

DR. AIDAH JUMAHAT



Current Position:

Senior Lecturer

&

Head Centre of Studies (Engineering Mechanics and Materials)

Faculty of Mechanical Engineering

Universiti Teknologi MARA

40450 Shah Alam, Selangor,

MALAYSIA

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FIELD OF SPECIALISATION

Advanced Materials and Engineering Mechanics

Research Interest:

- Fibre Reinforced Polymer Composites
- Polymer Nanocomposites & Engineering Polymer
- Metal Matrix Composites & Metal Foams
- Powder Metallurgy & Powder Compaction Process
- Mechanics of Materials, Finite Element Method & Engineering Design

EDUCATION BACKGROUND

PhD (Mechanical Engineering)

University of Sheffield, UNITED KINGDOM

Thesis Title: "*Effect of nanofillers on thermo-mechanical properties of polymers and composite laminates*"

2011

MSc (Mechanical Engineering)

Universiti Kebangsaan Malaysia, MALAYSIA

Thesis Title: "*Analysis of thermo-mechanical behaviour of warm powder compaction process*"

2002

BEng (Hons.) (Mechanical and Materials Engineering)**1999**

Universiti Kebangsaan Malaysia, MALAYSIA

PROFESSIONAL AFFILIATION

The Board of Engineers Malaysia (BEM) Graduate Member (47135A)	2005 – present
International Association of Computer Science and Information Technology (IACSIT) Registered Senior Member (80345747)	2012 – present
Malaysian Tribology Society (MYTRIBOS) Executive Committee Member (L0512)	2013 – present
Persatuan Industri Komposit (PIK) Executive Committee Member (pik/2-14/02)	2013 – present
International Association of Engineers (IAENG) Registered Member (130852)	2013 – present
Malaysia Powder Metallurgy and Particulate Materials Association (MPM2A) Registered Member (0055)	2013 – present

LANGUAGE

- Bahasa Melayu
- English

WORKING EXPERIENCE**Organisation 1: Universiti Teknologi MARA (UiTM) Shah Alam Selangor Malaysia****A) Administrative/Leadership experience:**

- | | |
|--|-----------------------|
| • Chairman, ICT Technical Committee Zone W8 UiTM | 01 July 2011- present |
| • Head, Centre of Studies: Engineering Mechanics and Materials | 01 Aug 2011 - present |
| • Programme Chair: B. Eng (Hons.) Mechanical EM220 | 01 Mac 2012 – present |
| • Chairman, Organizing committee for the Materials Lecture Competition 2014 (MLC2014) UiTM | 01 Jan - 31 May 2014 |
| • Chairman, Organizing committee for the Materials Lecture Competition 2013 (MLC2013) UiTM | 21 - 27 Mar 2013 |
| • Faculty Academic Board | 01 Jan 2012 – present |
| • Faculty Executive Board | 01 Jan 2012 – present |

- Head CoS, Income Generation Committee 01 Apr 2013 - 31 Dec 2014
- Coordinator, FKM Self Review Committee 01 Apr 2012 - 31 Dec 2013
- Head, preparation of SAR report 18 Apr 2013 - 30 Jun 2013
- Chairman, Organizing committee for the Materials Lecture Competition 2013 (MLC2013) Faculty level 01 Mar 2013 - 20 Mar 2013
- Advisor, FKM Student Fanclub 01 Jan 2013 – 31 Dec 2013
- Internal Auditor ISO9001:2008 01 Feb 2012 – 31 Aug 2013
- Chairman, Engineering Mechanics, Materials & Dynamics Workshop 14 – 16 April 2014
- Chairman of Seminar on Thermal Analysis & UV Curing Technology 15 April 2014
- Head, Development of New Programme Committee (Bachelor of Engineering (Hons.) Mechanical (Advanced Materials)) 01 Nov 2011 – present
- Advisor, Publication and FKM Newsletter Committee 15 Jan 2007 – 14 Jan 2008
- Chairman, Publication Committee FKM 15 Jan 2006 – 14 Jan 2007
- Chief Editor Journal of Mechanical Engineering ISSN 1823-5514 2005 – 2006
- Coordinator, University Publication Unit UPENA 2005 – 2006
- Chairman, Public Relation Committee FKM 01 Feb 2003 – 31 Jan 2004
- International Liaison Officer UiTM 2003

B) Academia and Researcher:

- Senior Lecturer/ Researcher 01 Apr 2008 - present
- Lecturer 02 May 2002 - 31 Mar 2008
- Part time Lecturer 01 Nov 2001 – 30 Apr 2002
- Editorial Board Journal of Faculty of Mechanical Engineering, ISSN 1675-8994 2004
- Editorial Board Journal of Mechanical Engineering ISSN 1823-5514 2007
- Vanguard Researcher UiTM 2014 - present
- PhD Thesis Examiner 2014 - present
- MSc Thesis Examiner 2013 – present
- Panel Assessor (Undergraduate: Proposals, Report and Thesis) 2003 – present
- Panel Assessor (MSc; Proposals and Progress Report) 2011 - present
- Panel Assessor (PhD; Proposals and Progress Report) 2011 - present
- MSc Research Students' Supervision 2011 - present
- PhD Research Students' Supervision 2011 - present
- Member of Teaching Factory Committee 01 Jan 2013 – present
- Member of Industrial Outreach Program Committee 01 Feb 2014 – present
- Member of CDIO Committee 01 Jan 2013 – present
- Member of Academic Committee 01 Jan 2013 – present
- Member of Curriculum Committee 01 Jan 2012 – present
- Member of Postgraduate Studies Academic Committee 01 Jan 2012 – present
- Member of ICT/e-learning Committee 01 Jan 2012 – present
- Member of Physical Development Committee 01 Jan 2013 – present
- Member of Bursary Committee 01 Jan 2013 – present

- Member of Quality Management System Committee 01 Jan 2013 – present
- Member of CAMAR (Centre of Advanced Materials Research) 01 Jan 2013 – present
- Member of Income Generation Committee 01 Mar 2013 – 31 Dec 2014
- Member of Quality Assurance Unit Committee 01 Jan 2013 – 31 Dec 2013
- Member of Accreditation Committee 01 Jan 2012 – 31 Dec 2013
- Member of CADEM (Centre of Computer Aided Design, Engineering and Manufacturing) 01 Jan 2013 – present
- Member of Task Force: ISO 9001:2008 Quality Management Unit 01 Jan 2012 – 31 Dec 2012
- Member of Outcome Based Education (OBE) Committee 01 Jan 2012 – 31 Dec 2012
- Member of Timetable Committee 2004, 2005, 2012
- Member of Examination Management Committee 01 Jan 2012 – 31 Dec 2012
- Member of Invention, Innovation and Design Committee 01 Jan 2012 – 31 Dec 2012
- Member of Academic Caretaker program Committee 01 Jan 2012 – 31 Dec 2012
- Member of Sorting Pre-Love Item Sales Committee 26 Nov 2012 – 30 Nov 2012
- Member of Vice Chancellor Quality Award Committee 01 Jan 2011 – 31 Dec 2011
- Panel of Interviewer, Academic Staff Scholarship 01 Nov 2011 – 31 Oct 2013
- Member of Public Relation Committee 01 Feb 2004 – 31 Jan 2005
- Member of Publication Committee 01 Apr 2003 – 31 Mar 2005
- Member of Student Excellence Committee 01 Feb 2003 – 31 Jan 2005
- Member of Special Interest Group, SIG (Computational Structural Analysis) 2004 - 2006
- Member of FKM Journal Committee 2002
- Member of Student Discipline Committee 2002

Organisation 2: The University of Sheffield, United Kingdom

Academia:

- Part Time Lab Demonstrator , Mechanics of Materials 2008 - 2010

Organisation 3: Universiti Kebangsaan Malaysia (UKM), Bangi, Selangor, Malaysia

Academia:

- Part Time Tutor, Engineering Mathematics 2000 – 2001

Organisation 4: Taylor's College Sdn. Bhd., Cheras, Kuala Lumpur, Malaysia

Engineering Practice:

- Technical Officer, Building and Labs Development, Expansion and Maintenance Mac – Nov 1999

Organisation 5: The News Straits Times Press Sdn. Bhd., Bangsar, Kuala Lumpur, Malaysia

Engineering Practice:

- Trainee Engineer, Mechanical Engineering Mac – Jun 1998

A.1 TEACHING AND LEARNING

A.1.1 List of Courses taught (2002 – 2014)

No.	Course Name	Level	Year
1	Finite Element Method (MEC630)	Bachelor	2012, 2013, 2014
2	Mechanics of Composite Materials (MEC613)	Bachelor	2013, 2014
3	Mechanical Engineering Design II (MEC532)	Bachelor	2012, 2013
4	Mechanics of Materials (MEC411)	Bachelor	2011, 2012
5	Mechanics of Materials I (KJM454)	Bachelor	2005, 2006, 2007
6	Fluid Power Technology (KJP342)	Diploma	2002, 2003, 2004, 2005, 2006, 2007
7	Manufacturing Technology II (KJP356/370)	Diploma	2006
8	Manufacturing Processes (KJP326/276)	Diploma	2006
9	Strength of Materials (KJM244)	Diploma	2003, 2004, 2005, 2006
10	Plant Engineering (KJP362)	Diploma	2003, 2004
11	Strength of Materials IIB (KJM311B)	Bachelor	2004
12	Strength of Materials I (KJM211)	Diploma	2002, 2003, 2004
13	Strength of Materials II (KJM311)	Diploma	2002, 2003
14	Manufacturing Processes (KJP471)	Bachelor	2002, 2003
15	Metallurgy (KJP212)	Diploma	2002

A.2 SUPERVISION OF THESIS / DISSERTATION / PRACTICAL TRAINING

A.2.1 Postgraduate (PhD) – Main Supervisor (except when stated)

No.	Name of Students	Thesis/ Research Title	Year
1	Norazean binti Shaari (2012582503)	Damage resistance properties of advanced hybrid composites laminates	2012 - 2016
2	Napisah bt Sapiai (2012975101)	Fracture toughness of nanomodified carbon fibre reinforced polymer composites	2012 - 2016
3	Ghazirah Mustapha (2012895992) (Co-Supervisor)	Characterizing the biochemical principles of traditional Malay martial art movement	2012 - 2016
4	Noor Haznida Bakar (2012803568) (Co-Supervisor)	Investigation on the reinforcement of kevlar in natural fibres composite: Mechanical and morphological study	2012 - 2016
5	Mazuki bin Musa@Awang (2011620088) (Co-Supervisor)	A new failure criterion for square woven fabric composites	2011 - 2015

A.2.2 Postgraduate (Master) – Main Supervisor (except when stated)

No.	Name of Students	Thesis/ Research Title	Year
1	Norhafiza binti Muhammad (2012272714)	Compressive properties of nanosilica filled hybrid fibre composites laminates	2012 - 2014
2	Ummu Raihanah Haji Hashim (2012916907)	Compressive properties of polymer composites tube with aluminium foam insert	2012 - 2014
3	Widia Wahyuni Amir (2012591191)	Flexural properties of nanoclay-modified fibre reinforced polymer	2012 - 2014
4	Nurhidayah Rozieana Zamani (2012313917)	Thermal analysis of nanomaterials reinforced epoxy nanocomposites	2012 - 2014
5	Mohd Fadzli bin Ismail (2013683498)	Impact resistance of advanced sandwich structures	2013 - 2015
6	Norhashidah binti Manap (2013692244)	Energy absorption properties of hybrid kenaf composites	2013 - 2015
7	Siti Athirah binti Rasid (2011375039) (Co-Supervisor)	Fabrication of copper foam using powder metallurgy technique for thermal management application	2011 - 2014

A.2.3 Undergraduate (Bachelor, Final Year Project)–Main Supervisor (except when stated)

No.	Name of Students	Thesis/ Research Title	Year
1	Muhammad Sobri bin Omar (2011327767)	Design, Analysis and fabrication of Injection Moulding mould for PET parison	2014 - 2015
2	Ahmad Zarif bin Haderi (2010873056)	Open Hole Compression and Tension Properties of FRP Laminates	2013 - 2014
3	Mohamed Khafiz bin Mohamed Razif (2011438116)	Compression After Impact (CAI) Properties of Fiber Reinforced Polymer Laminate	2013 - 2014
4	Mohd Aidil Idham bin Usoff (2011653116)	Fracture Toughness of Nanomodified Polymer	2013 - 2014
5	Shafika Elia binti Ahmad Aseri (2011660778)	Impact Resistance of FRP Sandwich with Aluminium Form	2013 - 2014
6	Nurul Hafizah binti Mohamad Duri (2011876148)	Compressive Properties of GFRP Composite Tube	2013 - 2014
7	Amirussalihin bin Hj Ludin (2010955957)	Tensile and compression properties of glass fibre/ kenaf hybrid polymer composites	2013 - 2014
8	Raja Nasrul Hakim b. Raja Aris (2010359235)	Tensile and compression properties of carbon fibre/ kenaf hybrid polymer composites	2013 - 2014

9	Mohd Hairilizwan b. Mohd Arshad (2010964009)	Delamination resistance of GFRP/ Al Foam Sandwich panel	2013 - 2014
10	Muhamad Zulharith b. Rashid (2009536483)	Impact resistance of GFRP/ Al Foam Sandwich panel	2013 - 2014
11	Aiman Hakim b. Nordin (2009916757)	Compressive properties Sandwich panel (GFRP/ Al Foam)	2013 - 2014
12	Muhammad Saiful Islam b. Mohd Izra'ai (2009766283)	Thermo gravity analysis (TGA) for nanomodified polymer composite	2013 - 2014
13	Mohammad Faizal b. Sulaiman (2009426052)	Impact properties of woven glass fiber reinforced polymer composites	2012 - 2013
14	Khaleel Husaini b. Yahya (2010251574)	Damage resistance of kevlar fibre reinforcement polymer composites	2012 - 2013
15	Norliza bt. Abdullah (2010237338)	Effect of micron sized filler on the impact properties of carbon fiber reinforced polymer composite	2012 - 2013
16	Idzuwan b. Zulkifli (2009430332)	Fabrication and characterisation of Carbon Fibre Reinforced Polymer (CFRP) laminate using resin infusion system	2012 - 2013
17	Muhammad Amirul Afiq b. Mohd Ikhsan (2009401914)	Design and fabrication of a milling machine for the fabrication of nanoparticle filled epoxy nanocomposites	2012 - 2013
18	Muhammad Hafiz b. Hamzah (2010684308)	Design and fabrication of compression test rig for fibre reinforced polymer system	2012 - 2013
19	Mohd Asyraf b. Nasir (2009624788)	Design and fabrication of dry filament winding machine for CFRP composites	2012 - 2013
20	Izanol Azreen b. Hamzah (2009757673)	Tensile properties of nanosilica modified CFRP composite	2012 - 2013
21	Amir Zakwan b. Abdul Kahar (2009319509)	Influence of Alumina (Al_2O_3) on impact properties of chopped glass fiber reinforced epoxy	2012 - 2013
22	Mohd Khaidir b. A. Rahman (2009406772)	Effect of off-axis ply orientation on compressive strength of CFRP composites	2011 - 2012
23	Engku Muhammad Azlan b. Che Engku Husin (2005645701)	A study on mechanical and physical properties of green SiC and Si_3Ni_4 reinforced MMC components	2007 - 2008
24	Mohd Azhar b. Abdul Wahab (2005646132)	A study on sintering behaviour of sintered SiC and Si_3Ni_4 reinforced MMC components and their properties	2007 - 2008
25	Mohd Nafhri b. Abdul Ghani (2005645740)	Development of high strength light metal alloy using P/M route	2007 - 2008
26	Muhammad Hisham b. Sulaiman (2005607529)	Characterization of nano particle reinforced metal matrix composites	2007 - 2008
27	Mohd Amirul b. Zainal (2004656127)	Effect of reinforcement material particle size on densification of iron green compacts	2006 - 2007

28	Noor Adzahir Mohd Ali (2004653876)	Development of a novel iron metal matrix composites using powder metallurgy technique	2006 - 2007
29	Shahrul Aszad Md Rozali (2004215363)	Paper fly ash reinforced metal matrix composite materials	2006 - 2007
30	Mohd Farrid Shaari (2004215157)	The effect of shot peening process on fatigue strength of automotive valves	2006 - 2007
31	Ayuniza Binti Hassan (2004104632)	Silicon nitride reinforced aluminium metal matrix composites	2006 - 2007
32	Fikri Ruzaini Bin Muhamad (2004364899)	Effect of silicon carbide on the mechanical and physical properties of metal matrix composite component	2006 - 2007
33	Syazuan Bin Abdul Latif (2004346109)	Development of lightweight metal matrix composite materials using alumina as the reinforcement material	2006 - 2007
34	Mohd Norizan Mohd Zain (2001120741)	A study on the effect of alloying element on physical and mechanical properties of P/M parts	2006 - 2007
35	Zahirudin b. Mohd (2002612971)	Effect of sintering temperature on mechanical properties of Alumina components	2005 - 2006
36	Mohd Azri b. Juif (2002334252)	Effect of compaction pressures on mechanical properties of alumina components	2005 - 2006
37	Mohd Affendi b. Shaari (2002334245)	Effect of sintering temperature on mechanical properties of Zirconia components	2005 - 2006
38	Mohd Khazairudin Azwadi b. Razali (2000338423)	Determination of mechanical properties of a shot peened automotive valve	2003 - 2004
39	Nasmin @ Mohd Amin b. Addnan (2000338295)	Determination of mechanical properties of a shot peened automotive valve	2003 - 2004
40	Mohamed Azwa b. Hasshim (2000338494)	Analysis of thermo-mechanical behaviour of ceramic powders during cold and warm compaction processes	2003 - 2004
41	Mohd Sani b. Jamailudin (2000338510)	Experimental studies of thermo-mechanical behaviour of ceramic powders during cold and warm compaction processes	2003 - 2004

A.2.4 Undergraduate (Diploma, Final Year Project) – Main Supervisor (except when stated)

No.	Name of Students	Thesis/ Research Title	Year
1	Abdul Hadi b. Omar (2000280884)	Simulation studies on bridge structures using finite element method and validation	2002 - 2003
2	Azim b. Majid (2000415701)	Simulation studies on bridge structures using finite element method and validation	2002 - 2003

B. RESEARCH

1	Title: Sponsor: Role: Period/Status:	Thermo-Mechanical Behaviour of Novel Nanoparticles-Hybrid Fibre Laminates Ministry of Higher Education (National RACE, Project code: 600-RMI/RACE 16/6/2 (7/2013), RM 44,500) Leader / Main Researcher 2014-2016
2	Title: Sponsor: Role: Period/Status:	Novel Hybrid Nanofiller Characteristic for High Fracture Toughness Ship Hull Part 3 Research Management Institute, RMI UiTM, (DANA CIFI, Project code: 600-RMI/DANA 5/3/CIFI (12/2013), RM 60,000) Leader / Main Researcher 2013-2015
3	Title: Sponsor: Role: Period/Status:	Novel Hybrid Nanofiller Characteristic for High Fracture Toughness Ship Hull Part 2 Research Management Institute, RMI UiTM, (DANA PSI, Project code: 600-RMI/DANA 5/3/PSI (119/2013), RM 60,000) Leader / Main Researcher 2013-2015
4	Title: Sponsor: Role: Period/Status:	Novel Hybrid Nanofiller Characteristic for High Fracture Toughness Ship Hull Ministry of Higher Education (National FRGS, Project code: 600-RMI/FRGS 5/3 (59/2012), RM 91,560) Leader / Main Researcher 2012-2014
5	Title: Sponsor: Role: Period/Status:	Modelling and Fabrication of High Strength Energy Absorber Cellular Aluminium Foam Ministry of Higher Education (National RACE, Project code: 600-RMI/RACE 16/6/2 (6/2013), RM 49,000) Co-Researcher 2014-2016
6	Title: Sponsor: Role: Period/Status:	Optimization The Characteristic Springback Phenomenon Of Dual Phase Steel(Dp590) Ministry of Science, Technology and Innovation (National Sciencefund, Project code: 100-RMI/SF 16/6/2 (5/2014), RM 147,000) Co-Researcher 2014-2016
7	Title: Sponsor: Role: Period/Status:	Environmentally Friendly Synthesis Of Monodisperse Nickel (Ni)-Gold (Au) Bimetallic Ministry of Higher Education (National RAGS, Project code: 600-RMI/RAGS 5/3 (66/2013), RM 65,000) Co-Researcher 2013-2015
8	Title: Sponsor: Role: Period/Status:	Tribological Characteristics Of Different Lubricant Additives In Lead Free Bearing Materials Ministry of Higher Education (National ERGS, Project code: 600-RMI/ERGS 5/3 (17/2013), RM 100,000) Co-Researcher 2013-2015
9	Title: Sponsor: Role: Period/Status:	Bovine Skin Bio- Mechanical Characterisation Part 3 Research Management Institute, RMI UiTM, (DANA CIFI, Project code: 600-RMI/DANA 5/3/CIFI (36/2013), RM 60,000) Co-Researcher 2013-2015

10	Title: Sponsor: Role: Period/Status:	Damage Characteristics Of Kevlar/Fibreglass/Nanosilica Hybrid Composites Part 2 Research Management Institute, RMI UiTM, (DANA PSI, Project code: 600-RMI/DANA 5/3/PSI (361/2013), RM 60,000) Co-Researcher 2013-2015
11	Title: Sponsor: Role: Period/Status:	Suction-Stretch Theory In Synthesising Composite Membrane Hyperelasticity Part 2 Research Management Institute, RMI UiTM, (DANA PSI, Project code: 600-RMI/DANA 5/3/PSI (148/2013), RM 60,000) Co-Researcher 2013-2015
12	Title: Sponsor: Role: Period/Status:	Corrosion Characteristics Of Nanocrystalline Cobalt-Nickel-Iron Coated Steel In Marine Environment Ministry of Higher Education (National FRGS, Project code: 600-RMI/FRGS 5/3 (19/2013), RM 115,000) Co-Researcher 2013-2015
13	Title: Sponsor: Role: Period/Status:	Novel Hybrid Nanofiller Characteristic for High Fracture Toughness Ship Hull Ministry of Higher Education (National FRGS, Project code: 600-RMI/FRGS 5/3 (59/2012), RM 91,560) Leader / Main Researcher 2012-2014
14	Title: Sponsor: Role: Period/Status:	Advanced Niti Intermetallic Compounds Superior Shape Memory Behaviour Ministry of Higher Education (National FRGS, Project code: 600-RMI/FRGS 5/3 (38/2012), RM 94,330) Co-Researcher 2012-2015
15	Title: Sponsor: Role: Period/Status:	Bovine Skin Bio- Mechanical Characterisation Ministry of Higher Education (National FRGS, Project code: 600-RMI/FRGS 5/3 (25/2012), RM 52,000) Co-Researcher 2012-2015
16	Title: Sponsor: Role: Period/Status:	Characterisation of Advanced Carbon Fibre Laminates Ministry of Higher Education (National RAGS, Project code: 600-RMI/RAGS 5/3 (38/2012), RM 80,000) Co-Researcher 2012-2014
17	Title: Sponsor: Role: Period/Status:	Thermo-mechanical Characteristics of Superior Carbon Nanotubes Nanocomposites Ministry of Higher Education (National RAGS, Project code: 600-RMI/RAGS 5/3 (58/2012), RM 80,000) Co-Researcher 2012-2014
18	Title: Sponsor: Role: Period/Status:	Damage Characteristics of Kevlar/fibreglass/Nanosilica Hybrid Composites Ministry of Higher Education (National RAGS, Project code: 600-RMI/RAGS 5/3 (197/2012), RM 80,000) Co-Researcher 2012-2014
19	Title: Sponsor: Role:	Dynamic Thermal Rheological Analysis of Impacted Arenga Pinnata Fibre Reinforced Epoxy Composites Ministry of Higher Education (National RAGS, Project code: 600-RMI/RAGS 5/3 (41/2012), RM 80,000) Co-Researcher

	Period/Status:	2012-2014
20	Title: Sponsor: Role: Period/Status:	Compressive Properties Of A Novel Fibre Reinforced Polymer Composite Laminates Research Management Institute, RMI UiTM (DANA RIF, Project code: 600-RMI/DANA 5/3/RIF (318/2012), RM32,000) Co-Researcher 2012-2014
21	Title: Sponsor: Role: Period/Status:	Development of High Impact Resistance Laminates Using Nanomaterials Research Management Institute, RMI UiTM (DANA RIF, Project code: 600-RMI/DANA 5/3/RIF (612/2012), RM32,000) Co-Researcher 2012-2014
22	Title: Sponsor: Role: Period/Status:	Energy Storage Performance of Stabilized Phase Change Materials (PCM)/ Thermoplastic Composites Research Management Institute, RMI UiTM (DANA RIF, Project code: 600-RMI/DANA 5/3/RIF (124/2012), RM32,000) Co-Researcher 2012-2014
23	Title: Sponsor: Role: Period/Status:	Processing and Characterization of Highly Porous Copper for Thermal Management Applications (TMA's) Research Management Institute, RMI UiTM (DANA RIF, Project code: 600-RMI/DANA 5/3/RIF (200/2012), RM32,000) Co-Researcher 2012-2014
24	Title: Sponsor: Role: Period/Status:	Failure Mechanisms and Hybrid Effects of Oil Palm Empty Fruit Bunch (OPEFB) Fibre Filled Polymer-Clay Nanocomposites Research Management Institute, RMI UiTM (DANA RIF, Project code: 600-RMI/DANA 5/3/RIF (657/2012), RM32,000) Co-Researcher 2012-2014
25	Title: Sponsor: Role: Period/Status:	Characterization and Mechanical Testing of Ti-6Al-4V Green Part Mixed with Palm Stearin Binder System Using Metal Injection Moulding (MIM) Process Research Management Institute, RMI UiTM (DANA RIF, Project code: 600-RMI/DANA 5/3/RIF (10/2012), RM32,000) Co-Researcher 2012-2014
26	Title: Sponsor: Role: Period/Status:	Tensile and in-plane shear properties of a novel fibre reinforced polymer composite laminates Research Management Institute, RMI UiTM (DANA KECERLANGAN, Project code: 600-RMI/ST/DANA 5/3/Dst (468/2011), RM 10,000) Leader / Main Researcher 2011-2012
27	Title: Sponsor: Role: Period/Status:	Characterization of A Novel light-weight Metal Matrix Composite With Nanomaterial Reinforcement Ministry of Science, Technology and Innovation (National eSciencefund, Project code: 100-IRDC/SF 16/6/2(13/2007), RM 267,994) Leader / Main Researcher 2006-2009
28	Title: Sponsor:	Experimental Studies On Cold And Warm Ceramic Powders Compaction Processes: Application To Malaysian Powder Metallurgy Industries Institute of Research, Development and Commercialisation (IRDC) (Short term grant, Project code: 600-BRC/ST 5/3/602), RM 37,383)

	Role: Period/Status:	Leader / Main Researcher 2003-2004
29	Title: Sponsor: Role: Period/Status:	Simulation Studies On Cold And Warm Compaction Processes Of Iron Powders Using Finite Element Methods Institute of Research, Development and Commercialisation (IRDC) (Short term grant, Project code: 600-IRDC/ST 5/3/652), RM 10,000 Leader / Main Researcher 2003-2004
30	Title: Sponsor: Role: Period/Status:	A Novel Corrosion Resistant Cast Iron With Optimized Mechanical And Physical Characterization Ministry of Science, Technology and Innovation (National eSciencefund, Project code: 100-IRDC/SF 16/6/2(70/2007), RM 136,800) Co-Researcher 2007-2009
31	Title: Sponsor: Role: Period/Status:	Study On Stability Of A Novel Binder System Based On Palm Oil In Metal Injection Molding (MIM) Application Institute of Research, Development and Commercialisation (IRDC) (Short term grant, Project code: 600-IRDC/ST 5/3/990), RM 12,000 Co-Researcher 2005-2006
32	Title: Sponsor: Role: Period/Status:	Optimization Of Gating System Design In Casting Iron Component By Casting Simulation Institute of Research, Development and Commercialisation (IRDC) (Short term grant, Project code: 600-IRDC/ST 5/3/859), RM 26,000 Co-Researcher 2004-2005
33	Title: Sponsor: Role: Period/Status:	Application Of Shot Peening Process To Improve Fatigue Life Of Automotive Valves Institute of Research, Development and Commercialisation (IRDC) (Short term grant, Project code: 600-BRC/ST 5/3/604), RM 20,000 Co-Researcher 2003-2004
34	Title: Sponsor: Role: Period/Status:	Failure Analysis Of Fiber Reinforced Composite Materials Used In Malaysia Industries Institute of Research, Development and Commercialisation (IRDC) (Short term grant, Project code: 600-BRC/ST 5/3/497), RM 10,000 Co-Researcher 2002-2003

C. PUBLICATIONS

C.1 Thesis and Technical Report

- [1] **Aidah Jumahat**, February 2011. *Effect of Nanofillers on Thermo-Mechanical Properties of Polymers and Composite Laminates*, PhD Thesis, The University of Sheffield, United Kingdom.
- [2] **Aidah Jumahat**, Mohamed Dahalan, Shahrul Azam Abdullah, May 2007. *Application of Shot Peening Process to Improve Fatigue Life of Automotive Valves*, Research Report, Institute of Research, Development and Commercialisation (IRDC), UiTM, Malaysia.

- [3] **Aidah Jumahat**, Nor Hayati Saad, Ahmad Kamal Ariffin, March 2005. *Experimental Studies on Cold and Warm Powders Compaction Processes: Application to Malaysian Powder Metallurgy Industries*, Institute of Research, Development and Commercialisation (IRDC), UiTM Malaysia.
- [4] **Aidah Jumahat**, Jamaluddin Mahmud, March 2005. *Simulation Studies on Cold and Warm Compaction Processes of Iron Powder Using Finite Element Method*, Institute of Research, Development and Commercialisation (IRDC), UiTM Malaysia.
- [5] Jamaluddin Mahmud, Wahyu Kuntjoro, **Aidah Jumahat**, February 2004, *Failure Analysis of Fiber Reinforced Composite Materials Used in Malaysian Industries*, Institute of Research, Development and Commercialisation (IRDC), UiTM Malaysia.
- [6] **Aidah Jumahat**, 2002. *Analysis of thermo-mechanical behaviour of warm compaction process*, MSc Thesis, Universiti Kebangsaan Malaysia.

C.2 Refereed Journal Papers

- [1] Manap N, **Jumahat A**, Ludin A. *Tensile and compressive properties of glass reinforcement in kenaf reinforced epoxy composite*. Journal of Applied Science and Agriculture (Indexed in ISI Thomson Reuters) ISSN 1816-9112, Publisher: AENSI, Accepted for publication on 2 April 2014. [In press, 2014]
- [2] Shaari N, **Jumahat A**, Ikhsan MAAM. *Design and Fabrication of High Shear Milling Machine for Nanocomposites*. Journal of Applied Science and Agriculture (Indexed in ISI Thomson Reuters) ISSN 1816-9112, Publisher: AENSI, Accepted for publication on 2 April 2014. [In press, 2014]
- [3] Sapiai N, **Jumahat A**, Hakim RN. *Tensile and Compressive Properties of Hybrid Carbon Fiber/ Kenaf Polymer Composite*. Journal of Applied Science and Agriculture (Indexed in ISI Thomson Reuters) ISSN 1816-9112, Publisher: AENSI, Accepted for publication on 2 April 2014. [In press, 2014]
- [4] Shaari N, **Jumahat A**, Yahya KH, Sulaiman MF. *Impact Resistance of Woven Fiber Reinforced Polymer Composites*. Journal of Applied Science and Agriculture (Indexed in ISI Thomson Reuters) ISSN 1816-9112, Publisher: AENSI, Accepted for publication on 9 April 2014. [In press, 2014]
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C.3 Proceeding Papers (International)

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- [7] **Jumahat A**, Soutis C, Jones FR, Hodzic A. *Compressive properties of nanosilica-filled epoxy nanocomposites*. BSSM Seminar on New Approaches for Performance Definition of Composite Materials and Structures, 11 March 2010, London United Kingdom.
- [8] **Jumahat A**, Soutis C, Jones FR, Hodzic A. *Fracture mechanisms and failure analysis of carbon fibre/toughened epoxy composites subjected to compressive loading*. Proceedings of the 15th International Conference on Composite Structures (ICCS15), 15-17 June 2009, Porto Portugal.
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- [11] B. Abdullah, A Jaffar, **A Jumahat**, MH Ismail, A Ramli. *The effect of nanosized silicon carbide reinforcement on mechanical and physical properties of aluminium matrix composite*. Proceedings of the International Conference on Advances in Mechanical Engineering, 24-25 June 2009, Malaysia. ISBN 978-967-305-355-1.
- [12] B. Abdullah, A Jaffar, **A Jumahat**, MH Ismail, M Nashri, A Ramli. *The effect of nanosized silicon nitride composition to mechanical and physical properties of aluminium matrix composite (AMC)*. Proceedings of the International Conference on Advances in Mechanical Engineering, 24-25 June 2009, Malaysia. ISBN 978-967-305-355-1.
- [13] B. Abdullah, A Jaffar, **A Jumahat**, MH Ismail, M Hisham, A Ramli. *The effect of sintering on mechanical and physical properties of paper ash reinforced aluminium matrix composites*. Proceedings of the International Conference on Advances in Mechanical Engineering, 24-25 June 2009, Malaysia. ISBN 978-967-305-355-1.
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- [17] MH Ismail, **A Jumahat**. *Effect of Palm Stearin on Rheological Properties of Metal Injection Molding Feedstock*. Proceedings of the Powder Metallurgy World Congress 2006, 24 – 28 Sept. 2006. Busan, Korea.
- [18] B. Abdullah, **A Jumahat**. *Effect Of Carbon, Manganese, Sulphur And Magnesium Content On Mechanical Properties Of Cast Irons*. Proceedings of Proceedings of the 6th International Materials and Technology Conference and Exhibition 2006, 17 – 20 July 2006. Mutiara Crowne Plaza, Kuala Lumpur.

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- [22] **Aidah Jumahat**, A.K. Ariffin & M. Hussain Ismail. *Influence of Elevated Temperature on Mechanical Properties of Powder Metallurgy Parts*. Proceedings of the International Conference on Recent Advances in Mechanical & Materials Engineering, 30 – 31 May 2005, Kuala Lumpur, Malaysia. ISBN 983-41728-2-6.
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C.4 Proceeding Papers (National)

- [1] **Aidah Jumahat**, Shahrul Azam & Muhamad Dahalan. *Application Of Shot Peening Process To Improve Fatigue Life Of Automotive Valves*. Proceedings of the Conference on Scientific and Social Research, 3 – 5 Julai 2007, Selangor, Malaysia. ISBN: 978-967-305-041-7.
- [2] Muhammad Hussain, **Aidah Jumahat** & Norhamidi. *A Study on Stability of A Novel Binder System Based on Palm Oil in Metal Injection Molding (MIM) Application*. Proceedings of the Conference on Scientific and Social Research, 3 – 5 Julai 2007, Selangor, Malaysia. ISBN: 978-967-305-041-7.
- [3] **Aidah Jumahat**, A.K. Ariffin & N. H. Saad. *Improving Mechanical Properties of Near-Net-Shape Components Using Warm Compaction Process*. Proceedings of the Conference on Scientific and Social Research, 10-12 June 2005, Terengganu, Malaysia.
- [4] **Aidah Jumahat** & Jamaluddin Mahmud. *Finite Element Simulation of Cold and Warm Compaction Processes*. Proceedings of the Conference on Scientific and Social Research, 10-12 June 2005, Terengganu, Malaysia.
- [5] **Aidah Jumahat** & S. A. Abdullah. *Deformation Analysis using Displacement Based Formulation – F.E.M.* Proceedings of the National Conference on Advances in Mechanical Engineering, 18 – 20 May 2005, Kuala Lumpur, Malaysia. ISBN: 967-958-173-X.
- [6] **Aidah Jumahat** & M. H. Ismail. *Morphological Study of Alumina Green Compacts*. Proceedings of the National Conference on Advances in Mechanical Engineering (NAME05), 18 – 20 May 2005, Kuala Lumpur, Malaysia. ISBN: 967-958-173-X.
- [7] M. H. Ismail, N. Mohamad & **A. Jumahat**. *Characterization of Green Parts in Metal Injection Molding (MIM) Process*. Proceedings of the 13th Scientific Conference of Electron Microscopy Society of Malaysia (EMSM2004), 13 – 15 Dec. 2004, Selangor, Malaysia.

- [8] **Aidah Jumahat**, A.K. Ariffin & M. H. Hussain. *Improving Mechanical Properties of Powder Metallurgy Parts using Warm Compaction Process*. Proceedings of the Malaysian Science and Technology Congress (MSTC2004), 5-7 Oct. 2004, Selangor, Malaysia.
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- [10] **Aidah Jumahat**, A.K. Ariffin & Jamaluddin Mahmud. *Simulation Studies on Cold Compaction Process Using Finite Element Method*. Proceedings of the Malaysian Science and Technology Congress, 5-7 Oct. 2004, Selangor, Malaysia (MSTC2004).
- [11] **Aidah Jumahat**, Jamaluddin Mahmud, M. Sani & M. Azwa. *Ceramic Powder Compaction Process*. Proceedings of the Seminar Kebangsaan Sains Teknologi dan Sains Sosial, 31 May – 1 June 2004, Pahang, Malaysia ISBN: 983-40671-6-X.
- [12] J. Mahmud, W. Kuntjoro and **A. Jumahat**. *Failure Analysis of Fiber Reinforced Composite Materials Used in Malaysian Industries*. Proceedings of Conference on Scientific and Social Research, CSSR 2004, 19 Mei 2004, IRDC. Sarawak, Malaysia(CSSR2004).
- [13] **Aidah Jumahat**, A. K. Ariffin & Shahrir Abdullah. *Analysis of Thermo-Mechanical Behaviour of Warm Compaction Process*. Proceedings of the Annual Workshop National Science Fellowship (NSF), 14-15 Jan. 2002, Selangor, Malaysia. ISBN: 983-99624-3-4.
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- [18] A. K. Ariffin, **Aidah Jumahat** & S. Abdullah. *Analisis Geseran dalam Proses Padatan Serbuk Logam Menggunakan Kaedah Unsur Terhingga*. Proceedings of the Seminar IRPA RMK-7 2000, 20-22 Oct. 2000, Malaysia. ISBN: 983-9152-87-4.

D. CONFERENCE AND SEMINAR (Involvement/Organizer/ Committee Members)

No.	Conference Name	Role	Organizer	Date
1	International Conference on Advances in Mechanical Engineering 2015 (ICAME2015)	Vice Chairman, Organizer	FKM UiTM	26-27 August 2015
2	Malaysian International Tribology Conference 2015 (MITC2015)	Organizing Committee	Malaysian Tribology Society (MYTRIBOS) and the Institute of	16-17 November 2015

			Mechanical & Technology Advancement (i-META)	
3	International Conference on Material, Mechatronics, Manufacturing and Mechanical Engineering 2014 (ICMMMM2014)	Keynote Speaker & Technical committee member	International Postgraduate Network (IPN)	24-25 October 2014
4	International Symposium on Materials Characterisation and Testing 2014 (ISMCT2014)	Technical committee member	Institute of Materials Malaysia (IMM)	14-15 May 2014
5	International Conference on Plastics, Rubber and Composites (ICPRC 2014)	Author	International Postgraduate Network (IPN)	20-21 June 2014
6	Malaysian International Tribology Conference (MITC 2013)	Secretary, Panel of reviewer, Session Chairperson & Author	Malaysian Tribology Society (MYTRIBOS) and the Institute of Mechanical & Technology Advancement (i-META)	18 - 20 November 2013
7	International Conference on Advances in Mechanical Engineering 2013 (ICAME 2013)	Publication committee, Panel of reviewer, Session Chairperson, Author & Presenter	Faculty of Mechanical Engineering UiTM	28 - 29 August 2013
8	3rd International Conference and Exhibition on Sustainable Energy and Advanced Materials (ICE-SEAM 2013)	Panel of reviewer & Author	Universiti Teknikal Melaka (UTeM)	30 - 31 October 2013
9	International Conference on the Science and Engineering of Materials 2013 (ICoSEM2013)	Panel of reviewer & Author	Universiti Malaya (UM)	13 - 14 November 2013
10	International Conference on Nanomaterials: Science, technology and Application (ICNM'2013)	Panel of reviewer & Author	Universiti Abdul Rahman India	5 - 7 December 2013
11	2012 International symposium on robotics and intelligent sensors (IRIS 2012)	Committee member, Panel of reviewer & Author	FKM UiTM, MySET/MyRAIG (Malaysia) and Nagoya University (Japan)	4 - 6 September 2012
12	The Asian International Conference on Materials, Minerals and Polymer (MAMIP2012)	Session Chairperson, Author & Presenter	Universiti Sains Malaysia (USM)	23 - 24 March 2012
13	International Conference on Interfaces and Interphases in Multicomponent Materials (IIMM 2010)	Author & Presenter	University of Sheffield, United Kingdom	1 - 3 September 2010
14	North Campus Annual Symposium 2010	Invited speaker	University of Sheffield, United Kingdom	20 April 2010

15	10th SAMPE Europe International Conference (SEICO 10)	Author & Presenter	Society for the Advancement of Material and Process Engineering (SAMPE)	12 -14 April 2010
16	BSSM Seminar on New Approaches for Performance Definition of Composite Materials and Structures	Author & Presenter	British Society for Strain Measurement (BSSM)	11 March 2010
17	International Conference on Advances in Mechanical Engineering (ICAME 2009)	Author	Faculty of Mechanical Engineering,UiTM	24 - 25 June 2009
18	15th International Conference on Composite Structures (ICCS15)	Author & Presenter	University of Porto (FEUP) Portugal	15 - 17 June 2009
19	10th Conference of Deformation and Fracture of Composites (DFC10)	Author & Presenter	University of Sheffield, United Kingdom	15 - 17 April 2009
20	International Conference on Mechanical & Manufacturing Engineering (ICME2008)	Author	Universiti Tun Hussein Onn Malaysia (UTHM)	21 - 23 May 2008
22	Asian Simposium on Materials and Processing 2006. Bangkok, Thailand (ASMP2006)	Author	Japan Society of Mechanical Engineers & Nagaoka University of Technology	9 – 10 Nov 2006
23	2006 Powder Metallurgy World Congress. BEXCO, Busan, Korea (PM2006)	Author	Korean Powder Metallurgy Institute	24 – 28 Sept. 2006
24	6 th International Materials and Technology Conference and Exhibition 2006 (IMTCE 2006)	Author	Institute of Materials Malaysia	17 – 20 July 2006
25	9 th Japan International SAMPE (Society for the Advancement of Material and Process Engineering) Symposium & Exhibition – JISSE9	Author & Presenter	School of Engineering, University of Tokyo, Japan	29 November – 2 December 2005
26	International Conference on Recent Advances in Mechanical and Materials Engineering – ICRAMME 2005	Author & Presenter	Universiti Malaya	30 - 31 May 2005
27	6 th International Conference on Electronic Materials and Packing	Author & Presenter	USM, CPMT, IEEE & IMAPS	5 – 7 December 2004
28	Seminar on Thermal Analysis and UV Curing Technology	Chairman	FKM UiTM	15 April 2014
29	Workshop on Mechanics, Materials and Dynamics	Chairman	FKM UiTM	14-16 April 2014
30	Programme “Forum on Final Year Project 2014”	Speaker	FKM UiTM	12 March 2014
31	1st International Material Symposium cum Material	Committee member	Institute of Materials Malaysia (IMM)	30 May 2013

	Lecture Competition (MLC2013)			
32	Seminar on Failure Analysis of Metallic and Composite Materials 2011	Committee member	FKM UiTM	14-15 September 2011
33	FKM Colloquium	Invited speaker	FKM UiTM	18 August 2011
34	Malaysian Symposium on Advances in Powder Metallurgy and particulate Materials 2007 (APM'07')	Organizing committee & Author	FKM UiTM	21 – 22 August 2007
35	Conference on Scientific and Social Research (CSSR2007)	Author & Presenter	Institute of Research, Development & Commercialization, UiTM	3 – 5 July 2007
36	Seminar on Fundamental of Powder Metallurgy in Metal Matrix Composites Application	Organizing committee	FKM UiTM	29 Jan 2007
37	Seminar IRPA 2006	Committee member	FKM & IRDC UiTM	26 – 27 June 2006
38	Conference on Scientific and Social Sciences Research (CSSR 2005)	Author & Presenter	Institute of Research, Development & Commercialization, UiTM	10 -12 June 2005
39	National Conference on Advances in Mechanical Engineering 2005 (NAME'05)	Committee member, Author, Presenter & Rapporteurs	FKM, UiTM	18 – 20 May 2005
40	Malaysian Science and Technology Congress 2004 (MSTC 2004)	Author & Presenter	Confederation of Scientific & Technological Associations in Malaysia (COSTAM)	5 - 7 October 2004
41	The National Seminar of Science Technology and Social Sciences 2004 (STSS 2004)	Author & Presenter	UiTM Cawangan Pahang	31 May – 1 June 2004
42	Seminar Penerbitan dan Penulisan Teknikal FKM 2004	Committee member	FKM UiTM	10 May 2004
43	Seminar Pasca-Siswazah	Committee member	FKM UiTM	15 April 2003

E. CONSULTANCY/ INDUSTRIAL LINKAGE/ COLLABORATION

1. LMS Scientific Solution Sdn Bhd, NETSCH Germany and RadTech Malaysia: 15 April 2014 (Research collaboration and organizing seminar on thermal analysis and UV curing technology)
2. Bakal Sejati Sdn Bhd.: 1 April 2014 – present (Collaboration Project: Designing and analysis of a robust parison mould)
3. Japan Plain Bearing Association, Malaysia-Japan International Institute of Technology and Malaysian Tribology Society: 11 December 2013 – present (Collaboration project: Translation of Handbook of Plain Bearings)
4. Tepat teknik Sdn Bhd: 4-5 April 2013 (Consultation project: DN50-FE modelling facilitation and output analysis)

5. Cytron Technologies Sdn Bhd: 15 Jan – 22 August 2013 (Consultation project: Microchip workshop)
 6. MHE Demag Malaysia Sdn Bhd: 20 – 28 December 2012 (Consultation project: pull test of restrain socket)
 7. National University of Singapore, Nanyang Technological University and Universiti Teknologi Malaysia: 1 - 5 July 2013 (Academic benchmarking and research collaboration)
 8. Institute of Materials Malaysia (IMM): 2013 – present (Organizing Materials Lecture Competition)
 9. University of Sheffield and University of Manchester United Kingdom: 2009 – present (Journal writing)
 10. Universiti Kebangsaan Malaysia: 4 Sept 2013 – present (Research collaboration: RACE Grant)
 11. Innopeak, Sri Jentayu, Dreamedge, ADTEC, MIAT, SIRIM, KEFI Malaysia, Nano Malaysia bhd, Nuclear Agency, Polycomposites, DK composites, INTROP UPM, PUSKOM UTM, USM, CTRM: 23 October 2013 – present (Industrial collaboration through the involvement in the Persatuan Industri Komposit)
 12. Hakita Engineering Sdn Bhd, Zeta Scientific Sdn Bhd, DUCOM, SIRIM, MJIIT, UM, UKM, UTeM, UTP and UTM: 2013 – present (Industrial collaboration through the involvement in Malaysian Tribology Society)
 13. Fakulti Kejuruteraan Universiti Putra Malaysia: 3 October 2013 – present (Research collaboration: Malaysian Society of Structural Health monitoring)
 14. Toho Tenax Europe GmbH Germany, Nanoresins AG Geesthacht Germany, Cytec Engineered Materials Ltd United Kingdom: 2007 – 2011 (Research project: Effect of Nanofillers on Thermo-Mechanical Properties of Polymers and Composite Laminates)
 15. Universiti Teknikal Malaysia (UTeM), Universiti Kebangsaan Malaysia, SIRIM, Universiti Malaya: 2012 – 2015 (Research collaboration through RAGS and FRGS Research Grants)
 16. Advanced Technology Training Center (ADTEC): 28 Jan 2014 – present (Academic and research collaboration)
 17. Perusahaan Otomobil Nasional Sdn Bhd (PROTON): 2004 – 2006 (Collaboration project: Optimisation of gating system design in cast iron component by casting simulation)
 18. TUV Rheinland Malaysia Sdn. Bhd: 11 – 15 June 2006 (Consultation project: Welding Quality Inspection)
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F. SPECIAL INVITATION/ APPOINTMENT/ EXPERTISE

F.1 International Level

1. Judge, 25th International Invention, Innovation and Technology Exhibition (ITEX 2014), 8 - 10 May 2014
2. International Advisory Editorial Board, Jurnal Tribologi, Publisher: UTM & MYTRIBOS, 13 April 2014
3. Journal Paper Reviewer, Indian Journal of Engineering & Materials Sciences, ISSN: 0975-1017 (Online); 0971-4588 (Print), Publisher: National Institute of Science Communication and Information Resources, 26 Mac 2014
4. Translator of “Plain Bearing Handbook”, collaboration between Japan Plain Bearing Association, Malaysia-Japan International Institute of Technology and Malaysian Tribology Society, 6 Mac 2014
5. Journal Paper Reviewer, International Journal of Materials Science and Engineering (IJMSE), ISSN: 2315-4527, Publisher: ETPub (Scopus Indexed Journal), 3 February 2014

6. Journal Paper Reviewer, Jurnal Teknologi, ISSN 2180-3722, Publisher: UTM Press (Scopus Indexed Journal), 6 January 2014
7. Editorial board, Procedia Engineering Journal, Volume 68, ISSN 1877-7058, Publisher: Elsevier, 2013
8. Journal Paper Reviewer, International Journal of Materials Science and Engineering (IJMSE), ISSN: 2315-4527, Publisher: ETPub (Scopus Indexed Journal), 29 November 2013
9. Editorial board, Applied Mechanics and Materials Journal, Volume 393, ISSN 1660-9336, Publisher: Trans Tech Publications, 2013
10. Journal Paper Reviewer, Journal of Mechanical Engineering (JMechE) Publisher: UiTM (Scopus Indexed Journal), 20 May 2013
11. Judge, 24th International Invention, Innovation and Technology Exhibition (ITEX 2013), 9 - 11 May 2013
12. Paper Reviewer, International Colloquium on Textile Engineering, Fashion, Apparel & Design 2014 (ICTEFAD 2014), 2 January 2014
13. Paper Reviewer, 2nd International Conference on Advanced Micro and Nanocomposite for Engineering 2014, (ICNC 2014), 11 February 2014
14. Paper Reviewer, International Conference on Nanomaterials: Science, technology and Application (ICNM'2013), 31 October 2013
15. Paper Reviewer, International Conference on the Science and Engineering of Materials 2013 (ICoSEM2013), 30 December 2013
16. Paper Reviewer, 3rd International Conference and Exhibition on Sustainable Energy and Advanced Materials (ICE-SEAM 2013), 5 August 2013
17. Paper Reviewer, International Civil and Infrastructure Engineering Conference 2013 (InCIEC 2013), 25 June 2013
18. Paper Reviewer, Malaysian International Tribology Conference (MITC 2013), 12 June 2013
19. Paper Reviewer, 4th International Graduate Conference on Engineering Science & Humanity 2013 (IGCESH 2013), 1 March 2013
20. Paper Reviewer, International Conference on Advances in Mechanical Engineering 2013 (ICAME 2013), 27 February 2013
21. Paper Reviewer, 2012 International symposium on robotics and intelligent sensors (IRIS 2012), 11 October 2012
22. Judge, 23rd International Invention, Innovation and Technology Exhibition (ITEX 2012), 17 - 19 May 2012
23. Journal Paper Reviewer, International Journal of Computational Methods in Engineering Science and Mechanics (CMESM), Publisher: Texas A & M University, USA, 17 December 2004 – 14 January 2005.

F.2 National Level

1. Interview Panel, Scholarship Programs 2014 of Kementerian Pendidikan Malaysia, 2 June 2014
2. Organizing Committee, Semi Final Materials Lecture Competition 2014, 3 April 2014
3. Paper Reviewer, 2014 IEEE Colloquium on Humanities, Science and Engineering Research (CHUSER 2014), 3 February 2014
4. Paper Reviewer, 2013 IEEE Symposium on Business, Engineering and Industrial Applications (ISBEIA 2013), 30 August 2013
5. Executive committee member, Malaysian Tribology Society, 2013 – 2015

6. Executive committee member, Persatuan Industri Komposit, 2013 – 2015
7. Committee Member of Materials Lecture Competition 2013, 31 May 2013
8. Paper Reviewer, IEEE Symposium on Humanities, Science and Engineering 2013 (SHUSER 2013), 11 February 2013
9. Paper Reviewer, IEEE Business Engineering and Industrial Applications Colloquium 2013 (BEIAC 2013), 24 Sept 2012
10. Paper Reviewer, 2012 IEEE Colloquium on Humanities, Science and Engineering Research (CHUSER 2012), 3 June 2012
11. Paper Reviewer, 2012 IEEE Symposium on Business, Engineering and Industrial Applications (ISBEIA 2012), 7 April 2012
12. Panel of Interviewer and Examiner for Student Assessment Centre (SAC) 2012, JPA Malaysia, 8 - 10 May 2012
13. Chief Editor, Journal of Mechanical Engineering, ISSN 1823-5514, Volume 2 2005 & Volume 3 2006
14. Editor, Journal of Faculty of Mechanical Engineering, ISSN 1675-8994, Volume 1 2004.

F.3 University / Faculty Level

1. PhD Thesis Examiner, Title: The study on the tensile strength of fibreglass and kenaf reinforcement composite (hybrid) under post impact and open hole, 31 March 2014
2. PhD Thesis Examiner, Title: Structural health monitoring of honeycomb composite for aircraft structure using fiber bragg gratings, 1 April 2014
3. MSc Thesis Examiner, Title: Modelling and analysis of pressure vessel using FEM, 10 December 2013
4. MSc Thesis Examiner, Title: Investigation on matrix transformation, microstructure constituents and mechanical properties of ductile iron at different temperatures of new heat treatment process, 20 June 2013
5. Thesis Examiner for Conversion from Master to PhD Degree, Title: Corrosion study on Cobalt Nickel Iron Nanoparticles electrodeposited on different metals, 16 January 2013
6. VIVA Chairperson for MSc Degree candidate (EM780), Title: Initial Response Analysis of Robot-Based Intervention Program (RBIP) for Children with Autism Using Humanoid Robot NAO, 15 May 2013
7. VIVA Chairperson for MSc Degree candidate (EM780), Title: Study on the Corrosion Behavior of the Electro-Deposited Cobalt Nano-Particles Using Potentiodynamic Polarization, 20 March 2013
8. Mentor, Supervisor and Examiner of UiTM Lecturer, 28 March 2014 – 2 July 2014
9. Chairman, Seminar on thermal analysis and UV curing technology, 15 April 2014
10. Chairman, Semi Final Materials Lecture Competition 2014, 3 April 2014
11. Chairman, Program "Engineering mechanics, materials & dynamics workshop 2014", 14-16 April 2014
12. Evaluation Panel, Program "Student Innovation & Design Competition (SIDC2013)", 5 December 2013
13. Evaluation Panel for Knowledge transfer program (KTP) Excellence Fund Grant, 8 May 2013
14. Speech Text Writer for the 78th UiTM Convocation Ceremony Award, 15 April 2013
15. Judge, Materials Lecture Competition, University level, 27 Mac 2013
16. Speech Text Writer for the 76th UiTM Convocation Ceremony Award, 30 April 2012
17. Evaluation Panel for Knowledge transfer program (KTP) Grant, January – February 2012
18. Research Proposal Examiner and Evaluation Panel for presentation of PhD candidate (EM990/950), 2012 - present

19. Research Proposal Examiner and Evaluation Panel for presentation of MSc candidate (EM780/750), 2011 – present
 20. Evaluation Panel for Dissertation Proposal Presentation of Industrial Project/Business Course (MEM798) Master in Engineering Management (EM774) Program, 2011 – present
 21. Examiner and Evaluation Panel for Industrial Project/Business Course (MEM799) Master in Engineering Management (EM774) Program, 2013 - present
 22. Thesis Examiner and Evaluation Panel for Final Year Project 2 (MEC602/ MEM602/ KJM660) Presentation, 2011 – present
 23. Report Examiner and Evaluation Panel for Final Year Project 1 (MEC601/ MEM601/ KJM650) Presentation, 2011 - present
 24. Vetting Panel of Final Examination Question Paper, 2011 - present
 25. Course Coordinator, Subject: Polymer Composites, 1 Jan 2014 – present
 26. Interview Panel, Academic Staff Scholarship, 2011 - present
 27. Laboratory Manager of (1) Basic Mechanics Lab, (2) Biomechanics Lab, (3) Advanced Materials Lab and (4) CDIO2 Lab, 1 Jan 2014 – present
 28. Interview Panel, Young Lecturer Scheme UiTM Year 2014, 2013 - present
 29. Assessor, Industrial training July-September 2013 session, 3 September 2013
 30. Review Panel, Fundamental Research Grant Scheme (FRGS), 18 July 2013
 31. Review Panel, Research Acculturation Grant Scheme (RAGS), 11 June 2013
 32. Review panel for Applied Mechanics and Materials Journals, Trans Tech Publications (TTP), 12 May 2013
 33. Evaluation Panel, Materials Lecture Competition 2013 Faculty level, 20 March 2013
 34. Internal Auditor, ISO 9001:2008, 2012 - 2013
 35. Evaluation Panel for MEC532 & MEM532 Product Presentation, 2012
 36. Evaluation Panel for MEC532 & MEM532 Final Report Presentation, 2012
 37. Advisor, Publication and FKM Newsletter Committee, 15 January 2007 - 14 January 2008
 38. Judge, Spaghetti Bridge Competition, 9 March 2007
 39. Research Proposal Examiner and Evaluation Panel for Defence of Research Proposal for Postgraduate candidates, 2006
 40. Thesis Examiner and Evaluation Panel for Final Year Project Presentation, 2003 - 2006
 41. Course Syllabus Proof Reader for Bachelor of Mechanical Engineering (Hons) (Manufacturing) EM221 program, 5 – 12 Jan 2005
 42. Facilitator, Academic Strengthening Session, 14 Mac – 30 April 2003
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G. INOVATION/ INVENTION/ DESIGN

1. Malaysia Technology Expo 2014 (MTE2014), **Silver Medal**, Title: Innovative Processing of Cellular Aluminium Foam by Conventional Casting Incorporated with Rock Salt Space Holder Material, Organizer: Malaysian Association of Research Scientist, Venue: Kuala Lumpur, Malaysia, Date: 20 – 22 February 2014

2. Invention, Innovation and Design Exposition 2014 (IIDEX 2014), **Silver Medal**, Title: High Strength Cellular Aluminium Foam, Organizer: Universiti Teknologi MARA, Venue: Shah Alam, Malaysia, Date: 27 – 30 April 2014
3. Invention, Innovation and Design (IIDEX 2013), **Silver Medal**, Title: Nanosilica Filled Fibre Composites, Organizer: Universiti Teknologi MARA, Venue: Shah Alam, Malaysia, Date: 15 - 17 Mac 2013
4. Invention, Innovation and Design (IIDEX 2013), **Silver Medal**, Title: Dry Fibre Winding Machine, Organizer: Universiti Teknologi MARA, Venue: Shah Alam, Malaysia, Date: 15 - 17 Mac 2013
5. Invention, Innovation and Design (IIDEX 2013), **Bronze Medal**, Title: Highly Porous Copper by NACL Space Holder-Metal Injection Moulding, Organizer: Universiti Teknologi MARA, Venue: Shah Alam, Malaysia, Date: 15 - 17 Mac 2013
6. Invention, Innovation and Design Exhibition (IIDE 2012), **Silver Medal**, Title: Near-Net-shape Processing of Porous NiTi Alloy for Biomedical Implant Applications, Organizer: Universiti Teknologi MARA, Venue: Johor, Malaysia, Date: 13 Sept 2012
7. 19th Malaysian International Invention, Innovation and Technology Exhibition (ITEX 2008), **Participant**, Title: Novel Metal Matrix Composite (MMC) by Waste Materials Reinforcement, Organizer: Malaysian Invention and Design Society (MINDS), Venue: Kuala Lumpur Convention Center, Date: 9 - 11 May 2008
8. Invention, Innovation and Design (IID 2008), **Gold Medal**, Title: Novel Metal Matrix Composite (MMC) by Waste Materials Reinforcement, Organizer: Universiti Teknologi MARA, Venue: Shah Alam, Malaysia, Date: 25 - 27 Mac 2008
9. 18th Malaysia Invention, Innovation and Technology Exhibition (ITEX2007), **Gold Medal**, Title: Potential Application of Water Soluble Binder System in Metal Injection Moulding Process, Organizer: Malaysian Invention and Design Society (MINDS), Venue: Kuala Lumpur Convention Center, Date: 18-20 May 2007
10. 18th Malaysia Invention, Innovation and Technology Exhibition (ITEX2007), **Bronze Medal**, Title: Recycling Potential for Manufacture of high Quality Artificial Lightweight Aggregate from Municipal Solid Waste Ash Incineration, Organizer: Malaysian Invention and Design Society (MINDS), Venue: Kuala Lumpur Convention Center, Date: 18-20 May 2007
11. Inventions, Innovations and Designs 2007 (IID'07), **Bronze Medal**, Title: Artificial Lightweight Aggregate (ALWA) from Paper Sludge Ash, Organizer: Universiti Teknologi MARA, Venue: Shah Alam, Malaysia, Date: 24 – 25 Januari 2007
12. Inventions, Innovations and Designs 2007 (IID'07), **Bronze Medal**, Title: Potential of Recycling Munciple Solid Waste Ash (MSAW) from incinerator to form Lightweight Aggregate, Organizer: Universiti Teknologi MARA, Venue: Shah Alam, Malaysia, Date: 24 – 25 Januari 2007
13. Inventions, Innovations and Designs 2007 (IID'07), **Bronze Medal**, Title: Water Soluble Binder System in Metal Injection Moulding (MIM) Application, Organizer: Universiti Teknologi MARA, Venue: Shah Alam, Malaysia, Date: 24 – 25 Januari 2007

H. AWARDS/ RECOGNITION AND APPRECIATION

I.1 Personal Awards/ Group Achievement

1. **Composite Awards.** Awards for published works, The Institute of Materials, Minerals and Mining. 9 July 2013.

2. **Silver Medal Awards.** Malaysia Technology Expo 2014, MTE2014 (Title: Innovative Processing of Cellular Aluminium Foam by Conventional Casting Incorporated with Rock Salt Space Holder Material), 20 – 22 February 2014.
3. **Silver Medal Awards.** Invention, Innovation and Design Exposition 2014, IIDEX 2014 (Title: High Strength Cellular Aluminium Foam), 27 – 30 April 2014.
4. **Silver Medal Awards.** Invention, Innovation and Design 2013, IIDEX2013 (Title: Nanosilica Filled Fibre Composites), 15 March 2013.
5. **Silver Medal Awards.** Invention, Innovation and Design 2013, IIDEX2013 (Title: Dry Fibre Winding Machine), 15 March 2013.
6. **Bronze Medal Awards.** Invention, Innovation and Design 2013, IIDEX2013 (Title: Highly Porous Copper by NACL Space Holder-Metal Injection Moulding). 15 March 2013.
7. **Silver Medal Awards.** Invention, Innovation and Design Exhibition 2012, IIDE2012 (Title: Near-Net-shape Processing of Porous NiTi Alloy for Biomedical Implant Applications), 13 September 2012.
8. **Productive Research Grant Award.** First-runner up, Majlis Anugerah kualiti Dekan 2012, FKM UiTM, 2012.
9. **Vice Chancellor's Quality Award.** Best Faculty, Universiti Teknologi MARA, 2012
10. **Vice Chancellor's Quality Award.** Best Faculty, Universiti Teknologi MARA, 2011
11. **High Impact Journal Incentive Award 2010.** RM 1,000 Universiti Teknologi MARA, 3 November 2011
12. **Travel Award.** Sheffield Metallurgical and Engineering Association LTD (SMEA), 300 GBP (Great Britain Pound), 29 April 2009
13. **Best poster presentation at 10th deformation and Fracture of Composites (DFC10).** 2nd place (70 GBP), Sheffield United Kingdom, 15-17 April 2009
14. **Doctor of Philosophy (Mechanical Engineering).** The University of Sheffield, 30 March 2011
15. **IPTA Academic Training Scheme (SLAI) and UiTM Staff Scholarship Award for PhD Studies.** Ministry of Higher Education and Universiti Teknologi MARA, 1 September 2007 – 31 March 2011
16. **Gold Medal Award.** Invention, Innovation and Design, IID 2008 (Title: Novel Metal Matrix Composite (MMC) by Waste Materials Reinforcement), 25 - 27 March 2008
17. **Gold Medal Award.** 18th Malaysia Invention, Innovation and Technology Exhibition, ITEX2007 (Title: Potential Application of Water Soluble Binder System in Metal Injection Moulding Process), 18 - 20 May 2007
18. **Bronze Medal Award.** 18th Malaysia Invention, Innovation and Technology Exhibition, ITEX2007 (Title: Recycling Potential for Manufacture of high Quality Artificial Lightweight Aggregate from Municipal Solid Waste Ash Incineration), 18 - 20 May 2007
19. **Bronze Medal Award.** Inventions, Innovations and Designs 2007, IID'07 (Title: Artificial Lightweight Aggregate (ALWA) from Paper Sludge Ash), 24 – 25 January 2007
20. **Bronze Medal Award.** Inventions, Innovations and Designs 2007, IID'07 (Title: Potential of Recycling Munciple Solid Waste Ash (MSAW) from incinerator to form Lightweight Aggregate), 24 – 25 January 2007
21. **Bronze Medal Award.** Inventions, Innovations and Designs 2007, IID'07 (Title: Water Soluble Binder System in Metal Injection Moulding (MIM) Application), 24 – 25 January 2007
22. **Excellence Service Award.** Universiti Teknologi MARA, 2006.
23. **Principal Researcher.** RACE Grant, Ministry of Higher Education Malaysia, RM 44,500 (Project Title: Thermo-Mechanical Behaviour of Novel Nanoparticles-Hybrid Fibre Laminates) 2014 – 2016
24. **Principal Researcher.** CIFI Fund, Universiti Teknologi MARA, RM 60,000 (Project title: Novel Hybrid Nanofiller Characteristic for High Fracture Toughness Ship Hull Part 3) 2013-2015
25. **Principal Researcher.** PSI Fund, Universiti Teknologi MARA, RM 60,000 (Project title: Novel Hybrid Nanofiller Characteristic for High Fracture Toughness Ship Hull Part 2) 2013-2015
26. **Principal Researcher.** FRGS Grant, Ministry of Higher Education Malaysia, RM 91,560 (Project title: Novel Hybrid Nanofiller Characteristic for High Fracture Toughness Ship Hull) 2012-2014

27. **Principal Researcher.** Excellence Fund, Universiti Teknologi MARA, RM 10,000 (Project title: Tensile and in-plane shear properties of a novel fibre reinforced polymer composite laminates) 2011-2012
 28. **Principal Researcher.** Sciencefund, Ministry of Science, Technology and Innovation, RM 267,994 (Project title: Characterization of A Novel light-weight Metal Matrix Composite With Nanomaterial Reinforcement) 2006-2009
 29. **Principal Researcher.** Short Term Grant, Universiti Teknologi MARA, RM 37,383 (Project title: Experimental Studies On Cold And Warm Ceramic Powders Compaction Processes) 2003-2004
 30. **Principal Researcher.** Short Term Grant, Universiti Teknologi MARA, RM 10,000 (Project title: Simulation Studies On Cold And Warm Compaction Processes) 2003-2004
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