

AMIR AKRAMIN BIN SHAFIE



- KULLIYAH OF ENGINEERING
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ACADEMIC QUALIFICATION

- Ph.D in Mechatronic Engineering
- Master in Mechatronics
- Bachelor in Mechanical Engineering
- Diploma in Electro-Mechanical

TEACHING RESPONSIBILITIES

ADVANCE INSTRUMENTATION AND MEASUREMENT	2018/2019
ADVANCED TOPICS IN ROBOTICS	2014/2015 2015/2016
AUTONOMOUS AGENT SYSTEMS	2018/2019
AUTONOMOUS ROBOTIC SYSTEMS	2014/2015
COMPUTATIONAL METHODS AND STATISTICS	2006/2007 2008/2009
DIFFERENTIAL EQUATIONS AND LINEAR ALGEBRA	2005/2006
EMBEDDED SYSTEM DESIGN	2012/2013 2013/2014
INDUSTRIAL AUTOMATION	2012/2013 2013/2014 2016/2017 2017/2018 2018/2019
INDUSTRIAL ROBOTICS	2018/2019 2019/2020
INTELLIGENT MACHINES	2019/2020
INTELLIGENT SYSTEMS	2006/2007
Industrial Robotics	2020/2021
MACHINE VISION	2008/2009 2009/2010 2010/2011 2011/2012 2012/2013 2013/2014 2016/2017 2017/2018
MACHINE VISIONS	2005/2006 2006/2007 2007/2008 2008/2009
MECHATRONIC SYSTEM DESIGN	2008/2009 2013/2014
MECHATRONICS ENGINEERING LAB II	2017/2018 2018/2019
MECHATRONICS SYSTEMS DESIGN	2007/2008 2008/2009

MICROCONTROLLER BASED DESIGN	2008/2009 2009/2010 2010/2011 2011/2012
MICROCONTROLLERS BASED DESIGN	2005/2006 2006/2007 2007/2008 2008/2009 2009/2010
MICROPROCESSOR BASED SYSTEMS	2012/2013
MICROPROCESSOR IN MECHANICAL SYSTEMS	2015/2016
Machine Vision	2020/2021
NUMERICAL METHODS FOR ENGINEERS	2008/2009
POWER ELECTRONICS SYSTEMS AND DESIGN	2017/2018
PROBABILITY & STATISTICS	2005/2006
PROJECT 1	2018/2019 2019/2020
Project II	2019/2020 2020/2021
REAL TIME SYSTEMS	2006/2007 2017/2018
ROBOTICS	2005/2006 2012/2013 2014/2015 2015/2016

RESEARCH PROJECTS

In Progress

2019 - Present	Deep Dynamic Grommet Networks for Spatial Object Recognition
2019 - Present	Deep Dynamic Grommet Networks for Spatial Object Recognition
2019 - Present	Hybrid soft computing-game theoretic evacuation simulation model with early warning capabilities of crowd disasters
2018 - Present	GIAD Smart Factory Systems
2018 - Present	GIAD Smart Factory Awareness
2018 - Present	P11C2-17 (SMART DRIVER ASSISTANCE SYSTEM)
2017 - Present	Language and Ancient Civilization from Muslim's Perspective; A Documentary
2017 - Present	Low-Power Wireless Prototype for Acoustic-Based Glass-Break Detection

2016 - Present Investigation and Characterization of Ultrasonic Reflection Utilising Spectrum Unfolding for High Value Pure Liquid Materials

2015 - Present Developing a real time localization system for autonomous robots in flexible manufacturing systems for indoor production environment

2015 - Present Development of Multi Agent Marine Robots using MOOS-IvP Autonomy Software

2014 - Present AUTONOMOUS SYSTEMS AND ROBOTICS RESEARCH UNIT

2011 - Present IIUM STRATEGIC TECHNOLOGIES AND ENGINEERING UNIT (ISTEU)

Completed

2017 - 2019 Low-Power Wireless Prototype for Acoustic-Based Glass-Break Detection

2016 - 2020 Investigation and Characterization of Ultrasonic Reflection Utilising Spectrum Unfolding for High Value Pure Liquid Materials

2015 - -1 Developing a real time localization system for autonomous robots in flexible manufacturing systems for indoor production environment

2015 - 2017 Accelerated Learning Program for Robotic Competition

2015 - 2019 Developing a real time localization system for autonomous robots in flexible manufacturing systems for indoor production environment

2015 - 2018 Designing Zoning of Remote Sensing Drones/UAV in Cities and Neighborhood Area in Greater Kuala Lumpur

2015 - 2017 Development of Multi Agent Marine Robots using MOOS-IvP Autonomy Software

2015 - 2017 Upgrading Biomethaneas Low Carbon Fuel for Motorbike

2014 - 2016 Real Time Anomaly Detection for Street Crime Surveillance

2014 - 2016 Implementation of Halal Certification System for small and Medium Size Food Enterprise under Lembaga Pertubuhan Peladang

2013 - 2015 Real-time Robust Intelligent Video Surveillance System

2013 - 2016 Effect of Snake-Scale Parameters on Motion Dynamics of Snake Robot

2012 - 2015 Design and Development of Radiation Mapping Robot

2012 - 2014 Intelligent Parametric Modelling of Diabetic Retinopathy

2012 - 2014 Mapping of Human Arm Impedance Characteristics in Spatial Movements to Control Power Assist Aid for Disable People

2012 - 2015 Smart Material Actuated Autonomous Snake Robot for Executing Flexible Motion

2012 - 2015 A Novel Theoretical Model of Smart Medical Navigation System for Computer-Assisted Surgery

- 2012 - 2016** Explanations Of The "Orange Peel" Phenomenon In The Laser Sintering Process (LS)
- 2011 - 2012** Mechatronics Book Series - Selected ICOM Paper (Volume 1 And 2)- KVC Project 2011
- 2011 - 2015** Experimental Investigation on Lower Limbs Motion Dynamics for Designing Jerk Free Rehabilitation Assistive Robot
- 2011 - 2015** Development of a Mapping Robot
- 2010 - 2012** Development of Systematic Recycling PA12 in laser Sintering Process towards Green Manufacturing
- 2010 - 2014** Theoretical and Experimental Investigation on New kind of snake motion algorithm
- 2010 - 2011** The Development of Cognitive Humanoid Head
- 2009 - 2012** Development of omni directional mobile Robot Navigation System using RFID
- 2009 - 2010** Automatic Diagnosis of Diabetic Retinopathy using Fundus Images
- 2009 - 2012** A New Hybrid Pseudo Intelligent Magnetic Resonance Imaging Reconstruction (MRI)Technique
- 2008 - 2012** Real-Time Sign Analysis, Recognition and Synthesis Based on Image Processing and Multimedia
- 2007 - 2012** Decision-theoretic Planning for Human-Robot Interaction via Partially Observable Markov Decision Process (POMDP)
- 2007 - 2011** Feature Based Navigation and Sector Based Localisation for Autonomous Mobile Robot
- 2006 - 2011** MEMS Actuated Mesoscale (Order of Centimeter) Active Compliant Mechanism for Executing Motion in 3D Space
- 2006 - 2009** Development And Prototyping Of Intelligent Gantry Crane
- 2006 - 2009** Fuzzy-Based NCTF Controller For High Precision PTP Positioning Systems
- 2006 - 2011** Real Time Path Planning for Legged Robot Navigation via Stochastic Modelling

PUBLICATIONS

Article

- 2020** [Modeling and control simulation of a robotic chair-arm: protection against COVID-19 in rehabilitation exercise.](#) MIST International Journal of Science and Technology , 8 (3) pp.31-40

- 2019** [Real time end-to-end glass break detection system using LSTM deep recurrent neural network.](#) International Journal of Advanced and Applied Sciences , 6 (3) pp.56-61
- 2018** [Optimization of CO2 production rate for fire-fighting robot applications using response surface methodology.](#) Cogent Engineering , 5 (1) pp.1-17
- 2018** [Optimization of CO2 production rate for firefighting robot applications using response surface methodology.](#) Cogent Engineering , 5 (1) pp.1-17
- 2018** [Motion investigation of a snake robot with different scale geometry and coefficient of friction.](#) Robotics , 7 (2) pp.1-11
- 2018** [Features-based moving objects tracking for smart video surveillances: A review.](#) International Journal on Artificial Intelligence Tools , 27 (2)
- 2017** [Quasi-inverse pendulum model of 12 DoF bipedal walking.](#) International Journal of Automation and Computing , 14 (2) pp.179-190
- 2017** [Efficient human motion detection with adaptive background for vision-based security system.](#) International Journal on Advanced Science, Engineering and Information Technology , 7 (3) pp.1026-1031
- 2016** [Representation of human gait trajectory through temporospatial image modelling..](#) ARPN Journal of Engineering and Applied Sciences Open Access , 11 (6) pp.4105-4110
- 2016** [Moving object detection and classification using neuro-fuzzy approach.](#) International Journal of Multimedia and Ubiquitous Engineering , 11 (4) pp.253-266
- 2016** [Robust face recognition against expressions and partial occlusions.](#) International Journal of Automation and Computing , 13 (4) pp.319-337
- 2016** [Adaptive background modeling for dynamics background.](#) Advances in Systems Science and Applications , 16 (2) pp.54-69
- 2016** [Real-time moving objects tracking for distributed smart video surveillances.](#) International Review on Computers and Software , 11 (4) pp.324-335
- 2016** [Multi-objective constrained algorithm \(MCA\) and non-dominated sorting genetic algorithm \(NSGA-ii\) for solving multi-objective crop planning problem.](#) ARPN Journal of Engineering and Applied Sciences , 11 (6) pp.4079-4086
- 2016** [A review on lower appendicular musculoskeletal system of human body.](#) International Islamic University Malaysia Engineering Journal , 17 (1) pp.83-102
- 2016** [Automated threshold detection for object segmentation in colour image.](#) ARPN Journal of Engineering and Applied Sciences , 11 (6) pp.4100-4104
- 2016** [Performance improvement through scalable design of mutli-link 2-DOF automated pedestrian crowd control barriers.](#) ARPN Journal of Engineering and Applied Sciences , 11 (1) pp.303-308
- 2016** [Recognizing faces with normalized local Gabor features and Spiking Neuron Patterns.](#) Pattern Recognition , 53 pp.102 - 115

- 2016** [Gait analysis: systems, technologies, and importance.](#) Journal of Mechanics in Medicine and Biology , 16 (7) pp.1-45
- 2015** [Electro-hydraulic PID force control for nonlinear vehicle suspension system .](#) International Journal of Engineering Research & Technology (IJERT) , 4 (1) pp.517-524
- 2015** [Hierarchical gaussian reinforcement learning for path planning in uncertain environments.](#) International Journal of Applied Engineering Research , 10 (8) pp.20029-20040
- 2015** [Reinforcement learning based techniques in uncertain environments: problems and solutions.](#) International Journal of Applied Engineering Research , 10 (8) pp.20055-20066
- 2015** [Coincidence detection using spiking neurons with application to face recognition.](#) Journal of Applied Mathematics (534198) pp.1-20
- 2014** [Computer-aided tuberculosis detection in chest radiographs: a review.](#) Electrical & Computer Engineering: An International Journal (ECIJ) , 3 (4) pp.1-14
- 2014** [Smart objects identification system for robotic surveillance.](#) International Journal of Automation and Computing , 11 (1) pp.59-71
- 2014** [Small scale parallel manipulator kinematics for flexible snake robot application.](#) Communications in Control Science and Engineering (CCSE) , 2 pp.82-87
- 2013** [Development of a novel locomotion algorithm for snake robot .](#) IOP Conference Series: Materials Science and Engineering , 53 (1) pp.012012-1
- 2013** [Development of real time experimental system for investigating photochromic response to UV irradiation.](#) IOP Conference Series: Materials Science and Engineering , 53 (1) pp.1-8
- 2013** [Reconnaissance mission: Development of an algorithm for indoor localisation system with collaborative multirobot.](#) Lecture Notes in Engineering and Computer Science , 3 pp.2075-2080
- 2013** [Development of quadruped walking locomotion gait generator using a hybrid method.](#) IOP Conference Series: Materials Science and Engineering , 53 (1) pp.012082-1
- 2013** [Towards a sign language synthesizer: a bridge to communication gap of the hearing/speech impaired community.](#) IOP Conference Series: Materials Science and Engineering , 53 pp.012072 (1)-012072 (7)
- 2013** [Human identification at a distance using body shape information.](#) IOP Conference Series: Materials Science and Engineering , 53 (1) pp.012058 (1)-012058 (6)
- 2013** [Lower-limb rehabilitation robot design.](#) IOP Conference Series: Materials Science and Engineering , 53 (1) pp.012038 (1)-012038 (10)
- 2013** [Hidden Markov model for human to computer interaction: A study on human hand gesture recognition.](#) Artificial Intelligence Review , 40 (4) pp.495-516
- 2012** [Dynamic approach for real-time skin detection.](#) Journal of Real-Time Image Processing

- 2012** [Dynamic approach for real-time skin detection.](#) Journal of Real-Time Image Processing pp.1-15
- 2012** [Design and Implementation of Fuzzy Based Person Following Mobile Robot1.](#) Applied Mechanics and Materials
- 2012** [IIUM engineering education a model.](#) Advances in Natural and Applied Sciences , 6 (5) pp.641-645
- 2012** [Parallel manipulator for auto tracking system: virtual prototyping using LabVIEW-Solidworks.](#) Advanced Materials Research
- 2012** [Artificial neural network based autoregressive modeling technique with application in voice activity detection.](#) Engineering Applications of Artificial Intelligence , 25 (6) pp.1265-1276
- 2012** [Performance analysis of ANN based YCbCr skin detection algorithm.](#) Procedia Engineering , 41 pp.1183-1189
- 2012** [Face recognition from single sample per person by learning of generic discriminant vectors.](#) Procedia Engineering , 41 pp.465-472
- 2012** [An experiment on electric power steering \(EPS\) system of a CAR.](#) Applied Mechanics and Materials , 110/16 pp.4941-4950
- 2012** [Designing an algorithm for bioloid humanoid navigating in its indoor environment.](#) Journal of Mechanical Engineering and Automation , 2 (3) pp.36-44
- 2011** [Optimal tour constructions for multiple mobile robots.](#) Journal of Engineering Science and Technology , 6 (2) pp.227-239
- 2011** [A novel signal diagnosis technique using pseudo complex-valued autoregressive technique.](#) Expert Systems with Application , 38 (8) pp.9063-9069
- 2011** [Recent nanofabrication of silicon dioxide on silicon wafer using AFM operated at low temperature.](#) Applied Mechanics and Materials , 84-85 pp.317-320
- 2011** [Islamisation of engineering education in International Islamic University Malaysia \(IIUM\): problems and prospect.](#) Revelation and Science , 1 (3) pp.131-137
- 2011** [Smart video surveillance system for vehicle detection and traffic flow control.](#) Journal of Engineering Science and Technology , 6 (4) pp.469-480
- 2010** [Advance video analysis system and its applications.](#) European Journal of Scientific Research , 41 (1) pp.72-83
- 2010** [Vascular intersection detection in retina fundus images using a new hybrid approach.](#) Computers in Biology and Medicine , 40 (1) pp.81-89
- 2010** [Determination of complex-valued parametric model coefficients using artificial neural network technique.](#) Advances in Artificial Neural Systems
- 2010** [Retina fundus image mask generation using pseudo parametric modeling technique.](#) IIUM Engineering Journal , 11 (2) pp.163-177

- 2010 [Outcomes of cardiovascular risk factors screening programme among employees of a Malaysian public university.](#) Journal of Clinical and Diagnostic Research , 4 (2) pp.2208-2216
- 2010 [Kinematics model of snake robot considering snake scale.](#) American Journal of Applied Sciences , 7 (5) pp.669-674
- 2009 [Assessment of mould growth on building materials using spatial and frequency domain analysis techniques.](#) International Journal of Computer Science and Network Security (IJCSNS) , 9 (7) pp.154-167
- 2009 [Development of an efficient CVT using electromechanical system.](#) World Academy of Science, Engineering and Technology , 56 pp.555-558
- 2009 [Development of autonomous line-following soccer robots.](#) World Academy of Science, Engineering and Technology , 56 pp.562-564
- 2009 [Motion detection techniques using optical flow.](#) World Academy of Science, Engineering and Technology , 56 pp.559-561
- 2008 [Optimal model order selection for transient error autoregressive moving average \(TERA\) MRI reconstruction method.](#) International Journal of Computer, Electrical, Automation, Control and Information Engineering , 2 (6) pp.1834-1838
- 2008 [Comparing Autoregressive Moving Average \(ARMA\) coefficients determination using artificial neural network with other techniques.](#) International Journal of Computer, Electrical, Automation, Control and Information Engineering , 2 (6) pp.173-178
- 2008 [Real time implementation of NARMA-L2 control of a Single Link Manipulator.](#) American Journal of Applied Sciences , 5 (12) pp.1642-1649
- 2004 [Educational features of Malaysian robot contest.](#) Lecturer Notes in Computer Science: Robocup 2003: Robot Soccer World Cup VII , 3020/2 pp.470-477

Conference or Workshop Item

- 2020 [Pneumatic actuation of a firefighting robot: A theoretical foundation and an empirical study.](#) In: **7th International Conference on Mechatronics Engineering (ICOM) 2019**
- 2017 [Accelerated learning programme for robotic competition.](#) In: **3rd National Conference on Knowledge Transfer (NCKT'16)**
- 2017 [Time response for sensor sensed to actuator response for mobile robotic system.](#) In: **6th International Conference on Mechatronics (ICOM'17)**
- 2017 [Prediction of dry ice mass for firefighting robot actuation.](#) In: **6th International Conference on Mechatronics - ICOM'17**
- 2016 [SMARS-I: smart material actuated robotic snake \(Ver-1\).](#) In: **International Conference on Advances in Functional Materials (AFM 2015)**
- 2016 [Chicken farm monitoring system.](#) In: **6th International Conference on Computer and Communication Engineering 2016 (ICCCE 2016)**
- 2016 [Electroactive polymer actuated tendon driven micro actuator for robotic application.](#) In: **The 6th IEEE International Nanoelectronics Conference**

- 2015 [Off-Road vehicle suspension performance improvement using linear quadratic regulator techniques.](#) In: **International Conference on Mechanical And Industrial Engineering (ICMAIE'2015)**
- 2015 [Electro-goniometric system: an instrumentation to capture knee movements for forward walking.](#) In: **2015 10th Asian Control Conference (ASCC 2015)**
- 2015 [Automated secure room system.](#) In: **2015 4th International Conference on Software Engineering and Computer Systems (ICSECS)**
- 2014 [Adaptive background reconstruction for street surveillance.](#) In: **International Conference on Computer and Communication Engineering (ICCCE 2014)**
- 2014 [Real-time tracking using edge and color feature.](#) In: **International Conference on Computer and Communication Engineering (ICCCE 2014)**
- 2014 [Multi-stereo camera system to enhance the position accuracy of image-guided surgery markers.](#) In: **5th International Conference on Computer & Communication Engineering 2014**
- 2014 [Face recognition using illumination-invariant local patches.](#) In: **2014 5th International Conference on Intelligent and Advanced Systems (ICIAS 2014)**
- 2013 [Experimental investigation of snake robot locomotion in planar space.](#) In: **2013 IEEE Symposium on Business, Engineering and Industrial Applications (ISBEIA 2013)**
- 2012 [Van Der Pol Central Pattern Generator \(VDP-CPG\) model for quadruped robot.](#) In: **1st International Conference on Intelligent Robotics, Automation and Manufacturing (IRAM) 2012**
- 2012 [Reconnaissance mission: development of an algorithm for indoor localisation system with collaborative multi-robot.](#) In: **The World Congress on Engineering 2012**
- 2012 [Human identification system based on moment invariant features.](#) In: **International Conference on Computer and Communication Engineering (ICCCE), 2012**
- 2012 [Encoding of facial images into illumination-invariant spike trains.](#) In: **International Conference on Computer and Communication Engineering (ICCCE 2012)**
- 2011 [Vision-based hand posture detection and recognition for sign language - A study.](#) In: **2011 4th International Conference on Mechatronics: Integrated Engineering for Industrial and Societal Development (ICOM 2011)**
- 2011 [Geometrical analysis on BIOLOID humanoid system standing on single leg.](#) In: **4th International Conference on Mechatronics (ICOM)**
- 2011 [A novel gait for toddler biped and its control using PIC 16F877A.](#) In: **4th International Conference on Mechatronics (ICOM'11)**
- 2011 [Recognizing human emotional states by facial expression analysis for humanoid head AMIR-III.](#) In: **4th International Conference on Mechatronics (ICOM'11)**

- 2011 [An attempt to develop a Biped Intelligent Machine BIM-UIA.](#) In: **4th International Conference on Mechatronics (ICOM'11)**
- 2011 [Speech compression using compressive sensing on a multicore system.](#) In: **4th International Conference on Mechatronics (ICOM 2011)**
- 2011 [Component selection strategy for an anthropomorphic robot.](#) In: **2011 National Postgraduate Conference (NPC)**
- 2011 [Automatic fruits identification system using hybrid technique.](#) In: **2011 Sixth IEEE International Symposium on Electronic Design, Test and Application**
- 2011 [Modeling of human upper body for sign language recognition.](#) In: **Proceedings of the 5th International Conference on Automation, Robotics and Applications**
- 2011 [Joint demeanors of an anthropomorphic robot in designing the novel walking gait.](#) In: **URAI 2011 - 2011 8th International Conference on Ubiquitous Robots and Ambient Intelligence**
- 2011 [Design and implementation of fuzzy based person following mobile robot.](#) In: **International Conference on Mechatronics and Materials Engineering (ICMME 2011)**
- 2011 [Vision-based hand posture detection and recognition for sign language- a study.](#) In: **4th International Conference on Mechatronics (ICOM)**
- 2011 [Support vector machine for face emotion detection on real time basis.](#) In: **2011 4th International Conference on Mechatronics: Integrated Engineering for Industrial and Societal Development (ICOM 2011)**
- 2010 [Foreground segmentation-based human detection with shadow removal.](#) In: **International Conference on Computer and Communication Engineering (ICCE 2010)**
- 2010 [Socially interactive humanoid head.](#) In: **IIUM Research, Innovation & Invention Exhibition (IRIIE 2010)**
- 2010 [Evolution of humanoid robot and contribution of various countries in advancing the research and development of the platform.](#) In: **International Conference on Control, Automation and Systems (ICCAS)**
- 2010 [Blood glucose level prediction using intelligent based modeling techniques.](#) In: **TENCON 2010**
- 2010 [Application of modeling techniques to diabetes diagnosis.](#) In: **2010 IEEE EMBS Conference on Biomedical Engineering & Sciences (IECBES 2010)**
- 2010 [Modeling and control of a rotary inverted pendulum using various methods, comparative assessment and result analysis.](#) In: **2010 International Conference on Mechatronics and Automation (ICMA 2010)**
- 2010 [Vision based hand detecting and tracking for automatic sign language translator.](#) In: **IIUM Research, Innovation & Invention Exhibition (IRIIE 2010)**
- 2010 [Human detection and tracking for video surveillance system.](#) In: **IIUM Research, Innovation & Invention Exhibition (IRIIE 2010)**

- 2010 [A hybrid method using haar-like and skin-color algorithm for hand posture detection, recognition and tracking.](#) In: **International Conference on Mechatronics and Automation**
- 2010 [An experiment on electromechanical power steering \(EPS\) system of a CAR.](#) In: **2010 International Conference on Mechanical and Aerospace Engineering (ICMAE)**
- 2010 [Visual tracking and servoing of human face for robotic head Amir-II.](#) In: **International Conference on Computer and Communication Engineering (ICCCE 2010)**
- 2010 [Graphical user interface for Humanoid Head Amir-II.](#) In: **International Conference on Computer and Communication Engineering (ICCCE 2010)**
- 2010 [Development of a flexible video analysis system for motion detection and alarm generation.](#) In: **International Conference on Computer and Communication Engineering (ICCCE 2010)**
- 2009 [Fuzzy-based NCTF control of PTP positioning system.](#) In: **4th IEEE Conference on Industrial Electronics and Applications, 2009. ICIEA 2009.**
- 2009 [Determination of autoregressive coefficients using Complex-Valued Neural Network.](#) In: **The 6th International Workshop on Biosignal Interpretation (BSI)**
- 2009 [A new tool for assessment of mould growth on building materials.](#) In: **3rd International Conference on Modeling, Simulation, and Applied Optimization (ICMSAO 2009)**
- 2009 [Building crack characterization using an hybrid approach.](#) In: **Third International conference on Modeling, Simulation and Applied Optimization ICMSAO**
- 2008 [Increasing the speed of convergence of an artificial neural network based ARMA coefficients determination technique.](#) In: **International Conference on Computer System Engineering (ICCSE)**
- 2008 [Optimal model order selection for Transient Error Autoregressive Moving Average \(TERA\) MRI reconstruction method.](#) In: **International Conference on Medical system Engineering (ICMSE)**
- 2008 [MRI reconstruction using discrete fourier transform: a tutorial.](#) In: **World Academy of Science, Engineering and Technology 42 2008**
- 2008 [Development of a new method of crack modeling and prediction algorithm.](#) In: **Proceedings of the 3 rd International Conference on Mechatronics (ICOM'08)**
- 2006 [Development of intelligent air-conditioning system.](#) In: **International Conference on Energy and Environment 2006 (ICEE 2006)**
- Book**
- 2014 [Advancements in computer and communications engineering .](#) IIUM Press . ISBN 9789674182830
- 2011 [Mechatronics book series system design and signal processing \(V1\).](#) IIUM Press . ISBN 9789674181734

- 2011 [Mechatronics book series – selected papers from ICOM'01, ICOM'05 and ICOM'08.](#) IIUM Press . ISBN 9789670225685
- 2011 [High speed cutting: an approach towards improved machining performance .](#) IIUM Press . ISBN 978-967-418-023-2

Book Section

- 2014 [The influence of EDFA's configurations on the behavioral trends of gain and noise figure.](#) In: **Advancements in computer and communications engineering** IIUM Press . ISBN 9789674182830 , pp.160-167
- 2014 [The influence of EDFA's configurations on the behavioral trends of gain and noise figure.](#) In: **Advancements in computer and communications engineering** IIUM Press . ISBN 9789674182830 , pp.160-167
- 2014 [Isolated word speech recognition of the malay digits.](#) In: **Advancements in computer and communications engineering** IIUM Press . ISBN 9789674182830 , pp.181-193
- 2014 [Classification of phonocardiogram signals using discrete wavelet analysis.](#) In: **Advancements in computer and communications engineering** IIUM Press . ISBN 9789674182830 , pp.204-214
- 2013 [Human upper body pose region estimation.](#) In: **Recent advances in robotics and automation, studies in computational intelligence** Springer . ISBN 9783642373862 / 9783642373879 , pp.335-344
- 2011 [Intelligent automatic fruit identification system.](#) In: **Mechatronic Book Series: Control and Intelligent Systems** IIUM Press . ISBN 9789674181765 , pp.219-228
- 2011 [Human tracking algorithm for video surveillance.](#) In: **Human Behaviour Recognition, Identification and Computer Interaction** IIUM Press . ISBN 978-967-418-156-7 , pp.178-190
- 2011 [Development of a new method of crack modelling and prediction algorithm .](#) In: **Mechatronics book series: Selected papers from ICOM'01, ICOM'05 and ICOM'08** IIUM Press . ISBN 9789670225685 , pp.520-527
- 2011 [Anthropomorphic biped robot.](#) In: **Mechatronics Book Series: Robotics and Automation** IIUM Press . ISBN 9789674181529 , pp.267-274
- 2011 [Contributions of Ibn-Sina in pharmaceutical sciences.](#) In: **Contributions of Muslim Scientists to Medicine and Related Sciences** IIUM Press . ISBN 978-967-418-155-0 , pp.88-93
- 2011 [The contribution of Ibn al-Baitar in medicine.](#) In: **Contributions of Muslim Scientists to Medicine and Related Sciences** IIUM Press . ISBN 978-967-418-155-0 , pp.94-98
- 2011 [A success journey of Mehmet Oz in cardiothoracic surgery.](#) In: **Contributions of Muslim Scientists to Medicine and Related Sciences** IIUM Press . ISBN 978-967-418-155-0 , pp.109-114
- 2011 [Al-Zahrawi contribution to medical instruments.](#) In: **Contributions of Muslim Scientists to Medicine and Related Sciences** IIUM Press . ISBN 978-967-418-155-0 , pp.131-136

- 2011 [Jabir Ibn Hayyan's work on sulphur-mercury theory.](#) In: **Contributions of Early Muslim Scientists to Engineering Sciences and related studies** IIUM Press . ISBN 978-967-418-157-4 , pp.30-35
- 2011 [Speech coding using compressive sensing on a multicore system.](#) In: **Mechatronics Book Series: System design and signal processing - Volume 2** IIUM Press . ISBN 9789674181321 , pp.194-201
- 2011 [A case for cooperative vision system.](#) In: **Mechatronics Book Series: System Design and Signal Processing - Volume 2** IIUM Press . ISBN 9789674181321 , pp.202-207
- 2011 [Path following autonomous vehicle based on vision system.](#) In: **Mechatronics book series: System design and signal processing** IIUM Press . ISBN 9789674181321 , pp.208-214
- 2011 [Trajectory planning using GPS for Unmanned Aerial Vehicle with microcontroller based system.](#) In: **Mechatronics book series: System design and signal processing (volume 2)** IIUM Press . ISBN 9789674181321 , pp.215-223
- 2011 [The contribution of Ibn Sahl in refraction of light.](#) In: **Contributions of Early Muslim Scientists to Engineering Sciences and related studies** IIUM Press . ISBN 978-967-418-157-4 , pp.95-102
- 2011 [Fazlur Rahman Khan's understanding of tube structural system of skyscrapes.](#) In: **Contributions of Early Muslim Scientists to Engineering Sciences and related studies** IIUM Press . ISBN 978-967-418-157-4 , pp.115-120
- 2011 [Fazlur Rahman Khan's understanding of tube structural system of skyscrapes.](#) In: **Contributions of Early Muslim Scientists to Engineering Sciences and related studies** IIUM Press . ISBN 978-967-418-157-4 , pp.115-120
- 2011 [Al-Jazari on automata.](#) In: **Contributions of Early Muslim Scientists to Engineering Sciences and Related Studies** IIUM Press . ISBN 978-967-418-157-4 , pp.165-170
- 2011 [Development of data acquisition system for Autonomous Unmanned Aerial Vehicle \(UAV\).](#) In: **Mechatronics engineering projects: theory and applications** IIUM Press . ISBN 9789674181925 , pp.18-40
- 2011 [Humanoid robot head.](#) In: **Mechatronics book series: Selected papers from ICOM'01, ICOM'05 and ICOM'08** IIUM Press . ISBN 9789670225685 , pp.331-337
- 2011 [Visual tracking for human face .](#) In: **Mechatronics Book Series: Robotics and Automation** IIUM Press . ISBN 9789674181529 , pp.1-6
- 2011 [Robot design: a case study of team learning experience and outcome.](#) In: **Mechatronics Book Series: Robotics and Automation** IIUM Press . ISBN 9789674181529 , pp.7-13
- 2011 [Development of neck support for humanoid robot head .](#) In: **Mechatronics Book Series: Robotics and Automation** IIUM Press . ISBN 9789674181529 , pp.14-20
- 2011 [Development of cooperative mini robots .](#) In: **Mechatronics Book Series: Robotics and Automation** IIUM Press . ISBN 9789674181529 , pp.21-25

- 2011 [Humanoid robot arm .](#) In: **Mechatronics Book Series: Robotics and Automation** IIUM Press . ISBN 9789674181529 , pp.26-31
- 2011 [Designing human robot interaction for emotionally expressive robotic head AMIR-iii .](#) In: **Mechatronics Book Series: Robotics and Automation** IIUM Press . ISBN 9789674181529 , pp.32-37
- 2011 [Intelligent air-conditioning system.](#) In: **Mechatronic book series: Control and intelligent systems** IIUM Press . ISBN 9789674181765 , pp.173-178
- 2009 [Designing a rubric to assess student engineering projects.](#) In: **Ethics of engineering education** IIUM Press . ISBN 9789833855674 , pp.301-308
- 2009 [Designing a rubric to assess student engineering projects.](#) In: **Ethics of engineering education** IIUM Press . ISBN 9789833855674 , pp.301-308