

WAQAR ASRAR



- KULLIYAH OF ENGINEERING
- IIUM Gombak Campus
- Email address: waqar@iium.edu.my

المؤهل العلمي

- Ph.D in Engineering Mechanical
- Master in Technology in Civil Engineering
- Bachelor in Technology in Civil Engineering

مسؤوليات التدريس

ADVANCED FLUID DYNAMIC	2015/2016 2017/2018 2018/2019
AERODYNAMICS I	2007/2008 2008/2009 2009/2010 2010/2011 2011/2012 2012/2013 2013/2014 2014/2015 2015/2016 2016/2017 2017/2018 2018/2019 2019/2020 2020/2021
AUTOMOTIVE ENGINEERING LAB II	2012/2013
Aerospace Engineering Lab III	2018/2019
COMPUTATIONAL FLUID DYNAMICS	2013/2014
EXPERIMENTAL AERODYNAMICS	2003/2004 2004/2005 2005/2006 2006/2007 2007/2008 2008/2009 2009/2010 2010/2011 2011/2012 2012/2013 2013/2014 2014/2015 2015/2016 2016/2017 2017/2018
EXPERIMENTAL FLUID DYNAMICS	2011/2012
FLUID MECHANICS	2006/2007 2012/2013 2013/2014 2014/2015
GAS DYNAMICS	2002/2003 2003/2004 2004/2005 2005/2006 2006/2007 2007/2008 2008/2009 2009/2010 2010/2011 2011/2012 2012/2013 2013/2014 2014/2015
GAS DYNAMICS (LAB)	2003/2004 2004/2005
INTEGRATED DESIGN PROJECT	2014/2015 2015/2016 2016/2017 2017/2018 2018/2019 2019/2020
INTEGRATED DESIGN PROJECT (IDP)	2018/2019 2019/2020 2020/2021
INTERGRATED DESIGN PROJECT (IDP)	2017/2018
INTRODUCTION TO FLIGHT	2002/2003 2003/2004 2004/2005 2005/2006 2006/2007

PROJECT II

2018/2019 2019/2020 2020/2021

VEHICLE AERODYNAMICS

2009/2010

المشاريع البحثية

In Progress

2018 - Present - Passive control of the discrete tonal noise of NACA0015 airfoil for optimum aerodynamic and noise performances

2018 - Present - Effect of abrupt geometry change on the flow structure and heat transfer efficiency in a Magnetohydrodynamic (MHD) flow

2017 - Present - Nonlinear Fluid Structure Interaction and Control of Lifting Surface and Body

2013 - Present - IIUM Centre of Excellence for Electric Mobility (ICEM)

2013 - Present - ESTABLISHMENT OF THE IIUM CENTRE OF EXCELLENCE FOR ELECTRIC MOBILITY(ICEM)

Unknown - Present - Effect of abrupt geometry change on the flow structure and heat transfer efficiency in a Magnetohydrodynamic (MHD) flow

Completed

2017 - 2020 - Nonlinear Fluid Structure Interaction and Control of Lifting Surface and Body

2015 - 2017 - CFD Analysis of Straight Bladed Vertical Axis Wind Turbines with Selected Transition and Turbulence Models

2013 - 2013 - Wind Resistance Test for Emergency Triangle Reflector

2013 - 2016 - Wake Vortex Alleviation of a Wing with a Reverse Delta Wing Add-On Device Using Particle Image Velocimetry (PIV)

2013 - 2016 - Hybrid Singularly Implicit - Explicit Kernel Function Method For Unsteady Aerodynamic Analysis Of Multiple Interfering Aeroelastic Lifting Surfaces

2013 - 2013 - Wind Resistance Test for Emergency Triangle Reflector

2013 - 2013 - Wind Resistance Test for Emergency Triangle Reflector

2013 - 2016 - Aerodynamic Stability Derivatives of a Hybrid Airship

2012 - 2014 - Development of Electrical Vehicle by Converting Proton SAGA Conventional Car

2012 - 2012 - Stability of Hybrid Airships

2011 - 2013 - Computational Methods In Engineering And Science (KVC Project 2011)

2011 - 2012 - Numerical Investigation of the Effect of Spoilers Configuration on wake Vortex

- 2011 - 2014** Turbulence Measurements for Flow Past a Surface Mounted Bluff Body (Cube and/or Cylinder)
- 2011 - 2017** Low Speed Wind Tunnel Phase 1
- 2011 - 2011** Wind Tunnel Testing of Street Lamp at Wind Speed of 150KM / Hour
IIUM/404/2011/05/001
- 2011 - 2012** The IIUM Low Speed Wind Tunnel - A Historical Perspective (KVC Project 2011)
- 2011 - 2013** RU 2011: Drag Reduction Studies of A Truck
- 2011 - 2013** Modification of The Design and Developed Hybrid Engine Powered Urban Concept Car
- 2010 - 2011** Development of a Multiphysics Model for Thermoelectricity Controlled MEMS-based Microthrusters.
- 2010 - 2011** Training program for Dr. Mahmood K mawlood
- 2009 - 2011** A Study of the Reverse Delta Wing using Particle Image Velocimetry
- 2009 - 2010** Design and Development of an "Urban Concept Hybrid Car"
- 2008 - 2010** The Dimensional Kinetic Gas Scheme BGK for Inviscid Flow Problems
- 2008 - 2011** Parametric Study of Car Aerodynamics
- 2008 - 2013** Dynamics and Instabilities of Heated Nano-Thin Falling Films
- 2008 - 2011** Design and Development of a Hybrid Airship
- 2008 - 2010** Aerodynamic Measurements on a Hybrid Airship
- 2008 - 2011** The Effect of Surface Properties of Nano-particles on Effective Thermal Conductivity of Nanofluids
- 2007 - 2010** Two Dimensional Kinetic Gas Scheme BGK for Turbulent Flow Problems
- 2007 - 2010** Experimental Investigation of a Wing-Tip Alleviation Using Sharp-Edge Delta Wing Tip Extension
- 2007 - 2011** Experimental Investigation of Reverse Delta Wings for Vortex Alleviation
- 2005 - 2008** Modeling and Analysis of Fluid/Structure Interaction in Micropumps
- Unknown - -1** Consultancy and Usage of Wind Tunnel Testing - University Malaya

- 2020** [Effect of a directionally porous wing tip on tip vortex.](#) Journal of Applied Fluid Mechanics , 13 (2) pp.651-665
- 2019** [Effects of bio-inspired surface roughness on a swept back tapered NACA 4412 wing.](#) Journal of Aerospace Technology and Management , 11 pp.e1719
- 2019** [A comparative study of two different numerical schemes for the simulation of nonlinear dynamics of heated falling thin films.](#) International Journal of Recent Technology and Engineering , 7 (6) pp.100-105
- 2019** [An Investigation of RANS simulations for swirl-stabilized isothermal turbulent flow in a gas turbine burner.](#) CFD Letters , 11 (9) pp.14-31
- 2018** [Experimental investigation of a new spiral wingtip.](#) International Journal of Aviation, Aeronautics, and Aerospace , 5 (2) pp.1-32
- 2018** [Low reynolds number numerical simulation of the aerodynamic coefficients of a 3D wing.](#) International Journal of Aviation, Aeronautics, and Aerospace , 5 (1) pp.1-27
- 2018** [Aerodynamics of porous airfoils and wings.](#) Acta Mechanica , online 1st pp.1-19
- 2018** [Low-cost base drag reduction technique.](#) International Journal of Mechanical Engineering and Robotics Research (IJMERR) , 7 (4) pp.428-432
- 2017** [Arbitrary Lagrangian-Eulerian form of flowfield dependent variation method for fluid-structure interaction application.](#) ARPN Journal of Engineering and Applied Sciences , 12 (7) pp.2338-2344
- 2017** [Hybrid buoyant aircraft: future STOL aircraft for interconnectivity of the Malaysian islands.](#) Journal of Aviation Technology and Engineering , 6 (2) pp.80-88
- 2017** [Literature review : Biomimetic and conventional aircraft wing tips.](#) International Journal of Aviation, Aeronautics, and Aerospace , 4 (2) pp.1-25
- 2017** [Defining reference area for prediction of aerodynamic coefficients of a biologically inspired hybrid buoyant vehicle.](#) Unmanned Systems , 5 (4) pp.237-246
- 2017** [Wind tunnel testing of hybrid buoyant aerial vehicle.](#) Aircraft Engineering and Aerospace Technology , 89 (1) pp.99-105
- 2017** [Yawing force of electric trimmers of a hybrid buoyant aerial vehicle.](#) Pertanika J Sci and tech , 25 (1) pp.293-302
- 2017** [Effect of diamond shaped strut with cylindrical pitch rod in subsonic wind tunnel testing.](#) Measurement: Journal of the International Measurement Confederation , 99 pp.1-6
- 2016** [A review on aerodynamics of nonflapping bird wings.](#) Journal of Aerospace Technology and Management , 8 (1 (Jan-Mar)) pp.7-17
- 2016** [Framework of conceptual design methodology for hybrid buoyant aircraft.](#) Aerotecnica Missili & Spazio = The Journal of Aerospace Science, Technology and Systems , 95 (2 (April-June)) pp.99-110
- 2016** [Wind tunnel testing on a generic model of a hybrid lifting hull.](#) Journal of Aerospace Technology and Management , 8 (4) pp.467-474

- 2016** [Impact of a reverse delta type add-on device on the flap-tip vortex of a wing.](#) International Journal of Aviation, Aeronautics, and Aerospace , 3 (3) pp.1-28
- 2016** [Establishing the analytical relationships for mass and volumetric mass fractions for hybrid buoyant aircraft.](#) ARPN Journal of Engineering and Applied Sciences , 11 (1) pp.286-291
- 2016** [Solutions of higher order boundary value problems by homotopy perturbation method.](#) Malaysian Journal of Mathematical Sciences , 10 (Special Issue) pp.373-387
- 2016** [Estimation of pitching moment of a hybrid lifting fuselage - Disguised as hull of an airship.](#) ARPN Journal of Engineering and Applied Sciences , 11 (4) pp.2217-2221
- 2016** [Assessment of engine's power budget for hydrogen powered hybrid buoyant aircraft.](#) Propulsion and Power Research , 5 (1) pp.34-44
- 2016** [Influence of a reverse delta-type add-on device on wake vortex alleviation.](#) AIAA Journal , 54 (2) pp.625-636
- 2016** [Effect of wing loading on gross takeoff mass of a hybrid buoyant aircraft.](#) International Journal of Unmanned Systems Engineering , 4 (1) pp.11-22
- 2015** [Aerostatic and aerodynamic modules of a hybrid buoyant aircraft: an analytical approach.](#) IIUM Engineering Journal , 16 (1) pp.9-17
- 2015** [Higher-Order Compact-Flow Field-Dependent Variation \(HOC-FDV\) method for solving two-dimensional navier-stokes equations.](#) International Journal for Computational Methods in Engineering Science and Mechanics , 16 (4) pp.256-263
- 2015** [The multistage homotopy perturbation method for solving chaotic and hyperchaotic Lü system.](#) Abstract and Applied Analysis , 2015 pp.398027-1
- 2015** [Half model testing for canard of a hybrid buoyant aircraft.](#) International Journal of Mechanical, Aerospace, Industrial, Mechatronic and Manufacturing Engineering , 9 (10) pp.1544-1547
- 2015** [Flowfield dependent variation method for one dimensional stationary and moving boundary problems.](#) International Journal of Computational Science and Engineering , 10 (1/2) pp.130-144
- 2015** [Design and fabrication of a winged hybrid airship model for IIUM-LSWT.](#) Advanced Materials Research , 1115 pp.513-516
- 2015** [A numerical investigation of explicit pressure-correction projection methods for incompressible flows.](#) Engineering Applications of Computational Fluid Mechanics pp.1-16
- 2015** [Cambered profile of a California sea lion's body.](#) The Journal of Experimental Biology , 218 pp.1270-1271
- 2015** [Flowfield-dependent variation method for moving-boundary problems.](#) AIAA Journal , 53 (4) pp.1026-1036
- 2015** [Numerical study of effect of spoiler configuration on wake vortex alleviation.](#) ASCE Journal of Aerospace Engineering , 28 (3)

- 2014** [Passive drag reduction of square back road vehicles.](#) Journal of Wind Engineering and Industrial Aerodynamics , 134 (2014) pp.30-43
- 2014** [Review of passive drag reduction techniques for bluff road vehicles..](#) IIUM Engineering Journal , 15 (1) pp.61-69
- 2013** [Two-dimensional flow properties of micronozzle under varied isothermal wall conditions .](#) International Journal of Engineering Systems Modelling and Simulation , 5 (4) pp.174-180
- 2013** [A BGK-based two-equation turbulence model algorithm for solving compressible navier-stokes equations.](#) CFD Letters , 6 (2) pp.46-61
- 2013** [The multistage Adomian Decomposition Method for solving chaotic Lü System.](#) Middle-East Journal of Scientific Research , 13 pp.43-49
- 2012** [Investigation of aerodynamic parameters of a hybrid airship.](#) Journal of Aircraft , 49 (2) pp.658-661
- 2012** [Micropump modeling: current status and challenges.](#) Australian Journal of Basic and Applied Sciences , 6 (1) pp.134-142
- 2012** [Evolution of NACA23012 wake vortices structure using PIV .](#) Journal of Aerospace Engineering , 25 (1) pp.10-20
- 2011** [Design process involved in developing mechanism of linear motor operated multiple spray operations spray gun.](#) Australian Journal of Basic and Applied Sciences , 5 (7) pp.843-850
- 2011** [Effect of differential spoiler settings \(DSS\) on the wake vortices of a wing at high-lift-configuration \(HLC\).](#) Aerospace Science and Technology , 15 (7) pp.555-566
- 2011** [Study of the reverse delta wing.](#) Journal of Aircraft , 48 (1) pp.277-286
- 2010** [Influence of differential spoiler settings on the wake vortex characterization and alleviation.](#) Journal of Aircraft , 47 (5) pp.1728-1738
- 2010** [Induced rolling moment for NACA4412 plain and flapped wing.](#) International Journal of Aircraft Engineering and Aerospace Technology , 82 (1) pp.23-32
- 2010** [Higher order compact-flowfield dependent variation \(HOC-FDV\) solution of one-dimensional problems.](#) Engineering Applications of Computational Fluid Mechanics , 4 (3) pp.434-440
- 2010** [Influence of differential spoiler settings on the wake the vortex characterization and alleviation.](#) Journal of Aircraft , 47 (5) pp.1728-1738
- 2010** [A high order compact-flowfield dependent variation \(HOC-FDV\)method for inviscid flows.](#) International Journal for Computational Methods in Engineering Science and Mechanics , 11 (5) pp.258-263
- 2009** [Comparison of high-order accurate schemes for solving the nonlinear viscous burgers equation.](#) Australian Journal of Basic and Applied Sciences , 3 (3) pp.2535-2543
- 2009** [Accuracy of Bhatnagaar-Gross-Krook scheme in solving laminar viscous flow problems.](#) AIAA Journal , 47 (4) pp.885-892

- 2009 [Experimental investigation of plain- and flapped-wing tip vortices.](#) Journal of Aircraft , 46 (1) pp.254-262
- 2006 [Solution of Navier-Stokes equations by fourth-order compact schemes and AUSM flux splitting.](#) International Journal of Numerical Methods for Heat & Fluid Flow , 16 (1) pp.107-120
- 2006 [Application of Gas-Kinetic BGK Scheme for Solving 2-D Compressible Inviscid Flow around Linear Turbine Cascade.](#) International Journal for Computational Methods in Engineering Science and Mechanics , 7 (6) pp.403-410
- 2005 [Hypersonic flow simulation by the gas-kinetic bhatnagar-gross-krook scheme.](#) AIAA JOURNAL , 43 (7) pp.1427-1433
- 1998 [Chaos in wraparound fin projectile motion.](#) AIAA Journal , 21 (2) pp.354-356

Conference or Workshop Item

- 2018 [Counter clockwise rotation of cylinder with variable position to control base flows.](#) In: **1st International Conference on Aerospace and Mechanical Engineering, AeroMech 2017**
- 2018 [The multistage homotopy perturbation method for solving hyperchaotic Chen system.](#) In: **4th International Conference on Mathematical Applications in Engineering 2017, ICMAE 2017**
- 2018 [Nonlinear dynamics of heated falling films under the influence of long-range Van Der Waals intermolecular force interactions.](#) In: **4th International Conference on Mechanical, Automotive, and Aerospace Engineering 2018 (ICMAAE'18)**
- 2018 [Active control of base pressure with counter clockwise rotating cylinder at Mach 2.](#) In: **4th IEEE International Conference on Engineering Technologies and Applied Sciences, ICETAS 2017**
- 2018 [Passive control of base pressure with static cylinder at supersonic flow.](#) In: **1st International Conference on Aerospace and Mechanical Engineering (AeroMech 2017)**
- 2018 [Classical equivalent circuit characterization for a double-layer capacitor.](#) In: **4th IEEE International Conference on Smart Instrumentation, Measurement and Applications (ICSIMA) 2017**
- 2017 [Instabilities in non-isothermal falling thin film flows.](#) In: **4th International Conference of Mathematical Applications in Engineering 2017 (ICMAE 2017)**
- 2017 [Experimental investigation of the influence of a reverse delta type add-on device on the flap-tip vortex of a wing.](#) In: **3rd International Conference on Mechanical, Automotive and Aerospace Engineering 2016 (ICMAAE'16)**
- 2017 [Numerical simulation of non-isothermal thin liquid film flow on inclined plane using an implicit finite difference scheme.](#) In: **3rd International Conference on Mechanical, Automotive and Aerospace Engineering 2016 (ICMAAE'16)**
- 2017 [Generation of atmospheric boundary layer in the IIUM low speed wind tunnel.](#) In: **3rd International Conference on Mechanical, Automotive and Aerospace Engineering 2016 (ICMAAE'16)**

- 2017 [Structural design of hybrid buoyant aircraft's model for subsonic wind tunnel testing.](#) In: **14th International Bhurban Conference on Applied Sciences & Technology (IBCAST)**
- 2016 [Effect of side wind on the directional stability and aerodynamics of a hybrid buoyant aircraft.](#) In: **2015 International Conference on Mechanical Engineering and Electrical Systems (ICMES 2015)**
- 2016 [Comparison of data correction methods for blockage effects in semispan wing model testing.](#) In: **"10th International Conference on Experimental Fluid Mechanics, EFM 2015"**
- 2016 [A novel technique to neutralize the Yawing moment due to asymmetric thrust in a hybrid buoyant aircraft.](#) In: **10th International Conference on Experimental Fluid Mechanics, EFM 2015**
- 2016 [A prospective solution For consistent aerostatic lift for a hybrid buoyant aircraft.](#) In: **6th International Conference on Industrial Engineering and Operations Management in Kuala Lumpur, IEOM 2016**
- 2015 [Power-off static stability analysis of a clean configuration of a hybrid buoyant aircraft.](#) In: **8th Ankara International Aerospace Conference 2015**
- 2015 [Aerodynamic performance of a naca 23012 half wing model with a reverse delta wing type add-on device .](#) In: **8th Ankara International Aerospace Conference**
- 2015 [Aerodynamics and Static Stability Characteristics of a Hybrid Buoyant Aerial Vehicle at Low Speed.](#) In: **62nd Canadian Aerospace Institute Conference (Aero 2015)**
- 2015 [Establishing the analytical relationships for mass and volumetric mass fractions for hybrid boyant aircraft.](#) In: **International Postgraduate Conference on Engineering Research (IPCER) 2015**
- 2015 [Hydrostatic and hydrodynamic characteristics of swimming animals: an inspiration for hybrid buoyant aircraft.](#) In: **4th International Scientific Conference on Applied Sciences and Engineering (4 thISCASE-2015)**
- 2014 [Conceptual design of a winged hybrid airship.](#) In: **21st Lighter than Air Technology Conference, Aviation 2014**
- 2014 [Stability and takeoff ground roll issues of hybrid buoyant aircraft.](#) In: **5TH INTERNATIONAL CONFERENCE ON MECHANICAL AND MANUFACTURING ENGINEERING 2014 (ICME2014)**
- 2014 [Comparison of digital DATCOM and wind tunnel data of a winged hybrid airship's generic model.](#) In: **AEROTECH V**
- 2014 [Arbitrary lagrangian-eulerian form of flowfield dependent variation method for moving boundary problems.](#) In: **Aviation 2014 - 32nd AIAA Applied Aerodynamics Conference 2014**
- 2014 [Arbitrary Lagrangian-Eulerian Form of Flowfield Dependent Variation \(ALE-FDV\) Method for 3D Problems.](#) In: **22nd Annual Conference of the CFD Society of Canada**

- 2014 [Static longitudinal stability of a hybrid airship.](#) In: **11th International Bhurban Conference on Applied Sciences & Technology (IBCAST)**
- 2013 [Hybrid numeric-analytic method for solving chaotic system.](#) In: **IIUM Research, Invention and Innovation Exhibition (IRIIE) 2013**
- 2013 [Experimental investigation of a vertical round free turbulent jet.](#) In: **2nd International Conference on Mechanical, Automotive and Aerospace Engineering 2013**
- 2012 [Passive drag reduction for green design.](#) In: **International Conference on Design and Concurrent Engineering, 2012**
- 2012 [Numerical investigation of the vortical flow over delta wing and reverse delta wing.](#) In: **6th International Conference on Advanced Computational Engineering and Experimenting (ACE-X2012)**
- 2012 [Numerical analysis of FDV method for one-dimensional Euler equations.](#) In: **2nd International Conference on Mathematical Applications in Engineering (ICMAE2012)**
- 2012 [The modified Adomian decomposition method for solving Chaotic Lü system.](#) In: **International Conference on Mathematical Application in Engineering (ICMAE 2012)**
- 2011 [The accuracy of the gas-kinetic BGK finite difference method for solving 3-D compressible inviscid flows.](#) In: **International MultiConference of Engineers and Computer Scientists 2011 (IMECS 2011),**
- 2011 [Improving the efficiency of micronozzle by heated sidewalls.](#) In: **4th International Meeting of Advances in Thermofluids (IMATT 2011)**
- 2011 [Aerodynamics of a hybrid airship.](#) In: **4th International Meeting of Advances in Thermofluids (IMATT 2011)**
- 2011 [Estimation of aerodynamic parameters of IIUM hybrid airship.](#) In: **International Conference on Mechanical, Automotive and Aerospace Engineering**
- 2011 [Investigation of the vortical flow around a reverse delta wing.](#) In: **International Conference on Mechanical, Automotive and Aerospace Engineering 2011 (ICMAAE11)**
- 2011 [Highly accurate compact flowfield dependent variation method for solving two-dimensional navier-stokes equations.](#) In: **International Conference on Mechanical, Automotive and Aerospace Engineering 2011**
- 2011 [Two-dimensional flow properties of micronozzle under varied isothermal wall conditions.](#) In: **International Conference on Mechanical, Automotive and Aerospace Engineering, ICMAAE'11**
- 2010 [Experimental investigation of the vortical flow around a reverse delta wing using PIV.](#) In: **Experimental Fluid Mechanics 2010**
- 2010 [Long wave instabilities of heated falling films: role of Van Der Waals attraction.](#) In: **XIVth International Conference Surface Forces**

- 2010 [Development of the IIUM hybrid airship](#). In: **3rd Engineering Conference on Advancement in Mechanical and Manufacturing for Sustainable Environment**
- 2010 [Higher order compact-flowfield dependent variation \(HOCFDV\) method for solving navier-stokes equations](#). In: **The 8th Asian Computational Fluid Dynamics Conference**
- 2010 [Span load modification via differential spoiler setting](#). In: **2010 RAeS Aerodynamics Conference Applied Aerodynamics: Capabilities and Future Requirements**
- 2010 [Development of a fuel efficient hybrid engine towards green technology](#). In: **International Conference on Sustainable Mobility 2010**
- 2009 [Accurate compact flowfield-dependent variation method for compressible Euler equations](#). In: **International Conference on Applications and Design in Mechanical Engineering 2009 (iCADME 2009)**
- 2009 [Reynolds averaged navier-stokes flow computation of RAE2822 airfoil using gas-kinetic BGK Scheme](#). In: **International MultiConference of Engineers and Computer Scientists (IMECS)**
- 2009 [Experimental investigation of wing tip vortex](#). In: **47th AIAA Aerospace Sciences Meeting Including The New Horizons Forum and Aerospace Exposition 2009**
- 2009 [Evaluation of aircraft wing-tip vortex using PIV](#). In: **The 10th Asian International Conference on Fluid Machinery (AICFM)**
- 2008 [A gas-kinetic BGK solver for two-dimensional turbulent compressible flow](#). In: **International Conference on Scientific Computing**
- 2008 [Natural convection heat transfer in nanofluids - a numerical study](#). In: **Proceedings of the 7th Symposium on Transport Phenomenon in Manufacturing Processes 2008**
- 2008 [The IIUM low speed wind tunnel](#). In: **2nd Engineering Conference on Sustainable Engineering Infrastructures Development & Management**
- 2008 [Flow field characteristics of the IIUM low speed wind tunnel](#). In: **3rd International Symposium on Advanced Fluid/Solid Science and Technology in Experimental Mechanics**
- 2004 [The Efficiency of Gas-Kinetic BGK scheme for solving 2-d compressible inviscid regular shock reflection problem](#). In: **European Congress on Computational Methods in Applied Sciences and Engineering**

Book

- 2011 [The IIUM low speed wind tunnel: a historical perspective](#). IIUM Press . ISBN 9789674180263

Book Section

- 2015 [Numerical investigation of the flow over delta wing and reverse delta wing](#). In: **Engineering Applications of Computational Fluid Dynamics** Springer International publishing . ISBN 978-3-319-02835-4 (print) , pp.85-101

- 2011** [Higher-order compact finite difference schemes.](#) In: **Advanced Numerical Techniques in Engineering and Science** IIUM Press . ISBN 978-967-418-020-1 , pp.99-156
- 2011** [Designing a model for wind tunnel testing.](#) In: **Advanced topics in mechanical behavior of materials** IIUM Press , pp.0-1