Muhammad Nafees Mumtaz Qadri

Associate Professor

School of Mechanical & Manufacturing Engineering

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About

Dr. Muhammad Nafees Mumtaz Qadri is working as Associate Professor in the School of Mechanical & Manufacturing Engineering. Dr. Muhammad Nafees Mumtaz Qadri has a PhD in Mechanical Engineering. Dr. Muhammad Nafees Mumtaz Qadri has published 36 research articles & conference papers having a citation count of 237, carried out 0 projects and filed 0 intellectual property.

Qualifications

PhD in Mechanical Engineering 2014 - 2018
Hong Kong Polytechnic University , Hong Kong

MS in Computational Fluid Dynamics 2009 - 2011
NUST, Islamabad , Pakistan

MS in Avionics System Design 2007 - 2008
Cranfield University , United Kingdom

BE in Electronics 2003 - 2007
Air University , Pakistan

Experience

Associate Professor 2024- Present
School of Mechanical & Manufacturing Engineering

Assistant Professor 2024 - 2024
School of Mechanical & Manufacturing Engineering

Assistant Professor 2018 - 2024
College of Aeronautical Engineering

Assistant Professor 2018 - 2018
College of Aeronautical Engineering

Teaching Assistant 2014 - 2017
The Hong Kong Polytechnic University , 11 Yuk Choi Road, Hung Hom, Kowloon, Hong Kong, China

Assistant Professor 2009 - 2014
Wah Engineering College, University of Wah , University of Wah, Wah Cantt

Awards

TPS Studentship Award 2014
PhD Studentship Award under the Teaching Postgraduate Scheme Scholarship given by The Hong Kong Polytechnic University to pursue the Doctoral Program

Dean's Roll of Honor 2007
Inducted into the Dean's Honor Roll for maintaining CGPA > 3.50 till Senior year of BE Engineering (Air University)

Professional Memberships

PEC Since 2008

Research Articles

Experimental Investigation of Surface Roughness Effects on Energy Harvesting from Piezoelectric Eel behind a Cylindrical Bluff Body 2025

Muhammad hammad Bucha Niaz Bahadur Khan Emad Ud Din Hafiz Hamza Riaz Adnan Munir Umar Farooq Ming Zhao Riaz Muhammad Mohammed Jameel Muhammad Tauseef Nasir Muhammad Nafees Mumtaz Qadri

PLoS One , Volume 20(7), Article Number e0327916

Impact Factor: 2.600 | **Quartile:** 2

DOI: 10.1371/journal.pone.0327916

Numerical study of wake flow across two circular cylinders in tandem arrangement with high rotation speed 2024

Muhammad aneeb Siddiqui Adnan Munir Muhammad hamza Ali Penghao Duan Muhammad Nafees Mumtaz Qadri Ming Zhao

Physics of Fluids, Volume 36, Article Number 123613

Impact Factor: 4.100 | **Quartile:** 1

DOI: 10.1063/5.0242939

Dynamics and energy harvesting of a flow-induced snapping sheet with nonuniform stiffness distribution 2024

Zhaokun Wang Jingyu Cui Fuwang Zhao Muhammad Nafees Mumtaz Qadri Yuanye Zhou Hui Tang

International Journal of Fluid Engineering, Volume 1, Article Number 043502

Impact Factor: N/A

DOI: https://doi.org/10.1063/5.0222003

Effect of Bypass Duct On the Thrust Vectoring Performance of Dual Throat Nozzle in a Supersonic Aircraft 2024

Saadia Afridi Tariq Amin Khan Imran Shah Yasir Ali Muhammad Nafees Mumtaz Qadri Wei Li

Journal of Fluids Engineering, Volume 146(6), Pages 061206

Impact Factor: 2.0 | **Quartile:** 3 | **Citations:** 1

DOI: https://doi.org/10.1115/1.4064608

Breathing in danger: Mapping microplastic migration in the human respiratory system 2024

Hafiz Hamza Riaz Abdul Haseeb Lodhi Adnan Munir Ming Zhao Umar Farooq Muhammad Nafees Mumtaz Qadri Mohammad S Islam

Physics of Fluids, Volume 36, Article Number 043338

Impact Factor: 4.600 | **Quartile:** 1 | **Citations:** 13

DOI: https://doi.org/10.1063/5.0205303

Fluid-structure interaction for aerodynamic performance evaluation of flapping wing with passive pitching motion 2024

Syed Baleegh Hussain Aamer Shahzad Muhammad Nafees Mumtaz Qadri Taimur Ali Shams Imran Shah Shuaib Salamat

Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, Pages 1-14

Impact Factor: 2.0 | **Quartile:** 3 | **Citations:** 1

DOI: 10.1177/09544062231225024

Effect of Gurney Flap on the Aerodynamic Performance of a Flapping Foil: Micro-Aerial Vehicle Application 2024

Umer Ali Zuberi Aamer Shahzad Dr Muhammad Nafees Mumtaz Qadri Taimur Ali Shams Fuwang Zhao

Journal of Fluids Engineering, Volume 146, Issue 1, Article Number 011202 (11 pages)

Impact Factor: 2.0 | **Quartile:** 3 | **Citations:** 2

DOI: https://doi.org/10.1115/1.4063261

Flight Dynamic Characteristics of Wide-Body Aircraft with Wind Gust and Turbulence 2023

Kashif Mehmood Syed Irtiza Ali Shah Taimur Ali Shams Muhammad Nafees Mumtaz Qadri Tariq Amin Khan David Kukulka

Fluids , Volume 8(12), Article Number 320

Impact Factor: 1.8 | **Quartile:** 3 | **Citations:** 2

DOI: https://doi.org/10.3390/fluids8120320

Flow physics of annular and semi-annular fanjet and integration scheme with aircraft wing 2023

Kashif Mehmood Aamer Shahzad Muhammad Nafees Mumtaz Qadri Shuaib Salamat Taimur Ali Shams Jehanzeb Masud

Physics of Fluids, Volume 35, Issue 9, Article Number 097101

Impact Factor: 4.6 | **Quartile:** 1 | **Citations:** 1

DOI: https://doi.org/10.1063/5.0165058

Effects of wake interaction on energy extraction performance of tandem semi-active flapping foils 2023

Fuwang Zhao Zhaokun Wang Muhammad Nafees Mumtaz Qadri Omer Khan Adnan Munir Aamer Shahzad Hui Tang

Physics of Fluids, Volume 35, Article Number 087112

Impact Factor: 4.6 | **Quartile:** 1 | **Citations:** 13

DOI: https://doi.org/10.1063/5.0155893

Interaction of two fully passive flapping foils arranged in tandem and its influence on flow energy harvesting 2023

Fuwang Zhao Qian Jiang Zhaokun Wang Muhammad Nafees Mumtaz Qadri Li Li Hui Tang

Energy , Volume 268, Article Number 126714

Impact Factor: 8.857 | **Quartile:** 1 | **Citations:** 18

DOI: https://doi.org/10.1016/j.energy.2023.126714

Design optimization of bladeless ceiling fan using design of experiments 2023

Kashif Mehmood Dr Aamer Shahzad Dr Farooq bin Akram Dr Taimur Ali Shams Dr M Nafees Mumtaz Qadri Dr Jehanzeb Masud

Journal of Wind Engineering and Industrial Aerodynamics, Volume 233, Article Number: 105313

Impact Factor: 4.437 | **Quartile:** 1 | **Citations:** 2

DOI: 10.1016/j.jweia.2023.105313

Design, Analysis and Prototyping of One-DoF Drive Mechanism for Flapping Wing Micro-aerial Vehicle Application 2022

Rizwan Yousaf Aamer Shahzad Muhammad Nafees Mumtaz Qadri Farrukh Mazhar

Iranian Journal of Science and Technology-Transactions of Mechanical Engineering, Pages 1-18

Impact Factor: 1.530 | **Quartile:** 4

DOI: https://doi.org/10.1007/s40997-022-00552-7

Determination of efficient configurations of vertical axis wind turbine using design of experiments 2022

Muhammad Ahmad Aamer Shahzad M Farooq Bin Akram Muhammad Nafees Mumtaz Qadri

Proceedings of the Institution of Mechanical Engineers, Part A: Journal of Power and Energy, Pages 1-24

Impact Factor: 1.882 | **Quartile:** 3 | **Citations:** 8

DOI: 10.1177/09576509221095347

Numerical analysis of bladeless ceiling fan: An effective alternative to conventional ceiling fan 2022

Kashif Mehmood Aamer Shahzad Jehanzeb Masud M Farooq Bin Akram Muhammad Nafees Mumtaz Qadri Taimur Ali Shams

Journal of Wind Engineering and Industrial Aerodynamics, Volume 221, Article Number 104905

Impact Factor: 4.8 | **Quartile:** 1 | **Citations:** 6

DOI: 10.1016/j.jweia.2022.104905

Aerodynamic analysis of hummingbird-like hovering flight 2021

Naeem Haider Aamer Shahzad Muhammad Nafees Mumtaz Qadri Taimur Ali Shams

Bioinspiration and Biomimetics , Volume 16, Number 6, Article Number 066018

Impact Factor: 2.956 | **Quartile:** 2 | **Citations:** 5

DOI: https://doi.org/10.1088/1748-3190/ac28eb

Flow-energy harvesting using a fully passive flapping foil: A guideline on design and operation 2021

Fuwang Zhao Muhammad Nafees Mumtaz Qadri Zhaokun Wang Hui Tang

International Journal of Mechanical Sciences , Volume 197, Article Number 106323

Impact Factor: 4.631 | **Quartile:** 1 | **Citations:** 20

DOI: https://doi.org/10.1016/j.ijmecsci.2021.106323

Droplet impact on nano-textured bumps: Topology effects 2021

Shakeel Ahmad Jiyun Zhao Aamer Shahzad Muhammad Nafees Mumtaz Qadri Hui Tang

Computers and Fluids , Volume 218, Article Number 104844

Impact Factor: 3.077 | **Quartile:** 2 | **Citations:** 5

DOI: https://doi.org/10.1016/j.compfluid.2021.104844

Investigating the effects of leading edge tubercles on the aerodynamic performance of insect-like flapping wing 2020

Muhammad Bilal Anwar Muhammad Nafees Mumtaz Qadri Aamer Shahzad

Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, Pages 1-12

Impact Factor: 1.762 | **Quartile:** 3 | **Citations:** 9

DOI: https://doi.org/10.1177%2F0954406220946355

Fluid-structure interaction of a fully passive flapping foil for flow energy extraction 2020

M. Nafees Mumtaz Qadri Fuwang Zhao Hui Tang

International Journal of Mechanical Sciences , Volume 177, Article Number 105587

Impact Factor: 5.329 | **Quartile:** 1 | **Citations:** 27

DOI: https://doi.org/10.1016/j.ijmecsci.2020.105587

Recent progress in flapping wings for micro aerial vehicle applications 2020

Naeem Haider Aamer Shahzad Syed Irtiza Ali Shah Muhammad Nafees Mumtaz Qadri

Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, Pages 1-20

Impact Factor: 1.762 | **Quartile:** 3 | **Citations:** 42

DOI: https://doi.org/10.1177%2F0954406220917426

An Experimental Investigation of a Passively Flapping Foil in Energy Harvesting Mode 2019

Muhammad Nafees Mumtaz Qadri Aamer Shahzad F. Zhao H. Tang

Journal of Applied Fluid Mechanics, Volume 12, Issue 5, Pages 1547-1561

Impact Factor: 0.689 | **Quartile:** 4 | **Citations:** 18

DOI: 10.29252/jafm.12.05.29648

Numerical Analysis of High Aspect Ratio Flexible Wings in Flapping Motion 2019

Aamer Shahzad Shakeel Ahmed Muhammad Nafees Mumtaz Qadri

Journal of Applied Fluid Mechanics, Vol. 12, No. 6, Pages 1979-1988

Impact Factor: 0.689 | **Quartile:** 4 | **Citations:** 7

DOI: 10.29252/jafm.12.06.29792

Conference Proceedings

Design and computational study of main body of bird like flapping wing Mav 2021

Muhammad Bilal Muhammad Nafees Mumtaz Qadri Aamer Shahzad Nadeem Hussain Shah

2021 International Conference on Applied and Engineering Mathematics (ICAEM), res.country(177,)

Citations: N/A

DOI: 10.1109/ICAEM53552.2021.9547090

Design and Analysis of Flapping Wing Apparatus 2021

Muhammad Aneeb Siddiqui Aamer Shahzad Dr M Nafees Mumtaz Qadri Rizwan Yousaf

2021 International Bhurban Conference on Applied Sciences and Technologies (IBCAST), res.country(177,)

Citations: N/A

DOI: 10.1109/IBCAST51254.2021.9393276

Drone selection using multi-criteria decision-making methods 2021

Muhammad Sohaib Khan Syed Irteza Ali Shah Ali Javed Dr M Nafees Mumtaz Qadri Nadeem Hussain

2021 International Bhurban Conference on Applied Sciences and Technologies (IBCAST), res.country(177,)

Citations: N/A

DOI: 10.1109/IBCAST51254.2021.9393291

A critical analysis of small but heavy-lift multirotor and their flight controllers 2021

Muhammad Sohaib Khan Syed Irteza Ali Shah Ali Javed Dr M Nafees Mumtaz Qadri Nadeem Hussain

2021 International Bhurban Conference on Applied Sciences and Technologies (IBCAST), res.country(177,)

Citations: N/A

DOI: 10.1109/IBCAST51254.2021.9393264

An overview of methods for investigation of aeroelastic response on high aspect ratio fixed-winged aircraft 2020

Muhammad Khizer Ali Khan Ali Javed Muhammad Nafees Mumtaz Qadri Mohtashim Mansoor Farrukh Mazhar

3rd Pak-Turk International Conference ETSE2020, res.country(177,)

Citations: N/A

DOI: https://iopscience.iop.org/article/10.1088/1757-899X/899/1/012002/meta#references

Effects of Leading-Edge Tubercles on the Aerodynamic Performance of Wings 2019

Muhammad Bilal Anwar Aamer Shahzad Muhammad Nafees Mumtaz Qadri

3rd Multi-Disciplinary Student Research Conference, 26-27 Nov 2019, Wah Pakistan, res.country(177,)

Citations: N/A

DOI: http://www.uow.edu.pk/ORIC/Publications/5th%20MDSRIC-369.pdf

Force and Motion Measurements of a Passively Oscillating Hydrofoil 2016

M. Nafees Mumtaz Qadri Hui Tang Yang Liu

20th Australasian Fluid Mechanics Conference, res.country(13,)

Citations: N/A

DOI: https://www.researchgate.net/publication/312376845_Force_and_Motion_Measurements_of_a_Passively_Oscillating_Hydrofoil

Effect of Reynolds number on leading edge vortex for a wing in unsteady motion 2013

Aamer Shahzad Hossein Raza Hamdani Muhammad Nafees Mumtaz Qadri Khalid Parvez M.Aqib

2013 10th International Bhurban Conference on Applied Sciences & Technology (IBCAST), res.country(177,)

Citations: N/A

DOI: 10.1109/IBCAST.2013.6512152

Dynamic Stall Control through Passive Devices in Hybrid Configuration 2013

Nafees Mumtaz Qadri Aamer Shahzad H.R. Hamdan K.Parvez

51st AIAA Aerospace Sciences Meeting Including the New Horizons and Aerospace Exposition, res.country(233,)

Citations: N/A

DOI: 10.2514/6.2013-352

Study of Flow Controlling on LP Turbine at Different Reynolds Number 2012

Muhammad Aqib Chishty Hossein Raza Hamdani Khalid Parvez Muhammad Nafees Mumtaz Qadri

ASME 2012 Fluids Engineering Division Summer Meeting, res.country(233,)

Citations: N/A

DOI: 10.1115/FEDSM2012-72094

Effect of Positioning of Leading Edge Vortex Generators on Dynamic Stall Phenomenon 2011

Muhammad Nafees Mumtaz Qadri Hossein Hamdani Khalid Parvez Aamer Shahzad

INTERNATIONAL CONFERENCE ON ADVANCED MODELING & SIMULATION – ICAMS 2011, res.country(177,)

Citations: N/A

DOI: N/A

Editorial Activities

Journal of Marine Science and Application 2025

Reviewed Papers for Journals

Impact Factor: 2.1

Physics of Fluids 2025

Reviewed Papers for Journals

Impact Factor: 4.6

Cambridge Core 2025

Reviewed Papers for Journals

Impact Factor: 2.7

Energy Conversion and Management 2025

Reviewed Papers for Journals

Impact Factor: 10.9

Processes 2025

Reviewed Papers for Journals

Impact Factor: 2.8

Physics of Fluids 2025

Reviewed Papers for Journals

Impact Factor: 4.1

Engineering Research Express 2025

Reviewed Papers for Journals

Impact Factor: 1.5

Physics of Fluids 2025

Reviewed Papers for Journals

Impact Factor: 4.1

Physics of Fluids 2025

Reviewed Papers for Journals

Impact Factor: 4.1

IEEE/ASME Transactions on Mechatronics 2025

Reviewed Papers for Journals

Impact Factor: 6.1

Physics of Fluids 2025

Reviewed Papers for Journals

Impact Factor: 4.1

Journal of Marine Science and Engineering 2024

Reviewed Papers for Journals

Impact Factor: 2.7

Bioinspiration & Biomimetics 2024
Reviewed Papers for Journals
Impact Factor: 3.1

Physics of Fluids 2024
Reviewed Papers for Journals
Impact Factor: 4.6

Physics of Fluids 2024
Reviewed Papers for Journals
Impact Factor: 4.6

Aerospace 2024
Reviewed Papers for Journals
Impact Factor: 2.6

Physics of Fluids 2023
Reviewed Papers for Journals
Impact Factor: 4.6

Physics of Fluids 2023
Reviewed Papers for Journals
Impact Factor: 4.6

Ocean engineering 2023
Reviewed Papers for Journals
Impact Factor: 5.0

Processes 2023
Reviewed Papers for Journals
Impact Factor: 3.5

Aerospace 2023
Reviewed Papers for Journals
Impact Factor: 2.6

Aerospace 2023
Reviewed Papers for Journals
Impact Factor: 2.66

Aeronautical Journal 2023
Reviewed Papers for Journals
Impact Factor: 1.4

Physics of Fluids 2023
Reviewed Papers for Journals
Impact Factor: 4.6

Physics of Fluids 2022
Reviewed Papers for Journals
Impact Factor: 4.980

Mathematical Problems in Engineering 2022
Reviewed Papers for Journals
Impact Factor: 1.430

Journal of Intelligent & Robotic Systems 2022
Reviewed Papers for Journals
Impact Factor: 2.646

Proceedings of The Institution of Mechanical Engineers Part H-Journal of En 2022
Reviewed Papers for Journals
Impact Factor: 0.740

2020
Reviewed Papers for Journals
Impact Factor: 2.02

2020
Reviewed Papers for Journals

Impact Factor: 3.062

2019

Reviewed Papers for Journals
Impact Factor: 2.02

2018

Reviewed Papers for Journals
Impact Factor: 2.02