Dr Imran Akhtar

Adjunct Faculty

School of Interdisciplinary Engineering & Sciences

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About

Dr. Dr Imran Akhtar is working as Adjunct Faculty in the School of Interdisciplinary Engineering & Sciences. Dr. Dr Imran Akhtar has a PhD in Nonlinear Dynamics. Dr. Dr Imran Akhtar has published 68 research articles & conference papers having a citation count of 1841, carried out 3 projects and filed 0 intellectual property.

Qualifications

PhD in Nonlinear Dynamics   2003 - 2008
  Virginia Polytechnic Institute and State University (Virginia Tech) , United States

MS in CFD   2001 - 2003
  George Washington University , United States

BE in Aerospace   1993 - 1996
  NUST, Islamabad , Pakistan

Experience

Adjunct Faculty   2025- Present
  School of Interdisciplinary Engineering & Sciences

Temporary Visiting Faculty   2024 - 2025
  College of Electrical & Mechanical Engineering

Defence Faculty   2024 - 2024
  College of Electrical & Mechanical Engineering

Defence Faculty   2017 - 2024
  College of Electrical & Mechanical Engineering

Awards

Daniel-Frederick Award   2008
  For the Best PhD Student in Engg Mech (2007-2008) Virginia Tech

Sigma Xi Research Award   2003
  Research Award from Class of 2001-2003 based on MSc research The George Washington University

Gold Medal - Best in Aero   1996
  Gold Medal for the Best Result in Aerospace Engineering PAF College of Aeronautical Engg

Best Project   1996
  Best Project Merit Certificate PAF College of Aeronautical Engg Risalpur

Gold Medal - Matric   1989
  Gold Medal for the Best Result in Matriculation Sadiq Public School Bahawalpur

Research Projects

National Projects

Design of Supersonic Wind Tunnel Nozzle (2-D) via Method of Characteristics   2022
   Funding Agency: NESCOM
   Amount: PKR 25,000.00
   Status: Approved_inprocess

Identification of Non-linear Indices to predict Significant Endpoints in Oncology using EMR data
   Funding Agency: CureMD Fellowship - USA
   Amount: PKR 1,260,000.00
   Status: Approved_inprocess

Design of 2D – Planner Variable Mach Number Nozzle for Supersonic Wind Tunnel
   Funding Agency: NESCOM
   Amount: PKR 25,000.00
   Status: Approved_inprocess

International Projects

Research Articles

Comparative performance of nonlinear energy harvesters through strongly coupled fluid-structure-electrical interactive models   2023
   Hamayun Farooq Muhammad Saif Ullah Khalid Imran Akhtar Arman Hemmati
   Journal of Fluids and Structures, Volume:121, Article Number:103957
   Impact Factor: 3.600 | **Quartile:** 2 | **Citations:** 3
   DOI: 10.1016/j.jfluidstructs.2023.103957

Deep-Learning-Based Reduced-Order Model for Power Generation Capacity of Flapping Foils   2023
   Ahmad Saeed Hamayun Farooq Imran Akhtar Muhammad Awais Tariq Muhammad Saif Ullah Khalid
   Biomimetics, Volume 8, Issue 2, Article Number 237
   Impact Factor: 4.5 | **Quartile:** 1 | **Citations:** 1
   DOI: https://doi.org/10.3390/biomimetics8020237

Insight into the significance of relative humidity on Nusselt number of crossflow heat exchangers with staggered elliptic tubes   2022
   Arshan Ahmed Atta ul Mannan Hashmi Fahad Rafi Butt Zafar Bangash Shahbaz Ghani Imran Akhtar
   Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering, Pages 1-9
   Impact Factor: 1.285 | **Quartile:** 4
   DOI: https://doi.org/10.1177/09544100221135104

Nonlinear response of passively flapping foils   2022
   Hamayun Farooq Muhammad Saif Ullah Khalid Imran Akhtar Arman Hemmati
   Ocean Engineering, Volume 261, Article Number 112071
   Impact Factor: 4.372 | **Quartile:** 1 | **Citations:** 6
   DOI: https://doi.org/10.1016/j.oceaneng.2022.112071

Numerical investigation of hydrodynamic performance of flapping foils for energy harvesting   2022
   Hamayun Farooq Mehdi Ghommem Muhammad Saif Ullah Khalid Imran Akhtar
   Ocean Engineering, Volume 260, Article Number 112005
   Impact Factor: 4.372 | **Quartile:** 1 | **Citations:** 15
   DOI: https://doi.org/10.1016/j.oceaneng.2022.112005

Numerical Analysis of Impact of Relative Humidity on Crossflow Heat Exchangers with Staggered Configuration at Maximum Operating Temperature   2022
   Arshan Ahmed Atta ul Mannan Hashmi Fahad Rafi Butt Shahbaz Ghani Imran Akhtar
   International Journal of Innovations in Science and Technology, Volume 3(4), Pages 84-95
   Impact Factor: N/A
   DOI: https://ideas.repec.org/a/abq/ijist1/v3y2022i4p84-95.html

Neural Network-Based Model Reduction of Hydrodynamics Forces on an Airfoil   2021
   Hamayun Farooq Ahmad Saeed Imran Akhtar Zafar Bangash
   Fluids, Volume 6(9), Article Number 332
   Impact Factor: N/A | **Citations:** 11

Larger Wavelengths Suit Hydrodynamics of Carangiform Swimmers

2021

Imran Akhtar Muhammad Saif Ullah Khalid Junshi Wang Haibo Dong Moubin Liu Arman Hemmati

Physical Review Fluids , Volume 6, Issue 7, Article Number 073101

Impact Factor: 2.895 | **Quartile:** 2 | **Citations:** 28

VIV Control Strategies Using Displacement-Based Phenomenological Model

2021

Asrhad Mehmood Imran Akhtar Muhammad R. Hajj Khondokar Billah

Journal of Applied and Computational Mechanics, Volume 7, Special Issue, Pages 1090-1097

Impact Factor: -

Machine Learning based Reduced-Order Modeling of Hydrodynamic Forces using Pressure Mode Decomposition

2021

Imran Akhtar Hassan F Ahmed Hamayun Farooq Zafar Abbas Bangash

Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering, Pages 1-12

Impact Factor: 1.285 | **Quartile:** 4 | **Citations:** 8

Why do Anguilliform Swimmers perform Undulation with Wavelengths shorter than their Bodylengths

2021

Imran Akhtar Muhammad Saif Ullah Khalid Junshi Wang Haibo Dong Moubin Liu Arman Hemmati

Physics of Fluids , Volume 33 (3), Article Number 031911

Impact Factor: 4.980 | **Quartile:** 1 | **Citations:** 45

Single-degree-of-freedom Model of Displacement in Vortex-induced Vibrations

2021

Imran Akhtar Muhammad R. Hajj Arshad Mehmood

Nonlinear Dynamics , Volume 103, Pages 1305-1320

Impact Factor: 5.741 | **Quartile:** 1 | **Citations:** 9

Pressure Mode Decomposition Analysis of the Flow past a Cross-flow Oscillating Circular Cylinder

2021

Imran Akhtar Muhammad Sufyan Hamayun Farooq Zafar Abbas Bangash

Journal of Mechanical Science and Technology , Volume 35(1), Pages 153–158

Impact Factor: 1.810 | **Quartile:** 3 | **Citations:** 10

Modal Decompositions of the Kinematics of Crevalle Jack and the Fluid-Caudal Fin Interaction

2021

Imran Akhtar Muhammad Saif Ullah Khalid Junshi Wang Haibo Dong Moubin Liu

Bioinspiration and Biomimetics , Volume 16(1), Article Number 016018

Impact Factor: 2.985 | **Quartile:** 2 | **Citations:** 12

Nonlinear Closure Modeling in Reduced Order Models for Turbulent Flows: A Dynamical System Approach

2020

Haroon Imtiaz Imran Akhtar

Nonlinear Dynamics , Volume 99, Pages 479-494

Impact Factor: 5.022 | **Quartile:** 1 | **Citations:** 15

On the onset of bifurcation and nonlinear characterization of vortex-induced vibrations under varying initial conditions

2020

Arshad Mehmood Abdessattar Abdelkefi Muhammad R. Hajj Imran Akhtar

Nonlinear Dynamics , Volume 99, Pages 575–592

Impact Factor: 5.022 | **Quartile:** 1 | **Citations:** 9

Computational Modeling of Inertial Effects on Electromechanics of the Heart

2019

Ovais A. Jaffery S. M. Imran Majeed Tahir Zaidi Imran Akhtar

Journal of Computational and Nonlinear Dynamics, Volume 14(10), Article Number 101006

Impact Factor: 1.661 | **Quartile:** 3 | **Citations:** 1

Micropower Generation Using Cross-Flow Instabilities: A Review of the Literature and Its Implications

2019

Mohammed F. Daqaq Amin Bibo Imran Akhtar Ali H. Alhadidi Meghashyam Panyam Benjamin Caldwell Jamie Noel

Journal of Vibration and Acoustics-Transactions of the ASME, Volume 141, Issue 3, Article Number: 030801

Impact Factor: 2.343 | **Quartile:** 2 | **Citations:** 41
DOI: DOI: 10.1115/1.4042521

Quantification of Flow Noise Produced by an Oscillating Hydrofoil

2019

Imran Akhtar Muhammad Saif Ullah Khalid Binxin Wu

Ocean Engineering, Volume: 171 Pages: 377-390

Impact Factor: 3.068 | **Quartile:** 1 | **Citations:** 23
DOI: 10.1016/j.oceaneng.2018.11.024

Computing Functional Gains for Designing More Energy-Efficient Buildings using a Model Reduction Framework

2018

Imran Akhtar Jeff Borggaard John Burns

Fluids, Volume: 3 Issue: 4 Article Number: 97

Impact Factor: N/A | **Citations:** 1
DOI: 10.3390/fluids3040097

Optimized drag reduction and wake dynamics associated with rotational oscillations of a circular cylinder

2018

Imran Akhtar A. Mehmood M. R. Hajj M. Ghommem L. T. Watson T. C. H. Lux

Contemporary Engineering Sciences, Vol. 11, 2018, no. 97, Pages 4825 - 4843

Impact Factor: 0
DOI: https://doi.org/10.12988/ces.2018.89519

Bifurcations and Route to Chaos for Flow over an Oscillating Airfoil

2018

Imran Akhtar Muhammad Saif Ullah Khalid Haibo Dong Nida Ahsan Xiaoping Jiang Binxin Wu

Journal of Fluids and Structures, Volume: 80 Pages: 262-274

Impact Factor: 3.070 | **Quartile:** 1 | **Citations:** 13
DOI: 10.1016/j.jfluidstructs.2018.04.002

On the Hydrodynamics and Nonlinear Interaction between Fish in Tandem Configuration

2018

Imran Akhtar Muhammad Saif Ullah Khalid Haroon Imtiaz Haibo Dong Binxin Wu

Ocean Engineering, Volume: 157 Pages: 108-120

Impact Factor: 2.730 | **Quartile:** 1 | **Citations:** 29
DOI: 10.1016/j.oceaneng.2018.03.049

Micro-Power Generation Using Cross-Flow Instabilities: A Review of the Literature and Its Implications

2018

Mohammed F. Daqaq Amin Bibo Ali H. Alhadidi Meghashyam Panyam Benjamin Caldwell Jamie Noel Imran Akhtar

Journal of Vibration and Acoustics, N/A

Impact Factor: 1.929 | **Quartile:** 2 | **Citations:** 40
DOI: 10.1115/1.4042521

Higher-Order Spectral Analysis to Identify Quadratic Nonlinearities in Fluid-Structure Interaction

2018

Muhammad Elyyan Dr Imran Akhtar

Mathematical Problems in Engineering, Article Number: 2394124

Impact Factor: 1.179 | **Quartile:** 3 | **Citations:** 16
DOI: 10.1155/2018/2394124

On Lift and Drag Decomposition Coefficients in a Model Reduction Framework using Pressure-Mode Decomposition Analysis

2017

Imran Akhtar Haroon Imtiaz

Journal of Fluids and Structures, Volume: 75 Pages: 174-192

Impact Factor: 2.434 | **Quartile:** 1 | **Citations:** 11
DOI: 10.1016/j.jfluidstructs.2017.09.003

Nonlinear Reduced-Order Models for Aerodynamic Lift of Oscillating Airfoils

2017

Muhammad Saif Ullah Khalid Imran Akhtar

Journal of Computational and Nonlinear Dynamics, Volume: 12 Issue: 5 Article Number: 051019

Impact Factor: 1.996 | **Quartile:** 2 | **Citations:** 4
DOI: 10.1115/1.4036346

Closure modeling in reduced-order model of Burgers' equation for control applications

2017

Haroon Imtiaz Imran Akhtar

Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering, Volume 231, Issue 4, Pages 642-656

Hydrodynamics of a tandem fish school with asynchronous undulation of individuals 2016

Muhammad Saifullah Khalid Imran Akhtar Haibo Dong

Journal of Fluids and Structures, Volume 66, Pages 19-35

An improved stability characterization for aeroelastic energy harvesting applications 2016

U. Javed A. Abdelkefi Imran Akhtar

Communications in Nonlinear Science and Numerical Simulation, Volume: 36, Pages: 252-265

Using functional gains for effective sensor location in flow control: a reduced-order modelling approach 2015

Imran Akhtar Jeff Borggaard JOHN a. Burns Haroon Imtiaz Lizette Zeitsman

Journal of Fluid Mechanics, Volume 781, Pages 622-656

Analysis of Strouhal number based equivalence of pitching and plunging airfoils and wake deflection 2015

Muhammad Saifullah Khalid Imran Akhtar Naveed Iqbal Durrani

Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering, Volume: 229 Issue: 8 Pages: 1423-1434

Quantification of the effects of geometric approximations on the performance of a vertical axis wind turbine 2015

M. Salman Siddiqui Naveed Durrani Imran Akhtar

Renewable Energy, Volume: 74 Pages: 661-670

Using Dominant Modes for Optimal Feedback Control of Aerodynamic Forces 2013

Imran Akhtar Muntazir Naqvi Jeff Borggaard John A Burns

Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering, Volume: 227, Issue: 12, Pages: 1859-1869

Piezoelectric energy harvesting from vortex-induced vibrations of circular cylinder 2013

A. Mehmood A. Abdelkef M. R. Hajj A. H. Nayfeh Imran Akhtar A. O. Nuhait

Journal of Sound and Vibration, Volume: 332 Issue: 19 Pages: 4656-4667

A low-dimensional tool for predicting force decomposition coefficients for varying inflow conditions 2013

M. Ghommem Imran Akhtar M. R. Hajj

Progress in Computational Fluid Dynamics, an International Journal, Volume: 13 Issue: 6 Pages: 368-381

A New Closure Strategy for Proper Orthogonal Decomposition Reduced-Order Models 2012

Imran Akhtar Zhu Wang Jeff Borggaard Traian Iliescu

Journal of Computational and Nonlinear Dyanmics, Volume 7, Issue 3, Article Number: 034503

On the use of sensitivity analysis in model reduction to predict flows for varying inflow conditions 2012

Alexander Hay Jeff T. Borggaard Imran Akhtar

International Journal for Numerical Methods in Fluids, Volume 68, Issue 1, Pages 122-134

Proper orthogonal decomposition closure models for turbulent flows: A numerical comparison 2012

Zhu Wang Imran Akhtar Jeff Borggaard Traian Iliescu

Computer Methods in Applied Mechanics and Engineering, Volume 237, Pages 10-26

Impact Factor: 2.617 | **Quartile:** 1 | **Citations:** 267
DOI: 10.1016/j.cma.2012.04.015

Two-level discretizations of nonlinear closure models for proper orthogonal decomposition 2011

Z. Wang J. Borggaard T. Iliescu Z. Wang Imran Akhtar J. Borggaard T. Iliescu

Journal of Computational Physics, Volume 230, Issue 1, Pages 126–146

Impact Factor: 2.310 | **Quartile:** 1 | **Citations:** 96
DOI: https://doi.org/10.1016/j.jcp.2010.09.015

Model Based Control of Laminar Wake Using Fluidic Actuation 2010

Ali H. Nayfeh Imran Akhtar Ali H. Nayfeh

Journal of Computational and Nonlinear Dynamics, Volume 5(4), Article Number 041015

Impact Factor: 0.571 | **Quartile:** 3 | **Citations:** 27
DOI: https://doi.org/10.1115/1.4002085

Shape Sensitivity Analysis in Flow Models Using a Finite-Difference Approach 2010

Alexander Hay Jeff Borggaard Alexander Hay Imran Akhtar Jeff Borggaard

Mathematical Problems in Engineering, Volume 2010, Article ID 209780

Impact Factor: 0.689 | **Quartile:** 3 | **Citations:** 29
DOI: https://doi.org/10.1155/2010/209780

A van der Pol–Duffing Oscillator Model of Hydrodynamic Forces on Canonical Structures 2009

Imran Akhtar Osama A. Marzouk Ali H. Nayfeh Osama A. Marzouk Ali H. Nayfeh

Journal of Computational and Nonlinear Dynamics, Volume 4(4), Article Number 041006

Impact Factor: 0.557 | **Quartile:** 3 | **Citations:** 46
DOI: https://doi.org/10.1115/1.3192127

Reduced-order Models for Parameter Dependent Geometries based on Shape Sensitivity Analysis 2009

Ali H. Nayfeh Calvin J. Ribbens Imran Akhtar Ali H. Nayfeh Calvin J. Ribbens

Theoretical and Computational Fluid Dynamics, Volume 23, Pages213–237

Impact Factor: 1.511 | **Quartile:** 2 | **Citations:** 163
DOI: https://doi.org/10.1007/s00162-009-0112-y

Modeling Steady-state and Transient Forces on a Cylinder 2007

Osama Manzouk Ali H. Nayfeh Imran Akhtar Haider N. Arafat Osama Manzouk Ali H. Nayfeh Haider N. Arafat

Journal of Vibration and Control, Volume 13(7), Pages 1065-1091

Impact Factor: 0.497 | **Quartile:** 3 | **Citations:** 51
DOI: https://doi.org/10.1177%2F1077546307078737

Hydrodynamics of a Biologically Inspired Tandem Flapping Foil Configuration 2007

Rajat Mittal George V. Lauder Elliot Drucker Imran Akhtar

Theoretical and Computational Fluid Dynamics, Volume: 21 Issue: 3 Pages: 155-170

Impact Factor: 1.037 | **Quartile:** 2 | **Citations:** 212
DOI: 10.1007/s00162-007-0045-2

Conference Proceedings

Transmission of Cough Aerosols in a Hospital Room Related to COVID-19 2022

Muhammad Talha Imran Akhtar Muhammad Haseeb

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

Citations: N/A
DOI: 10.1109/IBCAST54850.2022.9990217

Deep learning-based reduced-order model for turbulent flows 2022

Ahmad Saeed Hamayun Farooq Imran Akhtar Zafar Bangash

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

Citations: N/A
DOI: 10.1109/IBCAST54850.2022.9990530

Numerical Simulation of Effect of Relative Humidity on Pressure Drop Across Crossflow Heat 2022
Exchanger with Staggered Tube Arrays at Its Extreme Operational Temperature

Arshan Ahmed Atta ul Mannan Hashmi Fahad Rafi Butt Shahbaz Ghani Imran Akhtar

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

Citations: N/A
DOI: 10.1109/IBCAST54850.2022.9990263

Nusselt Number Dependence on Aspect Ratio and Rayleigh Number: A Numerical Study of Rayleigh-Benard Instability   2022

   Wajeeha Siddiqui Zafar Bangash Imran Akhtar Muhammad Saif Ullah Khalid

   ASME 2022 Fluids Engineering Division Summer Meeting, FEDSM 2022, res.country(38,)

Citations: N/A
DOI: 10.1115/FEDSM2022-87897

Application of Data-Driven and Physics-Embedded Neural Networks in Wake Dominated Flows   2021

   Col. Dr. Imran Akhtar Zafar Bangash Hassan Farooq Faraz Kaiser Malik

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

Citations: N/A
DOI: 10.1109/IBCAST51254.2021.9393218

Robust Principal Component Analysis of Vortex-induced Vibrations using Particle Image Velocimetry Measurements   2021

   Dr. Zafar Abbas Bangash Col. Dr. Imran Akhtar Ahmed Saeed Hassan Farooq

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

Citations: N/A
DOI: 10.1109/IBCAST51254.2021.9393277

Thermal Modeling and Design Analysis of a Hybrid Microdevice for Continuous-Flow PCR using One Heater   2016

   Usama Bin Perwez Imran Akhtar Imran Aziz Tahir Zaidi

   2016 International Mechanical Engineering Congress and Exposition IMECE2016, res.country(233,)

Citations: N/A
DOI: https://doi.org/10.1115/IMECE2016-65594

Three Dimensional Flow Investigation in One and a Half Stage Axial Turbine   2016

   Usama Perwez Imran Aziz Imran Akhtar Auwais Ahmed

   ASME 2016 International Mechanical Engineering Congress and Exposition IMECE2016, res.country(233,)

Citations: N/A
DOI: https://doi.org/10.1115/IMECE2016-66703

Differentiation between Atrial Fibrillation and Atrial Flutter using 1D Poincare Maps based on endocardial bipolar intracardiac electrograms extracted from the Right Atria   2016

   Syed Hassan Zaidi Shafa-at Ali Sheikh Imran Akhtar Tahir Zaidi

   2016 13th International Bhurban Conference on Applied Sciences and Technology (IBCAST), res.country(177,)

Citations: N/A
DOI: 10.1109/IBCAST.2016.7429858

Numerical Simulation of Heat Transfer to Optimize DNA Amplification in Polymerase Chain Reaction   2016

   Imran Aziz Rabia Jamshaid Tahir Zaidiand Imran Akhtar

   2016 13th International Bhurban Conference on Applied Sciences and Technology (IBCAST), res.country(177,)

Citations: N/A
DOI: 10.1109/IBCAST.2016.7429918

Glass based polymerase chain reaction device for DNA amplification   2015

   Rabia Jamshaid Imran Aziz Imran Akhtar Tahir Zaidi Hamood Ur Rahman

   2015 12th International Conference on High-capacity Optical Networks and Enabling/Emerging Technologies (HONET), res.country(177,)

Citations: N/A
DOI: 10.1109/HONET.2015.7395416

Analysis of stable and unstable manifolds in fluid flows using Lagrangian Coherent Structures   2015

   Auwais Ahmed Lt Col. Imran Akhtar Imran Aziz

   2015 12th International Bhurban Conference on Applied Sciences and Technology (IBCAST), res.country(177,)

Citations: N/A
DOI: 10.1109/IBCAST.2015.7058531

Closure in Reduced-Order Model of Burgers Equation   2015

   Imran Akhtar H. Imtiaz

   2015 12th International Bhurban Conference on Applied Sciences and Technology (IBCAST), res.country(177,)

Citations: N/A

Pumping Speed Measurement of the Rotary Vane Vacuum Pump by Using Numerical and Experimental Approaches

2014

Imran Aziz Waleed A. Khan Faisal Moeen Imran Akhtar Wasim Tarar

ASME 2014 International Mechanical Engineering Congress and Exposition IMECE2014, res.country(38,)

Citations: N/A

Effect of varying diameter of dental implants during placement in compromised bony ridges at different insertion torques: A finite element study

2014

Imran Aziz Imran Akhtar Waleed A. Khan Faisal Moeen Wasim Tarar

IMECE 2014 : ASME International Mechanical Engineering Congress and Exposition, res.country(233,)

Citations: N/A

Closure modeling of low dimensional models using LES analogy

2014

Danish Rehman Muntazir Naqvi Imran Akhtar Mehdi Ghommem

11th International Bhurban Conference on Applied Sciences & Technology (IBCAST), res.country(177,)

Citations: N/A

Vibratory Stress Suppression in Turbine Blades Subjected to Aerodynamic Loading

2013

Imran Aziz Wasim Tarar Imran Akhtar M. Nadeem Azam

ASME 2013 International Mechanical Engineering Congress and Exposition, res.country(233,)

Citations: N/A

Numerical Study to Quantify the Effects of Struts & Central Hub on the Performance of A Three Dimensional Vertical Axis Wind Turbine using Sliding Mesh

2013

M Salman Siddiqui Naveed Durrani Imran Akhtar

ASME 2013 Power Conference , res.country(233,)

Citations: N/A

Proper Orthogonal Decomposition of the Pressure Field in Bluff Bodies

2013

Danish Rehman Imran Akhtar Muntazir Naqvi Mehdi Ghommem

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

Citations: N/A

GPU-BASED SIMULATIONS TO ANALYZE THE EFFECT OF HEAT SOURCE IN MIXED CONVECTION

2012

Nabeel A. Qazi Lt Col. Imran Akhtar

ASME 2012 International Congress on Mechanical Engineering & Exposition, res.country(233,)

Citations: N/A

Global Optimization for Reducing Aerodynamics Loads on an Inline Vibrating Cylinder

2011

Imran Akhtar Arshad Mehmood Mehdi Ghommem Muhammad R. Hajj Ali H. Nayfeh

49th AIAA Aerospace Sciences Meeting including the New Horizons Forum and Aerospace Exposition, res.country(233,)

Citations: N/A

A Reduced-Order Model for Unsteady Flow over a Circular Cylinder

2010

Imran Akhtar Mehdi Ghommem Muhammad R. Hajj Ishwar K. Puri

48th AIAA Aerospace Sciences Meeting Including the New Horizons Forum and Aerospace Exposition, res.country(233,)

Citations: N/A