

# MOHAMMED ATAUR RAHMAN



- KULLIYAH OF ENGINEERING
- IIUM Gombak Campus
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## ACADEMIC QUALIFICATION

- Automotive Engineering
- MBA (Techno-Entrepreneurship)
- Mechanical Engineering

## TEACHING RESPONSIBILITIES

ADVANCED VEHICLE DYNAMIC	2019/2020
AUTOMOTIVE CHASIS SYSTEMS	2008/2009 2009/2010 2010/2011 2011/2012 2012/2013 2013/2014
AUTOMOTIVE CONTROL SYSTEMS	2017/2018
AUTOMOTIVE ENGINEERING LAB IV	2008/2009 2009/2010 2010/2011 2011/2012 2012/2013
AUTOMOTIVE ENGINEERING LAB V	2018/2019 2019/2020
AUTOMOTIVE INSTRUMENT SYSTEM	2006/2007 2007/2008
Automotive Engineering Lab III	2017/2018
Automotive Engineering Lab IV	2018/2019 2019/2020 2020/2021
DESIGN OF AUTOMOTIVE TRANSMISSION SYSTEMS	2013/2014 2014/2015
DYNAMICS	2006/2007 2007/2008
ELECTRIC AND HYBRID VEHICLES	2017/2018 2018/2019
ENGINE DESIGN	2011/2012
INTRODUCTION TO AUTOMOTIVE ENGINEERING	2008/2009 2009/2010 2010/2011 2011/2012 2012/2013
MICRO ELECTROMECHANICAL SYSTEMS	2013/2014 2014/2015 2015/2016
POWER TRAIN SYSTEMS	2015/2016
PROJECT I	2007/2008 2008/2009 2020/2021
PROJECT II	2007/2008 2008/2009 2018/2019 2019/2020

VEHICLE DYNAMICS	2013/2014
VEHICLE DYNAMICS AND CHASSIS SYSTEMS	2013/2014 2014/2015 2015/2016 2016/2017 2017/2018 2018/2019 2019/2020
VEHICLE ELECTRICAL AND INSTRUMENTATION SYSTEMS	2007/2008 2008/2009 2009/2010 2010/2011 2011/2012 2012/2013 2013/2014
VEHICLE ELECTRICAL SYSTEMS	2006/2007 2007/2008 2008/2009
VEHICLE ELECTRONICS & INSTRUMENTATION SYSTEMS	2012/2013 2013/2014 2014/2015 2015/2016 2016/2017 2017/2018 2018/2019
Vehicle Dynamics and Chassis Systems	2020/2021
Vehicle Electrical and Electronics Systems	2018/2019 2019/2020 2020/2021

## RESEARCH PROJECTS

### In Progress

**2019 - Present** Prototyping of Artificial Intelligent Embedded IoT based Driveline for Electric Coaster

**2019 - Present** Modelling of an adaptive control framework to synchronize the charging/discharging of the hybrid energy system of electric vehicles

**2016 - Present** Development Prototype of Electromagnetic Actuator for the Continuously Variable Transmission of Passenger Car

**2015 - Present** Study of Three Dimensional Graphene Composites for Lead-supercapacitor Hybrid Battery System

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

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

**Unknown - Present** Investigation of a Low Computation Nonlinear Predictive Functional Control for energy-efficient Adaptive Cruise Control.

### Completed

**2016 - 2019** Development Prototype of Electromagnetic Actuator for the Continuously Variable Transmission of Passenger Car

**2016 - 2020** Development of a Laboratory Scale Palladium (Pd)/ Graphene Oxide (GO) Catalyst Based Steam Reformer

**2015 - 2019** Study of Three Dimensional Graphene Composites for Lead-supercapacitor Hybrid Battery System

**2014 - 2017** Parametric Modelling and Development of Battery Cell Balancing for Energy Optimisation in Electric Vehicle (EV)

- 2013 - -1** Development of Wireless Battery Management System (Wi-BMS) for Electrical Vehicle (EV)
- 2013 - 2017** Development of Green Transportation System
- 2013 - 2017** Development of Wireless Battery Management System (Wi-BMS) for Electrical Vehicle (EV)
- 2012 - 2014** Development of Electrical Vehicle by Converting Proton SAGA Conventional Car
- 2011 - 2013** Modification of The Design and Developed Hybrid Engine Powered Urban Concept Car
- 2010 - 2014** Electromagnetic Actuated CVT System for Medium Size Passenger Car
- 2010 - 2012** The Hybrid Car With Waste Gas Recovery
- 2009 - 2011** Design and analysis of analog to digital Conversion circuit using Multi-Valued Logic
- 2009 - 2010** Design and Development of an "Urban Concept Hybrid Car"
- 2008 - 2011** Design and Development a Model on Hybrid Full-Trackled Air-Cushion Electrical Vehicle for Swamp Peat Terrain in Malaysia
- 2008 - 2011** Investigation and Probable Solution of Low End Torque Dip Problem of 1.6L Gasoline Engine
- 2008 - 2010** Design and Fabrication of 2nd Generation IIUM Buggy Car
- 2008 - 2010** Study on Traction Mechanics of a Hybird Semi-Trackled-Wheeled Vehicle for Low Bearing Capacity Peat Soil

## PUBLICATIONS

### Article

- 2020** [Modeling and validation of electric vehicle drive line architecture using bond graph.](#) Test Engineering and Management , 82 (January - February 2020) pp.15154 -15167
- 2020** [Organic photoelectric-supercapacitor power source of electric vehicle.](#) Test Engineering and Management , 82 pp.15175 -15182
- 2020** [EMA-CVT performance for UDDS and HWFET cycles with fuzzy logic approach.](#) Test Engineering & Management , 83 (March/April) pp.13775-13781
- 2019** [Development of rapid charging system for EV battery.](#) International Journal of Recent Technology and Engineering (IJRTE) , 7 (6S) pp.292-297
- 2019** [Study on the development of electromagnetic two speed gearbox for EV.](#) International Journal of Rescent Technology and Engineering (IJRTE) , 7 (6S) pp.147-152

- 2019** [Electromagnetic contactless torque transducer: torque measurement and shaft impediment approach.](#) International Journal of Recent Technology and Engineering (IJRTE) , 7 (6S) pp.298-303
- 2019** [Temperature effect and battery charging characteristics analysis based on charging C-rate.](#) International Journal of Engineering and Advanced Technology , 9 (1) pp.159-165
- 2019** [Development of electro-hydro automatic parking braking system for automotive system.](#) International Journal of Recent Technology and Engineering (IJRTE) , 7 (6S) pp.264-269
- 2019** [Study on the intelligent control system of EMA-CVT.](#) International Journal of Recent Technology and Engineering (IJRTE) , 7 (6S) pp.48-53
- 2019** [Malaysian automobile industry and green supply chain management.](#) International Journal of Recent Technology and Engineering (IJRTE) , 7 (6S) pp.158-162
- 2019** [Efficiency of thin film photovoltaic paint: a brief review.](#) Blue Eyes Intelligence Engineering & Sciences Publication , 7 (6S) pp.163-169
- 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** [Modelling and simulation of graphene/palladium catalyst reformer for hydrogen generation from the waste of IC engine.](#) IOP Conference Series: Materials Science and Engineering , 290 pp.2-13
- 2018** [Electro-hydro-mechanical braking system for passenger vehicle.](#) Journal of Applied Science , 2018 pp.1-9
- 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** [A parametric approach for the study of heat flow between street canyon and the atmosphere.](#) Planning Malaysia: Journal of the Malaysian Institute of Planners , 16 (2) pp.50-61
- 2017** [The theory of the development of an electromagnetic engine for automotive use.](#) International Journal of Advanced Robotics and Automation , 2 (1) pp.1-8
- 2017** [Recycling and disposal of lithium batteries: an economical and environmental approach.](#) IIUM Engineering Journal , 18 (2) pp.238-252
- 2017** [Parametric study of palladium/graphene catalyst on-board steam reformer for hydrogen generation from IC engine's waste.](#) International Journal of Engineering & Technology IJET-IJENS , 17 (1) pp.13-24
- 2017** [Thermoelectric technology for IC engine waste energy harvesting:liquid cooling approach.](#) International Journal of Scientific and Engineering Research , 7 (11) pp.1-12

- 2017** [Two-phase evaporative battery thermal management technology for EVs/HEVs: theory and control.](#) International Journal of Automotive Technology , 18 (5) pp.875-882
- 2017** [Investigation of aluminum heat sink design with thermoelectric generator.](#) IOP Conf. Series: Materials Science and Engineering , 184
- 2017** [Intelligent control electromagnetic actuated continuously variable transmission system for passenger car.](#) IOP Conf. Series: Materials Science and Engineering , 184
- 2017** [The knowledge, awareness, attitude and motivational analysis of plastic waste and household perspective in Malaysia.](#) Environmental Science and Pollution Research , 24 (3) pp.2304-2315
- 2017** [Physics of ZnO/SiO<sub>2</sub> electrolyte semi-conductive thermal electric generator.](#) International Journal of Advanced and Applied Sciences , 4 (5) pp.35-40
- 2017** [Health impact of river water pollution in Malaysia.](#) International Journal of Advanced and Applied Science , 4 (5) pp.78-85
- 2016** [Lithium battery recycling management and policy.](#) International Journal of Energy Technology and Policy , 13 (3) pp.278-291
- 2016** [Resonant-boost LC converter base charge balancing system for electric vehicle.](#) ARPN Journal of Engineering and Applied Sciences , 11 (1) pp.362-367
- 2015** [Nano-battery technology for EV-HEV panel: a pioneering study.](#) IIUM Engineering Journal , 16 (2) pp.57-68
- 2015** [Power generation from waste of IC engines.](#) Renewable and Sustainable Energy Reviews , 51 pp.382-395
- 2015** [Investigation of PEM fuel cell for automotive use.](#) IIUM Engineering Journal , 16 (2) pp.69-78
- 2015** [Electricity generation from EV body build with Al<sub>2</sub>O<sub>3</sub> filler ER sandwiched by carbon fiber and lithium thin plate .](#) Energy Education Science and Technology Part A: Energy Science and Research , 33 (3)
- 2015** [How individual values and attitude influence consumers' purchase intention of electric vehicles—some insights from Kuala Lumpur, Malaysia.](#) Environment and Urbanization ASIA , 6 (2) pp.1-18
- 2015** [ANSYS finite element design of an energy saving magneto-rheological damper with improved dispersion stability.](#) Journal of Mechanical Science and Technology , 29 (7) pp.2793-2802
- 2014** [Energy efficient electromagnetic actuated CVT system.](#) Journal of Mechanical Science and Technology , 28 (4) pp.1153-1160
- 2014** [Development of electric vehicle: public perception and attitude, the Malaysian approach.](#) World Review of Business Research , 5 (2) pp.149-167
- 2014** [Development of electric vehicle: public perception and attitude, the Malaysian approach.](#) World Review on International Transportation Research , 5 (2) pp.149-167

- 2014** [Fuzzy controlled evaporative battery thermal management system for EV/HEV.](#) International Journal of Electric and Hybrid Vehicles (IJEHV) , 7 pp.1-21
- 2014** [Design and fabrication of a simple cost effective spin coater for deposition of thin film.](#) Advances in Environmental Biology , 8 (3) pp.729-733
- 2014** [Optimal design of magneto-rheological damper comparing different configurations by finite element analysis.](#) Journal of Mechanical Science and Technology , 28 (9) pp.3667-3677
- 2014** [Fuzzy logic based model for prediction of building wall humidity level.](#) Indoor and Built Environment , 23 (4) pp.565-573
- 2013** [Fuzzy control energy efficient hybrid engine for small scale vehicle.](#) Research Journal of Applied Science, Engineering and Technology
- 2013** [Performance investigation of an advanced tracked prime mover on the low bearing soil.](#) Journal of Terramechanics , 50 (4) pp.230-244
- 2013** [Evaluation of wind turbine power generation by using an adaptive neuro fuzzy inference system.](#) Journal of Renewable and Sustainable Energy Editorial Office , xx (xx) pp.xx-xx
- 2013** [Nonlinear modeling and simulation of waste energy harvesting system for hybrid engine: fuzzy logic approach.](#) Journal of Renewable and Sustainable Energy Editorial Office , 5 pp.1-13
- 2013** [Study on the development of a fuzzy logic control electromagnetic actuated CVT system.](#) International Journal of Engineering Systems Modelling and Simulation , 5 (4) pp.217-225
- 2012** [Dynamic modeling and simulation of waste energy harvesting system for urban car.](#) Advanced Material Research , 576 pp.679-682
- 2012** [Drag analysis of an aircraft wing model and without bird feather like winglet.](#) International Journal of Aerospace and Mechanical Engineering , 6 (1) pp.8-13
- 2012** [Fuzzy knowledge-based model for prediction of traction force of an electric golf car.](#) Journal of Terramechanics , 49 (1) pp.13-25
- 2012** [Investigation using simulations for the development of low cost catalytic converter from non-precious metals.](#) Advanced Materials Research , 445 pp.899-904
- 2012** [Kinematics and nonlinear control of an electromagnetic actuated CVT system for passenger vehicle.](#) Journal of Mechanical Science and Technology , 26 (7) pp.1-9
- 2012** [Intelligent air-cushion tracked vehicle performance investigation: neural-networks.](#) International Journal of Heavy Vehicle Systems (IJHVS) , 19 (4) pp.407-426
- 2011** [Development of a model of of energy efficient hybrid engine towards green technology.](#) International Journal of Electric and Hybrid Vehicles , 3 (2) pp.138-151
- 2011** [Performance measurement of a tracked vehicle system.](#) International Journal of Automotive Technology , 12 (4) pp.503-512
- 2011** [A study on automated traction control system of an electrical golf car.](#) International Journal of Electric and Hybrid Vehicles (IJEHV) , 3 (1) pp.47-61

- 2011** [Nonlinear controller of an air-cushion system for a swamp terrain vehicle: fuzzy logic approach.](#) Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering , 225 pp.721-734
- 2011** [Prediction of aerodynamic characteristics of an aircraft model with and without winglet using fuzzy logic technique.](#) Aerospace Science and Technology , 15 (8) pp.595-605
- 2011** [Possible solution to smoothen the nature of the torque curve of the CAMPRO engine.](#) International Journal of Vehicle Systems Modelling and Testing , 6 (3/4) pp.202-218
- 2011** [Cushion pressure control system for an intelligent air-cushion track vehicle.](#) Journal of Mechanical Science and Technology , 25 (4) pp.1035-1041
- 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** [Fuzzy evaluation for an intelligent air-cushion tracked vehicle performance investigation.](#) Journal of Terramechanics
- 2011** [Dynamic modeling of intelligent air-cushion tracked vehicle for swamp peat.](#) World Academy of Science, Engineering and Technology , 75 pp.50-57
- 2011** [Application of Multi-objective Genetic Algorithm \(MOGA\) for design optimization of valve timing at various engine speeds.](#) Advanced Materials Research , 265 pp.1719-1724
- 2011** [Fuzzy expert system for controlling swamp terrain intelligent air-cushion tracked vehicle.](#) International Journal of Automotive Technology , 12 (5) pp.745-753
- 2011** [Fuzzy logic control electromagnetic actuated CVT system.](#) Journal of the Chinese Institution of Engineers , 35
- 2011** [Design parameters study of an intelligent air-cushion tracked vehicle.](#) Transactions of the Canadian Society of Mechanical Engineering
- 2011** [Intelligent air-cushion tracked vehicle performance investigation: neural-networks.](#) International Journal of Heavy Vehicle Systems (IJHVS) , xx (xx)
- 2011** [Application of fuzzy logic approach for an aircraft model with and without winglet.](#) International Journal of Aerospace and Mechanical Engineering , 5 (4) pp.224-232
- 2010** [Load distribution for an intelligent air-cushion track vehicle based on optimal power consumption.](#) International Journal of Vehicle Systems Modelling and Testing , 5 (2/3) pp.237-253
- 2010** [Power consumption prediction for an intelligent air-cushion tracked vehicle: fuzzy expert system.](#) Journal of Energy and Power Engineering , 4 (5) pp.10-17
- 2010** [Development of hybrid electrical air-cushion tracked vehicle for swamp peat.](#) Journal of Terramechanics , 47 (1) pp.45-54
- 2010** [Dynamic modeling of intelligent air-cushion tracked vehicle for swamp peat.](#) International Journal of Aerospace and Mechanical Engineering , 4 (1) pp.288-295

- 2010** [Tractive performance prediction for intelligent air-cushion track vehicle: fuzzy logic approach.](#) World Academy of Science, Engineering and Technology , 62 pp.163-169
- 2009** [Tractive performance of LGP-30 wheeled vehicle during straight motion on Sepang peat terrain in Malaysia.](#) The Open Transportation Journal , 3 pp.15-28
- 2009** [Hybrid electrical air-cushion tracked vehicle for swamp peat in Malaysia.](#) The Open Mechanical Engineering Journal (3) pp.63-71
- 2009** [Prediction of power generation of small scale vertical axis wind turbine using fuzzy logic.](#) Journal of Urban and Environmental Engineering , 3 (2) pp.43-51
- 2009** [Kinematics model for the wheeled vehicle tractive performance determination on Sepang's peat terrain in Malaysia.](#) International Journal of Heavy Vehicle Systems (IJHVS) , 16 (1/2) pp.225-242
- 2008** [Investigation and probable solution of low end torque dip problem of CAMPRO 1.6L Engine.](#) International Journal of Mechanical and Materials Engineering (IJMME) , 3 (2) pp.176-186
- 2007** [Simulation and experimental investigation of muffler performance.](#) International Journal of Mechanical and Materials Engineering (IJMME) , 2 (2) pp.118-124
- 2007** [Effectiveness of the developed instrumentation system on the vehicle tractive performance measurement.](#) International Journal of Mechanical and Materials Engineering (IJMME) , 2 (2) pp.189-199
- 2007** [Mobility investigation of a designed and developed segmented rubber track vehicle on Sepang peat terrain in Malaysia.](#) Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering , 221 pp.789-800
- 2007** [Comparison of drift eliminators characteristics in evaporative condenser and spray-filled tower.](#) International Energy Journal , 8 (3) pp.155-162
- 2007** [Optimal design of automobile exhaust system using GT-power.](#) International Journal of Mechanical and Materials Engineering (IJMME) , 2 (1) pp.40-47
- 2006** [Tractive performance of a designed and developed segmented rubber tracked vehicle on Sepang peat terrain during straight motion: theoretical analysis and experimental substantiation.](#) International Journal of Heavy Vehicle Systems (IJHVS) , 13 (4) pp.298-323
- 2006** [Traction mechanics of the designed and developed segmented rubber track vehicle for Sepang peat terrain in Malaysia during turning motion: theoretical and experimental analysis.](#) International Journal of Heavy Vehicle Systems (IJHVS) , 13 (4) pp.324-350
- 2005** [Design and development of a segmented rubber tracked vehicle for Sepang peat terrain in Malaysia.](#) International Journal of Heavy Vehicle Systems (IJHVS) , 12 (3) pp.239-267
- 2005** [Simulated steerability of a segmented rubber tracked vehicle during turning on sepang peat terrain in Malaysia.](#) International Journal of Heavy Vehicle Systems (IJHVS) , 12 (2) pp.139-168
- 2005** [Designing framework of a segmented rubber tracked vehicle for Sepang peat terrain in Malaysia .](#) IIUM Engineering Journal , 6 (1) pp.1-22



2005 [Processes involved in the design of a segmented rubber tracked vehicle for Sepang peat terrain in Malaysia.](#) International Journal of Vehicle Design (IJVD) , 38 (4) pp.347-378

2004 [Mechanical properties in relation to vehicle mobility of Sepang peat terrain in Malaysia.](#) Journal of Terramechanics , 41 (1) pp.25-40

#### Conference or Workshop Item

2020 [Autonomous electromagnetic continuously variable transmission for electric vehicle.](#) In: **2020 11th IEEE Annual Information Technology, Electronics and Mobile Communication Conference (IEMCON)**

2018 [Modeling and simulation of Graphene/Palladium catalyst reformer for hydrogen generation from waste of IC engine.](#) In: **International Conference on Advances in Manufacturing and Materials Engineering 2017, ICAMME 2017**

2017 [A novel electro conductive graphene/silicon-dioxide thermo-electric generator.](#) In: **3rd International Conference on Mechanical, Automotive and Aerospace Engineering 2016 (ICMAAE'16)**

2017 [Modelling of an advanced charging system for electric vehicles.](#) In: **3rd International Conference on Mechanical, Automotive and Aerospace Engineering 2016 (ICMAAE '16)**

2017 [Wireless battery management system of electric transport.](#) In: **6th International Conference on Mechatronics (ICOM'17)**

2017 [Hybrid engine powered city car: fuzzy controlled approach.](#) In: **3rd International Conference on Mechanical, Automotive and Aerospace Engineering 2016 (ICMAAE'16)**

2017 [Analysis of the internal temperature of the cells in a battery pack during SOC balancing.](#) In: **3rd International Conference on Mechanical, Automotive and Aerospace Engineering 2016 (ICMAAE'16)**

2016 [The prospects of panel style nano-battery technology for EV/HEV.](#) In: **2015 IEEE International Conference on Industrial Engineering and Engineering Management (IEEM 2015)**

2014 [Noble evaporative battery thermal management system for EV/HEV .](#) In: **4th International Conference on Industrial Engineering and Operations Management (IEOM) 2014**

2014 [Design and development of a flying robot with improved time constant in rescue accident victims.](#) In: **3rd International Conference on Mathematical Applications in Engineering (ICMAE'14)**

2014 [The design and development of small electric vehicles \(EV\) using power inverter based AC motor.](#) In: **3rd International Conference on Mathematical Applications in Engineering 2014 (ICMAE'14)**

2014 [Fuzzy controlled evaporative battery thermal management system for EV/HEV.](#) In: **ASME 2014 8th International Conference on Energy Sustainability co-located with ASME 2014 12th Fuel Cell Science, Engineering & Technology Conference**

- 2013 [Fuzzy Logic Controlled Electromagnetic Actuated CVT system for passenger car.](#) In: FISITA 2012
- 2013 [Evaporative cooling system for electric vehicles battery pack.](#) In: International Conference on Mechanical, Automotive and Aerospace Engineering 2016 (ICMAAE 16)
- 2013 [Development of green transportation system.](#) In: IIUM Engineering Congress 2013(2-4July 2013)
- 2013 [Malaysian perception and attitude towards electric vehicle.](#) In: IIUM Engineering Congress 2013
- 2011 [Design of a current comparator for quaternary multi valued analog to digital converter.](#) In: 2011 IEEE Regional Symposium on Micro and Nanoelectronics (RSM)
- 2011 [Investigation of non-precious metals for the development of low cost catalytic converter.](#) In: International Conference on Advances in Materials and Processing Technologies (AMPT 2011)
- 2011 [Fuzzy logic traction control system for a golf cart.](#) In: 17th International Conference of the International Society for Terrain-Vehicle Systems
- 2011 [Intelligent electromagnetic actuated CVT system for passenger car.](#) In: IEEE International Conference on Industrial Engineering and Engineering Management
- 2011 [Study of Fuzzy Controller to control vertical position of an air-cushion tracked vehicle.](#) In: 2011 4th International Conference on Mechatronics: Integrated Engineering for Industrial and Societal Development (ICOM 2011)
- 2011 [Design of a 2-bit multi valued analog-to-digital converter.](#) In: 4th International Conference on Mechatronics (ICOM)
- 2011 [Design and development of automatic parking system and electronic parking fee collection based on number plate recognition.](#) In: 4th International Conference on Advanced Computer Theory and Engineering (ICACTE 2011)
- 2011 [Design and implementation of fuzzy based controller for modern elevator group.](#) In: 2011 IEEE Symposium on Industrial Electronics and Applications (ISIEA)
- 2011 [Experimental investigation of the swirl effect on CAMPRO engine using designed swirl adapter.](#) In: International Conference on Mechanical, Automotive and Aerospace Engineering (ICMAAE' 11)
- 2011 [Study on air-cushion tracked vehicle performance: theoretical analysis and experimental validation.](#) In: International Conference on Mechanical, Automotive and Aerospace Engineering (ICMAAE' 11)
- 2011 [Study on the development of a fuzzy logic control electromagnetic actuated CVT system.](#) In: International Conference on Mechanical, Automotive and Aerospace Engineering (ICMAAE' 11)

- 2011 [Possible solution to smoothen the torque curve of the CAMPRO engine.](#) In: **International Conference on Mechanical, Automotive and Aerospace Engineering (ICMAAE' 11)**
- 2011 [Intelligent traction control system of an electric golf car: nonlinear dynamics investigation.](#) In: **TSME International Conference on Mechanical Engineering 2011**
- 2011 [Mobility investigation of an intelligent air-cushion tracked vehicle on swamp peat terrain in Malaysia.](#) In: **SAE 2011 World Congress & Exhibition**
- 2010 [Modelling of an Electromagnetic intake & exhaust control hybrid engine.](#) In: **IJUM Research, Innovation & Invention Exhibition (IRIIE 2010)**
- 2010 [Development of an intelligent air-cushion system for a swamp tracked vehicle.](#) In: **33rd FISITA World Automotive Congress 2010**
- 2010 [Finite element method for the study of air-cushion tracked vehicle-terrain interaction.](#) In: **International Conference on Mechanical, Industrial and Energy Engineering (ICMIEE 2010)**
- 2010 [Tractive efficiency analysis for an intelligent air-cushion tracked vehicle.](#) In: **ASME 2010 International Mechanical Engineering Congress & Exposition IMECE2010**
- 2010 [Development of a fuel efficient hybrid engine towards green technology.](#) In: **International Conference on Sustainable Mobility 2010**
- 2010 [Design and development of UrbanConcept car.](#) In: **IJUM Research, Innovation & Invention Exhibition (IRIIE 2010)**
- 2009 [Investigation of the swirl effect on CAMPRO 1.6L engine using GT-SUITE.](#) In: **National Tribology Conference 2009**
- 2009 [Electromagnetic actuated CVT system for vehicle.](#) In: **IEEE International Conference on Industrial Engineering and Engineering Management, 2009 (IEEM 2009)**
- 2009 [Fuzzy logic approach for prediction the lift coefficient on an aircraft model with and without winglet.](#) In: **International Conference on Mechanical Engineering 2009 (ICME2009)**
- 2009 [Intelligent air-cushion system of swamp peat vehicle control: fuzzy logic technique.](#) In: **International Conference on Mechanical Engineering 2009 (ICME2009)**
- 2009 [Electro-mechanically controlled continuously variable transmission system for passenger cars.](#) In: **International Conference on Mechanical Engineering 2009 (ICME2009)**
- 2008 [Probable solution of torque dip problem of CAMPRO 1.6L engine.](#) In: **4th BSME-ASME International Conference on Thermal Engineering**
- 2008 [Hybrid electrical air-cushion tracked vehicle for swamp peat in Malaysia.](#) In: **Automotive Engineering Congress, 2008**
- 2008 [Design and development of an automatic car door opening and locking system.](#) In: **3rd International Conference on Mechatronics, ICOM'08**

- 2008 [Modeling of the developed flexible skirt air-cushion track vehicle model.](#) In: **4th BSME-ASME International Conference on Thermal Engineering**
- 2008 [Integrated mechanics for design of the hybrid electrical air-cushion track vehicle for swamp peat.](#) In: **4th BSME-ASME International Conference on Thermal Engineering**
- 2008 [Investigation of low end torque dip problem of CAMPRO 1.6L engine.](#) In: **13th International Conference on Applied Mechanics and Mechanical Engineering**
- 2007 [A ¼ scale hybrid full-tracked air-cushion vehicle for swamp peat terrain in Malaysia.](#) In: **International Conference on Mechanical Engineering 2007 (ICME 2007)**
- 2007 [Experimental investigation and simulation of muffler performance.](#) In: **International Conference on Mechanical Engineering 2007 (ICME 2007)**
- 2007 [Mobility of the LGP-30 wheeled vehicle on peat terrain in Malaysia.](#) In: **International Conference on Mechanical Engineering 2007 (ICME 2007)**

#### Book

- 2020 [Green transportation system.](#) IUM Press, International Islamic University Malaysia . ISBN 978-967-491-021-1
- 2012 [The peat swamp:Productivity, traficability and mechanization.](#) Nova Science Publishers Inc. . ISBN 978-1-61942-670-2
- 2011 [Advanced theory of peat vehicle mobility.](#) VDM Verleg . ISBN 9783639304329

#### Book Section

- 2020 [Development of electro-hydro autonomous parking braking system for electric vehicle.](#) In: **Recent Developments in Engineering Research** Book Publisher International . ISBN 978-81-949988-1-5 , pp.61-75
- 2020 [Fuzzy adaptive autonomous electromagnetic 2-speed gearbox for electric vehicle.](#) In: **Recent Developments in Engineering Research** Book Publisher International . ISBN 9788194998815 , pp.41-60
- 2014 [Sensor-controlled intelligent vehicle systems: demand and needs for a global automotive landscape.](#) In: **Comprehensive material processing** Elsevier, Ltd . ISBN 9780080965321 , pp.473-497
- 2011 [Design and development of an automatic car door opening and locking system.](#) In: **Mechatronics book series: Selected papers from ICOM'01, ICOM'05 and ICOM'08** IUM Press . ISBN 9789670225685 , pp.48-52
- 2011 [Development of unmanned vehicle utilizing GPS system.](#) In: **Mechatronics book series: Selected papers from ICOM'01, ICOM'05 and ICOM'08** IUM Press . ISBN 9789670225685 , pp.53-58
- 2011 [Performance investigation of energy efficient hybrid engine towards green technology.](#) In: **Engine and Auxiliary Systems** IUM Press . ISBN 978-967-418-216-8 , pp.131-137