Mechanical Behavior of a Photopolymer Matrix Composite With Fumed Nano-Silica Filler</b> <i>Muhammad Asif Maziar Ramezani Kamran Ahmed Khan Muhammad Ali Khan Kean Chin Aw</i> <i>Polymer Engineering and Science</i> , Volume 59, Issue 8, Pages 1695-1700 <b>Impact Factor:</b> 1.92   <b>Quartile:</b> 2   <b>Citations:</b> 7 <b>DOI:</b> <a href="https://doi.org/10.1002/pen.25168">10.1002/pen.25168</a>	2019
<b>A new photopolymer extrusion 5-axis 3D printer</b> <i>Muhammad Asif Joo Hyun Lee Mikyla J. Lin-Yip Simone Chiang Alexis Levaslot Tim Giffney Maziar Ramezani Kean Chin Aw</i> <i>Additive Manufacturing</i> , Volume 23, Pages 355-361 <b>Impact Factor:</b> 7.173   <b>Quartile:</b> 1   <b>Citations:</b> 43 <b>DOI:</b> <a href="https://doi.org/10.1016/j.addma.2018.08.026">10.1016/j.addma.2018.08.026</a>	2018

## Conference Proceedings

- Design and development of photopolymer extrusion 3D printer** 2022  
*Muhammad Asif Sohaib Zia Khan Syed Asad Ali Zaidi*  
*The 8th International Conference and Exhibition on Sustainable Energy and Advanced Materials (ICE-SEAM) 2022*, res.country(100,)  
**Citations:** N/A  
**DOI:** <https://doi.org/10.1063/12.0026611>
- Hullform Design, Optimization and Controllability of a Small Waterplane Area Twin Hull (SWATH)** 2022  
*Adil Hassan Zeeshan Riaz Naveed.Ali Dr Asif Mansoor Muhammad Asif*  
*2022 19th International Bhurban Conference on Applied Sciences and Technology (IBCAST)*, res.country(177,)  
**Citations:** 1  
**DOI:** [10.1109/IBCAST54850.2022.9990483](https://doi.org/10.1109/IBCAST54850.2022.9990483)
- Numerical study of the effect of different fillers on the mechanical and thermal properties of Silicone rubber polymer composite** 2021  
*Maaz Khan Muhammad Asif Hidayat Ullah Khan Zeeshan Riaz*  
*18th International Bhurban Conference on Applied Sciences and Technology (IBCAST)*, res.country(177,)  
**Citations:** 1  
**DOI:** [10.1109/IBCAST51254.2021.9393251](https://doi.org/10.1109/IBCAST51254.2021.9393251)
- Effect of Interfacial Adhesion on Tensile Strength of 3D Printed Particulate Nanocomposites** 2019  
*Muhammad Asif Maziar Ramezani Kean Chin Aw Muhammad Asif Maziar Ramezani Kean Chin Aw*  
*2019 4th International Conference on Mechanical, Manufacturing, Modeling and Mechatronics (IC4M 2019) & 2019 4th International Conference on Design Engineering and Science (ICDES 2019) 22–24 February 2019, Nice, France* , res.country(75,)  
**Citations:** 1  
**DOI:** [10.1088/1757-899X/520/1/012001](https://doi.org/10.1088/1757-899X/520/1/012001)
- Development of natural fiber reinforced polymer composite as construction material for thermal insulation application** 2017  
*Kashif Mushtaq Asad A. Zaidi Muhammad Asif Kashif Mushtaq Asad A. Zaidi Muhammad Asif*  
*2nd Doctoral Congress in Engineering* , res.country(183,)  
**Citations:** N/A  
**DOI:** N/A
- Designing and fabrication of a portable water purification system for remote regions and disaster affected areas** 2017  
*Kashif Mushtaq Asad A. Zaidi Muhammad Asif*  
*2nd Doctoral Congress in Engineering* , res.country(183,)  
**Citations:** N/A  
**DOI:** N/A

## Book Chapters

- Energy management in energy storage systems** 2025  
*Muhammad Yawar Muhammad Asif Tahir Abdul Hussain Ratlamwala Aleena Amin Khuwaja Syed Abbas Raza Zaidi Jaishree Rajput Asad A. Zaidi Haifeng Liu*  
In: *Comprehensive Energy Systems* , 2nd Edition, Chapter 5.37, Volume:10, Pages:567-602  
**Citations:** N/A  
**DOI:** <https://doi.org/10.1016/B978-0-44-313219-3.00189-1>
- Energy management in biomass energy systems** 2025  
*Sheikh Muhammad Ali Haider Asad Ali Zaidi Tahir Abdul Hussain Ratlamwala Sohaib Zia Khan Rahool Rai Muhammad Asif Asim Laeeq Khan Haifeng Liu*  
In: *Comprehensive Energy Systems* , 2nd Edition, Volume 10, Pages 305-338  
**Citations:** N/A  
**DOI:** <https://doi.org/10.1016/B978-0-44-313219-3.00188-X>
- Metal oxide-based glasses and their physical properties** 2022  
*Muhammad Nihal Naseer Muhammad Azhar Asad Ali Zaidi Yasmin Binti Abdul Wahab Muhammad Asif Suresh Sugadevan*  
In: *Book on Metal Oxides for Optoelectronics and Optics-Based Medical Applications*, Chapter 3, Pages 59-71  
**Citations:** 3  
**DOI:** [10.1016/B978-0-323-85824-3.00014-2](https://doi.org/10.1016/B978-0-323-85824-3.00014-2)