

# AHMAD FARIS BIN ISMAIL



- OFFICE OF THE DEPUTY RECTOR (ACADEMIC & INDUSTRIAL LINKAGES)
- IIUM Gombak Campus
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## المؤهل العلمي

- Ph.D in Chemical Engineering
- Bachelor of Science in Chemical Engineering

## مسؤوليات التدريس

COMPUTER AIDED ANALYSIS I	1994/1995 1996/1997 1997/1998
COMPUTER VISION AND IMAGE PROCESSING	1999/2000 2000/2001
COMPUTING SYSTEMS & PROGRAMMING	2001/2002 2002/2003 2003/2004 2008/2009 2009/2010
COMPUTING SYSTEMS & PROGRAMMING (LAB)	2003/2004
DIGITAL CONTROL	1998/1999
ENGINEERING CALCULUS I	1994/1995
ENGINEERING CALCULUS II	1994/1995 1995/1996
FLUID MECHANICS	2000/2001 2001/2002 2002/2003 2004/2005 2005/2006 2006/2007 2007/2008 2010/2011
FLUID MECHANICS (LAB)	2002/2003 2004/2005
FLUID SYSTEMS	1995/1996 1996/1997 1997/1998 1998/1999 2000/2001
HALAQAH 1 (BROTHER)	2003/2004 2004/2005
HALAQAH 1 (BROTHERS)	2002/2003
HALAQAH 2 (BROTHER)	2002/2003 2003/2004
LINEAR ALGEBRA & VECTOR CALCULUS	1995/1996 1996/1997 1997/1998 2000/2001 2004/2005 2005/2006
MECHATRONIC PRODUCTION SYSTEMS	1996/1997
PROJECT II	2018/2019 2019/2020 2020/2021
RESEARCH METHODOLOGY & SEMINAR IN MEC ENG (MIXED MODE)	2017/2018 2018/2019

RESEARCH METHODOLOGY & SEMINAR IN MEC ENG (RESEARCH MODE)	2017/2018 2018/2019
RESEARCH METHODOLOGY AND SEMINAR	2017/2018 2018/2019
SENSORS AND VISION SYSTEMS	1998/1999
STATICS	1998/1999 2000/2001 2014/2015 2015/2016 2016/2017 2017/2018 2018/2019 2019/2020
TAUHID, AQIDAH & AKHLAQ (FOR ENGIN. STUDENTS)	1995/1996
THERMAL SCIENCES	1999/2000

## المشاريع البحثية

### In Progress

- 2020 - Present** Industry@University: 4IR Competence Centre
- 2019 - Present** Critical Axial Distance and Angle of Inclination of Substrate for Graphene Synthesis using Tubular Chemical Vapour Deposition.
- 2019 - Present** Bird Strike Impact Investigation on Rotating Bladed-Propeller Engine considering an Unsteady Flow
- 2018 - Present** Systematic studies on the stability and thermo-physical properties of CNT and Graphene nanofluids
- 2018 - Present** Investigation Of Thermodynamic Cycle And Propulsive Performance Of Pulse Detonation Engine Utilizing Alternative Fuels
- 2017 - Present** INVESTIGATION OF THREE-SHAFT HIGH-BYPASS-RATIO ENGINE PERFORMANCE AND EMISSION PREDICTION USING ALTERNATIVE FUELS
- 2017 - Present** Modelling of CVD reactor for pristine graphene synthesis
- 2017 - Present** Elucidating the Effects of Plasma Density on Graphene Growth from In-Situ Measurements by a Langmuir's Probe
- 2016 - Present** An Investigation Into Vehicle Interior Structural Borne and Airborne Noise and its Relationship to Ride Comfort
- 2016 - Present** High Performance Low Cost Integrated Micro-Channel Cooling System for Malaysian Solar Energy Sector
- 2016 - Present** Development Prototype of Electromagnetic Actuator for the Continuously Variable Transmission of Passenger Car
- 2016 - Present** Development of a Parallel biosensing system for personalized and pointof-care chemotherapy treatment

- 2015 - Present** Novel Theoretical Model of an electrochemical nanobiosensor for rapid detection of dengue
- 2015 - Present** The Preparation of Feasibility Study for the Establishment of an International Islamic University in Afghanistan
- 2014 - Present** "Dengue-Screening" - Electromechanical Micro-total Analysis System (?TAS) for Sensitive and Raptic Detection of Dengue Fever
- 2013 - Present** Production of Non-Thermally Processed Alternative Ingredients for Halal Food Products
- 2006 - Present** Bio-Process and Molecular Engineering Research Unit (BPMERU)
- 2006 - Present** New Name: Bio-Process and Molecular Engineering Research Unit (BPMERU) Biomolecular Engineering Research Unit (BioMERU)

**Completed**

- 2017 - 2020** INVESTIGATION OF THREE-SHAFT HIGH-BYPASS-RATIO ENGINE PERFORMANCE AND EMISSION PREDICTION USING ALTERNATIVE FUELS
- 2016 - 2019** Development Prototype of Electromagnetic Actuator for the Continuously Variable Transmission of Passenger Car
- 2016 - 2019** Development of a Parallel biosensing system for personalized and pointof-care chemotherapy treatment
- 2015 - 2017** CFD Analysis of Straight Bladed Vertical Axis Wind Turbines with Selected Transition and Turbulence Models
- 2015 - 2019** The Preparation of Feasibility Study for the Establishment of an International Islamic University in Afghanistan
- 2015 - 2018** Novel Theoretical Model of an electrochemical nanobiosensor for rapid detection of dengue
- 2015 - 2018** Precision Control of KERF in Micro Wire Electro Discharge Machining with Dry Dielectric Fluid
- 2015 - 2017** Development of Battery Charging System for Electric Motobike
- 2014 - 2019** "Dengue-Screening" - Electromechanical Micro-total Analysis System (?TAS) for Sensitive and Raptic Detection of Dengue Fever
- 2014 - 2016** Novel Method to Synthesize Polymeric Biphasic Micro-Particles Using Droplet Microfluidic Lab on a Chip
- 2013 - 2017** Development of Green Transportation System
- 2013 - 2018** Production of Non-Thermally Processed Alternative Ingredients for Halal Food Products
- 2012 - 2012** Preparing of Safe, Healthy and Balance Meal among Food Handlers in PETRONAS (Phase I)

- 2012 - 2014** Micro-Structuring of Nonconductive Ceramic Materials using Micro-EDM with Pyrolytic Carbon in Dielectric Fluid
- 2012 - 2012** Preparing of safe, Healthy and Balance Meal among Food Handlers in PETRONAS (Phase II)
- 2012 - 2015** Design , develop and study on performance of the multidirectional absorber with cross design in air flow solar thermal collector
- 2012 - 2014** Pilot Scale Production of Biogas from Co-Digestion of Cow Manure and Food Waste for Electricity Generation
- 2009 - 2009** Academic Performance Measurement : A Professional Development Programme for Faculty of Arts and Humanities King Abdul Aziz University, Jeddah Saudi Arabia
- 2009 - 2012** A New Reliable Numeric-Analytic Technique to Solve Nonlinear Problems Arising in Engineering and Science
- 2009 - 2009** Academic Assessment with Tabuk University
- 2009 - 2011** A New Reliable Numeric-Analytic Solution for the initial value problems (IVPs)Using Multistage Homotopy Perturbation Method
- 2008 - 2010** Improving the Performance of Electrical Discharge Machining (EDM) in Machining Titanium Alloys by Using Cryogenic Cooling of Electrode
- 2008 - 2013** Dynamics and Instabilities of Heated Nano-Thin Falling Films
- 2008 - 2010** Leadership Development For Higher Education Reform Programme
- 2008 - 2011** The Effect of Surface Properties of Nano-particles on Effective Thermal Conductivity of Nanofluids
- 2008 - 2010** Investigation of Feasibility for Gyro Ball as an alternative renewable energy sources
- 2007 - 2009** Islamizing Engineering Curriculum: A Practical Approach
- 2007 - 2008** Non-Newtonian Magneto-hydro-dynamics Rivlin-Ericksen Fluids: Exact and Numerical Solutions
- 2007 - 2011** Synthesis of High Purity and High Quality of Carbon Nanotubes by Using Multi Stage Chemical Vapour Deposition (MS-CVD)
- 2007 - 2009** Hardware Prototyping of a Multiagent Based Smart Home for Disable People
- 2007 - 2011** Noble Tool Based Micromilling for Nanometric Surface Finish
- 2007 - 2011** Kinetic Studies and Optimisation of Biofuel Production from Cassava-Starch via Yeast Fermentation.
- 2006 - 2011** Diverse Bacterial Phytate-Degrading Enzymes for Bioconversion of Plant Biomass Into High Value Added Animal Feed
- 2006 - 2010** Fundamental Study of Nano Fluidic Flow System using CFD

- 2006 - 2010** Molecular Modelling of Structure and Mechanisms of Glycoside Hydrolases
- 2006 - -1** Fundamental Study of Nano Fluidic Flow System using CFD
- 2006 - 2009** Intelligent Wheelchair for Disabled People Using Brain Signal As Control
- 2006 - 2009** Enhancement Of Machinability Of Hardened Steels In End Milling Using Advanced Cutting Methods And Tools
- 2006 - 2008** Hardware Prototyping Of Fetal Heart Rate Monitoring System Using Artificial Intelligence
- 2006 - 2008** Hardware Implementation Of A Real Time Image Compression System For Next Generation Mobile Communications
- 2006 - 2011** Investigation on Solidification Characteristics of Spheroidal Graphite Fe-C-Al Cast Iron
- 2006 - 2011** Influence of Different Methods of Slaughtering on the Release and/or Retention of Neurotransmitter and Other Biomolecules at Neuromuscular Junction
- 2005 - 2010** An Assessment of The Zero Energy House - A Comparison of Energy Conservation Strategies and Bioclimatic Performances in The Temperate and Tropical Context
- Unknown - -1** DESIGN AND DEVELOPMENT AND EVALUATION OF A PRESSURE-BASED TYPING BIOMETRICS AUTHENTICATION SYSTEM

## المنشورات

### Article

- 2020** [Effect of particle loading on the stability of the water based iron-oxide nanofluids.](#) International Journal of Advanced Science and Technology , 29 (1) pp.1326-1333
- 2020** [Performance analysis of constrained device virtualization algorithm.](#) International Journal of Innovative Technology and Exploring Engineering (IJITEE) , 9 (5) pp.532-539
- 2020** [Islamisation of engineering education - a case at IIUM.](#) Universal Journal of Educational Research , 8 (2) pp.355-361
- 2019** [The role of gas-phase dynamics in interfacial phenomena during few-layer graphene growth through atmospheric pressure chemical vapour deposition.](#) Physical Chemistry Chemical Physics , 22 (6) pp.3481-3489
- 2019** [Investigation of extraction yields of exfoliated graphene in deionized water from organic solvents.](#) International Journal of Technology , 10 (6) pp.1251-1259
- 2019** [Experimental correlation for flow-boiling heat transfer in a micro-gap evaporator with internal micro-fins.](#) Journal of Advanced Research in Fluid Mechanics and Thermal Sciences , 54 (1) pp.1-8
- 2019** [Study of feasibility of pulse detonation engine powered by alternative fuels.](#) International Journal of Engineering and Advanced Technology (IJEAT) , 8 (2S2) pp.291-296

- 2018** [An analytical technique to obtain higher-order approximate periods for the nonlinear oscillator.](#) IIUM Engineering Journal , 19 (2) pp.182-191
- 2018** [Prediction of generated power from steam turbine waste heat recovery mechanism system on naturally aspirated spark ignition engine using artificial neural network.](#) Soft Computing , 22 (18) pp.5955-5964
- 2018** [Nano conductive filler polymer towards energy efficient EV: A review.](#) Energy Education Science and Technology Part A: Energy Science and Research , 36 (3) pp.185-204
- 2018** [Power optimisation of electric coaster.](#) International Journal of Electric and Hybrid Vehicles , 10 (1) pp.82-94
- 2018** [Two-phase fin-induced turbulent cooling for electronic devices using heat pump associated micro-gap Heat Sink.](#) International Journal of Engineering & Technology , 7 (3.13) pp.113-122
- 2018** [Improvement of biogas upgrading process using chemical absorption at ambient conditions.](#) Jurnal Teknologi , 80 (1) pp.107-113
- 2018** [Experimental investigation and effective medium approximation of thermal conductivity of water based exfoliated Graphene nanofluids.](#) International Journal of Applied Engineering Research , 13 (10) pp.7477-7487
- 2018** [Desalination technologies: a critical review.](#) International Journal of Engineering Technology and Scientific Innovation , 3 (4 (September-October)) pp.160-186
- 2018** [Prospect and challenges of electric vehicle adaptability: an energy review Malaysia.](#) Energy Education Science and Technology Part A:Energy Science and Research , 36 (3) pp.139-151
- 2018** [Effect of exfoliated graphene defects on thermal conductivity of water based graphene nanofluids.](#) International Journal of Applied Engineering Research , 13 (7) pp.4871-4877
- 2017** [An analytical approximation technique for the duffing oscillator based on the energy balance method.](#) Italian Journal of Pure and Applied Mathematics , 37 pp.455-466
- 2017** [Microfluidic concentration gradient for toxicity studies of lung carcinoma cells.](#) Procedia Technology , 27 pp.153-154
- 2017** [Intelligent control electromagnetic actuated continuously variable transmission system for passenger car.](#) IOP Conf. Series: Materials Science and Engineering , 184
- 2017** [High-order approximate solutions of strongly nonlinear cubic-quintic Duffing oscillator based on the harmonic balance method.](#) Results in Physics , 7 pp.3962-3967
- 2016** [A review of chemical absorption of carbon dioxide for biogas upgrading.](#) Chinese Journal of Chemical Engineering , 24 (6) pp.693-702
- 2016** [A novel analytical approximation technique for highly nonlinear oscillators based on the energy balance method.](#) Results in Physics , 6 pp.496-504
- 2016** [Control of suddenly expanded flows from correctly expanded and under expanded nozzles at supersonic mach number for area ratio 2.56.](#) IOSR journal of Mechanical & Civil Engineering , 3 pp.76-82
- 2016** [Thermal performance of fined plate mini-channel heat sink.](#) IOSR Journal of Mechanical & Civil Engineering ( IOSR-JMCE) , 18 (6) pp.1-4

- 2016** [Development of integrated science textbooks by applying the enrich tool.](#) Journal of Education and Social Sciences (JESOC) pp.6-13
- 2016** [A comparative analysis of flow boiling in micro-gaps with internal micro-fins of rectangular and triangular profiles.](#) International Journal of Applied Engineering Research , 11 (4) pp.2364-2372
- 2016** [A comparison study on the harmonic balance method and rational harmonic balance method for the Duffing-harmonic oscillator .](#) Global Journal of Pure and Applied Mathematics , 12 (3) pp.2721-2732
- 2016** [Study on turbulent characteristics of flow boiling in a micro gap under the influence of surface roughness and micro fins.](#) ARPN Journal of Engineering and Applied Sciences , 11 (1) pp.410-414
- 2016** [A critical assessment on evaporative cooling performance of micro finned micro gap for high heat flux applications.](#) ARPN Journal of Engineering and Applied Sciences , 11 (1) pp.331-336
- 2016** [Students perceptions on infusion of Islamic perspectives in the teaching of engineering subjects: IIUM case study.](#) Journal of Education and Vocational Research (JESOC) , 4 pp.1-7
- 2016** [Effect of geometrical parameters on boiling heat transfer and pressure drop in micro finned micro gap.](#) ARPN Journal of Engineering and Applied Sciences , 11 (1) pp.297-302
- 2016** [Development of integrated curriculum and teaching materials for science/engineering courses.](#) Journal of Education and Social Sciences , 4 pp.18-25
- 2016** [Prediction on Power Produced from Power Turbine as a Waste Heat Recovery Mechanism on Naturally Aspirated Spark Ignition Engine Using Artificial Neural Network.](#) Modelling and Simulation in Engineering , 2016 pp.5072404-1-5072404-12
- 2016** [An evaluation of heat loss on top of solar collector with multilayered absorber in solar water heating system.](#) ARPN Journal of Engineering and Applied Sciences , 11 (1) pp.281-285
- 2015** [Application of CNT nanofluids in a turbulent flow heat exchanger.](#) Journal of Experimental Nanoscience , 11 (1) pp.1-17
- 2015** [Experimental and numerical investigation of heat transfer in CNT nanofluids.](#) Journal of Experimental Nanoscience , 10 (7) pp.545-563
- 2015** [Performance evaluation of solar collectors using a solar simulator.](#) IIUM Engineering Journal , 6 (2) pp.79-90
- 2015** [Waste heat recovery in heat pump systems: solution to reduce global warming.](#) IIUM Engineering Journal , 16 (2) pp.31-42
- 2015** [The study on performance of naturally aspirated spark ignition engine equipped with waste heat recovery mechanism.](#) ARPN Journal of Engineering and Applied Sciences , 10 (21) pp.10058-10065
- 2015** [Effect of organic loading rate \(OLR\) of slurry on biogas production quality.](#) Advanced Materials Research , 1115 pp.325-330
- 2014** [Smaller radiator with enhanced heat transfer using CNT-nanofluids.](#) WIT Transactions on Engineering Sciences , 88 pp.185-191

- 2014 [Corrosion effects of CNT-nanofluids on different metals.](#) WIT Transactions on Engineering Sciences , 87 pp.139-146
- 2014 [Tapping into student's passion, curiosity, engagement and dreams: engineering educator's task.](#) Science International Lahore , 26 (5) pp.2569-2575
- 2014 [Geospatial analysis in monitoring land use encroachment into heritage site in Bujang Valley.](#) Journal of Architecture, Planning and Construction Management , 4 (2) pp.77-91
- 2014 [Investigating corrosion effects and heat transfer enhancement in smaller size radiators using CNT-nanofluids.](#) Journal of Materials Science , 49 (13) pp.4544-4551
- 2014 [Prediction of waste heat energy recovery performance in a naturally aspirated engine using artificial neural network.](#) ISRN Mechanical Engineering pp.240942-1-6
- 2013 [Academic performance measurement: capacity building for OIC-Affiliated Universities.](#) International Journal of Information Technology & Computer Science , 12 (2) pp.67-74
- 2013 [Rain attenuation analysis using synthetic storm technique in Malaysia .](#) IOP Conference Series: Materials Science and Engineering , 53 (Conf.1) pp.012045-1
- 2013 [Experimental and numerical investigation of heat transfer in CNT nanofluids.](#) Journal of Experimental Nanoscience , 10 (7) pp.1-19
- 2012 [Integrating and infusing of Islamic values in the existing engineering course subject: a case study.](#) Advances in Natural and Applied Sciences , 6 (5) pp.625-632
- 2012 [Use of porous alumina bioceramic to increase implant osseointegration to surrounding bone.](#) Advanced Materials Research , 445 pp.554-559
- 2012 [Muhammad Abduh's contributions to modernity.](#) Asian Journal of Management Sciences & Education (AJMSE) , 1 (1) pp.63-75
- 2012 [Thermal conductivity of carbon nanotube nanofluid—experimental and theoretical study.](#) Heat Transfer—Asian Research , 41 (2) pp.145-163
- 2012 [The foundation of science and technology in view of Muhammad Abduh .](#) Asian Journal of Natural & Applied Sciences , 1 (2) pp.133-145
- 2011 [Integrated mechanics of hybrid electrical air-cushion tracked vehicle for swamp peat.](#) International Journal of Heavy Vehicle Systems (IJHVS) , 18 (3) pp.227-244
- 2011 [The effect of incorporating lithium fluoride on the compressive strength and diametric tensile strength of glass ionomer cement.](#) Advanced Materials Research , 264 pp.508-512
- 2011 [Stability and thermal conductivity enhancement of Carbon nanotube \(CNT\) nanofluid using gum Arabic .](#) Journal of Experimental Nanoscience , 6 (6) pp.567-579
- 2011 [Islamisation of engineering education in International Islamic University Malaysia \(IIUM\): problems and prospect.](#) Revelation and Science , 1 (3) pp.131-137
- 2011 [Exact solution for linear and nonlinear systems of PDEs by homotopy-perturbation method.](#) Australian Journal of Basic and Applied Sciences , 5 (12) pp.3295-3305
- 2011 [CFD studies on natural convection heat transfer of Al<sub>2</sub>O<sub>3</sub>-water nanofluids.](#) Heat Mass Transfer , 47 (10) pp.1301-1310



- 2010 [Mixed-convection heat transfer from simulated air-cooled electronic devices: experimental and numerical study.](#) Journal of Thermophysics and Heat Transfer , 24 (1) pp.165-172
- 2010 [Comparative study of conventional and micro WEDM based on machining of meso/micro sized spur gear.](#) International Journal of Precision Engineering and Manufacturing , 11 (5) pp.779-784
- 2010 [Engineering materials and manufacturing processes from Qur'anic perspective.](#) Advanced Materials Research , 83-86 pp.834-841
- 2010 [Engineering curriculum design and development.](#) Australian Journal of Islamic Studies , 2 (1) pp.7-26
- 2010 [Effect of radiation dose on the properties of natural rubber nanocomposite.](#) Radiation Physics and Chemistry , 79 (12) pp.1279-1285
- 2010 [Development of hybrid electrical air-cushion tracked vehicle for swamp peat.](#) Journal of Terramechanics , 47 (1) pp.45-54
- 2010 [Simulated mutagenesis to predict the mutational effect on the thermostability of Bacillus circulans xylanase.](#) Research Journal of Chemistry and Environment , Specil (issue) pp.195-199
- 2010 [Clean production of carbon nanomaterials to remove arsenic from drinking water.](#) OIDA International Journal of Sustainable Development , 1 (7) pp.45-52
- 2009 [Optimisation of arsenic adsorption from water by carbon nanofibers grown on powdered activated carbon impregnated with nickel..](#) Journal of Applied Sciences , 9 (17) pp.3180-3183
- 2009 [Accuracy of Bhatnagar-Gross-Krook scheme in solving laminar viscous flow problems.](#) AIAA Journal , 47 (4) pp.885-892
- 2009 [In silico design in designing xylanase for biobleaching industry.](#) Journal of Applied Sciences , 9 (17) pp.3184-3187
- 2009 [On the characteristics of multistage evacuated solar distillation.](#) Renewable Energy , 34 pp.1471-1478
- 2009 [Investigation on tool wear rate for modified and unmodified aluminium-silicon casting alloy.](#) International Journal of Modern Physics B , 23 (6-7) pp.826-831
- 2008 [Design and evaluation of a pressure-based typing biometric authentication system.](#) EURASIP Journal on Information Security , 2008 pp.1-14
- 2007 [Effectiveness of uncoated WC-Co and PCD inserts in end milling of aluminum silicon carbide \(AlSiC\) .](#) Journal of Materials Processing Technology , 192-3 pp.147-158
- 2007 [Handoff latency analysis of mobile IPv6 protocol variations.](#) Computer Communications , 30 (4) pp.849-855
- 2007 [Effectiveness of cryogenic machining with modified tool holder.](#) Journal of Materials Processing Technology , 185 (1-3) pp.91-96
- 2007 [Wavelet based noise removal from EMG signals.](#) Informacije MIDEM: Journal of Microelectronics, Electronic Components and Materials , 37 (2) pp.94-97
- 2007 [Performance of hybrid filament wound composites tubes subjected to quasi static indentation.](#) Materials and Design , 28 pp.71-77

- 2006 [Hardware realization of an efficient fetal QRS complex detection algorithm.](#) WSEAS Transaction on Circuits and Systems , 5 (4) pp.575-581
- 2006 [Comparative performance analysis of mobile IPv6 protocols: special reference to simultaneous bindings.](#) Journal of Computer Sciences , 2 (2) pp.154-159
- 2006 [Effect of silicon on strength and fracture surfaces of aluminium-silicon casting and heat treated alloys.](#) Key Engineering Materials , 306/8 pp.893-898
- 2006 [An AI based self-moderated smart-home.](#) Informacije MIDEM: Journal of Microelectronics, Electronic Components and Materials , 36 (2) pp.91-94
- 2005 [Effect of superheating temperatures on microstructure and properties of strontium modified aluminium-silicon eutectic alloy.](#) Journal of Materials Processing Technology , 162/3 pp.312-316
- 2005 [Employing a failure criterion with interaction terms to simulate the progressive failure of carbon-epoxy laminates.](#) Journal - The Institution of Engineers, Malaysia , 66 (2) pp.6-14
- 2005 [The effect of material property gradient on the fracture toughness of a PMMA/PC bimerial with a crack normal to the interface.](#) Journal of Applied Sciences , 5 (3) pp.476-481
- 2005 [Theoretical and experimental investigation of a novel multistage evacuated solar still.](#) Journal of Solar Energy Engineering , 127 (3) pp.381-385
- 2004 [AntNet: a robust routing algorithm for data networks.](#) International Islamic University Malaysia Engineering Journal , 5 (1) pp.1-12
- 2004 [The effect of peroxyacetic acid treatment at elevated temperature onto the Indonesian coal microstructure.](#) Science Letters , 1 (1) pp.1-7
- 2002 [Experimental and numerical analysis of electronics heat sink.](#) IIUM Engineering Journal , 3 (2) pp.17-32
- 2000 [Prediction of the performance of a solar water detoxification system under Malaysian climatic conditions.](#) Energy Conversion and Management , 41 (1) pp.1-12
- 2000 [Numerical modelling of a multi-stage solar still.](#) Energy Conversion and Management , 41 (11) pp.1107-1121
- 1997 [Combustion processes of rice husks for energy.](#) RERIC International Energy Journal , 19 (2) pp.63-75
- 1996 [Design modification of high speed diesel engine to accomodate compressed natural gas.](#) RERIC International Energy Journal , 18 (1) pp.19-26
- 1996 [2-D and 3-D cellular models using erosion and dilation: model development.](#) Malaysian Journal of Computer Science , 9 (1) pp.18-24

#### Conference or Workshop Item

- 2020 [A systematic study of rheological properties of waterironoxide nanofluids with graphene nanoflakes.](#) In: **International Conference on Sustainable Energy and Green Technology 2019, SEGT 2019**

- 2019 [Influence of mixed convection in atmospheric pressure chemical vapor deposition of graphene growth.](#) In: **Nanotech Malaysia 2018 in conjunction with 3rd International Conference on Enabling Science and Nanotechnology (ESciNano 2018), 5th Malaysia Workshop on 2D Materials and Carbon Nanotube (2DMC 2018)**
- 2019 [Experimental investigation of concentration yields of liquid phase exfoliated graphene in organic solvent media.](#) In: **4th International Conference on Mechanical, Automotive and Aerospace Engineering (ICMAAE 2018)**
- 2019 [Stability investigation of water based exfoliated graphene nanofluids.](#) In: **4th International Conference on Mechanical, Automotive and Aerospace Engineering (ICMAAE 2018)**
- 2019 [Aerodynamics of a circular planform wing.](#) In: **4th International Conference on Mechanical, Automotive and Aerospace Engineering (ICMAAE 2018)**
- 2019 [Investigation of aircraft engine performance utilizing various alternative fuels.](#) In: **Southeast Asia Workshop on Aerospace Engineering (SAWAE 2019)**
- 2018 [A new analytical technique for solving nonlinear non-smooth oscillators based on the rational harmonic balance method.](#) In: **Second International Conference on the Future of ASEAN (ICoFA) 2017**
- 2018 [Analytical approximations for the oscillators with anti-symmetric quadratic nonlinearity.](#) In: **4th International Conference on Mathematical Applications in Engineering 2017 (ICMAE'17)**
- 2017 [Higher-order analytical solutions for the equation of motion of a particle on a rotating parabola.](#) In: **4th International Conference on Mathematical Sciences - Mathematical Sciences: Championing the Way in a Problem Based and Data Driven Society, ICMS 2016**
- 2017 [Analysis of design tool attributes with regards to sustainability benefits.](#) In: **International Conference on Advances in Manufacturing and Materials Engineering (ICAMME 2017)**
- 2017 [Prediction of steam turbine performance as a waste heat recovery mechanism on naturally aspirated spark ignition engine using artificial neural network.](#) In: **2016 3rd International Conference on Soft Computing & Machine Intelligence (ISCM 2016 )**
- 2017 [Numerical study of heat transfer of embossed plate finned heat sink.](#) In: **3rd International Conference on Mechanical, Automotive and Aerospace Engineering, ICMAAE 2016**
- 2017 [OIC movement for stronger political community.](#) In: **Towards the Renaissance of Muslim Future Thinkers: Vision TN50 of Malaysia Forum 2017**
- 2017 [Network Function Virtualization \(NFV\) based architecture to address connectivity, interoperability and manageability challenges in Internet of Things \(IoT\).](#) In: **6th International Conference on Mechatronics - ICOM'17**
- 2017 [Connectivity, interoperability and manageability challenges in internet of things.](#) In: **The International Conference on Electrical and Electronic Engineering 2017 (IC3E 2017)**
- 2017 [Higher-order analytical solutions for the equation of motion of a particle on a rotating parabola.](#) In: **4th International Conference on Mathematical Sciences**

- 2016 [Serpentine microfluidic structures for concentration gradient generators.](#) In: **Symposium on Design, Test, Integration & Packaging of MEMS/MOEMS (DTIP)**
- 2016 [Comparative study of R134a and R744 driven solar assisted heat pump systems for different applications.](#) In: **3rd International Conference on Mechanical, Automotive and Aerospace Engineering, ICMAAE 2016**
- 2016 [Biogas upgrading by chemical absorption using a packed column apparatus.](#) In: **4th International Conference on Biotechnology Engineering 2016 (ICBioE 2016)**
- 2016 [Sustainable manufacturing framework from Islamic perspective.](#) In: **3rd International Conference on Mechanical, Automotive and Aerospace Engineering 2016 (ICMAAE'16)**
- 2016 [Development of integrated curriculum and teaching materials for science/engineering courses.](#) In: **Kuala Lumpur International Islamic Studies and Civilisations (KLIISC) 2016**
- 2016 [A simulation study for the upgrading of biogas using aqueous ammonia.](#) In: **4th International Conference on Biotechnology Engineering 2016 (ICBioE 2016)**
- 2015 [Analysis of synthetic storm technique based on Ku-Band Satellite Beacon measurements in Malaysia.](#) In: **International Conference on Communication and Computer Engineering (ICOCOE 2014)**
- 2015 [Modelling of microfluidics network using electric circuits.](#) In: **2015 IEEE Regional Symposium on Micro and Nanoelectronics (RSM 2015)**
- 2015 [A critical assessment on evaporative cooling performance of micro finned micro gap for high heat flux applications.](#) In: **International Postgraduate Conference on Engineering Research (IPCER) 2015**
- 2015 [Study on turbulent characteristics of flow boiling in a micro gap under the influence of surface roughness and micro fins.](#) In: **International Postgraduate Conference on Engineering Research (IPCER) 2015**
- 2015 [Effect of geometrical parameters on boiling heat transfer and pressure drop in micro finned micro gap.](#) In: **International Postgraduate Conference on Engineering Research (IPCER) 2015**
- 2014 [Effect of organic loading rate \(OLR\) of slurry on biogas production quality .](#) In: **2nd International Conference on Advances in Manufacturing and Materials Engineering (ICAMME 2014)**
- 2014 [Analysis of the synthetic storm technique using rain height models to predict rain attenuation in tropical regions.](#) In: **5th International Conference on Computer and Communication Engineering (ICCCE 2014)**
- 2013 [Biogas production by codigestion of fruit and vegetable wastes: organic loading rate \(OLR\) effect study.](#) In: **Persidangan Kebangsaan Pertama Program Pemindahan Ilmu (KTP 01)**
- 2012 [Numerical simulation of thin-liquid film flow on inclined plate using implicit and explicit finite difference schemes.](#) In: **International Conference on Applied and Computational Mathematics (ICACM) 10th Anniversary of the Foundation of the Institute of Applied Mathematics (IAM)**
- 2011 [Design and performance of 20 watts portable solar generator .](#) In: **1st International Conference on Mechanical Engineering Research 2011 (ICMER2011)**

- 2011 [Investigation of a new porous glass ceramic for potential bone implant](#) . In: **14th International Conference on Advances in Material and Processing Technologies (AMPT 2011)**
- 2011 [Remineralization effect of new type of glass ionomer based root canal sealer](#). In: **2nd International Conference on Biotechnology Engineering (ICBioE 2011)**
- 2010 [Analytical treatment of system of linear and nonlinear PDEs by Homotopy-Perturbation method](#). In: **World Congress on Engineering (WCE) 2010**
- 2010 [Long wave instabilities of heated falling films: role of Van Der Waals attraction](#). In: **XIVth International Conference Surface Forces**
- 2010 [Studies on heat transfer enhancement of CNT-GA nanofluid in a laminar flow heat exchanger](#). In: **IIUM Research, Innovation & Invention Exhibition (IRIIE 2010)**
- 2010 [New glass ionomer cement with boron](#). In: **IIUM Research, Innovation & Invention Exhibition (IRIIE 2010)**
- 2010 [Electron beam crosslinked natural rubber/multiwalled carbon nanotube nanocomposite](#). In: **IIUM Research, Innovation & Invention Exhibition (IRIIE 2010)**
- 2010 [A modified algorithm for the homotopy perturbation method with applications to Lotka-Volterra systems](#). In: **6th IMT-GT Conference on Mathematics, Statistics and its Applications (ICMSA2010)**
- 2009 [Optimisation of arsenic adsorption from water by carbon nanofibres grown on powdered activated carbon impregnated with nickel](#) . In: **3rd International Conference on Chemical and Bioprocess Engineering**
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