

Adnan Munir

Assistant Professor

School of Mechanical & Manufacturing Engineering

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About

Dr. Adnan Munir is working as Assistant Professor in the School of Mechanical & Manufacturing Engineering. Dr. Adnan Munir has a PhD in (Mech Engg) Australia 2019. Dr. Adnan Munir has published 28 research articles & conference papers having a citation count of 313, carried out 1 projects and filed 0 intellectual property.

Qualifications

PhD in (Mech Engg) Australia 2019	2015 - 2019
University of Western Sydney , Australia	
MS in (Mech Engg)	2006 - 2007
University of Sydney , Australia	
BS in Mechanical Engineering	2001 - 2004
UET Taxila , Pakistan	

Experience

Assistant Professor	2024- Present
School of Mechanical & Manufacturing Engineering	
Assistant Professor	2021 - 2021
School of Mechanical & Manufacturing Engineering	
Assistant Professor	2010 - 2014
IST Pakistan , IST	

Research Projects

National Projects	
Parametric Air Inlet Performance Estimation using CFD Tools	2022
Funding Agency: NESCOM	
Amount: PKR 50,000.00	
Status: Approved_inprocess	

International Projects

Research Articles

Additively manufactured hybrid auxetic structures for enhanced low frequency acoustic performance through experiments and modelling	2025
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	
Effect of process parameters and material composition of Al2O3-HAP composite using powder metallurgy	2025
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	

Experimental and Numerical Analysis of Titanium 3D Body-Centered Cubic Lattice Structure Additively Manufactured Using Selective Laser Melting <i>Asad Ullah Jan Adnan Munir Muhammad Rizwan Ul Haq Muhammad Salman Khan Ahsan Kaleem Muhammad Naveed Ahsan Aqeel Ahsen Khurram Mehmood Khan</i> <i>3D Printing and Additive Manufacturing</i> , Pages 1-12 Impact Factor: 2.300 Quartile: 3 Citations: 2 DOI: https://doi.org/10.1089/3dp.2024.0122	2025
Lie-symmetry analysis of a three dimensional flow due to unsteady stretching of a flat surface with non-uniform temperature distribution <i>Ghani Khan Muhammad Safdar Safia Taj Adnan Munir Muhammad Tauseef Nasir</i> <i>Alexandria Engineering Journal</i> , Volume 112, January 2025, Pages 424-435 Impact Factor: 6.200 Quartile: 1 Citations: 1 DOI: https://doi.org/10.1016/j.aej.2024.10.121	2025
Numerical study of wake flow across two circular cylinders in tandem arrangement with high rotation speed <i>Muhammad aneeb Siddiqui Adnan Munir Muhammad hamza Ali Penghao Duan Muhammad Nafees Mumtaz Qadri Ming Zhao</i> <i>Physics of Fluids</i> , Volume 36, Article Number 123613 Impact Factor: 4.100 Quartile: 1 DOI: 10.1063/5.0242939	2024
Experimental investigation of the wake of tandem cylinders using pivoted flapping mechanism for piezoelectric flag <i>Muhammad Mahad Shah Rizwan Mahmood Usman Latif Emad Uddin Adnan Munir Ming Zhao Hafiz Hamza Riaz</i> <i>Ocean Engineering</i> , Volume 310, Part 1 , Article Number 118587 Impact Factor: 4.600 Quartile: 1 Citations: 4 DOI: https://doi.org/10.1016/j.oceaneng.2024.118587	2024
Numerical investigation of vortex-induced vibrations (VIV) of a rotating cylinder in in-line and cross-flow directions subjected to oscillatory flow <i>Ubaid Ur Rehman Adnan Munir Niaz Bahadur Khan Ming Zhao Mian Ashfaq Ali Muhammad Kashif Mohammad S. Islam Zeeshan Saeed</i> <i>Ocean Engineering</i> , Volume 304 , Article Number 117917 Impact Factor: 4.600 Quartile: 1 Citations: 9 DOI: https://doi.org/10.1016/j.oceaneng.2024.117917	2024
Role of stacking sequence, metal sheets, and nano particle on strength and toughness of FMLs <i>Syed Hameed Hussain Aqeel Ahsan Khurram Adnan Munir Muhammad Salman Khan Aamir Mubashar</i> <i>Journal of Reinforced Plastics and Composites</i> , Pages 1-11 Impact Factor: 3.100 Quartile: 2 DOI: https://doi.org/10.1177/07316844241250182	2024
Breathing in danger: Mapping microplastic migration in the human respiratory system <i>Hafiz Hamza Riaz Abdul Haseeb Lodhi Adnan Munir Ming Zhao Umar Farooq Muhammad Nafees Mumtaz Qadri Mohammad S Islam</i> <i>Physics of Fluids</i> , Volume 36, Article Number 043338 Impact Factor: 4.600 Quartile: 1 Citations: 13 DOI: https://doi.org/10.1063/5.0205303	2024
Pore-Scale Study of Gas Natural Convection in Confined Porous Media Based on Lattice Boltzmann Method <i>Ammar Tariq Yueqi Zhao Adnan Munir Peilin Cui Zhenyu Liu</i> <i>Journal of Heat Transfer</i> , Volume 146(2), Article Number 022701 (14 pages) Impact Factor: 2.800 Quartile: 2 Citations: 1 DOI: https://doi.org/10.1115/1.4063903	2024
Enhancing Cutting Efficiency and Minimizing Forces for Nomex Honeycomb Core Using Grey Relational Analysis and Desirability Function Analysis <i>Hassan Habib Muhammad Salman Khan Adnan Munir Danyal Zahid Olivia McDermott</i> <i>Small Methods</i> , Article Number: 2300958, Pages: 10 Impact Factor: 12.4 Quartile: 1 Citations: 2 DOI: 10.1002/smt.202300958	2023
Application of heliox for optimized drug delivery through respiratory tract <i>Hafiz Hamza Riaz Adnan Munir Ming Zhao Ammar Tariq Mohammad Saidul Islam Umar Farooq</i> <i>Physics of Fluids</i> , Volume 35, Article Number 103321	2023

Impact Factor: 4.6 Quartile: 1 Citations: 10 DOI: https://doi.org/10.1063/5.0169934	
Effects of wake interaction on energy extraction performance of tandem semi-active flapping foils <i>Fuwang Zhao Zhaokun Wang Muhammad Nafees Mumtaz Qadri Omer Khan Adnan Munir Aamer Shahzad Hui Tang</i> <i>Physics of Fluids</i> , Volume 35, Article Number 087112 Impact Factor: 4.6 Quartile: 1 Citations: 13 DOI: https://doi.org/10.1063/5.0155893	2023
Synergistic analysis of wake effect of two cylinders on energy harvesting characteristics of piezoelectric flag <i>Usman Latif M Yamin Younis Saad Idrees Emad Uddin Abdelkefi Adnan Munir Ming Zhao</i> <i>Renewable and Sustainable Energy Reviews</i> , Volume 173, Article Number 113114 Impact Factor: 16.799 Quartile: 1 Citations: 19 DOI: https://doi.org/10.1016/j.rser.2022.113114	2023
Effect of Variation in the Mass Ratio on Vortex-Induced Vibration of a Circular Cylinder in Crossflow Direction at Reynold Number = 104: A Numerical Study Using RANS Model <i>Muhammad Usman Anwar Maha M. A. Lashin Niaz Bahadur Khan Adnan Munir Mohammed Jameel Riaz Muhammad Kamel Guedri Ahmed M. Galal</i> <i>Journal of Marine Science and Engineering</i> , Volume 10, Issue 8, Article Number 1126 Impact Factor: 2.744 Quartile: 1 Citations: 9 DOI: 10.3390/jmse10081126	2022
Micro-Mechanical Investigation of Interfacial Debonding in Carbon Fiber-Reinforced Composites Using Extended Finite Element Method (XFEM) Approach <i>Raees Fida Swati Saad Riffat Qureshi Muhammad Umer Sohail Adnan Munir Omer Masood Qureshi Abid Ali Khan</i> <i>Micromachines</i> , Volume 13, Issue 8, Article Number 1226 Impact Factor: 3.523 Quartile: 2 Citations: 4 DOI: 10.3390/mi13081226	2022
Numerical investigation of offshore oscillating water column devices <i>Mohammad Rashed Mia Ming Zhao Helen Wu Adnan Munir</i> <i>Renewable Energy</i> , Volume 191, Pages 380-393 Impact Factor: 8.001 Quartile: 1 Citations: 16 DOI: 10.1016/j.renene.2022.04.069	2022
Numerical investigation of the effect of spanwise length and mesh density on flow around cylinder at Re = 3900 using LES model <i>Haider Ali Niaz Bahadur Khan Muhammad Jameel Azam Khan Muhammad Sajid Adnan Munir A. El-Sayed Ahmed Khalid Abdulkhaliq M. Alharbi Ahmed M. Galal</i> <i>PLoS One</i> , Volume 17(4), Article Number e0266065 Impact Factor: 3.240 Quartile: 2 Citations: 6 DOI: 10.1371/journal.pone.0266065	2022
Numerical investigation of scaling effect in two-dimensional oscillating water column wave energy devices for harvesting wave energy <i>Adnan Munir Mohammad Rashed Mia Ming Zhao Helen Wu</i> <i>Renewable Energy</i> , Volume 178, Pages 1381-1397 Impact Factor: 8.001 Quartile: 1 Citations: 24 DOI: https://doi.org/10.1016/j.renene.2021.07.011	2021
Energy harvesting from inline vibration of an elastically mounted circular cylinder in oscillatory flow <i>Adnan Munir ErfanTaheri Ming Zhao Helen Wu</i> <i>Ocean Engineering</i> , Volume 239, Article Number 109694 Impact Factor: 3.795 Quartile: 1 Citations: 9 DOI: https://doi.org/10.1016/j.oceaneng.2021.109694	2021
Flow-induced vibration of a rotating circular cylinder at high reduced velocities and high rotation rates <i>Adnan Munir Ming Zhao Helen Wu Feifei Tong</i> <i>Ocean Engineering</i> , Volume 238, Article Number 109562 Impact Factor: 3.795 Quartile: 1 Citations: 36 DOI: https://doi.org/10.1016/j.oceaneng.2021.109562	2021
Three-Dimensional Numerical Simulations of Flow Past a Rotating Circular Cylinder at a Reynolds Number of 500 <i>Adnan Munir Ming Zhao Helen Wu</i>	2020

Impact Factor: 0.670 | **Quartile:** 4 | **Citations:** 1

DOI: <https://doi.org/10.17736/ijope.2020.jc764>

Numerical investigation of wake flow regimes behind a high-speed rotating circular cylinder in steady flow

2019

Adnan Munir Ming Zhao Helen Wu Lin Lu

Journal of Fluid Mechanics, Volume 878, Pages 875-906

Impact Factor: 3.333 | **Quartile:** 1 | **Citations:** 17

DOI: <https://doi.org/10.1017/jfm.2019.677>

Effects of gap ratio on flow-induced vibration of two rigidly coupled side-by-side cylinders

2019

Adnan Munir Ming Zhao Helen Wu Lin Lu

Journal of Fluids and Structures, Volume 91, Article Number 102726

Impact Factor: 2.840 | **Quartile:** 2 | **Citations:** 24

DOI: <https://doi.org/10.1016/j.jfluidstructs.2019.102726>

Three-dimensional numerical investigation of vortex-induced vibration of a rotating circular cylinder in uniform flow

2018

Adnan Munir Ming Zhao Helen Wu Lin Lu Dezhi Ning

Physics of Fluids, Volume 30, Article Number 053602

Impact Factor: 2.627 | **Quartile:** 2 | **Citations:** 53

DOI: <https://doi.org/10.1063/1.5025238>

Numerical investigation of the effect of plane boundary on two-degree-of-freedom of vortex-induced vibration of a circular cylinder in oscillatory flow

2018

Adnan Munir Ming Zhao Helen Wu Dezhi Ning Lin Lu

Ocean Engineering, Volume 148, Pages 17-32

Impact Factor: 2.730 | **Quartile:** 1 | **Citations:** 40

DOI: <https://doi.org/10.1016/j.oceaneng.2017.11.022>

Design and analysis approach for linear aerospike nozzle

2014

Adnan Munir Safwan Ullah Khan Abid Ali Khan

Science Vision, Volume 20(2), Pages 25-37

Impact Factor: N/A

DOI: https://inis.iaea.org/search/search.aspx?orig_q=RN:47070725

Conference Proceedings

Comparative analysis of thermal comfort surveys with CFD simulations

2022

Hassan Safdar Malik Waqas Khalid Absaar Ul Jabbar Adeel Waqas Ahmad Adnan Munir Jawad Aslam Hafiz Ali Haider Sehole

11th Masters Conference: People and Buildings, res.country(231,)

Citations: N/A

DOI: 10.5258/SOTON/P1086