

AHSANA AQILAH BINTI AHMAD



***Faculty of Mechanical Engineering
University Teknologi MARA
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BORN

4TH NOVEMBER 1985, PAHANG

OBJECTIVES

- To served and shared the knowledges among UiTM students from various cultural and background
- To guide students to be a good leader, servant and ‘khalifah’ especially for the ummah
- To possess excellent administrative in verbal communication and written skills to be applied in effective teaching methods that promote a stimulating learning environment.

STRENGTHS

- Able to work independent and multi-tasking
- Excellent in team work and can give cooperations among the team members
- Able and easy to learn/study a new task

COMPUTER SKILLS

- Microsoft Office: Words, Excel, Power Point, Publisher
- Computer Aided Design (CAD): CATIA, Matlab, Labview
- Teaching Tools : Padlet, Prezi, Blend Space

PROFESSIONAL MEMBERSHIP

- Board of Engineers Malaysia (BEM) – *Member No:- 93699A*

SPECIALIZATION

Engineering & Industrial Management

- Occupational Safety and Health
- Kaizen
- Lean Implementation

Advanced Manufacturing

- Automation and Robotics
- Sensors Technology

RESEARCH

RAGS GRANT PHASE 01/2014 (January 2015 – December 2016)

Principal Researcher

The Study On Tactile Sensing Force Sensitivity Using Quantum Tunneling Effect.

(600-RMI/RAGS 5/3 (161/2014))

Total Fund : RM 80,000

Unlike the robots of 20 years ago, today's "intelligent" robots can "sense" changes in their surroundings and can respond accordingly. New developments in sensor technology are critical to create intelligent robots. Intelligent sensors can monitor variations in temperature, force, torque, weight, position, and other parameters. One of the emerging sensors is tactile sensor. Because of that it is essential to study the new alternative material that can be used as a tactile sensor. Quantum Tunneling Composite (QTC) Pills is a new alternative material selection for tactile sensor which requires more exploration and experimentation in order to discover their potential as a tactile sensor for robotic hand as well as the other fields. This research aims to discover the advantages of QTC Pills in tactile sensing applications in terms of its Quantum Tunneling effects so that it can be applied to a more "human like" sense of touch of the prosthetic hand. Lastly, it is hoping that this work will help the amputees to improve their quality of life.

CURRENT AND PAST STUDENT PROJECTS SUPERVISION

Masters

1. Tactile Sensing Using Quantum Tunneling Composites (QTC) Pills for Finger Mechanism Device. - Nur Izzah Lina Binti Azaman (On-Going 2014-2016)

Degree

	Students Name	Title	Year Enrolled
1	Muhamad Farhan bin Misroh	Improvement of Onions Paring Machine	2015/2016
2	Afaf Amera bt Abd Ghawi	The Study on Tactile Sensing Force Sensitivity Using Quantum Tunneling Composites Effective Rehabilitation at Fingertip	2015/2016
3	Mohd Ariss Shazuan b. Zahid	The Study on Tactile Sensing Force Using Quantum Tunneling Composites for Finger Mechanism Device	2015/2016
4	Muhammad 'Adi Asyraf bin Azrai	Leather Yield Improvement in DK Leather Seat Sdn. Bhd	2015/2016
5	Muhamad Fahmi bin Rosly	Investigation of Sand Properties and Mechanical Affect Using CO ₂ Casting Process	2015/2016
6	Tahirah binti Zuraka	Ankle Foot Orthosis: Analysis of Performance Control System	2015
7	Nurnabila Binti Mohd Noor	Ankle Foot Orthosis: Measurement and System	2015
8	Mohd Jabir b. Hassan@ Hashim	Design of A New Lifting Mecahism for Ambulift	2015
9	Mohamad Nasir bin Mohd Naim	Development Of Remotely Operated Vehicle Prototype For Underwater Inspection	2014/2015
10	Nur'izzwani Binti Mohd Zaini	The Corrosion Behaviour Of Ss316l In Different Solution Of Immersion	2014/2015
11	Nur Eza Liana Binti Jaafar	The Effect Of Heat Treatment On The Bioactivity Behaviour And Properties Of Ss316l For Biomedical Applications	2014/2015
12	Mohd Al-Muhaimin Din	Design Inspection Robot For Oil And Gas Industry	2014/2015
13	Mohamad Faiz Bin Zalani	Resistivity Characteristic Of Qtc Pills For Tactile Sensing Applicati	2014/2015
14	Ayub Bin Kamarudin	Resistivity Characteristics Of Pressure Sensitive Conductive Rubber Sheet For Tactile Sensing Application	2014/2015

PAPERS PUBLISHED

PUBLICATIONS FOR 2015

- [1] Ahmad, A.A., Low, C.Y., Muthmainnah, N., Jaffar, A. Measurement of quantum tunneling composite resistivity characteristics for tactile sensing applications 2015) Jurnal Teknologi, 76 (4), pp. 43-47. <http://www.scopus.com/inward/record.url?eid=2-s2.0-84941962828&partnerID=40&md5=8f870723f8f5bdd4333cce4c9743432c> DOI: 10.11113/jt.v76.5482
- [2] A. Aqilah, C.Y. Low, and N. Muthmainnah, "A Study on Resistivity Behaviour of Conductive Rubber Sheet (CRS) and Quantum Tunnelling Composites (QTC) Pills for Tactile Sensor Application," in Journal of Advanced Research Design, Vol. 8, No.1. Pages 22-28, 2015, October 2015. ISSN (online): 2289-7984

PUBLICATIONS FOR 2013

- [1] M. Amlie, A. Aqilah, A. Jaffar, M. S. Bahari, and C.Y Low , “Development of UiTM Robotics Hand,” In proceedings of WASET ICEME 2013: International Conference on Electrical and Mechatronics Engineering, vol 7 no 1., pp 896-901, 24 January 2013.**{ISI}**
- [2] Cheng Yee Low, M. Amlie A. Kasim, Torben Koch, Roman Dumitrescu, Hanafiah Yussof, Roseleena Jaafar, Ahmed Jaffar, Ahsana Aqilah and Kok Mun Ng. Hybrid-Actuated Finger Prosthesis with Tactile Sensing. Int J Adv Robot Syst, 2013, 10:351. doi: 10.5772/56802.**{SCOPUS}**

PUBLICATIONS FOR 2012

- [1] Aqilah, A.; Jaffar, A.; Bahari, S.; Low, C.Y.; Koch, T., "Resistivity characteristics of single miniature tactile sensing element based on pressure sensitive conductive rubber sheet," in Signal Processing and its Applications (CSPA), 2012 IEEE 8th International Colloquium on , vol., no., pp.223-227, 23-25 March 2012 doi: 10.1109/CSPA.2012.6194722**{IEEE/SCOPUS}**