

**ASSOC. PROF DR NOR HAYATI SAAD****OFFICE ADDRESS**

Faculty of Mechanical Engineering, Universiti Teknologi MARA
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BORN

03 November 1975, KEDAH

CURRENT POSITION

- Head Centre of Study (Manufacturing, Design and Innovation) UiTM
- Program Chair (Bachelor of Mechanical Engineering (Manufacturing)(Hons.)) UiTM
- CDIO Coordinator UiTM (Conceive-Design-Implement-Operate)

STRENGTH

- Have more than 13 years experience in an academic field and research in *mechanical system, manufacturing process/ technology and operation management*. Covered research fields are MEMS Sensor (Humidity and gas sensor, using resonator and IDE platform), Bio-MEMS for Kinetics - Prosthetics Fingers, Micro resonator array for Artificial Nose, Ceramics Rotary moulding system, Bus design Structure Analysis , Grading System (FFB of oil palm fruit), Fibre Optic Anemometer, FMS (Flexible Manufacturing System) [focused group1]; Micro-Machining Process Algorithm, Micro Cutting, Nano-MEMS Integration, Aluminium coating for cathodic protection, Ceramic Powders Compaction [focused group2]; Integrated Islamic Quality Manufacturing System (QMS), Market survey (New Program Development), Ergonomics study in stamping industry, and Mass Customization [focused group3] ; appointed as a UiTM Vanguard Researcher.
- Experienced various capacity of *leadership roles and decision making* since 2001 in UiTM: Final Year Project Coordinator; ISO 9001 Document Officer; Quality Manager; Resident Staff; Head of

Manufacturing System Division; Head of Career, counseling and Alumni Committee; Head of Academic Care Taker; Head of Self-Review Committee (COPIA Standard), Advisor and Liaison Officer of IMechE Student Chapter; UiTM CDIO Coordinator; Head of Master Trainer (CDIO), Chair of Program (Manufacturing), and Head Centre of Studies Manufacturing, Design and Innovation.

- Involved in *Physical development* of Faculty of Mechanical Engineering (ISO room; Recreation Room and Mini Gymnasium; General Machining Workshop-2 (in progress); and MiNEMS Laboratory (Micro-Nanoelectro Mechanical System; in progress).
- Established and supported faculty and university development and documentation (SOP, policy, reference material, etc): Vice Chansellor Quality Award Documentation, Strategic Planning document, Self-Review Report (COPIA Standard), Self-Assessment Report (SAR) (Bachelor of Mechanical Engineering (Manufacturing)(Hons.)), Quality Manual, Management and Operations Procedure (ISO 9001:2000 and 9001:2008)
- Fast learner, creative, able to manage personnel, and formulate corporate strategy in dynamic environment.

COMPUTER SKILLS

- COMSOL Multiphysics (Micro/Nano: MEMS/ NEMS Simulation)
- LayoutEditor (Design and Edit Layout for MEMS-Microelectromechanical System Fabrication)
- MATLAB
- MINITAB (Statistical Analysis)
- Production/ Layout Simulation: Delmia QUEST (Systems integration, process flow design & visualization solution of 3D Production Layout), ARENA (2D Production Layout)
- CAD/CAM: Unigraphics, AutoCAD
- MS Project; Programming Language: Q-Basic & Fortran

FIELD OF SPECIALISATION

Mechanical/ Manufacturing System, Manufacturing Processes/ Technology and Operation Management

Research Interest:

- Micro-Nanotechnology (Interdisciplinary Technology: Manufacturing Process, Modeling and System Instrumentation, Micro/Nano Material and Finite Element Analysis)
- Precision Surface Engineering (Coating)
- Advanced Ceramic / Rubber Processes and Technology
- Design for Man-Machine Interfaces (MMI)
- Operation Management and Quality Management System
- Quality Improvement in Engineering/ Tertiary Education

EDUCATION

- PhD (Mechanical & Manufacturing Engineering), the University of Birmingham, UNITED KINGDOM (2010)
- MSc (Operation Management and Manufacturing Systems), the University of Nottingham, UNITED KINGDOM (2000)
- B. Eng (Hons.) Mechanical, Universiti Teknologi MARA, Shah Alam, MALAYSIA (1999)

PROFESSIONAL MEMBERSHIP

- Member of The Institution of Engineers Malaysia (IEM) (24753), 2004 – present
- Graduate Member, The Board of Engineers Malaysia (BEM) (36598A), 2001 – present
- Associate Member, The Institution of Mechanical Engineers, United Kingdom (IMechE) (80091863); 2008 – present
- Life Member, Malaysian Tribology Society (MYTRIBOS) (L0913) 2013 – present
- Member Malaysian Invention And Design Society (MINDS) (2037) 2013 – present
- Member, Society of Engineering Education Malaysia (SEEM) (PO250) 2014 - present
- Member, The American Society of Mechanical Engineers (ASME) (100001737); 2008 – 2010
- Member, The Institute of Electrical and Electronics Engineer (IEEE) (92198505) 2011 – 2013
- Member, The Society of Manufacturing Engineers (SME) (11574219) 2002 – 2003

WORKING EXPERIENCE

1. Faculty of Mechanical Engineering, Universiti Teknologi MARA, Shah Alam Selangor MALAYSIA

1.1 *Head Centre of Studies : Manufacturing, Design, and Innovation [01 Aug 2011-present]*

- Staff management: teaching-learning work load distribution; establishment of the staff KPI (key-performance-indicators); professional staff development planning (staff promotion, further studies, professional engineer); staff performance evaluation; new staff recruitment.
 - Management, and responsibility on development, review and monitoring of courses and curriculum: syllabus; *Jadual-spesifikasi-ujian*, JSU, implementation of outcome-based-education (OBE), course file; appointment of course coordinators/ resource person (RP), and final examination paper vetting panel; continuous-quality-improvement, CQI; course assessment; closed-the-loop, CDL.
 - Budget preparation and management for the center and related laboratories: planning for new equipment or machines, consumables, facilities maintenance, training, new space development, and expansion of current laboratories; cost endorsement (purchasing of new asset or inventory item, maintenance activities, staff going for training or conference)
 - Monitoring laboratories management in terms of teaching-learning activities (Laboratories & Workshop: (i) General Machining (workshop), (ii) Advanced Machining/ Manufacturing, (iii) Fundamental Welding, (iv) Advanced Welding (v) Metrology, (vi) Ergonomics Lab, (vii) Foundry, (viii) Old Workshop/ Teaching Factory, (ix) Micro-Nano Electro Mechanical System Lab (MiNEMS 1 & 2)); appointment of lab managers.
 - Involvement in programme accreditation: preparation or coordination in establishing accreditation document; help to respond on the comments made by the accreditation body, i.e. Engineering Accreditation Council, EAC and MQA; and direct involvement during assessment day.
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- Help to propose reading or reference material to library related to 'Manufacturing, Design, and Innovation' field.
- Support in new programme development: syllabus review or development of new syllabus and curriculum
- Decision making in various capacities: staffs' key-performance indicators criteria; faculty's self review under COPIA standard (Code of Practice under Institutional Audit).

1.2 **Program Chair:** B. Eng (Hons.) Mechanical (Manufacturing) [1 Mac 2012- present, 28 Feb 2016]

1.3 **Head of Self-Review Committee,** under COPIA (Code of practice for Institutional Audit) standard by MQA, Malaysian Qualification Agency [2011-present]

1.4 **Head of Caretaker Academic Programme Committee:** B. Eng (Hons.) Mechanical (Manufacturing) [1 Jan- 31 Dec 2011]

1.5 **Head of Quality Management/ Assurance Unit,** [1 Jan- 31 Dec 2011]

1.6 **Head of Career/ Counseling/ and Alumni Committee** [15 Jan 2005-14 Jan 2006]

1.7 **Head of Manufacturing System Division** [15 Feb 2005- 14 Jan 2006]

1.8 **ISO 9001:2000 Document Officer** [15 Oct 2003- 31 Aug 2006]

1.9 **Coordinator, Undergraduate Final Year project,** [1 Nov 2001-31 Oct 2003]

2. Universiti Teknologi MARA, Shah Alam Selangor MALAYSIA

2.1 **CDIO Coordinator & Head of Master Trainer,** Teaching Learning Framework, CDIO (Conceive-Design-Implement-Operate) [2012 – present]

3. Kolej Melati, Universiti Teknologi MARA, Shah Alam Selangor MALAYSIA

3.1 **Students Development Officer/** Resident Staff, Kolej Melati [1 Jul 2004- 30 Jun 2006]

4. Airod Sdn Bhd, Jalan TUDM Subang 47200 Subang Selangor MALAYSIA

4.1 **Planning Engineer** [Jul - Aug 1999]:

Established and improved process flow of aircraft maintenance operations. Prepared schedules for checking, maintaining and overhauling the aircraft.

5. Display Technology (M) Sdn Bhd., Lot 329, Kawasan Perindustrian Sungai Petani, 08000 Sungai Petani Kedah MALAYSIA

5.1 **Engineering Assistant** [May - Nov 1996]:

Arranged the processes of new product. Improved the output of production by controlling number of rejected components. Standardized the format of the inventory and transformation form of products.

**LIST OF ACTIVITIES, EXPERTISE AND CONTRIBUTIONS TO UiTM/
NATIONAL/ INTERNATIONAL COMMUNITY**

A. ACADEMIC CONTRIBUTION

A1. COURSES TAUGHT

1. Industrial Project 1, Master in Engineering Management (MEM798) [Sep 2014 - Jan 2015, Sep2015 - present]
2. Total Quality Management, MEM678, Bachelor Degree [2012- present]
3. Final Year Project 1, MEM/MEC601, Bachelor Degree [2012- present]
4. Final Year Project 2, MEM/MEC602, Bachelor Degree [2012- present]
5. Manufacturing Processes III, MEM560/ 561 Bachelor Degree [2010- 2011]
6. Engineers in Society, MEC600, Bachelor Degree [2010- 2011]
7. Industrial Management, MEM575, Bachelor Degree [2005-2006, 2010-2012]
8. Manufacturing Technology & Processes Laboratory, Bachelor Degree [2005-2006]
9. Manufacturing Processes II, MEM461, Bachelor Degree [2005- 2006]
10. Production Technology III, KJP470, Bachelor Degree [2004-2005]
11. Industrial Management, KJP250 Diploma in Mechanical Engineering [2002-2003]
12. Automation, KJP323 Diploma in Mechanical Engineering [2002-2005]
13. Manufacturing Processes, KJP471, Bachelor Degree [2001- 2006]
14. Production Technology II, KJP276, Diploma in Mechanical Engineering [2000-2002]
15. Dynamics of Machines, KJM321 Diploma in Mechanical Engineering [2000-2001]

A2. DETAILS OF TEACHING WORKLOAD

Year/ Semester	Course Name/ Code	Level	Hours Per Week: Lecture/ Tutorial/ Laboratory	Hours Per Semester	Number of Students
Dec 2000- Apr. 2001	Dynamics of Machines/ KJM321	Diploma	4/4/8	240	90
Dec 2000- Apr. 2001	Production Technology/ KJP276	Diploma	3/-/2	75	54
May 2001-Oct 2001	Dynamics of Machines/ KJM321	Diploma	4/4/8	240	85
May 2001-Oct 2001	Production Technology/ KJP276	Diploma	3/-/2	75	30
Nov 2001-Mar 2002	Production Technology/ KJP276	Diploma	3/-/2	75	31
Nov 2001-Mar 2002	Manufacturing Processes/ KJP471	Bachelor	3/2/2	105	28
May 2002-Oct 2002	Manufacturing Processes/ KJP471	Bachelor	3/2/2	105	44
May 2002-Oct 2002	Automation/ KJP323	Diploma	3/-/2	75	22
Dec 2002- May 2003	Manufacturing Processes/ KJP471	Bachelor	6/4/-	150	94
Dec 2002- May 2003	Automation/ KJP323	Diploma	3/-/2	75	26
Dec 2002- May 2003	Industrial Management/ KJP250	Diploma	4/1/-	75	36
Jun 2003-Oct 2003	Manufacturing Processes/ KJP471	Bachelor	3/2/4	135	47
Jun 2003-Oct 2003	Automation/ KJP323	Diploma	3/-/2	75	21
Dec 2003-Apr 2004	Manufacturing Processes/ KJP471	Bachelor	3/2/4	135	58
Dec 2003-Apr 2004	Automation/ KJP323	Diploma	3/-/-	45	25
Jun 2004-Oct 2004	Manufacturing Processes/ KJP471	Bachelor	3/2/2	105	40
Jun 2004-Oct 2004	Production Technology III/ KJP450	Bachelor	3/1/-	60	5
Nov 2004-Mar 2005	Manufacturing Processes/ KJP471	Bachelor	3/1/2	90	34
Nov 2004-Mar 2005	Automation/ KJM325	Diploma	3/-/2	75	23
Jul 2005 -Nov 2005	Production Technology III/ KJP470	Bachelor	3/1/2	90	20
Jul 2005 -Nov 2005	Automation/ KJM325	Diploma	3/-/2	75	23
Dec 2005-May 2006	Manufacturing Processes II/ KJP556	Bachelor	3/1/-	60	28
Dec 2005 -	Manufacturing Processes /	Bachelor	3/1/-	60	15

May 2006	KJP471				
Dec 2005 - May 2006	Industrial Management/ KJP450	Bachelor	3/-/-	45	34
Dec. 2005- May 2006	Manufacturing Technology & Processes Laboratory/ KJP506	Bachelor	-/-/6	90	68
July 2006 - Nov. 2006	Industrial Management/ KJP585	Bachelor	3/1/-	60	34
July 2006 - Nov. 2006	Automation/ KJM366	Diploma	3/-/2	75	26
Dec 2010 - April 2011	Engineers In Society/ MEC600	Bachelor	3/-/-	42	29
Dec 2010 - April 2011	Manufacturing Processes III/ MEM561	Bachelor	3/-/-	42	30
Sep 2011- Jan 2012	Industrial Management/ MEM575	Bachelor	6/-/-	84	56
Mac 2012- July 2012	Industrial Management/ MEM575 (2 groups)	Bachelor	6/-/-	84	56
Sep 2012- Jan 2013	Total Quality Management	Bachelor	3/-/-	42	28
Mac 2013- July 2013	Total Quality Management/ MEM678	Bachelor	3/-/-	42	35
Sep 2013- Jan 2014	Total Quality Management / MEM678	Bachelor	3/-/-	42	27
Mac 2014- July 2014	Total Quality Management / MEM678	Bachelor	3/-/-	42	53
Sep 2014 – Jan 2015	Total Quality Management/ MEM678	Bachelor	3/-/-	42	39
Mac 2015 - July 2015	Total Quality Management	Bachelor	3/-/-	42	37
Sep 2015 – Jan 2016	Total Quality Management	Bachelor	3/-/-	42	60
Sep 2015 – Jan 2016	Industrial Project 1	Master	-	20	26

A3. SUPERVISION OF THESIS/ DISSERTATION/ PRACTICAL TRAINING

A3.1 POSTGRADUATE (PhD/MSC) – Completed

1. Nurul Hanna Binti Mas'aud (2010290414, Msc in Mechanical Engineering); "Ergonomically Designed of Working Environment to Reduce the Effects Of Hand-Arm Vibration Industry" (Co-sv, UiTM Malaysia), 2015
2. Muhamad Hafiz Abd. Malik (2011147747, Msc in Mechanical Engineering); "Performance Analysis of Thermal Spray Aluminium Coating for Application as a Sacrificial Anode" (Waiting for thesis endorsement from internal examiner after viva with minor correction result, UiTM Malaysia), 2015

A3.2 POSTGRADUATE (PhD/MSC) – On-Going

1. Amirul Abd Rasyid (2011650432); “Nanostructured tungsten trioxide on MEMS platform for ethylene gas sensor applications” (PhD, UiTM Malaysia)
2. Noriah Binti Yusoff (2012814926); “Synthesization and Characterization of Nano Sensing Materials for MEMS Breath Sensor for Medical Application”, (PhD, UiTM Malaysia)
3. Eizuddin Bin Mohamad (2012899678); “Ergonomics Interventions in Spectrum Measurements in the Communications and Multimedia Industries in Malaysia”. (Co-supervisor, PhD UiTM Malaysia)
4. Rohidatun Binti Mahmod @ Wahab (GS40702); “Approach for Real Human Interaction in Virtual Reality While Screening, determine and Analyses for Assembly Process or maintenance process in design Development Stage in Automotive industry”. (Co-supervisor, Universiti Putra Malaysia Malaysia)
5. Wan Noaimadudin Wan Mohamad Kamal (2011369947); “Design analysis of Forty Seater Bus Structure Compliance to UNECE 66 Regulation” (MSc UiTM Malaysia)
6. Nadia Md Razib (2011676436); “Development of microhotplate with Integrated Nanomaterials for gas sensing applications” (MSc; UiTM Malaysia)
7. Mohd. Shahrudin Bin Mohd. Alias (2012415124); “Analysis on the Factors and Effects of Engine Tapping Noise by Design of Experiment (DOE)” (MSc; UiTM Malaysia)
8. Norrul Hafizan Bt Ab Wahab (2013686026); “Mould Process Analysis For Advanced Slip Rotary Moulding, Csrsm In Producing Hollow Ceramic Product.” (MSc UiTM Malaysia)
9. Norazne Bt Nasir (2014188965); “Performance And Process Analysis Of Ceramic Slip Rotary Moulding For Fine Bone China Product” (MSc, UiTM Malaysia)
10. Qhairunisha Binti Mohd Khalid (2014530841); “Integration of ISO/ TS16949 Requirement with Lean Manufacturing System to Smooth Supply Chain Management in Automotive Industry” (MSc; UiTM Malaysia)

A3.3 UNDERGRADUATE – Completed

[(Bachelor of Engineering (Hons) Mechanical-EM220/ Bachelor of Mechanical Engineering (Manufacturing)(Hons)- EM221/ Diploma in Mechanical Engineering)]

1. Izzah Husna Bt Aziz (2012294276); “Ceramics Slip Rotary Moulding (CSRM) Process Analysis for 3-D Stoneware Product” (Jul 2015, Bachelor- EM220)
2. Fatin Syafinaz Sahrudin (2012698112); “Slip Composition of Fine Bone China Products for Ceramics Slip Rotary Moulding (CSRM)” (Jul 2015, Bachelor – EM221)
3. Mohammad Bakhtiar Sarkawi (2012853696); “ Design of Experiment on Breath Sensor Response Performance Using Minitab” (Jul 2015, Bachelor- EM220)
4. Muhamad Rabani Kamaruzzaman (2012853256); “Ceramics Slip Rotary Moulding (CSRM) With Dual

- Axes Rotational System Design” (Jul 2015, Bachelor- EM220)
5. Muhamad Nazrin Ismail (2012287198); “Design and Simulation of MEMS Moisture Sensor Using COMSOL Multiphysic”. (Jul 2015, Bachelor- EM220)
 6. Muhammad Syahir Mohd Hasan (2011414438); “Aluminium Coating Performance Analysis in Corrosion Protection” (Jul 2015, Bachelor- EM220)
 7. Mohamad Azhar Bin Azmi (2012846518); “New Product Development and Analysis of LED Street Light” (Jul 2015, Bachelor- EM220)
 8. Zaim Aiman Mazli Sham (2012872342); “Mould Analyses for Cast-C and TA-50G for Ceramics Slip Rotary Moulding (CSRM) Machine” (Jul 2015, Bachelor- EM220)
 9. Mohamad Kamil Bin Mohamad Afifi (2011865602); “Investigation of Fire Behaviour in Basement Carepark” (Jan 2015, Bachelor-EM220)
 10. Khairul Ikhwan Abdul Aziz (2010210684); “Synthesizing Carbon Nanotube Nanosensing Material for Capacitive Type Sensor” (Jul 2014, Bachelor-EM220)
 11. Mohamad Najmi Sharifuddin Bin Rosli (2010463332); “Fabrication of ZnO Nanosensing Material for Capacitive Type MEMS Sensor Device” (Jul 2014, Bachelor-EM220)
 12. Azri Shahmi Bin Ramli (2011613416); “Investigation on the Composition and Characterization of Recycled Rubber and the Blend of Recycled Rubber with Natural Rubber (SMR-L and SMR-10)”, (Jul 2014, Bachelor-EM220)
 13. Brandon Joseph Motunggi (2010114247); “A study of Aluminium Anode in Cathodic Protection for Marine and Offshore Application”, (Jan 2014, Bachelor-EM220)
 14. Muhammad Sayyidi Bin. Zainul Abidin (2009993017); “Simulation of aluminium high pressure die casting” (Jan 2013, Bachelor)
 15. Mohd Hariz b. Ibrahim (2009537811); “A study of Aluminium Anode for Cathodic Protection of Marine and Offshore Structure” (Jan 2013, Bachelor-EM220)
 16. Shamsul Fikri b. Muhmad Nor (2009557157); “A study on Quality Improvement in Cylinder Head, low Pressure casting” (Jan 2013, Bachelor)
 17. Nor Iqbal Shaffiq Bin Azman (2009553079); “Simulation of cylinder head low pressure casting” (Jan 2013, Bachelor)
 18. Noor Aidil Farhana Bt. Alias (2007288914); “Signal Conditioning circuit for a resonant Sensor test rig (Part 1)” (Jul 2012, Bachelor)
 19. Muhamad Aizuddin Bin Abdul Muis (2009481284); “Corrosion prevention: Galvanic method (sacrificial anode) as cathodic protection” (Jul 2012, Bachelor-EM220)
 20. Mohd. Aminudin Bin Md. Harun (2009862646); “Reducing MEMS Process Variation : Lapping process (Low mode process parameter)” (Jul 2012, Bachelor)

21. Razif Bin Salleh (2009250728) "New design of nodal coupled micro resonator sensor structure" (Jul 2012, Bachelor)
22. Khairul Asyraf Musa (2009883152); "First step in Lithography Process Analysis on Micro Resonator Sensor Structure" (Jul 2012, Bachelor)
23. Azizul Bin Jaafar (2009652312); "Reducing MEMS Process Variation : Lapping process (High mode process parameter)" (Jul 2012, Bachelor)
24. Murni Farahin Bt. Musa Zainal Abidin (2007289052); "Process Variation Analysis of Plain Silicon Wafer (Part 1)" (Jan 2012, Bachelor)
25. Nur Izzati Bt. Ishak (2007288986); " Process Variation Analysis of Plain Silicon Wafer (Part II)" (Jan 2012, Bachelor)
26. Mohd Nazri Bin Ahmad (2003289017); "Design and Fabrication of Gripper and Jigs in determining Oil Palm Fruit Plucking Force" (May 2006, Bachelor)
27. Firdaus Erwan Bin Hazary (2003288831); "Analysis of Oil Palm Fruit Plucking Force using Instron Machine" (May 2006, Bachelor)
28. Mohd Faizal Bin Kamarudin (2002241755); "Establishment of hardware interfacing system" (Nov 2005, Bachelor)
29. Mohd Husni Bin On (2002241787); "Development of interfacing program using LabView software" (Nov 2005, Bachelor)
30. Hasanul Ariff Bin Che Jawias (2001448756); "A study of Ceramic Coating by Plasma Spray machine" (Apr 2005, Bachelor)
31. Muhamad Yusup Bin Hj. Kamis (2001499285); "A study of Ceramic Coating by Plasma Spray machine" (Apr 2005, Bachelor)
32. Za'akemal Bin Abd Rahman (2001194746); "Measuring speed and direction using fiber optic technology" (Apr 2005, Bachelor)
33. Nordin Bin Jumiran (2001194698); "Measuring speed and direction using fiber optic technology" (Apr 2005, Bachelor)
34. Adzrin b. Ahmad (2000339039); "Measuring wind speed and direction using fiber optic technology" (Oct 2004, Bachelor)
35. Nor Hisham b. Mohamed (2000127539); "Measuring wind speed and direction using fiber optic technology" (Oct 2004, Bachelor)
36. Mohamad Norsharizal b. Abdul Rahman (2001475385); "Study and development of micro mold for injection molding" (Mar 2004, Bachelor)
37. Mohamad Faizul b. Selamat (2001476234); "Study and development of micro mold for injection molding" (Mar 2004, Bachelor)

38. Muhammad Fairuz b. Ishak (2000338581); "A study of Ceramic coating (alumina) by plasma coating equipment" (Mar 2004, Bachelor)
39. Nazwan b. Mokri (2000338231); "A study of Ceramic coating (alumina) by plasma coating equipment" (Mar 2004, Bachelor)
40. Mohd Zaidi b. Zawawi (2000338176); "An overview of the CIM implementation" (Mar 2004, Bachelor)
41. Mohd Hamidi b. Mohd Kassim (2000338661); "The potential implementation of CIM in Malaysian manufacturing industry" (Oct 2003, Bachelor)
42. Mohamad Halim Ibrahim (2000338151); "The development of a case-mould for rubber glove product using CAD-CAM software" (Oct 2003, Bachelor)
43. Mohamad Junid b. Omar (99083244); "A study to seek the possibility to implement flexible manufacturing system (FMS) in a small local plastic company" (Apr 2002, Diploma)
44. Ahmad Fareed b. Azman Lingam (99083013); "A study to seek the possibility to implement flexible manufacturing system (FMS) in a small local plastic company" (Apr 2002, Diploma)
45. Nor Azwan Abdul Shukor (99082813); "The conceptual study in improving separation process using electro pneumatic system in palm oil industry" (Apr 2002, Diploma)
46. Mohd Rizal Mohamad Sadali (99082719); "The conceptual study in improving separation process using electro pneumatic system in palm oil industry" (Apr 2002, Diploma)
47. Norhazwan Norizan (99082845); "The conceptual study in improving separation process using electro pneumatic system in palm oil industry" (Apr 2002, Diploma)
48. Zaiful Zazuwan b. Zainol (98536128); "Steering System (four wheel steering)" (Apr 2002, Diploma)
49. Mohamad Sakri b. Mat Saad (99083251); "Steering System (four wheel steering)" (Apr 2002, Diploma)
50. Zubir Bin Ahmad Shazli (98132247); "Overview Process of Alumina Ceramic Guide Pin" (Oct 2001, Diploma)
51. Shahrizam Bin Md. Sahid (98193694); "Overview Process of Alumina Ceramic Guide Pin" (Oct 2001, Diploma)
52. Mohd Aizal Bin Isa (98159398); "Overview Process of Alumina Ceramic Guide Pin" (Oct 2001, Diploma)

B. RESEARCH/ INDUSTRY- COMMUNITY PROJECT**B1. RESEARCH (COMPLETED)**

1. "Mass Customization: The impact of product variety on lead-time". MSc Research, University of Nottingham, United Kingdom, 2000.
2. "Development Of Flexible Manufacturing System Model For Specific Manufacturing Industry"; 600-BRC/ST.5/3/417, RM20,000, Co-researcher, 2003.
3. "Development of A Fibre Optic Anemometer", Research Management Institute, RMI UiTM, 600-BRC/ST 5/3/601, Short Term Grant, UiTM / 10399/2003; RM20,000, Principle Researcher , 2005.
4. "Experimental Studies On Cold And Warm Ceramic Powders Compaction Processes: Application To Malaysian Powder Metallurgy Industries", Research Management Institute, RMI UiTM, 600-BRC/ST 5/3/602, Short Term Grant, UiTM / 10395/ 2003; RM37383, Co-researcher, 2005.
5. "Removal of Discomfort by The reduction of Machine Vibration Experienced by Stamping Machine Operators" Research Management Institute, RMI UiTM, Short Term Grant, UiTM/ 10311/2002; RM20,000, Co-researcher, 2005.
6. "Development of Material handling technique to Improve Occupational Health in Malaysian Small & Medium Industries (SMIs)". Intensification Research for Priority Area, IRPA, MOSTI Malaysia / 50059/2003; RM163,000, Co-researcher, 2006.
7. "Development Of Qpec (Questionnaires Package For Engineering Curriculum) And Sas (Statistical Analysis System) To Analyse The Survey [Case Study: Market Survey For Curriculum Development Of Bachelor Engineering (Hons) In Mechanical (Manufacturing)]. 600-IRDC/ST 5/3/730, Short Term Grant, UiTM / 10493/ 2004; RM20,000, Co-researcher, 2006.
8. "Grading System - Analysis of Force Distribution on Fresh Fruit Bunches (FFB) of Oil Palm Fruit", Research Management Institute, RMI UiTM, 600- IRDC/ ST/5/3/1063, Short Term Grant (STG), UiTM /1063/ 2006; RM20,750, *Co-researcher, 2007.
9. "Modeling and Performance Evaluation of Coupled Micro Resonator Array for Artificial Nose". PhD Research, University of Birmingham, United Kingdom, 2010.
10. "A New Integrated Structure Model Of Staggered-Coupled Micro Resonant Sensor Simplified Pattern Recognition Engine System", Ministry of Higher Education Malaysia, MOHE, (FRGS, 600-RMI/ST/FRGS 5/3/Fst (30/2011), RM96,000), Principal Resercher, 2013.
11. "New Micro-Machining Process Algorithm for 3-Demensional Precision Microelectro Mechanical System (MEMS), Ministry of Higher Education Malaysia, MOHE, ERGS, 600-RMI/ERGS 5/3 (16/2011), RM100,000, Principal Resercher, 2013.
12. *"Performance analysis of Thermal spray aluminium coating for application as a sacrificial anode for cathodic protection of marine offshore structure", Research Management Institute, RMI UiTM, Research Intensive Faculty, RIF; 600-RMI/DANA 5/3/RIF (98/2012), RM32,000, *Co-Resercher, 2014.

13. *"Analysis and Structure Improvement of Single Deck Bus Due to Rollover Effect Accident", Research Management Institute, RMI UiTM, Research Intensive Faculty, RIF; 600-RMI/DANA 5/3/RIF (613/2012), RM32,000), *Co-Resercher, 2014.
14. *"Analysis of Nano-MEMS (Microelectro-Mechanical System) Structure Integration for Ultra-Sensitive Artificial Nose Micro Resonant Sensor", Research Management Institute, RMI UiTM, Research Intensive Faculty, RIF; 600-RMI/DANA 5/3/RIF (390/2012), RM32,000, Co-Resercher, 2014.
15. *"Improving selectivity of MEMS Sensors with Supervised Learning Systems", Research Management Institute, RMI UiTM, Research Intensive Faculty, RIF; 600-RMI/DANA 5/3/RIF (360/2012), RM32,000, Co-Resercher, 2014.
16. "Microcutting edge radius characterization", Ministry of Higher Education Malaysia, MOHE, FRGS, 600-RMI/FRGS 5/3 (20/2013), RM106,000, Co-Resercher, 2015.
17. "Integrated Zero Waste Slip Rotary Moulding Technique of Hollow Ceramic, Ministry of Science, Technology and Innovation", MOSTI, Science Fund, 03-03-02-SF0245, RM259,900, Co-Resercher, 2015.

B2. RESEARCH (ON-GOING)

1. "New Readout Architecture of Capacitive Micro-Mechanical Resonator", Research Management Institute, 600-RMI/RAGS 5/3 (42/2012), RMI UiTM/ Ministry of Higher Education Malaysia, MOHE, RM80000.00, Co-researcher , 2012-present.
2. "Morphological Characterization of Nanostructure for An improved Micro-electromechanical (MEMS) Resonator Detection Sensitivity", Ministry of Higher Education Malaysia, MOHE, ERGS, 600-RMI/ERGS (/2013), RM100,000, Co-Resercher, 2013-present.
3. "New Bio-MEMS Interface Algorithm for Improved Kinetics - Prosthetics Fingers, Ministry of Higher Education Malaysia", MOHE, ERGS, 600-RMI/ERGS (/2013), RM100,000, Co-Resercher, 2013-present.
4. "Adaptive Heterogeneous Multiscale Formulations For Nonlinear Solutions In Subsurface Flow Systems", Ministry of Higher Education Malaysia, MOHE, 600-RMI/RAGS 5/3 (46/2013), RM65,000, Co-Resercher, 2013-present.
5. "New Framework Model Of Integrated Islamic Quality Manufacturing System", Ministry of Higher Education Malaysia, MOHE FRGS, 600-RMI/FRGS 5/3 (70/2013), RM80,500, Co-Resercher, 2013-present.
6. "New Integrated Slip Rotary Moulding System", Ministry of Higher Education Malaysia, MOHE, 600-RMI/RAGS 5/3 (43/2013), RM65,000, *Co-Resercher, 2013-present.

B3. KNOWLEDGE TRANSFER PROGRAM (ON-GOING)

1. "Transferring Expertise to Asia Green Recycle in Formulating and Testing Products of Recycled Tire: A generation of Green Factory and Income", 600-RMI/ICAN KTP 5/3 (9/2015), RM138,580.00, Project Leader, 2013- present.
2. "Transferring Expertise To Entrepreneurs In The Production Of High-Quality Rabbit Livestock Through An Afficient Farming Technology And Economics", 600-RMI/ICAN KTP 5/3 (7/2015), RM100,604.00, Project Member, 2013- present.
3. "Transferring Expertise To Automotive Parts Company In Establishing Lean Manufacturing Production System By Minimizing Waste And Eliminating Non-Added Value Activities", 600-RMI/ICAN KTP 5/3 (26/2015), RM151,500.00, Project Member, 2014- present.

B4. RESEARCH/ GRANT (NEW APPLICATION)

1. "Process Analysis Of New Ceramic Slip Rotary Molding For 3d-Hollow Part Of Fine Bone China", RAGS 2015-1, Research Acculturation Grant Scheme, *Co- Researcher, 11 September 2015.
2. "3d Hollow Shape Mould Design Process Analysis For Advanced Slip Rotary Moulding, *Co- Researcher, 11 September 2015.
3. "Investigation of Implementing Automation System in the Production Line for Malaysian Food Industry SMEs, RAGS 2015-1, Research Acculturation Grant Scheme, Co- Researcher, 11 September 2015.
4. "2-Axis Integrated Slip Rotary Moulding Prototype For 3d Hollow Shape Ceramic Product, PRGS, Principal - Researcher, 24 September 2015.
5. "CDIO (Conceive-Design-Implement-Operate) Integration in Implementing I-CGPA Approach for Mechanical Engineering Undergraduate Student", ARAS , Academic & Research Assimilation Grant, *Co- Researcher, 30 September 2015.

C. PUBLICATIONS

C1. THESIS & TECHNICAL REPORT

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4. Abdul Rahman Omar, Md Fuad Bahari, **Nor Hayati Saad**, Darius Ghananaraj Solomon, 2006. Development of Material Handling Techniques to Improve Occupational Health in Malaysia Small & Medium Industries (SMLs), Research Report, Research management Institute, UiTM Malaysia.
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6. Aidah Jumahat, **Nor Hayati Saad**, Ahmad Kamal Ariffin, 2005. Experimental Studies on Cold and Warm Ceramic Powders Compaction Processes: Application to Malaysian Powder Metallurgy Industries, Research Report, Institute of Research, Development and Commercialisation, UiTM Malaysia.
7. **Nor Hayati Saad**, Zuriati Janin, 2005. Development of A Fibre Optic Anemometer, Research Report, Research Management Institute, UiTM Malaysia.
8. Ahmed Jaffar, **Nor Hayati Saad**, 2003. Development of Flexible Manufacturing System (FMS) Model for Specific Manufacturing Industry, Research Report, Research Management Institute, UiTM, Malaysia.
9. **Nor Hayati Saad**, 2000. Mass Customization, MSc Thesis, University of Nottingham, United Kingdom; Sponsor: Majlis Amanah Rakyat, MARA Malaysia & Postgraduate Training Support Scheme, United Kingdom

C2. JOURNALS

1. Mohd Shahir Kasim, CH Che Haron, JA Ghani, N Mohamad, R Izamshah, M Minhat, SB Mohamed, JB Saedon, **NH Saad**, " Prediction of Cutting Force in End Milling of Inconel 718" , *The Journal of Engineering and Technology (JET)*, vol.5(2), pp 63-70, 2015.
2. Muhamad Hafiz Abd Malek, **Nor Hayati Saad**, Sunhaji Kiyai Abas, Noriyati Binti Md Shah, "Performance Analysis of 99.5% Aluminium Alloy as a Sacrificial Anode". *Materials Mind*, PP18691/ 01/ 2015 (034114)/ ISSN 2289-9030, (Issue 11), pp 20-24, 2015.
3. Amirul Abd Rashid · **Nor Hayati Saad** · Daniel Bien · Chia Sheng, "Hydrothermal Synthesis Of Tungsten Oxide (WO₃) Nanostructures Using Sodium Chloride As Structure Directing Agent" , *Journal of Multidisciplinary Engineering Science and Technology (JMES)*, ISSN: 3159-0040, vol.2(6), pp 1572-1576, 2015.

4. Mohd Shahrudin Mohd Alias, **Nor Hayati Saad**, Juri Saedon, Nor Hidayati Hassan, "Engine Performance Validation Of The Optimal Design Of Experiment Valvetrain Parameters" , Jurnal Teknologi, eISSN: 2180-3722, vol.76(6), pp 85-90, 2015.
5. **Nor Hayati Saad** , Abdul Rahim M. Sahab, M. Moza M. Mohtar, Farrahshaida M. Salleh, Izdihar Tharazi · Juri Saedon, "Formation Of Hollow Shape Porcelain By Using A New Integrated Slip Rotary Moulding Technique" , Jurnal Teknologi, eISSN: 2180-3722, vol.76(6), pp 49-53, 2015.
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7. Noriah Yusoff , **Nor Hayati Saad**, Mohsen Nabipoor , Suraya Sulaiman, Nor Mu'minah Abd. Ghawi, Ahmed Jaffar , Amirul Abd Rashid, "Design Of Experiment Using Minitab For Screening Breath Sensor Workability Performance" , Jurnal Teknologi, eISSN: 2180-3722, vol.76(9), pp 1-5, 2015.
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9. Muhamad Hafiz Abd Malek, **Nor Hayati Saad**, Sunhaji Kiyai Abas, Noriyati Binti Md Shah, "Critical process and performance parameters of thermal arc spray coating". *International Journal of Materials Engineering Innovation*, vol. 5(1), pp 12-27, 2014.
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12. Amirul Abd Rashid, **Nor Hayati Saad**, Daniel Bien Chia Sheng, Lee Wai Yee, "Gauge Repeatability and Reproducibility Assessment: pH Meter for WO₃ Hydrothermal Synthesis". *Advanced Science Letters*, vol.20, pp 2275-2277, 2014.
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 28. **Nor Hayati Saad**, M.A.A. Farouk, Z. Mohamed, A.R.M. Sahab, 'Manufacturing Plant Performance Analysis Using Simulation Technique'. N.H. Saad, M.A.A. Farouk, Z. Mohamed, A.R.M. Sahab, Conference Proceedings: The 2nd International Conference on Mechatronics 2005, Pan Pacific Hotel, K. Lumpur, ICOM05, International Islamic University Malaysia, ISBN: 983-2957-57-5, pp 871 – 878, 10-12 May 2005.
 29. Z. Janin, **N.H. Saad**, 'Fiber Optic Technology In Anemometer Development'.Conference Proceedings: The 2nd International Conference on Mechatronics 2005 (Pan Pacific Hotel, K. Lumpur), ICOM05, International Islamic university Malaysia, ISBN: 983-2957-57-5, pp 1045 – 1053, 10-12 May 2005.
 30. Isa Halim, Abdul Rahman Omar, **Nor Hayati Saad**, 'Ergonomic Assessment for Accessing Work Related Musculoskeletal Disorder (WMSDs) Among Workers in Metal Stamping Industry'. 8th South East Asia Ergonomics Society Conference 12th Indonesian Physiological Society Congress 2005, Bali Indonesia, 23 – 25 May 2005.
 31. Isa Halim, Abdul Rahman Omar, **Nor Hayati Saad**, 'Ergonomic Assessment for Assessing Workplace Environment in Malaysian Small and Medium Industries (SMIs)'. International Conference on Managing Future Workplace: Issues & Challenges in the Borderless World, SunWay Lagoon Resort, Malaysia, 12-13 July 2005.
 32. A.R. Omar, D.G. Solomon, M.F. Bahari, **N.H. Saad**, J. Dahalan. 'Development of Material Handling Techniques to Improve Occupational Health in Malaysian small & Medium Industries (SMIs)'. Proceedings Seminar IRPA 2005 Universiti Teknologi MARA, (Marriot Putrajaya), ISBN: 983-9414-61-5, pp. 79 – 83, 26 – 27 February 2005.
 33. Zuriati Janin, **Nor Hayati Saad**, Abdul Rahim Mahamad Sahab. 'Mechanical System Instrumentation of Fibre Optic Anemometer'. In proceedings of National Conference on Advanced Mechanical Engineering, NAME '05 (Cititel Mid Valley, KL),UiTM, ISBN 967-958-177-X, pp 193-201, 18-20 May 2005.
 34. A.R.M Sahab, **N. H. Saad**, L.B. Hussain, T. W. Dung. 'The Performance Of Plasma Sprayed Ceramic Coatings: With And Without Bond Coat'. Proceedings: APSIM 2005, Advanced Processes and Systems in Manufacturing (Bangi, Malaysia), Universiti Kebangsaan Malaysia, ISBN: 983-2975-40-9, pp. 121 – 129, 17 – 18 May 2005.
 35. A.R.M. Sahab, **N.H. Saad**, L.B. Hussain. 'Mechanical Properties Investigation - Plasma Sprayed Ceramic

- Coatings'. Proceedings of National Conference on Advances in Mechanical Engineering, NAME 05, (Cititel Mid Valley, K.L), Universiti Teknologi MARA, ISBN: 967-958-177-2, pp 743 - 750, 18 – 20 May 2005.
36. Isa Halim, Abdul Rahman Omar, **Nor Hayati Saad**. 'Ergonomic Assessment To Identify Occupational Risk Factors In Metal Stamping Industries'. Proceedings of National Conference on Advances in Mechanical Engineering, NAME 05, (Cititel Mid Valley, K.L), Universiti Teknologi MARA, ISBN: 967-958-177-2, pp 461 - 470, 18 – 20 May 2005.
37. Md. Fuad Bahari, Darius Gnanaraj Solomon, **Nor Hayati Saad**. 'Removal of Discomfort from a Stamping Machine Operator'. Proceedings of National Conference on Advances in Mechanical Engineering, NAME 05, (Cititel Mid Valley, K.L), Universiti Teknologi MARA, ISBN: 967-958-177-2, pp 513 - 520, 18 – 20 May 2005.
38. **Nor Hayati Saad**, Zuriati Janin, 'Development of a Fiber Optic Anemometer (FOA)'. Conference on Scientific & Social Research, Terengganu, Institute of Research, Development and Commercialization, UiTM Shah Alam, 10 – 12 Jun 2005.
39. Aidah Jumahat, Ahmad Kamal Ariffin Mohd. Ihsan, **Nor Hayati Saad**. 'Improving Mechanical Properties of Near-Net-Shape Components Using Warm Compaction Process'. Conference on Scientific & Social Research, Terengganu, Institute of Research, Development and Commercialization, UiTM Shah Alam, 10 – 12 Jun 2005.
40. Md. Fuad Bahari, Darius Gnanaraj Solomon, **Nor Hayati Saad**. 'Removal of Discomfort by The Reduction Of Machine Vibration Experienced by Stamping Machine Operators'. Conference on Scientific & Social Research, Terengganu, Institute of Research, Development and Commercialization, UiTM Shah Alam, 10 – 12 Jun 2005.
41. Isa Halim, Abdul Rahman Omar, **Nor Hayati Saad**. 'Investigation of Work-Related Musculoskeletal Disorders in Malaysian Metal Stamping Industry Using RULA Method'. Proceedings of 8th Conference and Exhibition on Occupational Safety and Health, COSH 2005, Putra World Trade Center, Kuala Lumpur, 28 – 29 June 2005.
42. **Nor Hayati Saad**, Abdul Rahim Mahamad Sahab, Mohamad Halim Ibrahim, Nurfarizal Rasid, 'The Enhancement of CAD/CAM Technology in Ceramic Industry'. Proceedings of the Third International Conference on Advanced Manufacturing Technology, (Pan Pacific Hotel, Kuala Lumpur) Research Center, International Islamic University Malaysia , ISBN: 983-2957-21-4, pp 349 – 353, 11-13 May 2004.
43. **Nor Hayati Saad**, Zuriati Janin, Heldinna Nyotem, 'Signal Conditioning System for Propeller-Anemometer'. Proceedings of the 6th International Conference on Electronics Materials and Packaging (EMAP 2004), Penang, Malaysia, ISBN: 983- 2514-86-X, pp 78 – 82, 5 – 7 December 2004.
44. **Nor Hayati Saad**, Zuriati Binti Janin, Ruhaidawati Mohd Ali Piah 'Computer-interfacing Development for Propeller Anemometer.' In Proceedings of International Conference on Control, Automation and Systems (ICCAS), The Shangri-La Hotel, Bangkok, Thailand, ISBN 952-458-365-8, 25-27 August 2004.
45. Abdul Rahim Mahamad Sahab, **Nor Hayati Saad**, Teng Wan Dung, Rafindee Ramli, Zarina Abdul Wahid, 'Development Of Ferrule Mould For Ceramic Injection Molding Process'. Proceedings of the 6th International Conference on Electronics Materials and Packaging (EMAP 2004), Penang, Malaysia, ISBN: 983-2514-86-X , pp. 159 – 164, 5 – 7 December 2004.
46. Aidah Jumahat, A.K. Ariffin, **Nor Hayati Saad**, 'Compaction Process Of Ceramic Powders To Produce

- Electronic Product.’, Proceedings of the 6th International Conference on Electronics Materials and Packaging (EMAP 2004), Penang, Malaysia, ISBN: 983-2514-86-X, pp. 112 – 116, 5 – 7 December 2004.
47. Isa Halim , Abdul Rahman Omar , **Nor Hayati Saad**, ‘Ergonomic Design To Improve Occupational Health In Manufacturing Industry’. Proceedings of The 1st International Conference On Product Design and Development, School of Engineering & Information Technology (SKTM), Universiti Malaysia Sabah (UMS), (Sutera Harbour Resort, Kota Kinabalu, Sabah), ISBN: 983-2643-57-0, pp. 75 – 81, 20 -22 December, 2004.
48. **Nor Hayati Saad** . ‘The Impact of Product Variety on Lead-Time’. Research Highlights 2004 (Abstract), Institute of Research, Development and Commercialization (IRDC), Universiti Teknologi MARA, pp. 22, 2004.
49. Abdul Rahim Mahamad Sahab, **Nor Hayati Saad**, Teng Wan Dung. ‘Development of Plasma Spray Ceramic Coating For Industrial Application’. Malaysian Science and Technology Congress 2004 (MSTC 2004), Palace of the Golden Horses, Selangor, pp. 5 – 7 October 2004.
50. Abdul Rahman Omar, **Nor Hayati Saad**, Isa Halim. ‘Ergonomic Assessment Using Rula Analysis Software To Investigate Musculoskeletal Disorders (Msd) Experienced By Material Handler In Metal Stamping Industries’. The 3rd National Technical Postgraduate Symposium, K. Lumpur, ISBN: 983-42035-0-0, pp. 15 – 16 December 2004.
51. **N.H. Saad**, Z Janin, A.R. Mahamad Sahab, ‘Instrumentation of Digital-Propeller- Anemometer’. 2003 *Asian Conference on Sensor*, Renaissance Hotel, Kuala Lumpur, Institute of Electrical and Electronic Engineers (Malaysia Section), IEEE Cataloguing no. 03EX729C, ISBN: 0-7803-8102-5, Library of Congress No.:2003107605, pp. 341 – 345, 14 - 18 July 2003.
52. Ahmed Jaffar, **Nor Hayati Saad**, “Development of Flexible Manufacturing System (FMS) Model for Specific Manufacturing Industry”, Proceedings of Research & Consultancy Seminar, Faculty of Mechanical Engineering, Grand Blue Wave Hotel, Shah Alam, pp. 30 – 35, 17 February 2003.(CSSR 2003).
53. **Nor Hayati Saad**, Md. Fuad Bahari, Darius Gnanaraj Solomon, ‘Increasing Comfort of Stamping Machine Operators’. Proceedings: National Occupational Safety And Health Conference, The Gurney Resort Hotel & Residences, Penang, ISBN: 983- 2479-42-8, pp. 220 – 225, 21 - 22 April 2003.
54. Rahim M. Sahab, R. Ramli, W.D. Teng, **N.H. Saad**. ‘Study of Alumina Guide Pin And Mould Design by Injection Molding’ Malaysian Science and Technology Congress 2003 (MSTC 2003), Cititel, Midvalley, Kuala Lumpur, pp. 23 – 25, September 2003.
55. **Nor Hayati Saad**, Md Fuad Bahari, Darius Gnanaraj Solomon. ‘Discomfort Experienced by Stamping Machine Operators’. Proceedings Engineering and Technology Conference 2003 (EnTech 2003), Crowne Plaza Riverside Kuching, Sarawak, ISBN: 983-9257-34-X, pp. 669 – 674, 30 July - 1 August 2003.
56. Ahmed Jaffar, **Nor Hayati Saad**. ‘Flexible Manufacturing Model for Furniture Industry’. Conference on Scientific & Social Research, Palace of The Golden Horses, Seri Kembangan, Selangor, 26 - 27 August 2003. (IPTA 2003).
57. Abdul Rahim Mahamad Sahab, **Nor Hayati Saad**. ‘Machining of Case Mould for ceramic Application – Approaches to CAD/CAM System and CNC Machine Instead of Using Conventional Technologies’.

Physical Sciences, Engineering and Technology, Malaysian Science and Technology Congress, The Puteri Pan Pacific Hotel, Johor Bahru, pp. 19-21 September 2002.

C5. CREATIVE MEDIA/ OTHERS- POLICY & UNPUBLISHED ARTICLES

1. Coordination and establishment of ISO 9001:2000 Documents, Faculty of Mechanical Engineering/ UiTM Shah Alam; 2003-2006 (Quality Manual, Operation Procedures, Management Procedures, Objectives Quality: Plan-Do-Check-Act, 6 Files of Laboratory Record, Laboratory Log Book, Support Documents, In-Out Document Control Log Book, Course Files)
2. Presentation Slide, Vice Chancellor Quality Award (Anugerah Kualiti Naib Canselor), 2012, 2011, 2010; Faculty of Mechanical Engineering, UiTM Shah Alam (UiTM champion (overall faculty champion-2012, 2011; overall UiTM champion- 2010; Coordination of slide presentation preparation))
3. Coordination and Continuous Improvement of Student Assessment Monitoring System (Test Specification Table); 1 Aug 2011-continuous improvement, Faculty of Mechanical Engineering, UiTM Shah Alam
4. Indeks Penunjuk Prestasi Staf Akademik – Amanah Tugas Pensyarah, ATP (Key Performance Indicator, 2011- completion, Faculty of Mechanical Engineering, UiTM Shah Alam
5. Coordination and Development of MiNEMS Laboratory (Micro-Nano Electromechanical System) (planned to collaborate with Research Centres in Malaysia); (in progress) Faculty of Mechanical Engineering, UiTM Shah Alam. Curriculum Vitae: Assoc. Prof. Dr. Nor Hayati Saad Page 11 of 14 Updated: May 2014.
6. "New Cdio Framework for Next Generation of Engineers" , Pelaporan UCTC Universiti (100 CAN (ICAN 8/9), ICAN, Industry, Community, & Alumni Network, 2014.
7. Self-Assessment Report (SAR), Section B Criterion 1, Academic Curriculum for EM221/241 (Bachelor of Mechanical Engineering (Manufacturing) (Hons.)), 2014.
8. "CDIO Implementation for Engineering Education and Beyond", Presentation/ Application for New CDIO Collaborator, as UiTM CDIO Coordinator, 2015 CDIO Regional Meeting, Vietnam National University, Ho Chi Minh, Vietnam, 24-28 March 2015.

D. CONFERENCE INVOLVEMENT**D1. INTERNATIONAL**

No.	Conference Name	Role	Venue	Date
1	<i>Asian Conference on Sensor</i> , Institute of Electrical and Electronic Engineers (Malaysia Section)	Author & Presenter	Renaissance Hotel, Kuala Lumpur, MALAYSIA	14-18 July 2003
2	The Third International Conference on Advanced Manufacturing Technology, Research Center, International Islamic University Malaysia	Author & Presenter	Pan Pacific Hotel, Kuala Lumpur, MALAYSIA	11-13 May 2004
3	International Conference on Control, Automation and Systems (ICCAS)	Author & Presenter	Shangri-La Hotel, Bangkok, THAILAND	25-27 August 2004
4	The 6th International Conference on Electronics Materials and Packaging (EMAP 2004)	Author & Presenter	Penang, MALAYSIA	5-7 Dec 2004
5	<i>The 1st International Conference On Product Design and Development</i> , School of Engineering & Information Technology (SKTM), Universiti Malaysia Sabah (UMS)	Author	Sutera Harbour Resort, Kota Kinabalu, Sabah, MALAYSIA	20-22 Dec 2004
6	The 2nd International Conference on Mechatronics 2005	Author & Presenter	Pan Pacific Hotel, K. Lumpur, MALAYSIA	10-12 May 2005
7	8th South East Asia Ergonomics Society Conference 12th Indonesian Physiological Society Congress 2005	Author	Bali, INDONESIA	23-25 May 2005
8	1st International Conference Office Management and Technology	Author	SunWay Lagoon Resort, MALAYSIA	12-13 July 2005
9	International Conference on Manufacturing Science and Technology, ICOMAST	Author	Melaka, MALAYSIA	28-30 Aug. 2006
10	International Conference on MEMS & Nanotechnology (ICMN 2006)	Participant	Pan Pacific Hotel Kuala Lumpur, MALAYSIA	14-15 Mac 2006
11	Euroensors XXII, VDI/ VDE-Gesellschaft Mess-Und Automatisierungstechnik GMA, Germany	Author & Presenter	Dresden GERMANY	7-10 Sep 2008

12	34th International Conference on Micro & Nano Engineering, Institute of Microelectronics, National Center for Scientific Research NCSR Demokritos	Author & Presenter	Athens Hilton Hotel GREECE	15-19 Sep 2008
13	Second Stimesi Workshop on MEMS and Microsystems Research and Teaching	Author & Presenter	Berlin-Brandenburg Academy of Sciences and Humanities, GERMANY	18 Nov 2008
14	Eurosensors XXIII , Ecole Polytechnique Federale De Lausanne	Author & Presenter	Lausanne, SWITZERLAND	6-9 Sep 2009
15	IEEE Sensors 2009	Author	Christchurch NEWZEALAND	25-28 Oct 2009
16	International Conference on Advances in Mechanical Engineering, ICAME 2010	Session Chairman	Shah Alam, MALAYSIA	2-5 Dec 2010
17	International Conference on Advanced Materials and Engineering Materials, ICAMEM 2011, Trans Tech Publications	Author	Shenyeng, CHINA	22-24 Nov 2011
18	IEEE Colloquium on Humanities, Science and Engineering Research, CHUSER 2011	Paper Reviewer	Penang, MALAYSIA	5-6 December 2011
19	4th International Conference on Nanostructures (ICNS4)	Author	Sharif University of Technology, Institute for nanoscience & Nano Technology Tehran IRAN	12-14 Mac 2012
20	IEEE Business, Engineering and Industrial Applications Colloquium : Seri Pacific Hotel, Kuala Lumpur, Malaysia	Paper Reviewer	Kuala Lumpur, MALAYSIA	7-8 April 2012
21	Humanities, Science and Engineering Research (SHUSER), 2012 IEEE Symposium	Paper Reviewer	Kuala Lumpur, MALAYSIA	24-27 June 2012
22	1st Joint Symposium on System-Integrated Intelligence: New Challenges for product and production Engineering	Author, Presenter	Leibniz Universität Hannover GERMANY	27-29 June 2012
23	2012 International Symposium on Robotics and Intelligent Sensors, Kuching Sarawak, IRIS2012	Author, Presenter, Session Chair, Paper	Kuching, Sarawak MALAYSIA	3-9 Sep 2012

		Reviewer		
24	The World Research & Innovation Convention on Engineering & Technology (WRICET2012)	Paper Reviewer	Kuala Lumpur, MALAYSIA	3-5 December 2012
25	MOIME 2013, (International Conference on Manufacturing, Optimization, Industrial and Material Engineering 2013)	Author	Bandung INDONESIA	9-10 Mac 2013
26	2013 CDIO Asia Regional Meeting and The Workshop on Engineering Education and Policies for Regional Leaders	UiTM Representative-Discussion on CDIO Development	Singapore Polytechnic, SINGAPORE	26-28 Mac 2013
27	2nd International Conference on Advances in Mechanics Engineering (ICAME 2013)	Author	Jakarta, INDONESIA	July 2013
28	International Conference on Advances in Mechanical Engineering, ICAME 2013	Secretariat (Technical) Committee	Melaka MALAYSIA	28-29 Aug 2013
29	Malaysian International Tribology Conference, MITC 2013	Paper Reviewer	Sabah MALAYSIA	18-20 Nov 2013
30	3rd International Conference on Materials Engineering for Advanced Technologies	Author	Brisbane, QLD, AUSTRALIA	December 2013
31	International Conference on Nanomaterials: Science, Technology and Applications	Author	Chennai, INDIA	December 2013
32	2014 IEEE Symposium on Business, Engineering and Industrial Applications	Author	Kota Kinabalu, Sabah MALAYSIA	2014
33	International Symposium on Corrosion and Maerial Degradation, ISCMD 2014	Author	World Trade Centre Kuala Lumpur, MALAYSIA	14-15 May
34	2nd International Conference on Advanced Micro and Nano composite for Engineering, ICNC 2014	Technical Committee, Author	Penang, MALAYSIA	April 2014
35	International Conference on Business Management	Paper Reviewer	Penang, MALAYSIA	6-8 April 2014

36	IEEE Colloquium on Humanities, Science and Engineering Research, CHUSER 2014	Editorial Review Board	Penang, MALAYSIA	7-9 April 2014
37	2015 CDIO Regional Meeting	UiTM CDIO Coordinator, Presenter	Vietnam National University, Ho Chi Minh, VIETNAM	24-28 March 2015.
38	International Conference on Business, Management, Tourism and Hospitality 2015 (BIZMATOUR 2015)	Paper Reviewer	Melaka, MALAYSIA	12-14 May 2015
39	11 th International CDIO Conference	Author	Chengdu University of Information Technology, Chengdu, Sichuan, P.R, CHINA	8-11 June 2015
40	ICOCOE 2015: 2nd International Conference on Communication and Computer Engineering	Paper Reviewer	Phuket, THAILAND	9-11 June 2015
41	2015 International Conference on Engineering and Natural Science	Author, Presenter, Chair Person	Waseda University, Tokyo JAPAN	22-24 July 2015
42	International Conference on Advances in Mechanical Engineering , ICAME 2015	Chief Editor, Reviewer, Session Chair, Invited Speaker, Author	Bali, INDONESIA	26-27 Aug 2015
43	The 2 nd International International Colloquium of Art and Design Education Research 2015 (i-CADER 2015)	Paper Reviewer	Langkawi Kedah MALAYSIA	2-4 October 2015
44	Malaysian International Tribology Conference, MITC 2015	Publicity Committee, Invited Speaker	Penang MALAYSIA	15-17 Nov 2015
45	Research, Innovation, Symposium & Exposttton (R SE) 2015	Treasurer [2 Jan – 31 Dec15]	Shah Alam MALAYSIA	14-16 Nov 2015
46	International Conference on Knowledge Transfer KTP, ICTK'15	Author	Marriott Putrajaya MALAYSIA	1-3 Dec 2015

D2. NATIONAL

No.	Conference Name	Role	Venue	Date
1	Physical Sciences, Engineering and Technology, Malaysian Science and Technology Congress	Author	The Puteri Pan Pacific Hotel, Johor Bahru, MALAYSIA	19-21 Sep 2002
2	Research & Consultancy Seminar, Faculty of Mechanical Engineering	Author	Grand Blue Wave Hotel, Shah Alam, Malaysia	17 Feb 2003
3	National Occupational Safety And Health Conference	Author & Presenter	The Gurney Resort Hotel & Residences, Penang, MALAYSIA	21-22 Apr 2003
4	Engineering and Technology Conference 2003 (EnTech 2003)	Author & Presenter	Crowne Plaza Riverside Kuching, Sarawak, MALAYSIA	30 Jul-1 Aug 2003
5	Conference on Scientific & Social Research, (IPTA 2003)	Author	Palace of The Golden Horses, Seri Kembangan, Selangor, MALAYSIA	26-27 Aug 2003
6	Malaysian Science and Technology Congress 2003 (MSTC 2003)	Author	Cititel, Midvalley, Kuala Lumpur, MALAYSIA	23-25 Sep 2003
7	Malaysian Science and Technology Congress 2004 (MSTC 2004)	Author	Palace of the Golden Horses, Selangor, MALAYSIA	5-7 Oct 2004
8	The 3rd National Technical Postgraduate ,Symposium	Author	K. Lumpur, MALAYSIA	15-16 Dec 2004
9	Seminar IRPA 2005 Universiti Teknologi MARA	Author	Marriot Putrajaya, MALAYSIA	26-27 Feb 2005
10	APSIM 2005, Advanced Processes and Systems in Manufacturing (Bangi, Malaysia), Universiti Kebangsaan Malaysia	Author	Bangi, MALAYSIA	17-18 May 2005
11	National Conference on Advances in Mechanical Engineering, NAME 05	Author, Presenter & Treasurer	Cititel Mid Valley, Kuala Lumpur, MALAYSIA	18-20 May 2005
12	Conference on Scientific & Social Research, Terengganu, Institute of Research, Development and Commercialization, UiTM Shah Alam,	Author & Presenter	Terengganu, MALAYSIA	10-12 June 2005

13	8th Conference and Exhibition on Occupational Safety and Health, COSH 2005	Author	Putra World Trade Center, Kuala Lumpur, MALAYSIA	28-29 June 2005
14	National Conference on Advances in Mechanical Engineering, NAME 05	Treasurer/ National	Cititel Mid Valley, Kuala Lumpur, MALAYSIA	18-20 May 2005
15	Seminar Intensification Research Priority Areas (IRPA) 2006	Treasurer/ National	UiTM Shah Alam MALAYSIA	26-29 Jun 2006
16	The 4th National Technical Postgraduate, Symposium, & Workshop	Author	Crystal Crown Hotel, petaling Jaya, MALAYSIA	16-17 May 2006
17	Poster and Networking Conference, University of Birmingham	Author & Presenter	University of Birmingham, UNITED KINGDOM	11 June 2008
18	Conference on Scientific & Social Research 2009	Author	MALAYSIA	14-15 Mac 2009
19	2nd Advanced Material Conference	Author	Bayview Hotel, Langkawi, MALAYSIA	2014
20	Kolokium Pengajaran dan Pembelajaran Ke-2	Author, Presenter, Session Chair	Hotel Perdana Kota Bharu Kelantan MALAYSIA	June 2014

E. CONSULTANCY & EXPERTISE**E1. PHD & MASTER THESIS EXAMINER (INCLUDING – CHAIR OF VIVA SESSION)**

1. Viva - Session Chair; Siti Hajar Bt Mohd Yusop (2012629988). "Investigating the Biomechanical Properties for Fresh Goat Skin, Natural Dried Skin and Leather using Integrated Approach,".(April 2015, MSc in Mechanical Engineering)
2. Thesis Examiner; Noor Azlina Mohd Salleh (2009682032). "Design and Development of Integrated Quality Management Model Based on TQM, LM, in Malaysian Automotive Companies". (Jan 2014, PhD).
3. Thesis Examiner; Ahmad Naufal Adnan (2010194867). "Just in Time Production Implementation Through Lean Manufacturing Principles".(June 2014, MSc in Mechanical Engineering).
4. Dissertation Examiner and Panel Evaluator, Mohd Rahmad Abdul Jalil; "The Impact Of Jikotei Kanketsu On Manufacturing Defects In Automotive Interior Parts Assembly Line". (2014, Master in Engineering Management)
5. Viva - Session Chair; Mohd Shahar Bin Sulaiman (2010483578). "Investigation on Well Induced Distortion Using Simulation and Experimental Study ".(8 April 2014,MSc in Mechanical Engineering)
6. Session Chair-Dissertation; Norsalnita Binti Mohd Noor, "Critical Success Factors in Implementing Occupational Safety and Health Management System in Small and Medium Enterprise (SMEs), ".(Jan 2014,Master in Engineering Management)
7. Viva - Session Chair; Mohamad Ridzuan Mohamed Rashid, (18 Jan 2013,MSc)

E2. ASSESSOR/ EVALUATOR (BOOKS/ PROPOSAL/ PRESENTATION/ COMPETITION)**E2.1 INTERNATIONAL/ NATIONAL**

1. External Assessor , Final Exam Paper Evaluation and Harmonization Workshop, Polytechnic, Ministry of Education Malaysia, Printzpart Rezort Kuala Terengganu 8-12 Mac 2015.
2. Assessor, Proposal defence: Narayanaswamy Ventakaraman, Open University Malaysia, "Development of a Sustainability Approach..." PhD August 2015
3. Panel Of Judges: ITEX 2015 , 26th International Invention, Innovation & Technology Exhibition, 21-23 May 2015, Kuala Lumpur Convention Centre.
4. Panel Of Judges: ITEX 2014 , 25th International Invention, Innovation & Technology Exhibition, 8 May 2014, Kuala Lumpur Convention Centre.
5. Verification Panel (Final Examination Paper, Session 1/ 2012, Session 1 2013); 3 May 2012- present, Advanced Technology Training Center (ADTEC), Shah Alam, Malaysia.
6. Member of Curriculum Review Board (Syllabus Development, Diploma in Manufacturing Technology); April 2012, Advanced Technology Training Center (ADTEC), Shah Alam, Malaysia
7. Member of Technical Advisory Committee (TAC); 9 April 2012 - 9 April 2014; Jabatan Tenaga Manusia (JTM), Kementerian Sumber Manusia (KSM) (Ministry of Human Resource), Malaysia

E2.2 UNIVERSITY - UiTM

1. University Grant Evaluator, Proposal – Synergized Industry-Experimenter Research Grant Initiative (SinERGI); UiTM Shah Alam, 2015.
2. University Grant Evaluator, Proposal - Prototype Research Grant Scheme (PRGS 2015- phase 2); UiTM Shah Alam, 2015.
3. University Research Grant Proposal Evaluator UiTM Shah Alam, 1 Jan 2015 – 31 Decceber 2016.
4. Judge IID 2015 – Invention, Innovation, Art & Design-FSSR – IIAD, 2 April 2015.
5. Panel Evaluator and Second Examiner (Intermediate Examination paper, Occupational Safety and Health); Sep 2015—Feb 2016
6. University Grant Evaluator, Proposal- Research Acculturization Grant Scheme (RAGS); UiTM Shah Alam, 2014 - present
7. Panel Evaluator, Material Lecture Competition 2014; Fakulti Kejuruteraan Mekanikal, UiTM Shah Alam , 2014
8. University Grant Evaluator, Fundamental Research Grant Scheme (FRGS) Fasa 1 & 2, UiTM Shah Alam, 2014.
9. University Grant Evaluator, Transdisciplinary Research Grant Scheme (TRGS) Phase 2, UiTM Shah Alam, 2014.
10. Panel Assessor –Knowledge Transfer Program Grant, UiTM 2012- 2013.
11. Panel Evaluator and Second Examiner (Final Year Examination paper, Manufacturing Processes II); Sep 2011-July 2012; - present
12. Panel Assessor (Industrial Project/ Business Proposal, EM774 Master in Engineering Management Dissertation); Mac-July 2012- present , UiTM Shah Alam
13. Panel Assessor (Internal Speak Out for Engineering, SOFE 2011); Nov-Dec 2011, IMechE-UiTM Student Chapter
14. Second Examiner, Final Examination Paper – Manufacturing Technology II, FKM, UiTM (2006)
15. Panel Assessor (Final Year Project I Presentation, MEC601); 2005-present, FKM, UiTM Shah Alam
16. Panel Assessor/ Thesis Examiner (Final Year Project II Presentation); 2005-present, FKM, UiTM Shah Alam
17. Panel Assessor (Defence of Research Proposal, Master & PhD); 2005-present, Institute of Graduate Studies (IPSiS), UiTM

E3. EDITOR/ REVIEWER (PUBLICATIONS) – INTERNATIONAL/ NATIONAL

1. Chief Editor, Jurnal Teknologi, Volume 76 Issue 6, Manufacturing Engineering and Management 2015.
2. Editor, Strategic Planning Document 2014/205, Faculty of Mechanical Engineering, UiTM Shah Alam 2015
3. Paper Reviewer; CHUSER 2014 (IEEE Colloquium on Humanities, Science and Engineering Research); "Conflict Management in Preventing Disputes in Malaysia Construction Industry". Penang, Malaysia, 2014
4. Paper Reviewer, International Conference on Business Management, AiCoBM 2014, 2014.
5. Paper Reviewer, International Invention, Innovation & Technology Exhibition, ITEX 2014, 8-10 May 2014
6. Paper Reviewer, 2014 IEEE Colloquium on Humanities, Science and Engineering Research (CHUSER 2014): 'Conflict Management in Preventing Disputes in Malaysia Construction Industry', 2014.
7. Editor, Faculty of Mechanical Engineering, UiTM Shah Alam, Student Handbook 2013/2014.
8. Paper Reviewer; International Symposium on Robotics and Intelligent Sensors, IRIS2012, 4-6 September 2012, Kuching, Sarawak Malaysia.
9. Paper Reviewer ; IEEE International Conference on Electronics Design, Systems and Applications, ICEDSA 2012, 5-6 November 2012, Kuala Lumpur Malaysia.
10. Journal Reviewer. International Journal of Mechanical Engineering, Universiti Teknologi MARA, Malaysia, 2012- present
11. Guest Reviewer; International Journal of Advanced Robotic Systems (ARS) Special Issue on "Smart Sensors for Smart Robots", 17 Sep 2012- completed.
12. Paper Reviewer; IEEE Symposium On Humanities, Science And Engineering, Shuser 2012, 24-27 June 2012, Renaissance Hotel, Kuala Lumpur Malaysia; Dec 2011 - July 2012
13. Paper Reviewer ; IEEE Symposium on Business, Engineering and Industrial Applications, ISBEIA2012, 23-26 September 2012, Hyatt Regency, Bandung, Indonesia; Dec 2011-Apr 2012
14. Paper Reviewer ; IEEE International Conference on Power and Energy, PECON 2012, 2-5 December 2012, Kota Kinabalu, Sabah Malaysia; April - Aug. 2012
15. Paper Reviewer ; Conference on Control, Systems and Industrial Informatics, ICSSII 2012, 23-26 September 2012, Hyatt Regency, Bandung, Indonesia; Apr-Sep 2012
16. Paper Reviewer ; IEEE Colloquium on Humanities, Science and Engineering, CHUSER 2012, 3-4 December 2012, Sutera Harbour Resort, Kota Kinabalu, Sabah Malaysia; Apr-Aug 2012
17. Panel Member; The Technology World, Kuala Lumpur, Malaysia; May 2012-present
18. Paper Reviewer; 4th International Congress on Engineering Education (ICEED 2012); July-Sep 2012
19. Paper Reviewer ; IEEE Student Conference on Research & Development (SCORED 2012); 9 Sep - 21 Sept 2012.

20. Paper Reviewer; IEEE International Conference on Electronics Design, Systems and Applications (ICEDSA 2012); Apr-Sep 2012
21. Paper Reviewer; IEEE, Business, Engineering, & Industrial Applications Colloquium (BEIAC 2012); Dec 2011-Apr 2012
22. Paper Reviewer ; IEEE Colloquium on Humanities, Science and Engineering, CHUSER 2011, Aug-Oct 2011
23. Journal Reviewer. The Institution of Engineers Malaysia (IEM), 2006-2007.

E4. CONSULTANT/ SPEAKERS/ SPECIAL INVITATION

1. Speaker, OPAL – Faculty of Mechanical Engineering UiTM , 11 Sep 2015.
2. Invited Speaker, “Formation of Hollow Shape Porcelain by Using a New Integrated Slip Rotary moulding Technique”, 2015 International Conference on Advances in Mechanical Engineering , ICAME 2015 26-27 Aug 2015 Bali Indonesia
3. Speaker, “Material Science Workshop, 2015 Bridging SEM & LSM Imaging with Ease, Centre for Advanced Material Research (CAMAR) UiTM , 29-30 April 2015
4. Speaker, Scientific Equipment Workshop, 8.30-5 pm, FKM Seminar Room, Level 7 UiTM 17 Feb 2015.
5. Invited as Speaker, “Basic Course of Foundry & Metallurgy”, Centre for Advanced Material Research (CAMAR), UiTM , 19 Aug 2014.
6. Invited as a Chair Person, Pembentangan Penyelidikan Pasca Ijazah, 18 June , 2014
7. Invited as Speaker, “Forum Final Year Project 2014” FKM, UiTM, 2014
8. Facilitator, “CV Writing Workshop”, (Development Workshop Series – CV Writing Workshop), FKM, UiTM, 2014.
9. Speaker, Program Grooming for Promotion: Bagi Kenaikan Pangkat Pensyarah Gred 45 ke Gred 52 & 54 , Fakulti Kejuruteraan Mekanikal, UiTM, 5 Feb 2014 .
10. Chairperson, Pengerusi Sesi Pembentangan Selari - Kolokium Pengajaran dan Pembelajaran UiTM ke-2 2014
11. Pusat Latihan Teknologi Tinggi Shah Alam: April 2012 – April 2014 (Technical Advisory Committee: Manufacturing Technology)
12. Speaker - CDIO Program [CDIO Coordinator & Head of Master Trainer], Bengkel Penilaian dan Pengembangan CDIO, 2014.
13. Singapore Polytechnic: Mei 2012 –present (MOU: CDIO, Conceive-Design-Implement-Operate)
14. Member of Engine Development and Testing- consultant; 11 Aug 2014 -17 Aug 2014, Pusat

Kejuruteraan Automotif, Universiti Pahang.

15. Speaker, Head of Master Trainer - CDIO, *Seminar – Component1: Framework for Rethinking Education*; 8 Julai 2013, Bilik Seminar Fakulti Kejuruteraan Mekanikal UiTM Shah Alam.
16. Speaker, Head of Master Trainer - CDIO, *Seminar – Component2: Designing An Integrated Curriculum*; 23 – 27 Sep. 2013, Aljazari Fakulti Kejuruteraan Awam UiTM Shah Alam.
17. Speaker, Head of Master Trainer - CDIO, *Seminar – Component3: Conceiving and Designing Products and Systems*; 23 – 25 Oktober. 2013, Bilik Seminar Fakulti Kejuruteraan Mekanikal UiTM Shah Alam
18. Speaker, Head of Master Trainer - CDIO, *Seminar – Component4: Designing Active Experiential Learning Experiences*; 12-13 Nov 2013, Bilik Seminar Fakulti Kejuruteraan Mekanikal UiTM Shah Alam
19. Speaker, Program Grooming for Promotion: Bagi Kenaikan Pangkat Pensyarah Gred 45 ke Gred 52 & 54 , Fakulti Kejuruteraan Mekaniikal, UiTM, 3 Sep 2013.
20. Speaker, Program 'CDIO Awareness' FKM UiTM, 22 Mei 2013, Bilik Seminar FKM
21. SIRIM Berhad, Structural Materials Programme, Advanced Materials Research Centre: 2013 20 - present (Ceramics Rotary Moulding)
22. MCSB (Mastercatt Sdn. Bhd.): 14 Mac 2012 (Seminar on Advanced Welding Technology and Manufacturing Simulation)
23. Institute of Microengineering and Nanoelectronics (IMEN), Universiti Kebangsaan Malaysia: 2012-present (MEMS (Microelectro Mechanical System) and NEMS (Nanoelectromechanical System))
24. MIMOS Berhad, Kuala Lumpur, Malaysia: 2011- present (MEMS/ NEMS: Gas Sensor, Breadth Sensor and Wireless Sensor Network)
25. Perusahaan Otomobil Nasional Sdn. Bhd. (PROTON), Shah Alam Malaysia: 2012- present (Analysis on the Factors and Effects on Engine Tapping Noise by Design of Experiment, DOE)
26. Master-Defence (Malaysia) Sdn. Bhd. (MASDEF), Malaysia: 2011- present (Design and bus Structure Analysis)
27. SIRIM Berhad, Structural Materials Programme, Advanced Materials Research Centre: 2011- 2012 (Lapping Process Analysis)
28. Norimax Sdn. Bhd, Puchong, Malaysia: 2011-2013 (Thermal Spray Coating as a Sacrificial Anode for cathodic protection)
29. Advisor, Students Development Committee FKM, UiTM (2005-2007)
30. Speaker & Fasilitator for Leadership Program, Kolej Melati & FKM, UiTM (2005 – 2006)
31. Facilitator (Career Development and Student Leadership); Sep 2005-July 2006, FKM, UiTM Shah Alam

E5. TECHNICAL WORKING GROUP (COMMITTEE/ STANDARD)

1. Head of Master Trainer Team, CDIO: Conceive-Design-Implement-Operate, 1 July 2013 – 30 June 2016.
2. Technical Advisory Committee, TAC – Machining Sector & Equipment for Manufacturing Technology Program, Jabatan Tenaga Manusia (JTM)/ Manpower Department, Ministry of Human Resource Malaysia; 28 Aug 2014 – 28 Aug 2016.
3. Technical Committee (The 2014 AAGBS International Conference on Business Management)
4. Associate Fellow, National Design Centre (NDC), Art & Design Faculty, UiTM, 6 Sept 2013 – present.
5. Head of Self-Review Committee (QMS (Quality Management System), under MQA (Malaysian Qualification Agency)); 01 Apr 2012 - 30 Mac 2013, FKM, UiTM Shah Alam
6. Coordinator of Self-Review Committee (Area 5, Academic Staff); 01 Jan 2011 - 30 Mac 2013, FKM, UiTM Shah Alam
7. Technical Committee Members, German-Malaysian Workshop “Advances in Mechatronics and Engineering Technology” (GMW 26-29 June 2012)
8. Institut Teknikal Jepun Malaysia: 16-19 April 2012 (Member of Curriculum Review team: Advanced Diploma in Manufacturing Engineering Technology)
9. Internal Auditor (ISO 9001:2008); 1 Jan 2005-; Sep-Dec 2010, Mac-Jun 2011, 1 Sep 2012 – 31 Aug 2013, Faculty of Mechanical Engineering (FKM), UiTM Shah Alam
10. Academic Board; 01 Jan. 2012 - present , FKM, UiTM Shah Alam
11. Member, Board of Postgraduate Studies; 01 Jan. 2012 - present , FKM, UiTM Shah Alam
12. Member of Curriculum Review Board; 2006, 01 Jan. 2012 - present , FKM, UiTM Shah Alam
13. Head of Quality Assurance Unit (QMS (Quality Management System), under MQA (Malaysian Qualification Agency) & ISO 9001:2008); 01 Jan - 31 Dis. 2011, FKM, UiTM Shah Alam
14. Coordinator (Staff Performance Indicator or Amanah Tugas Pensyarah, ATP); 2011-completion, FKM, UiTM Shah Alam
15. Head of Curriculum Review (Safety & Health (New Course Development)); 10 - 11 Nov 2011, FKM, UiTM Shah Alam
16. Member of Curriculum Development Team (Master in Mechanical Engineering [Advanced Manufacturing]); 2011-completion, FKM, UiTM Shah Alam
17. Member of Curriculum Development Team (B. Eng (Hons.) Manufacturing (Management)); 2011-completion, FKM, UiTM Shah Alam
18. Member of Organizer (Industrial Linkage Program, AKPIM 2012); 2011-2012, Industry, Community and Alumni Network, UiTM
19. ISO 9001:2000 Document Officer; 15 Oct 2003 – 31 Aug 2006; FKM, UiTM Shah Alam

E6. INTERVIEWER/ PANEL EXPERTS

1. External Panel Assessor , *Sistem Pentaksiran Pengajian Politeknik*, Ministry of Education Malaysia 1 Feb 2015 – 1 Feb 2018.
2. Panel Interviewer, Master in Engineering Management (EM704), Mac 2015.
3. Panel Verification, Final Examination Paper Question; 27-28 Feb 2014, ADTEC, 2014.
4. Member of Technical Advisory Committee (TAC); 9 April 2012 - 9 April 2014; Jabatan Tenaga Manusia (JTM), Kementerian Sumber Manusia (KSM) (Ministry of Human Resource), Malaysia
5. Member of Curriculum Review Board (Syllabus Development, Diploma in Manufacturing Technology); April 2012, Advanced Technology Training Center (ADTEC), Shah Alam, Malaysia
6. Panel Interviewer (Young Lecturer Scheme); 2005, 30 Aug - 21 Sep 2012 - present, FKM, UiTM Shah Alam
7. Panel Interviewer, Academic Staff Scholarship, FKM UiTM Shah Alam (Nov. 2011-present)
8. Panel Evaluator, MSc Programme, Research Progress, FKM UiTM Shah Alam (2003-2006, 2011 – present)
9. Panel Evaluator, MSc Programme, Defence of Research proposal, FKM UiTM Shah Alam (2005-2006, 2010-present)
10. Panel Evaluator, PhD Programme, Defence of Research proposal, FKM UiTM Shah Alam (2006, 2010-present)

F. COMMUNITY SERVICES**F1. UNIVERSITY (APPOINTMENTS/ INCOME GENERATION/ MOU-MOA)****F1.1 APPOINTMENTS**

1. Member / Panel Member: Grant Assessor - Trans-disciplinary Research Grant Scheme (TRGS)[Fasa 2/2014 -present]
2. Member / Panel Member: Grant Assessor/ Panel - Research Acculturation Grant Scheme (RAGS)[2014-present]
3. Member/ Panel Member: Grant Assessor/ Panel - Fundamental Research Grant Scheme (FRGS) [Fasa 1/2014 & Fasa 2/2014-present]
4. Panel Assessor; "Final Year Project II Presentation, 2014-present
5. Head , Final Presentation slide of Vice Chancellor Quality Award 2013/2014 (AKNC)
6. Chairperson, Chair of Program (Bachelor of Mechanical Engineering (Manufacturing)): managing and coordinating final year exam/test paper preparations; checking the program curriculum and managing the program accreditation; Close the loop (CDL);and preparing budget to, 2014 – present.
7. Head – Invitation & Protocol Team (Industry Outreach 2014); Lead and coordinate the Invitation and Protocol team in inviting industries/ institution/ government/NGO to participate the outreach 2014; In-charge protocol matters before and during the program, 1 Feb 2014- 15 Nov 2014
8. Chairperson, Bengkel Penyemakan dan Penambahbaikan Berterusan Kursus-Kursus Program EM221/241, 2014
9. Vanguard Researcher UiTM 2013- present.
10. Member of Institute of Mechanical Engineering and Technology Advancement (IMETA) FKM UiTM Shah Alam (2012-present)
11. Coordination- Development of Mini Recreation and Gymnasium, FKM UiTM (Nov 2012-completed)
12. Coordination - Development of Teaching Factory, FKM UiTM (Nov 2012-present)
13. Coordination - Development of New Machining Workshop, FKM UiTM (Nov 2012-present)
14. Committee member for Industry Outreach Program (2012)
15. Committee member (Selection of Pre-Loved Sale Item)– Faculty of Mechanical Engineering and Industrial Linkage, Community and Alumni UiTM Shah Alam (2012)
16. Advisor & Manager, IMechE – UiTM Student Chapter Annual Camp (2012)
17. Head of Self Review Committee, FKM, UiTM (Apr 2012 – Mac 2013)
18. Deputy Head of Self Review Committee, FKM, UiTM (2012)

19. Course File Working Team Committee, ISO 9001:2008, FKM, UiTM (2012)
20. Lab Manager - Development of centre of Excellence for MEMS-NEMS, FKM UiTM (2011-present)
21. Members of Accreditation Committee , FKM UiTM Shah Alam (2011-present)
22. Head of Academic Caretaker Manufacturing Program (Programme Chair), FKM UiTM Shah Alam (2011-present)
23. Members of Examination Management Committee (2011-present)
24. Member of Faculty Academic Board , FKM UiTM Shah Alam (Aug.2011-present)
25. Member of Postgraduate Academic Board , FKM UiTM Shah Alam (Aug.2011-present)
26. Member of Outcome Based Education (OBE) Committee, FKM UiTM Shah Alam (2011-present)
27. Committee member for New Program; Bachelor of Engineering (Hons) Manufacturing (Management)) , FKM UiTM Shah Alam (2011-present)
28. Coordinator, Self Review Report (Quality), Area 5: Academic Staff, FKM, UiTM (2011-present)
29. Committee member, Industrial Linkage, Community and Internationalisation, FKM UiTM Shah Alam (2011-present)
30. Head of Manufacturing, Design and Innovation Center of Studies, FKM UiTM Shah Alam (Aug 2011-present)
31. Liason Officer and Advisor of IMechE-UiTM Student Chapter Mechanical (2011-2012)
32. Work on behalf of Deputy Dean Academics, FKM, UiTM (1-26 August 2011)
33. Coordinator (Syllabus preparation), Master in Mechanical Engineering, Advanced Manufacturing, FKM, UiTM (Aug 2011-completed)
34. Member of Committee, Document Preparation of Vice Chancellor Quality Award (Anugerah Kualiti Naib Canselor), FKM, UiTM (2011-completed)
35. Head of Quality Assurance Unit, FKM UiTM Shah Alam (1 Jan-Dec 2011)
36. Committee member for International Conference on Advances in Mechanical Engineering (ICAME 2010)
37. Member of Final Presentation of Vice Chancellor Quality Award (Anugerah Kualiti Naib Canselor) Committee (2010-completed)
38. Treasurer, IRPA (Intensification Research Priority Area) Seminar, UiTM , (2006)
39. Member of Curriculum Review Committee Diploma in Mechanical Engineering, EM110 & Bachelor in Mechanical Engineering, FKM, UiTM (24 Feb. 2006-completed)
40. Member of Task-Force Committee for Quality Management Review: Students, Stakeholders and Market Focus FKM, UiTM (9 Mac 2006-completed)

41. Manager, Inter-college Sports, Kolej Melati, UiTM (SUKOL 2006)
42. Panel Evaluator, MSc Programme, Defence of Research proposal (2005-2006, 2010-present)
43. Panel Evaluator, PhD Programme, Defence of Research proposal (2006, 2010-present)
44. Student Development Officer; FKM UiTM Shah Alam (2005-2006)
45. Badminton Player, Interfaculty Games, UiTM (2005)
46. Facilitator; Career Development and Leadership Program; FKM UiTM Shah Alam (2005-2006)
47. Head of Manufacturing System Division, FKM, UiTM (2005 – 2006)
48. Member of Curriculum Review Board, FKM, UiTM (2005 – 2006, 2011-present)
49. Head of Career, Counseling, & Alumni Committee, FKM (2005 – 2006)
50. Course Coordinator, Manufacturing Technology & Processes, FKM, UiTM (2005-2006)
51. Advisor, Students Development Committee FKM, UiTM (2005-2007)
52. Member of Working Team, ISO Audit 9001:2000 UiTM (June 2004-completed)
53. Member of Internal Audit System Committee, FKM, UiTM (2004 – 2005, 2010-Apr 2012)
54. Member of Exhibition & Technical Committee, Seminar “Robotics & Automation”, FKM (2004).
55. Coordinator of Seminar “Linear Motor Technology in EDM-DIE Sinking & EDM Wire-Cut Application (2004)
56. Badminton Player, ‘Piala ISO Kejuruteraan’, Faculty of Engineering, UiTM Shah Alam (2004)
57. Resident Staff, Kolej Melati, UiTM S.Alam (2004 – 2006)
58. Member of Task Force Team – Development of New program, Bachelor in Mechanical Engineering (Manufacturing) (2004 – completion)
59. Member of Research, & Consultancy Unit, FKM UiTM (2003 – 2004)
60. Netball Team Manager, Interfaculty Sports, FKM, UiTM (SAF 2003)
61. Document Officer, ISO 9001:2000, FKM, UiTM (2003 - 2006)
62. Coordinator of Final Year project, Bachelor in Mechanical Engineering, FKM (Faculty of Mechanical Engineering) UiTM S.Alam (2001-2003)
63. Academic Advisor, FKM UiTM S.Alam (2001 – 2011)
64. Member of Time Table Committee, FKM, UiTM (2001 – 2003, 2012-present)
65. Member of Change Forum Management Program (Event Logistic Team), FKM, UiTM (2001)

66. Member of Academic Workshop Committee (Books & Souvenirs), FKM, UiTM (2001)
67. Head of New Programme Development Team, Diploma in Mechanical Engineering (Automation), FKM, UiTM (2001)

F1.2 INCOME GENERATION/ MOU-MOA

1. MOU: UiTM - HPMT Industries Sdn Bhd (405005-x), [5 Aug 2015 – documents sent to Legal office; waiting an approval from UiTM Legal Office for next action]
2. MOU: UiTM - INEE (Institute of Nano Electronic Engineering) UNIMAP, Universiti Malaysia Perlis, [13 April 2015 – documents sent to JKE UiTM for approval, after endorsement from Legal Office UiTM; waiting an approval from JKE UiTM]
3. MOU: UiTM - Singapore Polytechnic International PTE LTD, Singapore & Temasek Foundation on the CDIO (Conceive-Design-Implement-Operate) [May 2012 – present]; directly support the MoU, as the UiTM CDIO Coordinator and Head of Master Trainer
4. MOU – MOA: UiTM - MIMOS Berhad (CRADA: *Collaborative Research and Development Agreement*, Project Manager) [November 2011 – present].

F2. NATIONAL/ INTERNATIONAL SOCIETY/ COMMUNITY (INCLUDING INDUSTRIAL LINKAGE)

1. *Polytechnic, Ministry of Education Malaysia*; External Panel Assessor ,*Sistem Pentaksiran Pengajian Politeknik* 1 Feb 2015 – 1 Feb 2018
2. *The 2014 AAGB International Conference on Business Management*, Technical Committee Members, (UiTM Shah Alam, 2014).
3. *Recomtec Sdn Bhd*. Committee Member, Transferring expertise to automotive parts company in establishing lean manufacturing production system by minimizing waste and eliminating non-added value activities – ahli projek [2014-present].
4. *Perunding KMN Sdn Bhd*, Final Year Project: 'Investigation on Fire Behaviour in Basement Carpark' (Main Supervisor), Pelajar tamat pada Jan 2015.
5. *International Conference on Advances in Mechanical Engineering, ICAME 2013*, Secretary/ International Melaka, Malaysia, 28-29 2013.
6. *Mazzkhan Trading*; Member of Project, Service to Industry – Knowledge Transfer Program; (Transfer of Expertise Engineering Automation Technology Into Rabbit production Industry), Rabbit Production Industry,, (2013-present)
7. *Asia Green Recycle*; Project Leader, Transferring to Asia green Recycle in Formulating and Testing Products of Recycled Tire: A generation of green factory and income, [2013-present]
8. *Jabatan Tenaga Manusia (JTM), Kementerian Sumber Manusia (KSM) (Ministry of Human Resource), Malaysia*, Member of Technical Advisory Committee (TAC); (9 April 2012 - 9 April 2014).

9. *Advanced Technology Training Center (ADTEC)*, Shah Alam, Malaysia , Member of Curriculum Review Board (Syllabus Development, Diploma in Manufacturing Technology), Technical Advisory Committee: Manufacturing Technology; (April 2012-present)
10. *Institute of Microengineering and Nanoelectronics (IMEN) UKM*; In progress: establishment of Research Collaboration (2012-present).
11. *MCSB (Mastercatt Sdn. Bhd.)*: 14 Mac 2012 (Seminar on Advanced Welding Technology and Manufacturing Simulation)
12. *Institut Teknikal Jepun Malaysia*: 16-19 April 2012 (Member of Curriculum Review team: Advanced Diploma in Manufacturing Engineering Technology)
13. *Perusahaan Otomobil Nasional Sdn. Bhd. (PROTON)*, Shah Alam Malaysia: 2012- present (Analysis on the Factors and Effects on Engine Tapping Noise by Design of Experiment, DOE)
14. *Singapore Polytechnic*: Mei 2012 –present (MOU: CDIO, Conceive-Design-Implement-Operate)
15. *2012 International Symposium on Robotics and Intelligent Sensors*, Kuching Sarawak, IRIS2011 Treasurer/ International Kuching, Sarawak Malaysia, 3-9 Sep 2012.
16. *1st Joint German-Malaysian Workshop: Symposium on System-Integrated Intelligence: New Challenges for product and production Engineering Technical Committee/ International Leibniz Universität Hannover Germany*, 27-29 June 2012.
17. *IMechE (Institution of Mechanical Engineer)*- UiTM Student Chapter Liaison Officer; Advisor for National Competition of Speak Out For Engineering, 2011, IMechE-UiTM Student Chapter (UiTM achievement: 2nd place at the National SOFE Competition, Malaysia), (2011-2014)
18. *MIMOS Berhad*, Kuala Lumpur, Malaysia: 2011- present (MEMS/ NEMS: Gas Sensor, Breadth Sensor and Wireless Sensor Network)
19. *Master-Defence (Malaysia) Sdn. Bhd. (MASDEF)*, Malaysia: 2011- present (Design and bus Structure Analysis)
20. *SIRIM Berhad*, Structural Materials Programme, Advanced Materials Research Centre: 2011- (Lapping Process Analysis)
21. *Norimax Sdn. Bhd, Puchong, Malaysia*: 2011-2013 (Thermal Spray Coating as a Sacrificial Anode for cathodic protection)
22. *International Conference on Advances in Mechanical Engineering*, ICAME 2010 Program Committee/ International Shah Alam, Malaysia, 2-5 Dec 2010.
23. *Seminar Intensification Research Priority Areas (IRPA) 2006* ; Treasurer/ National UiTM Shah Alam Malaysia, 26-29 Jun 2006.
24. *National Conference on Advances in Mechanical Engineering*, NAME 05 Treasurer/ National Cititel Mid Valley, Kuala Lumpur, Malaysia, 18-20 May 2005.
25. *UiTM-Inspens International College, Pulau Indah*; New Programme Monitoring (Facilities), Diploma in Manufacturing Engineering (2004 - completed)

F3. STUDENTS DEVELOPMENT

1. Committee Member – Global Leadership Programme [help to support student development, future global leader], 2 Feb 2015 – present.
2. Assessor: Student Practical Training - Petra Melor Engineering SDN BHD, Subang Jaya; 8 Sep 2014
3. Member, Workshop Participant - to improve FYP evaluation system (marks distribution) [*Bengkel Pemurnian Projek Tahun Akhir Pelajar*, 21 Feb 2014]
4. Panel Evaluator, Student Material Lecture Competition 2014; Fakulti Kejuruteraan Mekanikal, UiTM Shah Alam , 2014.
5. Integrated CDIO Programs - [MEC400, MEC431, MEC435, MEC531, MEC532, MEC/MEM601, MEC/MEM602]- Directly advice/ support - CDIO programs to align with the students centred learning; 1 Jan 2014 – present.
6. Technical Talk: Program ICoE Cluster Automotive - Speaker/ Professional talk (as consultant) - talk to Final Year Students [Bachelor in Mechanical/ Manufacturing Engineering]; 11-17 Aug 2014.
7. Industrial Visit with students- Continental Sime Tyre As Sdn Bhd, Kedah; 28-30/04/2013
8. Technical Advisor: Perodua Eco-Challenge 2013, 1 Julai – 31 Dis 2013.
9. Panel Assessor (Internal Speak Out for Engineering, SOFE 2011); Nov-Dec 2011, IMechE-UiTM Student Chapter
10. UiTM IMechE Student Chapter Liaison Officer; Advisor for National Competition of Speak Out For Engineering, 2011, IMechE-UiTM Student Chapter (UiTM achievement: 2nd place at the National SOFE Competition, Malaysia), The Best National Student Chapter 2012, (2011-2014)
11. Panel Assessor (Industrial Project/ Business Proposal, EM774 Master in Engineering Management Dissertation); Mac-July 2012- present , UiTM Shah Alam
12. Panel Assessor (Final Year Project I Presentation, MEC601); 2005-present, FKM, UiTM Shah Alam
13. Panel Assessor/ Thesis Examiner (Final Year Project II Presentation); 2005-present, FKM, UiTM Shah Alam
14. Panel Assessor (Defence of Research Proposal, Master & PhD); 2005-present, Institute of Graduate Studies (IPSiS), UiTM
15. Advisor, Students Development Committee FKM, UiTM (2005-2007)
16. Speaker & Fasilitator for Leadership Program, Kolej Melati & FKM, UiTM (2005 – 2006)
17. Facilitator (Career Development and Student Leadership); Sep 2005-July 2006, FKM, UiTM Shah Alam

G. INNOVATION**G1. PATENT/ AWARDS/ BEST MANAGEMENT PRACTICES**

1. **The Best Paper Award**; 2015 International Conference on Advances in Mechanical Engineering, ICAME2015 – Patra Jasa Bali Resort and Villas, Indonesia (Title: Mechanical Properties of Thermal Arc Spray Aluminium Coating in Atmosphere Condition; Muhammad Hafiz Abd Malek, Nor Hayati Saad, Sunhaji Kiyai Abs & Noriyati Md Shah), 26-27 Aug 2015.
2. **The Best Paper Award**; 2015 International Conference on Advances in Mechanical Engineering, ICAME2015 – Patra Jasa Bali Resort and Villas, Indonesia (Title: Ergonomics Improvements in the Handling of Fibre Insulator Sheets Cutting; Loo Huck Soo, Nor Hayati Saad, Amirul Abd. Rashid, Noriah Yusoff, & Mohd Ridhwan Mohammed Redza), 26-27 Aug 2015.
3. **The Best Paper Award**; 2015 International Conference on Advances in Mechanical Engineering, ICAME2015 – Patra Jasa Bali Resort and Villas, Indonesia (Title: Design of Experiment Using Minitab for Screening Breath Sensor Workability Performance; Noriah Yusoff, Nor Hayati Saad, Mohsen Nabipoor, Suraya Sulaiman, Nor Mu'minah Abd. Rawi, Ahmed Jaffar, & Amirul Abd. Rashid), 26-27 Aug 2015.
4. **ITEX Silver Medal Award- ITEX 2015** (26th International Invention and Innovation Exhibition), for the Invention of Hollow Shape Ceramic Products Produced by Advanced Method of Integrated Slip Rotary Moulding. 10-12 Mac 2015.
5. **Gold Medal - Invention & Innovation Awards; Malaysia Technology Expo MTE 2015** (Fabrication of Hollow Ceramic product by advanced technique of Integrated slip Rotary Moulding- from Association Research Scientists (MARS); 12-14 Feb 2015.
6. **Special Award - Invention & Innovation Awards; Malaysia Technology Expo MTE 2015** (Fabrication of Hollow Ceramic product by advanced technique of Integrated slip Rotary Moulding -from Indonesian Invention and Innovation Promotion Association (INNOPA/MYS3/133/11/2015); 12-14 Feb 2015.
7. **Silver Award Award – iideX 2015**: the invention/ innovation/ design of – (Title: A Method For Producing AnErgonomic Customized Coil Assembly), 27-30 Apr 2015.
8. **Silver Medal Award; Eureka Innovation Exhibition 2014**, UniKL Malaysian Spanish Institute (Title: Innovation for Integrated Process for Hollow Ceramic Product by Using Ceramic Slip Rotating Technique), 22 Sep 2014.
9. **Gold Award – iideX 2014**: the invention/ innovation/ design of – (Title: An Apparatus for dispensing a Rolled material a method thereof; member of project), 30 Apr 2014.
10. **The Best Paper Award**; Teaching and Learning Method, Kolokium Pengajaran dan Pembelajaran Ke-2 –Hotel Perdana Kota Bharu Kelantan (Title: CDIO Framework in Strengthening the Student Centered Learning Approach) 3- 5 June 2014.
11. **Vice Chancellor Quality Award 2014**, AKNC - *Anugerah Kualiti Naib Canselor 2014, 1st Place- Faculty Category* (Member of Task Force AKNC FKM 2014); 5 Dec 2014
12. **Strategic Planning Award, Vice Chancellor Quality Award 2014** (AKNC - *Anugerah Kualiti Naib Canselor -Anugerah Perancang Strategik*); 5 Dec 2014.

13. **Result Achievement Award**, Vice Chancellor Quality Award 2014 (AKNC - *Anugerah Kualiti Naib Canselor - Anugerah Hasil Pencapaian*); 5 Dec 2014.
14. **Candidate- UiTM Academic Award** 2014, 10-11 Feb 2014.
15. **Promotion to Associate Professor** - Kenaikan pangkat ke Gred DM54 (Jawatan Profesor Madya), 18 April 2013 [UiTM].
16. **Excellent Service Award**, *Anugerah Perkhidmatan Cemerlang* 2012, melalui mesyuarat 06 Mei 2013 [UiTM]
17. **Invention, Innovation & Design (IID) Silver Medal Award**, IID Johor 2012: "Flawed Specimen for NDE Industry Using Vacuum Casting Technique", Universiti Teknologi MARA Johor, Malaysia
18. **Invention, Innovation & Design (IID) Silver Medal Award**, IID Johor 2012: " An interchangeable Turning Sprue Bushing in a Multi Cavity Family Injection Mode", Universiti Teknologi MARA Johor, Malaysia
19. **Special Awards**: Contribution as Advisor (Institute of Mechanical Engineers UK UiTM Student Chapter 2011/2012
20. **Vice Chancellor Quality Award 2012**(*Anugerah Kualiti Naib Canselor*), Faculty of Mechanical Engineering, UiTM Shah Alam (UiTM -overall faculty champion), 2012.
21. **RIF Grant** (Research Intensive Faculty: Performance analysis of Thermal spray aluminium coating for application as a sacrificial anode for cathodic protection of marine offshore structure), Research Management Institute,UiTM Shah Alam, RM32000, June 2012.
22. **RIF Grant** (Research Intensive Faculty: Analysis of NANO-MEMS (Microelectro-Mechanical System) Structure Integration for Ultra-Sensitive Artificial Nose Micro Resonant Sensor), Research Management Institute,UiTM Shah Alam, RM32000, September 2012.
23. **RIF Grant** (Research Intensive Faculty: Improving selectivity of MEMS Sensors with Supervised Learning Systems) Research Management Institute,UiTM Shah Alam, RM32000, September 2012.
24. **RIF Grant** (Research Intensive Faculty: Analysis and Structure Improvement of Single Deck Bus Due to Rollover Effect Accident) Research Management Institute,UiTM Shah Alam, RM32000, November 2012.
25. **FRGS Grant** (Fundamental Research Grant Scheme: A New Integrated Structure Model of Staggered-Coupled Micro Resonant Sensor with Simplified Pattern Recognition Engine System, Principal Investigator), Ministry of Higher Education Malaysia, RM96000, 2011.
26. **ERGS Grant** (Exploratory Research Grant Scheme: New Micro-Machining Process Algorithm for 3-Dimensional Precision Microelectro Mechanical System (MEMS) , Principal Investigator), Ministry of Higher Education Malaysia, RM100000, 2011.
27. **Vice Chancellor Quality Award 2011** (*Anugerah Kualiti Naib Canselor*); Faculty of Mechanical Engineering, UiTM Shah Alam (UiTM champion-overall faculty champion), 2011.
28. **Vice Chancellor Quality Award 2010** (*Anugerah Kualiti Naib Canselor*), 2010; Faculty of Mechanical Engineering, UiTM Shah Alam (overall UiTM champion), 2010.

29. **Doctoral Degree, PhD Award** in Mechanical and Manufacturing Engineering, University of Birmingham, United Kingdom, 2010.
30. **Short Term Grant** (Grading System - Analysis of Force Distribution on Fresh Fruit Bunches (FFB) of Oil Palm Fruit), Research Management Institute, UiTM Shah Alam, RM20,750, 2006.
31. **Staff and SLAB Scholarship** (*Skim Latihan Akademik Bumiputera*), Ministry of Higher Education Malaysia, 2006.
32. **Short Term Grant** (Development Of Qpec (Questionnaires Package For Engineering Curriculum) And Sas (Statistical Analysis System) To Analyse The Survey [Case Study: Market Survey For Curriculum Development Of Bachelor Engineering (Hons) In Mechanical (Manufacturing)]), Research Management Institute, UiTM, RM20,000, 2005.
33. **Intensification Research for Priority Area, IRPA Grant** (Development of Material handling technique to Improve Occupational Health in Malaysian Small & Medium Industries (SMLs)), Ministry of Science, Technology & Innovation, Malaysia, MOSTI, RM163,000, 2003
34. **Short Term Grant** (Removal of Discomfort by The reduction of Machine Vibration Experienced by Stamping Machine Operators), Research Management Institute, RMI UiTM, RM20,000, 2002.
35. **Short Term Grant** (Development Of A Fibre Optic Anemometer), Research Management Institute, RMI UiTM; RM20,000), 2003.
36. **Short Term Grant** (Experimental Studies On Cold And Warm Ceramic Powders Compaction Processes: Application To Malaysian Powder Metallurgy Industries); Research Management Institute, RMI UiTM, RM20,000, 2003.
37. **Short Term Grant** (Development Of Flexible Manufacturing System Model For Specific Manufacturing Industry), Research Management Institute, RMI UiTM, RM20,000, 2001.
38. **British Training Scheme Scholarship**, British Council, United Kingdom 2000.
39. **Master Science Degree** in Operation Management and Manufacturing Systems, University of Nottingham United Kingdom 2000.
40. **IEM Gold Medal Award** (The Best Engineering Students, Universiti Teknologi MARA) 1999.

G2. CERTIFICATE/ LETTER OF RECOGNITION [Selected]

G2.1 INTERNATIONAL/ NATIONAL

1. Letter of Appreciation: 2nd International Conference on Advanced Micro and Nanocomposite for Engineering 2014 (ICNC 2014); 14 Apr 2014
2. Certificate of Participation iiDEX 2014 [for the Invention/ Innovation/ design of an apparatus for dispensing A Rolled material and a method thereof]; 30 Apr 2014
3. *Certificate of Participation in the CDIO Framework for Re-Thinking Engineering Education*, 2013 [Temasek Foundation, SPI Singapore, UiTM]

4. *Certificate in contribution* – Session Chair at 2013 International Conference on Advances in Mechanical Engineering, 28-29 Aug 2013
5. *Acknowledgement* – a reviewer of Technical papers submitted for Malaysian International Tribology Conference 2013, 5 July 2013 [MYTRIBOS]
6. *Certificate of Appreciation* – Chairperson (keynote session), MITC2013, 18-20 Nov 2013 [MYTRIBOS & i-META]
7. *Certificate of Appreciation* – Committee at MITC2013, 18-20 Nov 2013 [MYTRIBOS & i-META]
8. *Certificate of Participation* – presenter at MITC2013, 18-20 Nov 2013 [MYTRIBOS & i-META]
9. Certificate of Appreciation: Treasurer –International Sysposium on Robotics and Intelligent Sensors 2012, 4-6 Sep 2012.
10. Certificate of Appreciation: Session Chair –International Sysposium on Robotics and Intelligent Sensors 2012, 4-6 Sep 2012.
11. Certificate of Appreciation: Keynote Session Chair –International Sysposium on Robotics and Intelligent Sensors 2012, 4-6 Sep 2012.
12. Certificate of Attendance: 10 Hot Skills To be Mastered for Great Leader, Head of Departments and Managers, Emerge Knowledge Connection Sdn. Bhd., 9-10 Oct 2012.
13. Certificate of Attendance: Intensive Workshop on submission to EAC, 28 Feb. – 1 Mac 2011 (Board of Engineers Malaysia)
14. Certificate of Attendance: Eurosensors XXIII, 9 Sep 2009, Lausanne
15. Certificate of Attendance: The Conference Eurosensors XXII, 10 Sep 2008, Dresden Germany
16. Certificate of Attendance: PGT012 Survival Kit for Teaching, 14 Apr 2008 (University of Birmingham, UK)
17. Certificate of Attendance: Finishing Your Research Degree, 13 Dec 2007 (University of Birmingham, UK)
18. Certificate of Attendance: PGT010 Presentation Skills, 19-20 Apr 2007 (University of Birmingham, UK)
19. Certificate of Attendance: PGT048 Writing for Publication, 29 Jun. 2007 (University of Birmingham, UK)
20. Certificate of Attendance: Project Management, 5 Jul 2007 (University of Birmingham, UK)
21. STIMESI Training Course Certificate: on SensorNOR & TRONIC's MEMS Processes, 24-26 Sep 2007 (STFC Rutherford Appleton Laboratory, Didcot oxfordshire, UK)
22. Certificate of Appreciation: Referee of the Journal- The institution of Engineers Malaysia, 2006/07
23. Certificate of Attendance: Sijil Kursus Kenegaraan, 15-19 Jun 2006 (Jabatan Perdana Menteri)
24. Certificate of Attendance: 1st Technical Seminar, 22 Feb 2006 (Welding Institute of Malaysia)
25. Certificate of Attendance: Seminar on Introduction to Nanotechnology 13 Mac. 2006 (AEIC, International

Islamic University Malaysia)

26. Certificate of Attendance: Workshop organized by The Institution of Engineers, Malaysia, Mac. 2006
27. Certificate of Attendance: Seminar on Carbon Nanotubes and Molecular Modelling, 16-18 Mac. 2006 (AEIC, International Islamic University Malaysia)
28. Certificate of Attendance: Seminar – Professional Women, 29-30 Nov 2005 (UMCFD, Universiti Malaya)
29. Certificate of Attendance: a workshop on Advanced Materials and Nanotechnology, 8-10 Dec 2005 (Institute of Advanced Technology, Universiti Putra Malaysia).
30. Certificate of Achievement: Internal Audit – Training & Test, 2-4, 7 Jul. 2004 (RAMS Management Consultants)
31. Certificate of Participation: Seminar – Practical Knowledge for Improvement in Occupational Safety and Health, 27 Jan 2003 (National Institute of Occupational Safety and Health, NIOSH Malaysia)
32. Certificate of Appreciation (Presenter): National Conference – Occupational, Safety and Health, 21-22 Apr 2003 (Vice Chancellor, Universiti Utara Malaysia)
33. Certificate: to certify the completion of course- Robot Operation & Programmable Logic Controller (PLC) Interface Part 1, 22 - 26 Apr.2002 (Technology Park Malaysia Corporation Sdn. Bhd.)
34. Certificate: to certify the completion of course- Robot Operation & Programmable Logic Controller (PLC) Interface Part 2, 29 Apr. – 3 May 2002 (Technology Park Malaysia Corporation Sdn. Bhd.)

G2.2 UNIVERSITY

1. Certificate of Appreciation: Peserta dalam Team Building Teknikal FKM 2014; Hotel Bayview Melaka, 11 Dec 2014
2. Certificate of Appreciation: Head - Protocol & Invitation (Industry Outreach Program 2014); 5 Nov 2014
3. Certificate of Appreciation: Ketua Jawatankuasa Penyediaan Pembentangan Akhir, Anugerah Kualiti Naib Canselor 2013/2014; 6Nov 2014
4. Certificate of Appreciation: Pengerusi Sesi Pembentangan Selari: Koloklum Pengajaran & Pembelajaran UiTM ke-2, 5 June 2014
5. Certificate of Appreciation: Koloklum Pengajaran & Pembelajaran UiTM ke-2; 5 June 2014
6. Certificate of Attendance: "Introduction to MS/ISO/ IEC 17025 - General Requirement for Competence of Testing and Calibration Laboratory"; 13 Jun 2014
7. Certificate of Attendance: "Measurement uncertainties for testing and calibration laboratory" , 25 June 2014.
8. Certificate of Appreciation: Peserta Kursus Team Building FKM 2014; De Rhu Beach Resort, Kuantan Pahang, 20 Apr 2014
9. Certificate of Appreciation: Executive Committee in Material Lecture Competition 2014; 3 Apr 2014
10. Certificate of Appreciation: judging the FKM Material Lecture Competition 2014, 18 Feb 2014
11. Letter of Appreciation: Final Year Project Presentation II (Panel assessor); 21 Jan 2014
12. Letter of Appreciation: Menyumbang artikel bertajuk 'New CDIO Framework for next generation of Engineer', untuk dimuatkan di dalam ICAN Reach Out; 9 May 2014
13. Letter of Appreciation: Penghargaan dan Terima Kasih - Panel Penilai Kertas Cadangan Skim Geran Penyelidikan Fundamental (FRGS) [Fasa 2/2014]; 30 Sep 2014
14. Letter of Appreciation: Panel Penilai Kertas Cadangan Dana Kebudayaan Penyelidikan (RAGS) 2014;

- 19 Sep 2014
15. Letter of Appreciation: Panel Penilai Kertas Cadangan Skim Geran Penyelidikan Transdisciplinary (TRGS) [Fasa 2/2014]; 14 Oct 2014
 16. Letter of Appreciation: Panel Penilai Kertas Cadangan Skim Geran Penyelidikan Fundamental (FRGS) [Fasa 1/2014]; 14 Apr 2014
 17. Letter of Appreciation: Program ICoE Cluster Automotif FKM; 6 Aug 2014
 18. *Ucapan Penghargaan Dan Terima Kasih*- Panel Penilai Kertas Cadangan Dana Pembudayaan Penyelidikan (RAGS), 22-23 Jun 2013 [RMI, UiTM].
 19. *Ucapan Penghargaan Dan Terima Kasih*- mesyuarat memutamakan Permohonan Skim Geran Penyelidikan Fundamental (FRGS), 08 Sep 2013 [RMI, UiTM]
 20. Certificate of Appreciation: Programme Committee & Paper Presentation – German Malaysian Workshop 2012 “Advances in Mechatronics and Engineering Technology”, 27-29 June, Hannover 2012.
 21. Certificate of Appreciation: Participation –Perodua Eco-Challenge 2012 Team, July 2012.
 22. Certificate of Appreciation: as Organizing Committee in Industrial Linkage, Community Excellence Award, 2012 (Vice Chancellor UiTM)
 23. Certificate of Appreciation: as Member of Committee in Industry Outreach Program, 2012
 24. Certificate of Appreciation: as Advisor in Route to Chartered Engineer & Colloquium 2012
 25. Certificate of Participation: in Strategic Planning for Academic, 2012
 26. Letter of Appreciation: as Member of Committee in Academic Caretaker Program, 2012
 27. Letter of Appreciation: as the member of committee in Outcome Based Education, 2012
 28. Letter of Appreciation: as the Advisor for National Competition of Speak Out For Engineering, 2012
 29. Letter of Appreciation: as the Examiner for National Competition of Speak Out For Engineering, 2012
 30. Letter of Appreciation: as the member of committee for Local University/Industry Networking, 2012
 31. Letter of Appreciation: as the member of committee for ISO Quality, 2012
 32. Letter of Appreciation: Paper reviewer –International Symposium on Robotics and Intelligent Sensors 2012, 11 oct 2012
 33. Letter of Appreciation: for invigilating Final Examamination, January 2012.
 34. Certificate of Participation: Leadership Symposium, 5 Jul 2011 (Assistant Vice-Chancellor iLQAM UiTM)
 35. Certificate of Appreciation: Fundamental Research Grant Scheme for A New Structure Model of Staggered-Coupled Micro Resonant Sensors with Simplified Pattern Recognition Engine System, 2011 (Assistant Vice Chancellor, Research UiTM)
 36. Certificate of Appreciation: Exploratory Research Grant Scheme for New Micro Machining Process Algorithm for 3-Dimensional Precision Microelectro-Mechanical System (MEMS), 2011 (Assistant Vice Chancellor, Research UiTM)
 37. Certificate of Appreciation: as a Member Committee Member – Vice Chancellor Quality Award 2011, 31 Oct – 1 Nov 2011.
 38. Certificate of Participation: in Vice Chancellor’s Quality Award (presenter), 1 Nov 2011 (Vice Chancellor UiTM)
 39. Certificate of Participation: in ESQ Leadership Training, 27-28 Dec 2011 (ESQ leadership Center)
 40. Certificate of Participation: in Academic Conference 10 -12 Feb 2011, (Deputy Vice Chancellor- Academic & International)
 41. Letter of Appreciation: participating in activities for UiTM Alumni, 6 Jun 2011.
 42. Certificate of Attendance: Viva Preparation, 20 Apr 2010 (University of Birmingham)
 43. Certificate of Participation in PRA-PTK, 8-9 Nov. 2010 (Assistant Vice-Chancellor (iLQAM))
 44. Certificate of Appreciation: Technical Session Chair- International Conference on Advances in Mechanical Engineering , 2-5 Dec 2010.
 45. Certificate of Appreciation: Secretariat- International Conference on Advances in Mechanical Engineering , 2-5 Dec 2010.
 46. Certificate of Appreciation: Contribution- Overall Champion of the Vice Chancellor Quality Award, 2010
 47. Letter of Appreciation: on commitment to invigilate final exam, 2010
 48. Letter of Appreciation: on the Final Year Projects Supervision, 2010
 49. Letter of Appreciation & Thank You: Invigilation – Final Examination Oct 2010, FKM UiTM, 15 Nov 2010

50. Letter of Appreciation and Thank You: End of service as Student Development Committee member, FKM UiTM, 26 Jan 2007.
51. Certificate of Attendance: Course on PhD Research Methodology, 10-15 Apr.2006 (Assistant Vice-Chancellor (iLQAM))
52. Letter of Appreciation and Thank You: Success of 4th Surveillance Audit (13 Apr 2006) , FKM UiTM, 14 Apr. 2006.
53. Certificate of Appreciation: Researcher in Conference on Scientific and Social Research 2005
54. Certificate of Appreciation: Contribution and Cooperation – Success of ISO 9001:2000 Certification, UiTM , 11 Jan. 2005. (Vice Chancellor)
55. Certificate of Appreciation (Facilitator): Workshop – Benchmarking and Reviewing Main ISO 9001:2000 Documents for Internal Audit on 23 Feb 2005, FKM UiTM, 18 Feb. 2005.
56. Certificate of Appreciation (Participant): Workshop – Strengthening the Strategic Planning, FKM UiTM, 25-26 Feb. 2005.
57. Certificate of Attendance: Grand Opening FKM Colloquium Series 2005/2006, FKM UiTM, 1 Sep. 2005.
58. Certificate of Appreciation: Seminar on Nanotechnology “ Advanced Nanoindentation Technique : Mechanical Testing, Materials Characterization & Issued in Industrial Applications”, 19 Oct 2005
59. Certificate for Paper Presentation “Mechanical System Instrumentation of Fibre Optic Anemometer”, 18-20 May 2005.
60. Certificate of Appreciation: Member of Committee- organizing National Conference On Advances in Mechanical Engineering, 18-20 May 2005
61. Letter of Appreciation: involving in calculating Student’s Vote, 18 Nov. 2005 (Deput Vice-Chancellor, Student and Alumni UiTM)
62. Certificate of Appreciation (Participant): Launching of FKM Journal & Technical and Publication Seminar, FKM UiTM, 10 May 2004.
63. Certificate of Appreciation (Facilitator): Workshop – Training Needs Analysis: ISO 9001:2000 & Motivation Talk to Support Staff, FKM UiTM, 26-28 May 2004.
64. Certificate of Appreciation (Participant): Workshop – ISO 9001:2000 PDCA Review 2004, FKM UiTM, 17 Jun. 2004.
65. Certificate of Appreciation (Participant): Workshop – Summary on Training Needs Analysis & PDCA ISO 9001:2000, FKM UiTM, 24-25 Jul 2004.
66. Certificate of Attendance: “ Linear Motor Technology Seminar”, 11 Aug 2004 (Sodick Singapore –Total Manufacturing Solution)
67. Certificate of Appreciation (Participant): Exhibition & Seminar: “Robotics & Automation”, FKM UiTM, 25 Sep 2004.
68. Certificate of Appreciation (Facilitator): Quality Week: “Bersama Menghayati, Memantap & Mengaplikasikan Sistem Pengurusan Kualiti FKM”, FKM UiTM, 29 Sep – 1 oct. 2004.
69. Certificate of Appreciation (Participant): Quality Week: “Bersama Menghayati, Memantap & Mengaplikasikan Sistem Pengurusan Kualiti FKM”, FKM UiTM, 29 Sep – 1 oct. 2004.
70. Certificate of Attendance: Workshop- problem based-learning, UiTM , 22-23 Dec 2004 (Assistant Vice Chancellor, iLQAM)
71. Certificate of Appreciation (Participant): Workshop – Evaluating & Editing, Final Examination Paper Mac 2004, FKM UiTM, 14 Jan. 2004.
72. Certificate of Appreciation (Participant): Workshop – IRPA Project Proposal Preparation, FKM UiTM, 7 Feb. 2004.
73. Certificate of Appreciation (Participant): Workshop – The Preparation of IRDC Short term Grant Proposal, FKM UiTM, 14 Feb. 2004.
74. Certificate of Appreciation (Participant): Workshop – Analysis on Plan Do Check Action (PDCA), FKM UiTM, 2 Mac. 2004.
75. Certificate of Appreciation (Participant): Workshop – ISO 9001:2000 Awareness Training, FKM UiTM, 10 Mac. 2004
76. Letter of Appreciation and Thank You: Success of ISO 9001:2000 Certification (17 Mac 2004), FKM UiTM, 24 Mac. 2004.

77. Letter of Appreciation and Thank You: Attending Dinner - ISO 9001:2000 Certification, FKM UiTM, 28 Apr. 2004.
78. Certificate of Appreciation (Participant): Workshop – Journal Paper Preparation, FKM UiTM, 16-17 Apr 2003.
79. Certificate of Appreciation (Participant): Series of lecture (Dean): “Penghayatan Hala Tuju FKM”, FKM UiTM, 12 May 2003.
80. Certificate of Appreciation (Participant/ Presenter): 2003 Asian Conference on Sensors, FKM UiTM, 14-18 Jul. 2003 (UiTM, UKM & IEEE Malaysia)
81. Certificate of Appreciation (Participant): Workshop – Generating Viable Research Project Titles, FKM UiTM, 23 Aug. 2003.
82. Certificate of Appreciation (Participant): Workshop – Plan Do Check Action, FKM UiTM, 18-20 Dec. 2003.
83. Certificate of Appreciation (Participant): Workshop – Training Needs Analysis, ISO 9001:2000, FKM UiTM, 27 Dec. 2003.
84. Letter of Appreciation: Paper presentation – FKM Colloquium 2002, FKM UiTM, 15 Jan 2002 (Deputy Vice-Chancellor, Academic UiTM)
85. Letter of Appreciation: Paper presentation – “The Impact of Product Variety on Lead Time”, FKM UiTM, 8 Mac 2002 (Deputy Vice-Chancellor, Academic UiTM)
86. Letter of Appreciation (participant): Launching of FKM Colloquium Series, FKM UiTM, 8 Mac 2002 (Deputy Vice-Chancellor, Academic UiTM)
87. Certificate of Appreciation (Participant): FKM Academic Workshop, 14-15 May 2001.
88. Certificate of Attendance: FKM –UPP Seminar, 31 Oct 2001.
89. Certificate of Attendance Workshop-Academic Staff Excellence, FKM 6-7 Nov 2001.

H. CPD (CONTINUAL PROFESSIONAL DEVELOPMENT) & TRAINING – [Selected]

1. Talent Accelerated Leadership Excellent Series (Tales), Institute of Leadership & Quality Management, iLQAM UiTM [Certificate of Participation, 14 hours merit score], 2-3 June 2015.
2. Code of Ethics/ Regulations, IEM Training Centre Sdn. Bhd [Lembaga Jurutera Malaysia, Sijil Kehadiran: 26372/15], 9-10 Mac 2015.
3. Grooming for Promotion, Institute of Leadership & Quality Management, iLQAM UiTM [Certificate of Participation, 7 hours merit score], 3 Mac 2015.
4. Engineering Management Practice, IEM Training Centre Sdn. Bhd [Lembaga Jurutera Malaysia, Sijil Kehadiran: 26443/15], 16-17 Mac 2015.
5. Technical Workshop: Phenom Pro-X Desktop Scanning Electron Microscope & Olympus LEXT OLS4100 Laser Confocal Scanning Microscope, Centre for Advanced Materials Research (CAMAR) [Certificate of Participation], 29-30 April 2015.
6. Training Course: Introduction to MS/ISO/ IEC 17025- General Requirement for Competence of Testing and Calibration Laboratory, FKM UiTM [Certificate of Attendance] by Lab Consult, 11-12 June 2015.
7. Training Course: Measurement uncertainties for Testing and Calibration Laboratory, FKM UiTM [Certificate of Attendance] by Lab Consult, 23-24 June 2015.
8. Training: Developing your Own Effective Leadership Style [Certificate of Attendance], Sunway Putra Hotel K. Lumpur, 13-14 Mac 2013

9. Training Workshop: 1-Day Workshop on Complex Problem Solving [Certificate of Acknowledgement], Marriot Hotel, Putrajaya, 19 Aug 2013
10. STIMESI Training Course: on SensorNOR & TRONIC's MEMS Processes, (STFC Rutherford Appleton Laboratory, Didcot oxfordshire, UK), 24-26 Sep 2007
11. 1st Technical Seminar, (Welding Institute of Malaysia), 22 Feb 2006.
12. Seminar on Introduction to Nanotechnology, (AEIC, International Islamic University Malaysia), 13 Mac. 2006.
13. Workshop organized by The Institution of Engineers, Malaysia, Mac. 2006.
14. Seminar on Carbon Nanotubes and Molecular Modelling, 16-18 Mac. 2006.
15. Seminar on Nanotechnology "Advanced Nanoindentation Technique : Mechanical Testing, Materials Characterization & Issued in Industrial Applications", 19 Oct 2005.
16. Seminar – Practical Knowledge for Improvement in Occupational Safety and Health, (National Institute of Occupational Safety and Health, NIOSH Malaysia), 27 Jan 2003.
17. National Conference – Occupational, Safety and Health, (Vice Chancellor, Universiti Utara Malaysia), 21-22 Apr 2003.

REFERENCES**Professor Ir Dr Hj Ahmed Jaffar**

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