

DR ASNOR JURAIZA ISHAK

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ACADEMIC QUALIFICATIONS

2011	PhD (Electrical, Electronic & System Engineering) Universiti Kebangsaan Malaysia, MALAYSIA
2003	MSc (Control & Automation Engineering) Universiti Putra Malaysia, MALAYSIA
2000	BEng (Electronic-Mechatronic Engineering) Universiti Teknologi Malaysia, MALAYSIA

RESEARCH INTEREST

Intelligent Control System, Pattern Recognition, Image & Signal Processing, Machine Vision, Control System, Biomedical Engineering, System Modelling, Rehabilitation and Assistive Robotics.

ACADEMIC AND OTHER RELEVANT APPOINTMENTS

Position	Duration
 Senior Lecturer, Department of Electrical and Electronic Engineering, Faculty of Engineering, UPM 	June 2011 to present
 Postdoctoral Research Fellow, Department of Automation Control & System Engineering, University of Sheffield, United Kingdom 	Jan 2014 to Jan 2015
 Tutor, Department of Electrical and Electronic Engineering, Faculty of Engineering, UPM 	3 Apr 2000 to June 2011
 Lecturer, Faculty of Technology & Science, UPM Bintulu, Sarawak 	Jun 2004 to Jun 2005
 Researcher, Department of Electric, Electronic & System Engineering, UKM 	Dec 1999 to Apr 2000
 Trainee Engineer, Department of Quality Assurance Incoming, Motorola San Bhd 	May 1998 to Oct 1998

PROFESSIONAL QUALIFICATION/ MEMBERSHIP/ AFFILIATION

- 1. Executive Committee Member, IEEE Circuit and System Society (CAS)
- 2. Senior Member, Institute of Electrical and Electronics Engineers (IEEE)
- 3. Member, IEEE Control Systems Society(CS)
- 4. Member, IEEE Engineering, Medicine and Biology Society(EMBS)
- 5. Member, Asian Control Association (ACA)
- 6. Member, Board of Engineers Malaysia (BEM)

7. Member, International Association of Engineers (IAENG)

8. Member, Academic Staff Organization, UPM (PPAUPM)

9. Member, Institute of Engineering and Technology (IET), UK

10.Advisor, Robotic Club UPM, 2010-2013

ADMINISTRATIVE DUTIES AND OTHER RESPONSIBILITIES

Position

1. Associate Researcher, Malaysian Research Institute on	2017-2020
Ageing (MYAGEING), Universiti Putra Malaysia. 2. Coordinator, Laboratory of Control & Automation	1 Jan 2017
Department of Electrical and Electronics Engineering, UPM	
 Academic Coordinator II, Department of Electrical and Electronics Engineering, UPM 	April 2015- Mac 2017
4. Associate Researcher, Center of Power and Advanced	
Energy (CAPER) , Faculty of Engineering, UPM	
5. Researcher, Toyota Auto Body Malaysia	2016-2019
6. Invite Speaker, Seminar	
7. Interview Panel, JPA	2015
 Research Fellow, Department of Automatic Control and Systems Engineering, University of Sheffield, UK 	Jan 2014 - Jan 2015
9. Advisor, Robotic Club, Jkee, Engineering Faculty	2012 - Present
10. Lab Coordinator, Laboratory of Design & Simulation	2003–2005,2011-2013,
Department of Electrical and Electronic Engineering, Faculty of Engineering, UPM	2015
11. Lab Coordinator, Laboratory of Microprocessor Department	2012-2013
of Electrical and Electronics Engineering, UPM	
12. Coordinator, EE Student Activities - SMK	
13. Moderator FYP, Department of Electrical and Electronic	
Engineering	
14. Moderator Final Exam, Department of Electrical and	2011-2013, 2015-present
14. Moderator Final Exam, Department of Electrical and Electronic Engineering	
 Moderator Final Exam, Department of Electrical and Electronic Engineering Committee, Department of Electrical and Electronic 	2011-2013, 2015-present 2015-2017
14. Moderator Final Exam, Department of Electrical and Electronic Engineering	
 Moderator Final Exam, Department of Electrical and Electronic Engineering Committee, Department of Electrical and Electronic Engineering 	2015-2017
 Moderator Final Exam, Department of Electrical and Electronic Engineering Committee, Department of Electrical and Electronic Engineering Editor, Department of Electrical and Electronic Engineering Academic Coordinator, Department of Electrical and Electronic Engineering 	2015-2017 2015-2017 2015-2017
 Moderator Final Exam, Department of Electrical and Electronic Engineering Committee, Department of Electrical and Electronic Engineering Editor, Department of Electrical and Electronic Engineering Academic Coordinator, Department of Electrical and Electronic Engineering Expert Officer, Mesyuarat Kerjasama /CollabrationWD 	2015-2017 2015-2017 2015-2017 2013
 Moderator Final Exam, Department of Electrical and Electronic Engineering Committee, Department of Electrical and Electronic Engineering Editor, Department of Electrical and Electronic Engineering Academic Coordinator, Department of Electrical and Electronic Engineering Expert Officer, Mesyuarat Kerjasama /CollabrationWD Academician Represent UPM, Mesyuarat Kerjasama BMI- 	2015-2017 2015-2017 2015-2017
 Moderator Final Exam, Department of Electrical and Electronic Engineering Committee, Department of Electrical and Electronic Engineering Editor, Department of Electrical and Electronic Engineering Academic Coordinator, Department of Electrical and Electronic Engineering Expert Officer, Mesyuarat Kerjasama /CollabrationWD Academician Represent UPM, Mesyuarat Kerjasama BMI- Kushyu Inst. Tech (KIT) 	2015-2017 2015-2017 2015-2017 2013 2013
 Moderator Final Exam, Department of Electrical and Electronic Engineering Committee, Department of Electrical and Electronic Engineering Editor, Department of Electrical and Electronic Engineering Academic Coordinator, Department of Electrical and Electronic Engineering Expert Officer, Mesyuarat Kerjasama /CollabrationWD Academician Represent UPM, Mesyuarat Kerjasama BMI- 	2015-2017 2015-2017 2015-2017 2013
 Moderator Final Exam, Department of Electrical and Electronic Engineering Committee, Department of Electrical and Electronic Engineering Editor, Department of Electrical and Electronic Engineering Academic Coordinator, Department of Electrical and Electronic Engineering Expert Officer, Mesyuarat Kerjasama /CollabrationWD Academician Represent UPM, Mesyuarat Kerjasama BMI- Kushyu Inst. Tech (KIT) 	2015-2017 2015-2017 2015-2017 2013 2013
 Moderator Final Exam, Department of Electrical and Electronic Engineering Committee, Department of Electrical and Electronic Engineering Editor, Department of Electrical and Electronic Engineering Academic Coordinator, Department of Electrical and Electronic Engineering Expert Officer, Mesyuarat Kerjasama /CollabrationWD Academician Represent UPM, Mesyuarat Kerjasama BMI- Kushyu Inst. Tech (KIT) Executive Academic, Pearakan Pegawai Akademik, Majlis 	2015-2017 2015-2017 2015-2017 2013 2013
 Moderator Final Exam, Department of Electrical and Electronic Engineering Committee, Department of Electrical and Electronic Engineering Editor, Department of Electrical and Electronic Engineering Academic Coordinator, Department of Electrical and Electronic Engineering Expert Officer, Mesyuarat Kerjasama /CollabrationWD Academician Represent UPM, Mesyuarat Kerjasama BMI- Kushyu Inst. Tech (KIT) Executive Academic, Pearakan Pegawai Akademik, Majlis Konvokesyen Ke 36 UPM 2012 	2015-2017 2015-2017 2015-2017 2013 2013 2012
 Moderator Final Exam, Department of Electrical and Electronic Engineering Committee, Department of Electrical and Electronic Engineering Editor, Department of Electrical and Electronic Engineering Academic Coordinator, Department of Electrical and Electronic Engineering Expert Officer, Mesyuarat Kerjasama /CollabrationWD Academician Represent UPM, Mesyuarat Kerjasama BMI- Kushyu Inst. Tech (KIT) Executive Academic, Pearakan Pegawai Akademik, Majlis Konvokesyen Ke 36 UPM 2012 Technical Advisor, Robocon, Universiti Putra Malaysia Secretary, Control System & Signal Processing Unit, 	2015-2017 2015-2017 2015-2017 2013 2013 2012 2012
 Moderator Final Exam, Department of Electrical and Electronic Engineering Committee, Department of Electrical and Electronic Engineering Editor, Department of Electrical and Electronic Engineering Academic Coordinator, Department of Electrical and Electronic Engineering Expert Officer, Mesyuarat Kerjasama /CollabrationWD Academician Represent UPM, Mesyuarat Kerjasama BMI- Kushyu Inst. Tech (KIT) Executive Academic, Pearakan Pegawai Akademik, Majlis Konvokesyen Ke 36 UPM 2012 Technical Advisor, Robocon, Universiti Putra Malaysia Secretary, Control System & Signal Processing Unit, Department of Electrical & Electronic Engineering, 	2015-2017 2015-2017 2015-2017 2013 2013 2012 2012
 Moderator Final Exam, Department of Electrical and Electronic Engineering Committee, Department of Electrical and Electronic Engineering Editor, Department of Electrical and Electronic Engineering Academic Coordinator, Department of Electrical and Electronic Engineering Expert Officer, Mesyuarat Kerjasama /CollabrationWD Academician Represent UPM, Mesyuarat Kerjasama BMI- Kushyu Inst. Tech (KIT) Executive Academic, Pearakan Pegawai Akademik, Majlis Konvokesyen Ke 36 UPM 2012 Technical Advisor, Robocon, Universiti Putra Malaysia Secretary, Control System & Signal Processing Unit, Department of Electrical & Electronic Engineering, Engineering Faculty, UPM 	2015-2017 2015-2017 2015-2017 2013 2013 2012 2012 2012 2011-2012
 Moderator Final Exam, Department of Electrical and Electronic Engineering Committee, Department of Electrical and Electronic Engineering Editor, Department of Electrical and Electronic Engineering Academic Coordinator, Department of Electrical and Electronic Engineering Expert Officer, Mesyuarat Kerjasama /CollabrationWD Academician Represent UPM, Mesyuarat Kerjasama BMI- Kushyu Inst. Tech (KIT) Executive Academic, Pearakan Pegawai Akademik, Majlis Konvokesyen Ke 36 UPM 2012 Technical Advisor, Robocon, Universiti Putra Malaysia Secretary, Control System & Signal Processing Unit, Department of Electrical & Electronic Engineering, Engineering Faculty, UPM Researcher, FRG: Sustainable Manufacturing Systems Design 	2015-2017 2015-2017 2015-2017 2013 2013 2012 2012
 Moderator Final Exam, Department of Electrical and Electronic Engineering Committee, Department of Electrical and Electronic Engineering Editor, Department of Electrical and Electronic Engineering Academic Coordinator, Department of Electrical and Electronic Engineering Expert Officer, Mesyuarat Kerjasama /CollabrationWD Academician Represent UPM, Mesyuarat Kerjasama BMI- Kushyu Inst. Tech (KIT) Executive Academic, Pearakan Pegawai Akademik, Majlis Konvokesyen Ke 36 UPM 2012 Technical Advisor, Robocon, Universiti Putra Malaysia Secretary, Control System & Signal Processing Unit, Department of Electrical & Electronic Engineering, Engineering Faculty, UPM 	2015-2017 2015-2017 2015-2017 2013 2013 2012 2012 2012 2011-2012

Duration

TEACHING AND SUPERVISION

a) Teaching Courses & Laboratory

Code	Course Name
EEE3501	Signal Processing
EEE3101	Electrical and Electronics Principle
EEE4403	Control System Design
EEE4404	Intelligent Control System
EEE3401	Control System
EEE3402	Industrial Control Electronics
EEE4405	Embedded Control System
ECC3001	Mathematics Engineering 1
EEE3100	Electrical and Electronics Technology
EEE3905	Control Engineering Laboratory I
EEE3908	Control Engineering Laboratory II
KEE3903	Electrical & Electronic Laboratory III
KEE3110	Instrumentations And Measurements
KBP1614	Security & Safety Technology

b) Student Supervision

PhD (Supervisor)

No.	Name	Status	
1.	Sarmast Shoushtari	Biomedical Engineering	Ongoing
	Maryam		

PhD (Co-Supervisor)

No.	Name	Title	Status
1.	Mohammad Reza	Motion Picture Restoration	Graduated
	Khammar		(08/10/2015)
2.	Iman Ahmed Zayer	New Energy Efficient Based Bipedal	Defer
		Autonomous Humanoid	
3.	Nur Fadzilah binti	Classify Distinctive Odors Pattern of Aromatic	Ongoing
	Mohamad Radzi	Plant Species using Hybrid Artificial Intelligence	
		Techniques	
4.	Qais Ahmed Habash		Ongoing
5.	Mohd Razali Bin	A New Approach To Lower Extremity	Ongoing
	Mohamad Sapiee	Exoskeleton Control Through The Hybrid	
		Control Application	
6.	Nur Zulaikhah Nadzri	Salient Object Detection and Segmentation	Ongoing

MSc (Main Supervisor)

No.	Name	Title	Status
1.	Nursaida binti	Slope Optimization for PID controller	Graduated
	Mohamad Zaber		(03/04/2017)
2.	Abdulmumini Salihu	Developing of Intelligent Algorithm Based on	Graduated
	Jalo	Optimization Technique for Grading Quality of	(12/05/2016)
		Deep Fried Palm Oil	

No.	Name	Title	Status
3.	Maged Saleh Saeed Al-Quraishi	EMG Based Control Of Knee Exoskeleton Robot	Graduated (12/11/2015)
4.	Mohammad Ali Jan Ghasab	An Optimal Feature Subset Selection for Plant Leaf Classification	Graduated (13/02/2014)
6.	Mohammed Yahya Mohammed Al-Osta	Ultrasound Image Detection	Ongoing
7.	Mohammad Isam	EEG Neurofeedback	Ongoing
8.	Nagajoothi	Modeling and Simulation of Lower limb Exoskeleton	Ongoing
9.	Mohamad Fariq	Pedictive modelling for malaria disease	Ongoing
10.	Noraida Ali	Autonomous Electrical Vehicle	Ongoing

MSc (Co-Supervisor)

No.	Name	Title	Status
1.	Jonathan Ooi Shi Khai	Human Emotion Recognition System for Automotive Drivers using Psychophysiological Signals	Graduated (08/05/2017)
2.	Haneen Jawad M. El- Hamad	Design of Diaelectric Elastomer for Prosthetic Arm System	Graduated (09/03/2017)
3.	Umi Kalsom bt Mohamad Yusof	Development of E-Nose Herbs Recognition System Based on Artificial Intelligence Technique	Graduated (09/06/2016)
4.	Hossein Ghapanchi Zadeh	Investigation on Surface Electrodes Placement and Pre-processing Techniques for Accurate Electromyographic Signals of the Upper Limb Muscles	Graduated (12/05/2016)
5.	Adel Amiri Bahmanshiri	Particle Swarm Optimization (PSO) Technique of Current Tracking Controller for Electric Power Assisted Steering (EPAS) System	Graduated (12/11/2015)
6.	Sanaz Yadegar	Optimize fuzzy membership function using GA	Graduated (10/09/2015)
7.	Ahmed M. M. Almassri	Intelligent Robotic Hand For Pick And Place Application With Unknown Weight Object	Graduated (12/03/2015)
8.	Balbir Shah @ Mohd Faddullah	An Intelligent Chemical Dilution Control Strategies Perfromance Based	Graduated (27/09/2013)
9.	Aiman bin Razak	Automotive in loop	Defer
10.	Karimeh Ibrahim Mohammad Ata	Traffic light control using hybrid intelligent control	On-going

BEng (Supervisor)

No.	Name	Title	Status
1.	Hazren Farhan Bin Rimdan	Development of Modular Control Unit for ROBOCON's Robots by using DS-PIC	Graduated 2011
2.	How Han Chong	Control of Water Treatment in Steam Generation for Power Plant	Graduated 2011
3.	Mohamad Asmi Bin Ashaari	ROBOCON -Manual	Graduated 2011

No.	Name	Title	Status
4.	Nurnazeera Binti Zulkefli	Automated Grading Pineapple	Graduated 2011
5.	Muhammad Haziq Bin Jusoh	Smart Grading Classification System	Graduated 2011
6.	Siti Atika Binti Misngan	Coverting ON-OFF to Continuous Control of Air Conditioning Compressor for Energy Efficiency	Graduated 2012
7.	Chow Kar Kit	E-Nose Detection System	Graduated 2012
8.	Muhamad Zulhilmie Bin Ibrahim	Study Of Hand Prehension Using Force Sensor And Accelerometer	Graduated 2012
9	Nur'aqilah Binti Maamor	Investigation Into The Number Of Optimal Features For Effective PCB Defect's Detection	Graduated 2012
10	Raja Madihah Binti Raja Jusoh	Design of A Wireless Surface EMG Acquisition System	Graduated 2016
11	Amir Rahimi Bin Muhammad Ali	Smart Parking System	Graduated 2016
12	Mohamad Nazerul Bin Ikram Yaakub	Project Industry	Graduated 2016
13	Farida Izni Binti Abd Rahman	Development of 3D printed Modular Artificial Hand	Graduated 2016
14	Zaidatul Akmal Binti Mohd Khairuddin	Autonomous Driving by Using Line and Obstacle Detection System	Graduated 2017
15	Nor Aifaa Hanin Binti Ismail	PH of Plants and Liquid Level Control Based on Fuzzy Logic Technique	Graduated 2017
16	Mohd Ikhwan Faiz B. Yahya	Home Automation System	Graduated 2017
17	Mohamad Ikhwan Bin Awang Abas	Post- Stroke Rehabilitation Evaluation of Upper Limb using Handwriting Features	Graduated 2017
18	Nur Athirah Binti Khairuddin	Smart Indoor Parking System	Graduated 2017

Mobility Student (Advisor)

ſ	No	Name	University	Duration
	1	Dinara Shoganbek	Kazakh National University After Al-Farabi, Kazakhstan.	23 July -5 August 2017

Honors and Awards:

- 1. Anugerah Kecemerlangan Perkhidmatan (Excellent Service Award), UPM, 2016
- 2. Anugerah Kecemerlangan Dalam Pengajaran, Program Inovasi & Apresiasi, UPM, 2016.
- 3. Silver Medal in Pameran Rekacipta, Penyelidikan & Inovasi Malaysia, PRPI16, UPM, 2016
- 4. Silver Medal in International Invention Show (INOVA), Croatia, 2013
- 5. Gold Medal in International Invention, Innovation & Technology Exhibition, ITEX13, 2013
- 6. Bronze Medal in 4rd International Engineering Invention & Innovation Exhibition (i-ENVEX), 2013
- 7. Consolation Prize in Innovate Malaysia, 2013

- 8. Excellent Service Award in Excellent Service Award, 2013
- 9. Best Design Award in Robotgamez Competition, 2013
- 10. Third place in Innovate Malaysia 2012 Design Competition, 2013
- 11. Silver Medal in Pameran Rekacipta, Penyelidikan & Inovasi Malaysia, PRPI12, 2012
- 12. The Best Project Award in Final Year Project Award, 2012
- 13. Anugerah Kecemerlangan Dalam Pengajaran in Excellent Teaching Award, 2012
- 14. Certificate of Excellent Service in Academic Awards, 2005

RESEARCH, CONSULTANCY AND PUBLICATION

a) Grant/Fellowship

No 1.	Duration 15/2/2018- 15/2/2020	Title Line Tracking System Using Magnetic Sensor For Autonomous Electric Vehicle	Funding GP-Impak	Amount(RM) 50,000	Designation Leader
2.	15/2/2018- 15/2/2020	Enhancement Brain Activity In High Body Mass Index Individuals by using Electroencephalogram Neurofeedback Training	GP-IPS	25,000	Leader
3.	2/11/2015- 31/10/2017	Formulation of Hybrid Algorithm to Identify Distinctive Electromyography Signals Pattern of Lower Limb Muscle Activities based on Various Type of Motion for Rehabilitation Therapy	FRGS/ 92346135669	84,000	Leader
4.	1/11/2013- 31/5/2015	Wearable Power Assisted Exoskeleton for Rehabilitation	GP-IPS	15,000	Leader
5.	1/1/2014- 31/12/2015	Modelling and Position Control for Tracking System of a Radio Telescope	GP-IPS	15,000	Leader
6.	1/7/2012- 1/7/2014	Intelligent Characterisation and Evaluation of Reused Cooking Oil using Pattern Recognition Techniques	RUGS	30,000	Leader
7.	1/1/2013- 31/12/2013	Biomedical: Lower Limb Exoskeleton Development Research Collaboration with Kyushu Institute of Technology (KYUTECH), Japan	KYUTECH, Japan	31271	Leader
8.	2/11/2015- 1/11/2017	Modeling and Design of High Output Force Dielectric Elastomer Actuator	FRGS/ 1/2015/TK05/ UPM/02/6	98000	Researcher
9.	2015-2016	Development of Force Feedback Electromyographic Control Prosthetic Hand	Look East Policy Grant	213,000	Researcher
10.	2013-2015	Formulation of Algorithm to Classify Distinctive Odors Pattern of Aromatic Plant Species using Hybrid Artificial Intelligence Techniques	FRGS (MOHE)	121,000	Researcher

11.	2013	The First Radio Quiet Zone(RQZ) Map for Radio Astronomy in Malaysia (Researcher)-Project Collaboration with UM	Science Fund (MOSTI)	300000	Researcher
12.	2012-2014	Development of E-Nose Herbs Recognition System Based on Artificial Intelligence Technique	RUGS	63,000	Researcher
13.	2012	A Leaf Recognition Algorithm for Plant Classification Using Artificial Neural Network	RUGS	15,000	Researcher
14.	2012	Intelligent Five-Fingered Robotic Har Design and Development for Prosthetic Application	Science Fund (MOHE)	174,000	Researcher
15.	2011	Exploration on Hybrid Artificial Intelligence of Model-Based Calibration Engine	ergs (Mohe)	63,000	Researcher
16.	2005	Automated Fertilizing and Weeding System (UKM	MOHE (IRPA) IRPA No. 01- 02-02-0019		Researcher

b) Consultancy

No	Name of Project/Program	Year
1.	Toyota Auto Body: Electric Vehicle	2016
2.	Chicken Slaughter and Neck Cleaning For Halal Industry, Hajar Hijrah Sdn Bhd under PPRN (RM37,500)	2015
3.	Program KIK, Technical Advisor, Kem Terendak Melaka	2015
4.	Embedded Electronics Board for DISEGANNI Storage Unit, Nagasteel Sdn Bhd (RM21,175)	2013

c) Publications

Journals

- 1. Sawal Hamid Md Ali, Chong Yu Zheng, **Asnor Juraiza Ishak**, Siti Anom Ahmad, Jonathan Shi Khai Ooi. Grove: an auxiliary device for sympathetic assessment via EDA measurement of neutral, stress, and anger emotions during simulated driving conditions. International Journal of Medical Engineering and Informatics 10(1):16. January 2018
- 2. N.F.M.Radzi, Azura.C. Soh, **Asnor J. Ishak**, Umi.K.M.Yusuf. Aromatic Herbs Classification by Using Discriminant Analysis Techniques. Indonesian Journal of Electrical Engineering and Computer Science (IJEECS), Vol 5(3), pp.530-535, March 2017.(Index by Scopus)
- 3. Haneen J. El-Hamad, Siti A. Ahmad, **Asnor J. Ishak**. Modelling of High Output Force Dielectric Elastomer Actuator. International Journal of Mechanical Engineering and Robotic Research, Vol 6(2), pp. 100-103, March 2017. (Index by Scopus)
- 4. N.Mohamad Zaber, **A.J Ishak**, A.Che Soh, Mohd K. Hasan, A.N.Ishak. Optimising PID Controller using Slope Variation Method for Positioning Radio Telescope. Pertanika Journal of Science and Technology, pp. 275-284, January 2017. ISSN : 0128-7680.(Index by Scopus)

- 5. **Asnor J. Ishak**, M.O.Tokhi, M.S.Al-Quraishi, D.M.Linares, S.K.Ali. Modelling and Control of Standing Up and Sitting Down Manoeuver. Pertanika Journal of Science and Technology, pp.243-250, January 2017. ISSN : 0128-7680. (Indexed by Scopus)
- Hossein Ghapanchizadeh, Siti A. Ahmad, Asnor Juraiza Ishak. Effect of Surface Electromyography Electrode Position during Wrist Extension and Flexion Based on Time and Frequency Domain Analyses. International Journal of Control Theory and Applications, Vol 9(5), pp : 559-566, 2016. (Indexed by Scopus)
- N.Mohamad Zaber, A.J.Ishak, Soh, A. Che Soh, M.K.Hassan. Performance Analysis of Radio Telescope Position Control Using PID and Fuzzy Logic Controller. Advanced Science Letters. Adv. Sci. Lett., vol. 22, Number 10, pp. 2686–2689(4), Oct. 2016. (Indexed by Scopus)
- 8. A.J. Ishak, R.Z.Abdul Rahman, A.C. Soh, R. Samsudin, S.A.Jalo, F. C. Lim, H.K.Lin. Quality Identification of Used Cooking Oil based on Data Fusion through Features Extraction Technique. International Journal of Control Theory and Applications. Vol 9(5), pp. 321-329, ISSN: 0974-5572. 2016. (Indexed by Scopus)
- Maged S. Saeed, Asnor J. Ishak, Siti A. Ahmad, Mohd K. Hasan. Classification of Ankle Joint Movements Based On Surface Electromyography Signals for Rehabilitation Robot Applications. Journal of Medical & Biology for Engineering and Computing, Elsevier. Vol. 54. Online ISSN 1741-0444. Aug. 2, 2016. (Indexed by ISI: IF: 1.797)
- N.Mohamad Zaber, A.J Ishak, A.Che Soh, M.K. Hassan. Performance Analysis of Radio Telescope Position Control Using PID and Fuzzy Logic Controller. Journal of Telecommunication, Electronic and Computer Engineering (JTEC), Advanced Science Letters. Vol 1, pp. 1-7. ISSN: 1936-6612. 2016. (Indexed by Scopus)
- S. Yadegar, A. CheSoh, S. A. Ahmad, A. J. Ishak. New Methodology of Online Sliding Surface Slope Tuning PID like Fuzzy Sliding Mode Controller for Robust Control of Robot Manipulators. International Journal of Control Theory and Applications. Vol. 9(5), pp: 567-591, January 2016. (Indexed by Scopus)
- 12. Salihu.A. Jalo, **Asnor.J. Ishak**, Azura.C. Soh, Ribhan. Z. Abdul Rahman, Rosnah. Shamsudin. Optimizing Effect of Recycled Frying on Properties of Cooking Palm oil Using Dual Response Surface Function and Particle Swarm Optimization. An International Journal of Expert Systems with Applications, Elsevier, 2015. (Indexed by ISI) (submitted)
- U.K. Mohamad Yusof, A. Che Soh, N. F. M. Radzi, A. J. Ishak, M. K. Hasan, S. A. Ahmad. Selection of Feature Analysis Electronic Nose Signals Based on Gas Sensor and Herbal Phytochemical. Australian Journal of Basic and Applied Science, Vol. 9(5), 360-367, March 2015. (Indexed by Scopus)
- Ahmed M.Almassri, W. Z. Wan Hasan, S.A. Ahmad, A.J Ishak, Chikamune Wada, D. N. Talib and A.M Ghazali. Pressure Sensor: State of Art, Design and Application for Robotic Hand. Journal of Sensors, Vol. 2015. http://dx.doi.org/10.1155/2015/846487 (Indexed by ISI: IF: 1.182, Q3)
- 15. Asnor J. Ishak, A. Che Soh, Ribhan. Z. Abdul Rahman, Zulalina.A.Rahman. Classification of Pineapple Maturity Index Based on Fusion Features. International Journal On Smart Sensing and Intelligent Systems, Volume 1, 2015. ISSN : 1178-5608. (Indexed by Scopus)
- Maged S. Saeed, Asnor J. Ishak, Siti A. Ahmad, Mohd K. Hasan. Implementation of Electromyography Detecting System for Exoskeleton Robot Applications. Journal of Advanced Science, Engineering and Medicine (ASEM), Volume 6, Number 8, August 2014, pp. 849-852(4). ISSN: 2164-6627, EISSN: 2164-6635. 2014.
- Z.Y.Wong, A.J. Ishak, S.A. Ahmad, Y.Z. Chong. Mechanical Analysis of Wearable Lower Limb Exoskeleton for Rehabilitation. Journal of Engineering Science and Technology, 107 – 114, JESTEC, 2014. (Indexed by Scopus)
- A. Che Soh, K.K.Chow, U. K. Mohammad Yusuf, A. J. Ishak, M. K. Hassan, S.Khamis. Development of Neural Network-Based Electronic Nose For Herbs Recognition. International Journal on Smart Sensing and Intelligent Systems vol. 7, no. 2, June 2014. (Indexed by Scopus).

- Z.Y. Wong, A.J. Ishak, S.A. Ahmad, Y.Z. Chong. Rehabilitation Robotic Design Analysis for Lower Limb Exoskeleton. Journal of Engineering Science and Technology, JESTEC, 2013. (Indexed by Scopus)
- Badrul Hisham Abu Bakar, Asnor Juraiza Ishak, Rosnah Shamsuddin, Wan Zuha Wan Hassan. Ripeness Level Classification For Pineapple Using RGB And HSI Color Map. Journal of Theoretical and Applied Information Technology (JATIT), Issue November, Vol(57), No.3, 2013. ISSN: 1992-8645. (Indexed by Scopus)
- 21. Asnor Juraiza Ishak, Rosnah Shamsudin, Wan Zuha Wan Hassan and Nurnazeera Zulkefli. Design Of Weight Grader For Pineapple. International Journal of Engineering and Technology, Vol.10, No. 2, 82 – 89, 2013. (Indexed by Scopus)
- 22. Seyed Mohammad Hussein S, Siti A. Ahmad, Azura Che Soh, Mohd K Hassan, **Asnor J Ishak**. Introducing New Statistical Shape Based and Texture Feature Extraction Methods in The Plant Species Recognition System. International Journal of Engineering and Technology, Vol.10, No. 2, 56 – 61, 2013. (Indexed by Scopus)
- 23. **Asnor Juraiza Ishak**, Azura Che Soh, Asmi Ashaari. Position Control Of Arm Mechanism Via Rotary Encoder Using PID Controller. Journal of Theoretical and Applied Information Technology (JATIT), Issue January, Vol (47), issue 2, pp. 798-806, 2013. ISSN: 1817-3195, 2013. (Indexed by Scopus)
- 24. A. Che Soh, S.A. Ahmad, **A.J. Ishak** and K.N. Abd. Latif, Development of an Adjustable Gripper for Robotic Picking and Placing Operation. International Journal on Smart Sensing and Intelligent Systems, 5(4), Dec 2012, 1019-1043. (Indexed by Scopus)
- 25. Siti A. Ahmad, **Asnor J. Ishak**, Sawal H. Ali and Paul H. Chappell. Review of Electromyography Control Systems Based on Pattern Recognition for Prosthesis Control Application, Australian Journal of Basic and Applied Sciences, 5(8): 1512-1518, 2011. ISSN 1991-8178 (Indexed by Scopus)
- 26. **Asnor Juraiza Ishak**, Aini Hussain and Mohd Marzuki Mustafa. Weed Image Classification using Gabor Wavelet and Gradient Field Distribution, Journal of Computers and Electronic in Agriculture (COMPAG), ELSEVIER, vol 66 issue1, April 2009, ISSN: 0168-1699. (Indexed by ISI: IF: 1.766)

Paper Proceedings

- N. Mohamad Zaber, A.J Ishak, A. Che Soh, M.K Hasan. Position Control of Radio Telescope using PSO-PID Controller. 4th International Symposium on Applied Engineering and Sciences, SAES 2016, 17th – 18th Dec 2016, Kyushu Institute of Technology, Jepun.
- 2. A. Che Soh, N.F.M.Radzi, A.J Ishak, M.K Hasan, S.A. Ahmad. E-botanist System for Agricultural Applications. International Conference on Advances in Electrical, Electronic and System Engineering, 14-16 Nov 2016, Putrajaya, Malaysia.
- Maged S. Al-Quraishi, Asnor J. Ishak, Siti A. Ahmad and Mohd K. Hasan. Impact of Feature Extraction Techniques on Classification Accuracy for EMG based Ankle Joint Movements. Classification Accuracy for EMG based Ankle Joint. IEEE Xlopre, IEEE Conference on Asian Control Conference (ASCC), 2015
- 4. Hossein Ghapanchizadeh, Siti A. Ahmad, **Asnor Juraiza Ishak**. Recommended Surface EMG Electrode Position for Wrist Extension and Flexion. IEEE Student Symposium in Biomedical Engineering and Science, 2015. Shah Alam, Malaysia.
- Iman Ahmed, Ishak b. Aris, Mohammad Hamiruce Marhaban, Asnor Juraiza Ishak. Energy Consumption Analysis Procedure for Robotic Applications in Different Task Motion. 4th. International Conference on Electronic Devices, Systems and Applications (ICEDSA), 2015, Kuala Lumpur, Malaysia

- 6. Iman Ahmed, Ishak b. Aris, Mohammad Hamiruce Marhaban, **Asnor Juraiza Ishak**. Power Consumption Rate Analysis of Bioloid Humanoid Robot. Proceeding of 10th Asian Control Conference 2015, 31 May 3 June 2015, Sabah, Malaysia.
- 7. Ahmed M. ALmassri, W.Z.WanHasan, S.A. Ahmad, **A.J. Ishak**, Chikamune Wada. Optimisation of Grasping Object Based on Pressure Sensor Measurement for Robotic Hand Gripper. Ninth International Conference on Sensing Technology, December 2015, New Zealand.
- 8. Maged S. Al-Quraishi, **Asnor J. Ishak**, Siti A. Ahmad and Mohd K. Hasan. Classification of Ankle Joint Movements Based on Electromyography Signal. Workshop on Circuit & Systems, 14-16 December 2015, Kusyhu Technology of Institute, Fukoka, Japan.
- N. Mohamad Zaber, A.J Ishak, A. Che Soh, M.K Hasan. Performance Analysis between PID and Fuzzy Logic Controller in Position Control System of Radio Telescope. 3rd International Symposium on Applied Engineering and Sciences (SAES2015), 23-24 November 2015, UPM, Malaysia.
- Siti Khadijah Ali, M.O.Tokhi, Asnor Juraiza Ishak, Ghasaq Al Rezage. PID and Adaptive Spiral Dynamic Algorithm In Controlling Human Arm Movements. 18th International Conference on Climbing and Walking Robots and the Support Technologies for Mobile Machines, October 2015, China.
- 11. D.Miranda Linares, J.Lopez Coronado, C.A.Diaz Hernandez, **A.J.Ishak**, M.O.Tokhi. Modelling and Simulation of Assistive Exoskeleton for Elderly Mobility. CLAWAR 2015, China.
- Maged S. Al-Quraishi, Asnor J. Ishak, Siti A. Ahmad , Mohd K. Hasan. Impact of Feature Extraction Techniques on Classification Accuracy for EMG based Ankle Joint Movements. Control Conference (ASCC), 2015 10th Asian, 31 May-3 June 2015, Kota Kinabalu, Malaysia.
- Salihu A.Jalo, Asnor J.Ishak, Azura Che Soh, Ribhan Zafira Abdul Rahman, Rosnah Shamsuddin. Optimizing Effect of Frying Cycles on Cooking Oil Properties Using Particle Swarm Optimization. Control Conference (ASCC) 10th Asian, May 2015, Sarawak, Malaysia
- N.Mohamad Zaber, A.J. Ishak, A. Che Soh, M.K. Hassan. Designing PID Controller for Position Control with Disturbance. IEEE International Conference on Computer, Communication, and Control Technology (I4CT 2015), 21-23 April 2015, Sarawak, Malaysia.
- 15. Hossein Ghapanchizadeh, Siti A. Ahmad, Asnor Juraiza Ishak. Investigate the Transcendent Adapted of Wavelet Threshold Algorithms for Elbow Movement by Surface EMG Signal. Proceedings of the 2014 IEEE Conference on Biomedical Engineering and Sciences, 2014, Miri, Sarawak, Malaysia
- 16. Maged S. Al-Quraishi, Asnor J. Ishak, Siti A. Ahmad, Mohd K. Hasan. Multichannel EMG Data Acquisition System: Design and Temporal Analysis during Human Ankle Joint Movements. Proceedings of the 2014 IEEE Conference on Biomedical Engineering and Sciences, 2014, Miri, Sarawak, Malaysia.
- 17. Z.Y. Wong, **A.J. Ishak**, S.A. Ahmad, Y.Z. Chong, Consideration of Control System for Lower Limb Exoskeleton for Rehabilitation, IEEE EMBS ISC2014, 5th Jun 2014, UPM, Malaysia.
- Z.Y. Wong, A.J. Ishak, S.A. Ahmad, Y.Z. Chong, A Comparison of Vertical Ground Reaction Force during Walking with and without non-Actuated Lower Limb Exoskeleton- Preliminary Finding, 2014 UPM-Kyutech Symposium of Applied Engineering and Sciences (SAES2014), 20th-21st Dec 2014, Kyushu Institute of Technology.
- M. R. Khammar, M. I. Saripan, M. H. Marhaban, A. J. Ishak, F. Zolfaghari. Restoration of Missing Data in Old Archives Based on Genetic Algorithm. International Conference on Electronic Design (ICED). 19-21 August 2014, Penang, Malaysia.
- M. R. Khammar, M. I. Saripan, M. H. Marhaban, A. J. Ishak, F. Zolfaghari. Removal of High Density Salt and Pepper Noise from Image and Video Based on Optimal Decision Based Algorithm. International Conference on Electronic Design (ICED). 19-21 August 2014, Penang, Malaysia.

- 21. Maged S. Saeed, **Asnor J. Ishak**, Siti A. Ahmad, Mohd K. Hasan. Ankle Joint Movements Pattern Recognition Based on EMG Signal for Rehabilitation Exoskeleton. IEEE EMBS International Student Conference, June 2014, UPM, Malaysia.
- 22. Hossein Ghapanchizadeh, Siti A.Ahmad, **Asnor Juraiza Ishak.** Superlative Selective of Wavelet Thresholding Algorithm for Surface EMG Signal De-noising. IEEE EMBS International Student Conference, June 2014, UPM, Malaysia.
- 23. Hossein Ghapanchizadeh, Siti A. Ahmad, **Asnor Juraiza Ishak**. Developing Multichannel Surface EMG Acquisition System by Using Instrument OpAmp INA214. Proceedings of the 2014 IEEE Region 10 Symposium, 2014, Kuala Lumpur, Malaysia.
- 24. Maged S. Saeed, **Asnor J. Ishak**, Siti A. Ahmad, Mohd K. Hasan. Implementation of Electromyography Detecting System for Exoskeleton Robot Applications. International Conference on Science and Engineering in Biology, Medical and Public Health. 31 May 2014, Bali, Indonesia.
- 25. Almassri, A.M.M. Hasan, W.Z.W., Ahmad, S.A., Ishak, A.J. Sensitivity Study of Piezoresistive Pressure Sensor for Robotic Hand. Proceedings of the 2013 IEEE Regional Symposium on Micro and Nanoelectronics, Sept 2013, Langkawi, Malaysia.
- 26. Thong Peng Hong, Azura Che Soh, Haslina Jaafar, **Asnor Juraiza Ishak**. Real-Time Monitoring System for Parking Space Management Services. IEEE Conference on Systems, Process & Control (ICSPC2013). 13 - 15 December 2013, Kuala Lumpur, Malaysia.
- 27. Chow Kar Kit, Azura Che Soh, Umi Kalsom Mohamad Yusof, **Asnor Juraiza Ishak**, Mohd Khair Hassan & Shamsul Khamis. E-Nose Herbs Recognition System based on Artificial Neural Network Technique. IEEE International Conference on Control System, Computing and Engineering, 29 Nov. - 1 Dec. 2013, Penang, Malaysia.
- 28. **Asnor Juraiza Ishak**, Azura Che Soh, Mohammad Hamiruce Marhaban, Shamsul Khamis, Mohammad Ali Jan Ghasab. Automated Recognition of Ficus Deltoidea Using Ant Colony Optimization Technique. 2013 IEEE 8th Conference on Industrial Electronics and Applications (ICIEA), 978-1-4673-6322-8/13, 2013, Melbourne, Australia.
- 29. Azura Che Soh, **Asnor Juraiza Ishak**, Mohd Hanif Zaini. Smart Monitoring Fault Detection System for Malfunction Traffic Light Operation. IEEE 8th International Conference on Industrial Electronics and Applications (ICIEA). 978-1-4673-6322-8/13, 2013, Melbourne, Australia.
- Maged S. Saeed, Asnor J. Ishak, Siti A. Ahmad, Mohd K. Hasan. Design a Low Cost Electromyography Amplifier Circuit. 1st Mini Symposium on Artificial Intelligence and Robotics, 11 December 2013, Kuala Lumpur, Malaysia.
- B.H.Abu Bakar, Rosnah Shamsuddin, W.Z.W.Hassan, Asnor Juraiza Ishak. .Smart Fruit Grader. 9th Invention and PrototypeShow(INOVA)2013, 12-17 November 2013, Zagreb, Croatia.
- 32. H.A.B. Badrul, J.I. Asnor, Z. W. H. Wan, S. Rosnah. Identification of Pineapple Ripeness Levels using Image Processing Technique. UPM-KIT Symposium of Applied Engineering and Sciences (SAES2013), 30th Sept-1st Oct 2013, UPM, Malaysia.
- H.A.B. Badrul, Z. W. H. Wan, J.I. Asnor, S. Rosnah. Identification of Pineapple Maturity Using E-nose Indicator. UPM-KIT Symposium of Applied Engineering and Sciences (SAES2013),30th Sept-1st Oct 2013, UPM, Malaysia
- 34. Z.Y. Wong, **A.J. Ishak**, S.A. Ahmad, Y.Z. Chong. Mechanical Analysis of Wearable Lower Limb Exoskeleton for Rehabilitation. UPM-Kyutech International Symposium of Applied Engineering and Sciences (UKSAES2013), 30th Sept – 1stOct 2013, Universiti Putra Malaysia.
- 35. J.I Asnor, S. Rosnah, Z.W.H.Wan & H.A.B Badrul, Pineapple Maturity Recognition Using RGB Extraction, World Academy of Science, Engineering and Technology 78, 2013, New York, USA.

- 36. **Asnor Juraiza Ishak**, B.H.Abu Bakar, Rosnah Shamsuddin, Wan Zuha Wan Hassan. Smart Ez-Grader. International Engineering Invention and Innovation Exhibition (i-ENVEX), 16-19 April 2013, Kangar, Perlis.
- 37. **Asnor Juraiza Ishak**, B.H.Abu Bakar, Rosnah Shamsuddin, Wan Zuha Wan Hassan. Smart Ez-Grader. International Invention, Innovation & Technology Exhibition ITEX, 9-11 May 2013, Kuala Lumpur, Malaysia.
- 38. Asnor Juraiza Ishak, Rosnah Shamsudin, Wan Zuha Wan Hassan & Nurnazeera Zulkifli. Design of Weight Grader for Pineapple. World Research & Innovation Convention on Engineering & Technology (WRICET2012), Dec 3-5, 2012. Kuala Lumpur, Malaysia.
- 39. Seyed Mohammad Hussein, Siti A. Ahmad, Azura Che Soh, Mohd K Hassan, **Asnor J. Ishak**. Introducing New Statistical Shape based and Texture Feature Extraction Methods in The Plant Species Recognition System (PSRS). Proceedings of the 2012 World Research & Innovation Convention on Engineering and Technology, Dec 2012, Kuala Lumpur, Malaysia.
- 40. Siti Anom Ahmad, Mohd Asyraf Khalid, **Asnor J. Ishak** and Sawal H. M. Ali, Surface EMG Classification For Prosthesis Control: fuzzy Logic vs. Artificial Neural Network, Proceedings of the International Conference on Bio-inspired Systems and Signal Processing, pp. 317-320, 1-4 Feb 2012, Algarve, Portugal.
- S. A. Ahmad, A.J. Ishak, S.H. Al. Speed Based Surface EMG Classification Using Fuzzy Logic for Prosthetic Hand Control. International Conference on Biomedical Engineering (BioMed2011), The International Federation for Medical and Biological Engineering (IFMBE) Proceedings. June 2011, Kuala Lumpur, Malaysia.
- 42. Siti A. Ahmad, **Asnor J. Ishak** & Sawal Ali. Classification of Surface Electromyographic Signal using Fuzzy Logic for Prosthesis Control Application. IEEE EMBS on Biomedical Engineering and Sciences (IECBES2010), Dec. 2010, Kuala Lumpur.
- 43. S. Shahbudin, A.Hussain, S. A. Samad, M. M. Mustafa & **A.J. Ishak**. Optimal Feature Selection for SVM based Weed Classification via Visual Analysis, IEEE Technical Conference, TENCON-2010, IEEE region 10, Nov 22-24, 2010, Fukuoka Japan.
- 44. Azura Che Soh, Kwok Siew Yoong, **Asnor Juraiza Ishak** and Samsul Bahari Mohd Noor. Intelligent Fault Detection System For Traffic Light System. World Engineering Congress. 2-5 August 2010, Kuching Sarawak, Malaysia
- 45. **Asnor Juraiza Ishak**, Mohd Marzuki Mustafa & Aini Hussain. Gradient Field Distribution and Grey Level Co-occurrence Matrix Techniques for Automatic Weed Classification. 5th International Symposium on Mechatronics and Its Applications. IEEE. pg 1-5, May 27-29, 2008. Jordan. ISBN: 978-1-4244-2033-9.
- 46. Slamet Riyadi, Asnor Juraiza Ishak, Mohd Marzuki Mustafa and Aini Hussain. Wavelet-Based Feature Extraction Technique for Fruit Shape Classification. 5th International Symposium on Mechatronics and Its Applications. IEEE. pg 1-5, May 27-29, 2008, Jordan. ISBN: 978-1-4244-2033-9.
- 47. **Asnor Juraiza Ishak**, Nooritawati Md Tahir, Mohd Marzuki Mustafa & Aini Hussain. Weed Classificatin using Decision Tree. International Symposium on Information Technology, (ITSIM08). 26-29 August, 2008 Kuala Lumpur Convention Centre, Malaysia.
- 48. **Asnor Juraiza Ishak**, Mohd Marzuki Mustafa, Nooritawati Md Tahir and Aini Hussain. Weed Detection System using Support Vector Machine. International Symposium on Information Theory and its Applications (ISITA08), 7-10 December, 2008, The Langham Hotel, Auckland, New Zealand.
- 49. **Asnor Juraiza Ishak**, Mohd Marzuki Mustafa, Aini Hussain & Hashim Hizam. Perceptron Training to Determine Efficacy of FFTgabor Feature Vector for Weed Classification Task. 1st International Conference on Control, Instrumentation and Mechatronics (CIM07), pg 273-278, 28-29 May 2007, Persada Johor International Convention Centre, Johor, Malaysia.

- 50. Asnor Juraiza Ishak, Mohd Marzuki Mustafa, Aini Hussain & Nagur Aziz Kamal. "Quadratic Polynomial Approach in Feature Extraction of Images" International Conference on Electrical Engineering and Informatics ICEEI07, Institut Teknologi Bandung (ITB), Indonesia, pg 309-312, 17-19 June 2007. ISBN: 978-979-16338-0-2
- 51. **Asnor Juraiza Ishak**, Siti Salasiah Mokri, Mohd Marzuki Mustafa and Aini Hussain. "Weed Detection utilizing Quadratic Polynomial and ROI Techniques", published in IEEE Transaction on Research and Development, SCOReD07 5th Student Conference on Research and Development, 11-12 Dec 2007, Permata Bangi, Malaysia.
- 52. **Asnor Juraiza Ishak**, Mohd Marzuki Mustafa and Aini Hussain. "Development of Vision System for Automatic Weed Detection" Proceeding Seminar Posgraduate Student, 29-30 August 2006, Universiti Kebangsaan Malaysia, Permata Bangi, Malaysia.
- 53. **Asnor Juraiza Ishak**, Mohd Marzuki Mustafa, Aini Hussain and Kamarul Hawari Ghazali. "A Comparison of Grey Level Co-occurrence Matrix and Histogram Techniques using Neural Network for Automatic Weed Detection" ICoMMS-073 International Conference on MAN-MACHINE SYSTEMS KUKUM, 15-16 September 2006, Langkawi, Malaysia.
- 54. Kamarul Hawari Ghazali, Mohd Marzuki Mustafa, Aini Hussain and **Asnor Juraiza Ishak**. Texture classification Using Contrast and Regularity Technique for Narrow and Broad Weed Discrimination. ICoMMS-083 International Conference on MAN-MACHINE SYSTEMS KUKUM, 15-16 September 2006, Langkawi, Malaysia.
- 55. **Asnor Juraiza Ishak**, Mohd Marzuki Mustafa and Aini Hussain. Weed Feature Extraction Using Gabor Wavelet and Fast Fourier Transform. M2USIC06-249 International Symposium on Information & Communications Technologies, 16-17 Nov 2006, PJ Hilton Hotel, Malaysia, pg 347-350,. ISBN: 983-43160-0-3
- 56. A J Ishak, I Aris, S B Mohd Noor, N Ismail and P Iqbal. Design Entertainment Mobile Robot. Student Conference on Research and Development, SCOReD Proceeding. p. 298-303, 25-26 Aug 2003, Putrajaya, Malaysia, ISBN: 0-7803-8173-4, INSPEC Accession Number: 8478347.

Others Publications

- 1. Laboratory Manual- Control Engineering (2010)
- 2. Advanced Control Engineering (2010 & 2011)

RESEARCH ACHIEVEMENTS

Patent

Smart Fruit Grader : UI 2014700078

Industry Design

Smart Weight Grader Machine : ID No :12-00941-0101

Integrated Circuit Design

- 1. Low Cost Portable Multichannel Surface EMG Acquisition System
- 2. E-Herbs Recognition System, System (Industry Circuit Design)

Award/Recognition

Silver Medal in Pameran Rekacipta, Penyelidikan & Inovasi Malaysia, PRPI16, 2016 Silver Medal, Hardware-In-Loop (HiL) of Fault Detection System for Air-Fuel Ratio Control, International Engineering Invention & Innovation Exhibition (i-ENVEX), 2014 Silver Medal in International Invention Show (INOVA), 2013 Gold Medal in International Invention, Innovation & Technology Exhibition, ITEX13, 2013 Bronze Medal in 4rd International Engineering Invention & Innovation Exhibition (i-ENVEX), 2013 Consolation Prize in Innovate Malaysia, 2013 Silver Medal in International Invention Show (INOVA), 2013 Silver Medal in Pameran Rekacipta, Penyelidikan & Inovasi Malaysia, PRPI12, 2012

PROFESSIONAL SERVICES

Editorial Board & Reviewer of Journal:

- 1. Member of Editorial Board, Symposium of Applied Engineering and Sciences, 2013
- 2. Member of Editorial Board, The Asia-Pacific Symposium on Applied Electromagnetics and Mechanics (APSAEM2010), 2010
- 3. Reviewer, Journal of Engineering Science and Technology (JESTEC), Scopus ,2014present
- 4. Reviewer, Pertanika Journal of Science and Technology (JST), Scopus, 2015-present
- 5. Reviewer, International Journal of Postharvest Technology and Innovation (IJPTI), Scopus 2012
- 6. Reviewer, Pertanika Journal UPM, 2014-present
- 7. Reviewer , Jurnal Teknologi , Scopus, 2014-present
- 8. Reviewer , IEEE, 2013
- 9. Reviewer, Open Journal of Artificial Intelligence, 2013
- 10. Reviewer, Research Journal of Modeling and Simulation, 2013
- 11. Reviewer, Journal Biosystems Engineering, (ELSEVIER), 2010

Reviewer of Conferences

- 1. IEEE 15th Student Conference on Research and Development (SCOReD)
- 2. IEEE International Conference On Electrical & Electronic Technology (ICEETECH2016)
- 3. IEEE 10th Conference on Industrial Electronics and Applications (ICIEA 2015), New Zealand
- 4. Asian Control Conference (ASCC 2015)
- 5. 4th IEEE International Conference Control System, Computing and Engineering (ICCSCE 2014)
- 6. IEEE International Conference on Biomedical Engineering and Sciences (IECBES 2014)
- 7. International Conference on Science and Technology for Sustainability (ICoSTechs 2014)
- 8. Symposium of Applied Engineering and Sciences 2013
- 9. IIEEE 8th Conference on Industrial Electronics and Applications (ICIEA 2013), Australia
- 10. FIRA Roboworld Cup and Congress (FIRA 2013)

- 11. IEEE Symposium on Computers & Informatics (ISCI 2013)
- 12. IEEE International Conference on Biomedical Engineering and Sciences (IECBES 2012)
- 13. International Symposium on Computer Applications and Industrial Electronics (ISCAIE 2012)
- 14. International Conference on Open Source Systems and Technologies (ICOSST 2012)
- 15. World Research & Innovation Convention on Engineering & Technology 2012
- 16. World Engineering Congress 2010, Sarawak
- 17. IEEE Student Conference on Research and Development Engineering, 2009

Chairperson of Workshops/Conferences

- 1. Session Chairman, SAES, 2017
- 2. Session Chairman, ICEETECH, 2016
- 3. Session Chairman, Asian control conference, 2015
- 4. Session Chairman, ICoSTechs2014, 2014
- 5. Session Chairman, IEEE Symposium on Computers & Informatics, 2013
- 6. Session Chairman , World Research & Innovation Convention on Engineering & Technology, Palace of the Golden Horses, Selangor, 2013
- 7. Session Chairman , Saes , 2013
- 8. Session Chairman, EEECAS, 2013
- 9. Session Chairman, Student Conference on Research and Development (SCOReD 2009)
- 10. Signal processing section at CIM07-1st International Conference on Control, Instrumentation and Mechatronics, UTM, Johor, 2007

Committee member for workshop/Conferences:

- 1. Editor, Self Assessment Report (SAR), 2017
- 2. Committee Member, IEEE Student Conference on Research and Development (SCOReD), 2017
- 3. Treasurer, International Conference on Electrical & Electronic Technology (ICEET), 2016
- 4. Committee Member, 3rd WiCAS Program Committee Meeting Minute, 2015
- 5. Publication Committee, 10th Asian Control Conference (ASCC), 2015
- 6. Committee Member, Saes 2013
- 7. Committee Member, Collabration UM-UPM, 2013
- 8. Committee Member, Collabration WD-UPM, 2013
- 9. Committee Member, IEEE CAS, 2013
- 10. Editor, Program Book: Symposium of Applied Engineering and Sciences, 2013
- 11. Committee Member & Advisor, Schneider Electric University Challenge 2011- Go Green Malaysia, 2012
- 12. Committee Member, Asia-Pacific Robot Contest (ABU Robocon), 2012
- 13. Committee Member, Robotic Club, JKEE, Faculty of Enginnering, 2012
- 14. Facilitator, Kelab Robot, Sek. Men. Keb. Aminuddin Baki, 2012
- 15. Judge, MUROC Demonstration, 2012
- 16. Committee Member, Jawatankuasa Akademik Jabatan JKEE, 2011
- 17. Editor, Program Book: The Asia-Pacific Symposium on Applied Electromagnetics and Mechanics (APSAEM2010), 2010
- 18. Judge, Student Poster Competition at ISMA08 5th International Symposium on Mechatronics and its Applications, Amman, Jordan, 2008

Thesis Examination

No	Name	Title of Thesis	Institution	Year
1	Hussein Taleghani	Regenerative Braking Strategy For Electriv Vehicles Using Improved Adaptive Genetic Algorithm	UPM (Internal)	2017
2	Radik Srazhidinov	Nlfxlms And Thf-Nlfxlms Algorithms For Wiener- Hammerstein Nonlinear Active Noise Control	UPM (Internal)	2016
3	Batool Abdul Samad Abbood AlKharasani	Integrated Multi Surface Sliding Mode Control for Electronic Wedge Brake System And Anti Lock Braking System	UPM (Internal)	2016
4	Sahar Zolfaghari	Broken Rotor Bar Fault Diagnosis Using Wavelet Packet Signature Analysis and Artificial Neural Network	UPM (Internal)	2016
5	Mohamad HafizulAzwan B. Mohamad Noor	Broadcast Control of Multi-Agent Systems With Norm-Limited Update Vector	UTM (External)	2017
6	Radik Srazhidinov	NlfxIms And Thf-NlfxIms Algorithms For Wiener-Hammerstein Nonlinear Active Noise Control	UPM (Internal)	2017
7	Syazreen Bt Hashim	Cognitive Function Assessment in Young Adult Based on Mental Arithmetic , Trial Making And Stroop Tasks	UTM (External)	2016

Involvement in Student Development/Public Services/School Program

1	Training Natural Instruments in LabView Core 1	2014
2	Training Natural Instruments in LabView Real-Time 1	2014
3	Kursus Asas Pengajaran	2012
4	Graduate Research Methodology Workshop	2005
5	Workshop on Visual C++ Programming	2008
6	Workshop in Practical Artificial Intelligent Tools for Solving	2006
	Engineering Problems	
7	Soft Computing in Intelligent Systems Workshop	2007
8	Workshop on Smart Sensor Systems	2010
9	Training Microcontroller Training Kit V2	2013
10	Training Program in Yaskawa Motoman Robot SK120/MRC	2012
	Operation & Maintenance	
11	Facilitator in Kelab Robot, Sek. Men. Keb. Aminuddin Baki	2012
12	Workshop on SRI's Five Disciplines of Innovation	

13	Workshop on Particle Swarm Optimisation	2013
14	Participant of National Robot Festival (Robfes'02)	2002

Published Articles in Local News Paper

Mesin Smart Ez- Grader, Harian Metro Selasa 7 Jun 2016

ATTENDED CONFERENCE

Papers Presented (orally)

No.	Name of Writer(s)	Title	Name of Conference/ Seminar	Place	Date
11.	A J Ishak , I Aris, S B Mohd Noor, N Ismail and P Iqbal	Design Entertainment Mobile Robot	Student Conference on Research and Development, SCOReD Proceeding	Putrajaya, Malaysia	25-26 Aug 2003
12.	Asnor Juraiza Ishak, Mohd Marzuki Mustafa and Aini Hussain	Weed Feature Extraction Using Gabor Wavelet and Fast Fourier Transform	International Symposium on Information & Communications Technologies	PJ Hilton Hotel, Malaysia	16-17 Nov 2006
13.	Kamarul Hawari Ghazali, Mohd Marzuki Mustafa, Aini Hussain and Asnor Juraiza Ishak	Texture Classification Using Contrast And Regularity Technique For Narrow And Broad Weed Discrimination	International Conference on MAN- MACHINE SYSTEMS KUKUM	Langkawi, Malaysia	15-16 Sept 2006
14.	Asnor Juraiza Ishak, Mohd Marzuki Mustafa, Aini Hussain and Kamarul Hawari Ghazali	A Comparison of Grey Level Co- occurrence Matrix and Histogram Techniques using Neural Network for Automatic Weed Detection	CoMMS-073 International Conference on MAN- MACHINE SYSTEMS KUKUM	Langkawi, Malaysia	15-16 Sept 2006
15.	Asnor Juraiza Ishak, Mohd Marzuki Mustafa and Aini Hussain	Development of Vision System for Automatic Weed Detection	Proceeding Seminar Posgraduate Student	Universiti Kebangsaan Malaysia, Permata Bangi	29-30 Aug 2006
16.	Asnor Juraiza Ishak, Siti Salasiah Mokri, Mohd Marzuki Mustafa and Aini Hussain	Weed Detection Utilizing Quadratic Polynomial And ROI Techniques	SCOReD07 5th Student Conference on Research and Development	Permata Bangi, Malaysia.	11-12 Dec 2007

17.	Asnor Juraiza Ishak, Mohd Marzuki Mustafa, Aini Hussain and Nagur Aziz Kamal	Quadratic Polynomial Approach in Feature Extraction of Images	International Conference on Electrical Engineering and Informatics ICEE107	Bandung, Indonesia	17-19 June 2007
18.	Asnor Juraiza Ishak , Mohd Marzuki Mustafa, Aini Hussain and Hashim Hizam	Perceptron Training to Determine Efficacy of FFT Gabor Feature Vector for Weed Classification Task	1st International Conference on Control, Instrumentation and Mechatronics (CIM07)	Persada Johor International Convention Centre, Johor, Malaysia	28-29 May 2007
19.	Asnor Juraiza Ishak, Mohd Marzuki Mustafa, Nooritawati Md Tahir and Aini Hussain	Weed Detection System using Support Vector Machine	International Symposium on Information Theory and its Applications (ISITA08))	The Langham Hotel, Auckland, New Zealand	7-10 Dec 2008
20.	Asnor Juraiza Ishak, Nooritawati Md Tahir, Mohd Marzuki Mustafa and Aini Hussain	Weed Classificatin using Decision Tree	International Symposium on Information Technology, (ITSIM08)	Kuala Lumpur Convention Centre, Malaysia	26-29 Aug 2008
21.	Slamet Riyadi, Asnor Juraiza Ishak, Mohd Marzuki Mustafa and Aini Hussain.	Wavelet-Based Feature Extraction Technique for Fruit,	Shape Classification. 5th International Symposium on Mechatronics and Its Applications. IEEE	Jordan	27-29 May 2008
22.	Asnor Juraiza Ishak, Mohd Marzuki Mustafa and Aini Hussain	Gradient Field Distribution and Grey Level Co- occurrence Matrix Techniques for Automatic Weed Classification	5th International Symposium on Mechatronics and Its Applications. IEEE	Jordan	27-29 May 2008
23.	Asnor Juraiza Ishak, Rosnah Shamsudin, Wan Zuha Wan Hassan and Nurnazeera Zulkifli	Design of Weight Grader for Pineapple	World Research & Innovation Convention on Engineering & Technology (WRICET)	Kuala Lumpur, Malaysia	3-5 Dec 2012
24.	Asnor Juraiza Ishak, B.H.Abu Bakar, Rosnah Shamsuddin, Wan Zuha Wan Hassan	Smart Ez-Grader	International Invention, Innovation & Technology Exhibition ITEX	Kuala Lumpur, Malaysia	9-11 May 2013
25.	Asnor Juraiza Ishak, B.H.Abu Bakar, Rosnah Shamsuddin, Wan Zuha Wan Hassan	Smart Ez-Grader	International Engineering Invention and Innovation Exhibition (i-ENVEX)	Kangar, Perlis	16-19 April 2013
26.	J.I Asnor, S. Rosnah, Z.W.H.Wan and H.A.B Badrul	Pineapple Maturity Recognition Using RGB Extraction	World Academy of Science, Engineering and Technology 78	New York, USA	2013

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27.	Z.Y. Wong, A.J. Ishak, S.A. Ahmad, Y.Z. Chong	Mechanical Analysis of Wearable Lower Limb Exoskeleton for Rehabilitation.	UPM-Kyutech International Symposium of Applied Engineering and Sciences (UKSAES2013)	UPM, Malaysia	30 Sept – 1stOct 2013
28.	H.A.B. Badrul, Z. W. H. Wan, J.I. Asnor, S. Rosnah	Identification of Pineapple Maturity Using E-nose Indicator	UPM-KIT Symposium of Applied Engineering and Sciences (SAES2013)	UPM, Malaysia	30 Sept – 1stOct 2013
29.	H.A.B. Badrul, J.I. Asnor, Z. W. H. Wan, S. Rosnah	Identification of Pineapple Ripeness Levels using Image Processing Technique	UPM-KIT Symposium of Applied Engineering and Sciences (SAES2013)	UPM, Malaysia.	30 Sept – 1stOct 2013
30.	B.H.Abu Bakar, Rosnah Shamsuddin, W.Z.W.Hassan, Asnor Juraiza Ishak	Smart Fruit Grader	9th Invention and PrototypeShow(INOVA)	Zagreb, Croatia	12-17 Nov 2013
31.	Maged S. Saeed, Asnor J. Ishak, Siti A. Ahmad, Mohd K. Hasan	Design a Low Cost Electromyography Amplifier Circuit	1st Mini Symposium on Artificial Intelligence and Robotics	Kuala Lumpur, Malaysia	11 Dec 2013
32.	Asnor Juraiza Ishak , Azura Che Soh , Mohammad Hamiruce Marhaban, Shamsul Khamis, Mohammad Ali Jan Ghasab	Automated Recognition of Ficus Deltoidea Using Ant Colony Optimization Technique	IEEE 8th Conference on Industrial Electronics and Applications (ICIEA)	Melbourne, Australia	13 August 2013
33.	Maged S. Saeed, Asnor J. Ishak , Siti A. Ahmad, Mohd K. Hasan	Implementation of Electromyography Detecting System for Exoskeleton Robot Applications	International Conference on Science and Engineering in Biology, Medical and Public Health	Bali, Indonesia	31 May 2014
34.	Maged S. Saeed, Asnor J. Ishak , Siti A. Ahmad, Mohd K. Hasan.	Ankle Joint Movements Pattern Recognition Based on EMG Signal for Rehabilitation Exoskeleton	IEEE EMBS International Student Conference	UPM, Malaysia	June 2014
35.	Z.Y. Wong, A.J. Ishak, S.A. Ahmad, Y.Z. Chong	A Comparison of Vertical Ground Reaction Force during Walking with and without non- Actuated Lower Limb Exoskeleton- Preliminary Finding	2014 UPM-Kyutech Symposium of Applied Engineering and Sciences (SAES2014)	Kyushu Institute of Technology	20-21 Dec 2014
36.	Z.Y. Wong, A.J. Ishak, S.A. Ahmad, Y.Z. Chong	Consideration of Control System for Lower Limb Exoskeleton for Rehabilitation	IEEE EMBS ISC2014	UPM, Malaysia	5 Jun 2014
37.	Maged S. Al- Quraishi, Asnor J.	Multichannel EMG Data Acquisition	Proceedings of the 2014 IEEE Conference on	Miri, Sarawak, Malaysia	2014

	Ishak , Siti A. Ahmad, Mohd K. Hasan.	System: Design and Temporal Analysis during Human Ankle Joint Movements	Biomedical Engineering and Sciences		
38.	N.Mohamad Zaber, A.J. Ishak , A. Che Soh, M.K. Hassan	Designing PID Controller for Position Control with Disturbance	IEEE International Conference on Computer, Communication, and Control Technology(I4CT 2015)	Sarawak, Malaysia	21-23 April 2015
39.	Salihu A.Jalo, Asnor J.Ishak, Azura Che Soh, Ribhan Zafira Abdul Rahman, Rosnah Shamsuddin	Optimizing Effect of Frying Cycles on Cooking Oil Properties Using Particle Swarm Optimization,	Control Conference (ASCC) 10th Asian	Sarawak, Malaysia	May 2015
40.	Maged S. Al- Quraishi, Asnor J. Ishak, Siti A. Ahmad , Mohd K. Hasan	Impact of Feature Extraction Techniques on Classification Accuracy for EMG based Ankle Joint Movements	Control Conference (ASCC)	Kota Kinabalu, Malaysia	31 May-3 June 2015
41.	N. Mohamad Zaber, A.J Ishak , A. Che Soh, M.K Hasan	Performance Analysis between PID and Fuzzy Logic Controller in Position Control System of Radio Telescope	3rd International Symposium on Applied Engineering and Sciences (SAES2015)	UPM, Malaysia	23-24 Nov 2015
42.	Maged S. Al- Quraishi, Asnor J. Ishak , Siti A. Ahmad and Mohd K. Hasan	Classification of Ankle Joint Movements Based on Electromyography Signal	Workshop on Circuit & Systems	Kusyhu Technology of Institute, Fukoka, Japan	14-16 Dec 2015
43.	Maged S. Al- Quraishi, Asnor J. Ishak, Siti A. Ahmad and Mohd K. Hasan	Impact of Feature Extraction Techniques on Classification Accuracy for EMG based Ankle Joint Movements.Classifi cation Accuracy for EMG based Ankle Joint	IEEE Xlopre, IEEE Conference on Asian Control Conference (ASCC)	Sabah, Malaysia	2015
44.	N. Mohamad Zaber, A.J Ishak , A. Che Soh, M.K Hasan	Position Control of Radio Telescope using PSO-PID Controller	4th International Symposium on Applied Engineering and Sciences, SAES 2016	Kyushu Institute of Technology, Jepun	17–18 Dec 2016
45.	Asnor Juraiza Ishak	Modeling and design control of Exoskeleton	ICEETECH	Malaysia	2016
46.	Asnor Juraiza Ishak	Slope Variant	ICEETECH	Malaysia	2016

Other Presentation (Poster/Product/Exhibition/Showcase)

No.	Name of Writer(s)	Title	Name of Seminar /Conference/ Exhibition	Organiser	Place	Date
1	Asnor Juraiza Ishak	Smart Fruit Grader	Pameran Penyelidikan dan Sesi Jaringan Bersama Industri Tahun 2017.		Fakulti Kejuruteraan, UPM	25 Okt 2017
2			Malaysia Agriculture, Horticulture & Agrotourism (MAHA)		MARDI, Serdang, Malaysia	23 Nov 2012
3			University Challenge 2011, Schneider Electric (Go Green in Malaysia)-2 nd round project demonstration (in list top 5 from 28 groups) & 3 rd round technical and oral presentation.)		Sunway Hotel, Kuala Lumpur	22-23 Feb. 2012
4			University Challenge 2011, Schneider Electric (Go Green in Malaysia)-First round technical proposal presentation)		Sunway Hotel, Kuala Lumpur	Oct 2011
5			International Invention, Innovation and Technology Exibition, "Environmentall y Weed Buster- Weed Detection"		Kuala Lumpur Convention Centre, Malaysia	18-20 May 2007