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Google scholar: <https://goo.gl/elpWZz>



## Academic Qualifications

1. PhD (Energy Technologies), Newcastle University, 2015.
2. M.Sc. (Mechanical Engineering), UTP, 2009.
3. B.Eng. (Mechanical-Automotive), UTM, 2003.
4. A-Level (Engineering), PPP/ITM, 1998.

## Working Experience / Appointments

### 1. June 2015 – To date

**Senior Lecturer**, Faculty of Mechanical Engineering, Universiti Malaysia Pahang, 26600, Pekan, Pahang.

### 2. Jan 2009 – June 2015

**Lecturer**, Faculty of Mechanical Engineering, Universiti Malaysia Pahang, 26600, Pekan, Pahang.

### 3. May 2008 – Dec 2008

**Research Officer (Baronia Project)**, Universiti Teknologi PETRONAS (UTP), 31750, Seri Iskandar, Perak.

#### Roles and responsibilities:

**Main Project: Design and Development of an Alternative Wet Gas Dehydration System for Offshore Application**

**Sub-Project: Design of Prototype Separator Based On High-G.**

- CATIA 3-D Drawing.
- CFD Solver Study and Simulations.
- Prepare monthly progress report.
- Hand-over and training of new research officer on the usage and lab equipment.

### 4. May 2007 – Apr 2008

**Project Manager (LG and CNG-DI Project)**, Universiti Teknologi PETRONAS (UTP), 31750, Seri Iskandar, Perak.

#### Roles and responsibilities:

- Prepare monthly financial progress report and quarterly report to MOSTI.
- Preparation of Final Project reports to MOSTI.
- Continue experimental works, data acquisition and analysis on Free-piston linear generator prototype.
- Programming using LABView, Data acquisition setup and new equipment set up.

- In-charge in maintaining the equipment, repairs, procurements of assets and consumables, liaising with suppliers and relevant departments.
- Planning of labs and equipment usage for postgraduates and undergraduates
- Advice and provides guidance to students regarding their projects and equipment usage.

#### 5. Feb 2006 – Apr 2007

**Research Officer (LG and CNG-DI Project)**, Universiti Teknologi PETRONAS (UTP), 31750, Seri Iskandar, Perak.

##### **Roles and responsibilities:**

##### **Projects: Free-piston Linear Generator and CNG-DI Engine**

- Research and Development work on LG project primarily on Mechanical work:
- Fabrication and modification of components for LG
- Assembly works of the prototype, conducting experiments and data acquisition of, analysis of results and reports preparation.
- Involves in the development, fabrication and testing of Series Hybrid Electric Vehicle (SHEV).
- Participate in ITEX 2006 and won Gold Medal under Series Hybrid Electric Vehicle (SHEV) team.
- Participate in KL International Motorshow 2006.

#### 6. Oct 2005 – Dec 2005

**Programme Engineer, CTRM Excelnet**, Cyberjaya, Selangor.

##### **Roles and responsibilities:**

##### **Projects: Management for A380 project on Check Stress Certification of A380PAX and A380F Fixed Leading Edge Lower Panel.**

- To prepare Level 4 schedule of man-hours on Stress and Design activities for C-Scheme of A380F.
- To prepare Level 4 schedule of man-hours on Stress activities for Inboard Panels mitigation plan due to new RF values imposed by AUK.
- To monitor the progress of Stress and Design team of A380PAX and A380F.
- To assist Engineering Manager in budget and man-hours monitoring.
- To communicate with client (Airbus UK-AUK) for programme progress and issues.

#### 7. Feb 2003 – Oct 2005

**Production Engineering Engineer (Body)**, PERODUA Mfg. Sdn. Bhd, Rawang, Selangor.

##### **Roles and responsibilities:**

##### **Project 1: Production Preparation of New Model Project, 002L (Avanza)& D73A (Myvi)- for Main Body Section in Body Shop (Avanza: April 2003 until October 2004, Myvi: June 2003 until May 2005).**

- Prepare layout drawing for mechanical, electrical, air and water utilities for welding equipment, tools and assembly jigs to suit the existing factory layout in Body Shop.
- On job training in Daihatsu Motor Corporation in Ikeda Plant 1, Osaka Japan (From 12 to 30<sup>th</sup> May, 14<sup>th</sup> July to 1<sup>st</sup> August and 18<sup>th</sup> August to 18<sup>th</sup> September 2003) for the followings:
  - i. Prepare equipment specifications for flexible Main Body Assembly Line, Side Member and Under Body Marriage, Roof Assembly, manual re-spot stations, robot stations and exclusive jigs.

- ii. Prepare flow charts, operation drawings and location concept drawings.
- Participating in Data Collections for W-Trial of D38A (equivalent to Avanza) in Astra Daihatsu Motor in Indonesia (3<sup>rd</sup> to 20<sup>th</sup> June 2003).
- Participating in *Tomoana* activity (for jig matching purpose) in Astra Daihatsu Motor in Indonesia (10<sup>th</sup> to 20<sup>th</sup> November 2003).
- Coordinating Pre Delivery Inspection, Trial and Jig Matching Activity for Jigs, Equipment & Robots of Main Body Flexible Line in KEC Corporation, Nagoya Japan (1<sup>st</sup> to 27<sup>th</sup> December 2003).
- Prepare mechanical, electrical and utilities specifications for the Main Body Flexible and Exclusive Line for local vendors.
- Coordinating approval drawing meetings for mechanical, electrical and utilities of the Main Body Flexible and Exclusive Line.
- Monitoring mechanical, electrical and utilities installation for 002L Production line in Body Shop, Perodua Manufacturing Plant (January to April 2004).
- Coordinating W-Trial activities involving equipment, jigs, and robots, for production preparation.
- Participating in Pilot Production 1&2, Hinkaku until Mass Production of Avanza in Body Shop on October 2004, in Perodua Manufacturing Plant.
- Coordinating W-Trial, Participating in Pilot Production 1&2 of Myvi in Body Shop, until Mass Production on May 2005, Perodua Manufacturing Plant.

**Project 2: Overhead Back Up Station Project (October 2004 until February 2005).**

- Prepare Specifications of Overhead Main Body Back Up Station.
- Coordination approval drawing meetings for this Project.
- Monitoring installation and coordinating trial.

**Project 3: Capacity Up/Tact Up Activities for Main Body Flexible Line Avanza&Myvi (December 2004 until July 2005).**

- Study for Tact Up from 3.1min into 2.4min of Main Body Flexible Line of Avanza and Myvi to reduce waiting time of customer order.
- The Tact Up Activities:
  - i. Prepare layout for additional robots.
  - ii. Additional spot welding guns and process rearranging.
  - iii. Manual to pneumatics jig improvement for Model Change.
  - iv. New 800-Ampere armored cable pull and termination of from substation to the assembly line.

### Research Areas / Research Interests

Energy Technologies, Novel Engines Development, Internal Combustion Engines, Automotive Mechatronics, Hybrid Vehicle Technologies, Free-Piston Engine Generator, Motion Control.

### Positions

1. Evaluation Panel for Research grant, FKM, (Mar 2009 – Mar 2010)
2. Executive Committee Member Industry Advisory Panel and Stakeholder, FKM, Mar 2009.
3. Academic Coordinator, FKM, (Dec 2009 – Nov 2010)
4. OBE Coordinator (Automotive Program), FKM, (Apr 2009 – Apr 2010)
5. External Examiner for Diploma Automotive Maintenance, TESDEC, Terengganu, May 2010
6. Committee (Member), Bachelor of Automotive Engineering Program, FKM, (2010-2011)

7. Task Force: Curriculum Refinement (16 credits/sem max), FKM, (Jan 2010)
8. Committee (Member), Task Force Documentations for German-Modelled Eng. Program (Automotive), (Feb 2010).
9. Timetable Sub-Committee (Member), FKM, (Mar 2010 – Feb 2011)
10. Technical Committee (Member), Faculty of Mechanical Engineering, UMP, (May 2010 – Apr 2011)
11. Academic Coordinator (Automotive Program), FKM, (July 2010 – June 2011)
12. Task Force: Self-Assessment Report (Mechanical Program), FKM, (Dec 2010)
13. Session Panel, NCMER 2010.
14. AQMS Internal Auditor (2016-2017)
15. Research Fellow at Automotive Engineering Centre, UMP (Jan 2017 – To date)
16. CEO, Automotive Engineering Research Group (AERG), FKM, UMP (Jan 2018- To date)

## Professional Qualifications / Memberships / Affiliations / Experiences

### A) Membership of Professional Body

1. Graduate Engineer, Board of Engineers Malaysia (BEM), **Reg. No. 60423R.**
2. Graduate Technologist, Malaysian Board of Technologist (MBOT), **Reg. No. GT17100303.**
3. Member of Institute of Mechanical Engineers (IMechE) of UK: **80375505.**

### B) Technical Editor and Journal / Paper Reviewer

1. Reviewer Applied Energy, ISSN: 0306-2619, Elsevier (since 2013)
2. Reviewer Applied Thermal Engineering, ISSN: 1359-4311, Elsevier (since 2015)
3. Reviewer IEEE/ASME Transactions on Mechatronics, ISSN: 1083-4435 (since 2018)
4. Editor and Reviewer for International Journal of Automotive and Mechanical Engineering (IJAME), ISSN: 2229-8649 (Print); 2180-1606 (Online). (Feb 2018-To date)

## Teaching Experience (Courses for Diploma, Degree and Master)

### Taught Courses

Year/Semester	Course	Credit units
Semester 2 Session 2017/2018	BMA3623 - Engine Design	3
Semester 2 Session 2017/2018	BMA4833 - Automotive Electric And Electronics	3
Semester 2 Session 2017/2018	BHA3402/BHA4113 - Vehicle Electronics/Vehicle Electronics 2 (Supporting HsKA Professor)	2/3
Semester 1 Session 2017/2018	BMA3623 - Engine Design	3
Semester 1 Session 2017/2018	BMA4833 - Automotive Electric And Electronics	3
Semester 2 Session 2016/2017	BHA3113 - Vehicle Electronics 1	3
Semester 2 Session 2016/2017	BMA3623 - Engine Design	3
Semester 2 Session 2016/2017	BHA4113 - Vehicle Electronics 2 (Supporting HsKA Professor)	3
Semester 1 Session 2016/2017	BMA3623 - Engine Design	3
Semester 1 Session 2016/2017	BMM2433 - Electrical & Electronic Technology	3
Semester 2 Session 2015/2016	BMM2433 - Electrical & Electronic Technology	3
Semester 2 Session 2015/2016	BHA1413 - Fundamentals Electrical Engineering 1/ BHA1303 - Electrical & Electronics Engineering	3
Semester 2 Session 2015/2016	BHA4224 - Automotive Engineering	4
Semester 1 Session 2015/2016	MKM1433 - Optimization Techniques	3
Semester 1 Session 2015/2016	BMM2513 - Thermodynamics 1/ BMM2673 - Thermodynamics	3
Semester 2 Session 2010/2011	BMM3531- Eng. Thermo Lab.	1
Semester 2 Session 2010/2011	DMM2543 - Thermodynamics	3

Semester 1 Session 2010/2011	BMA4723 – Vehicle Dynamics	3
Semester 1 Session 2010/2011	DMM3653 - Automotive Technology	3
Semester 2 Session 2009/2010	BMA4703 – Automotive Technology	3
Semester 2 Session 2009/2010	DMM2543 - Thermodynamics	3
Semester 1 Session 2009/2010	BMM2513 - Thermodynamics 1	3
Semester 3 Session 2008/2009	BMM2523 - Thermodynamics 2	3
Semester 2 Session 2008/2009	BMM2523 - Thermodynamics 2	3

## Post Graduate Supervision/Examiner

### Supervisions

1. **Mohd Shahrizan Md Mokhtar (MSc) MMM16009 (Part-time) (on-going)**
2. **Muhammad Kamili Bin Zahidi (MSc) MMM16013 (Full-time) (on-going)**
3. **Mohammad Shahin Bin Mansor (MSc) MMA17005 (Full-time) (on-going)**

### Thesis Examiner

- 1 Internal examiner Master.  
1 Internal examiner PhD.

## Academic & Research Awards

1. Best Paper AIGEV 2016.
2. Best Session Presenter Session AIGEV 2016
3. Cendekia Bitara Award 2015 (Category: Journal publication)
4. Best Poster, PG Seminar, 2014, Newcastle University.
5. SLAB-KPT Scholarship for PhD Study (2011-2015)
6. Best Paper, NCMER 2010.
7. Research Enterprise Office-IRPA-UTP Scholarship for Master Study (3 Years)
8. Gold Medal in ITEX 2006 for Series Hybrid Electric Vehicle (SHEV) development team, 2006
9. Dean's list, 1998, Faculty of Mechanical Engineering, Universiti Teknologi Malaysia

## Degree Final Year Project Supervision

No.	Academic Year	Name of Student	Student ID	Title of Project
1	2008/09	<b>Tengku Ibrahim Bin Tengku Abu Bakar</b>	<b>MA07102</b>	Design and Development of fuel injection system Test rig for single cylinder engine.
2	2008/09	<b>Mohd Zulfadli Bin Ismail</b>	<b>MA06106</b>	Design, analysis and simulation of a mechanical reset mechanism for Earth leakage circuit breaker
3	2009/10	<b>Cheong Kong Tuck</b>	<b>MH07062</b>	Thermodynamics analysis of a 4-stroke SI engine employing a novel cylinder head concept: Performance comparisons of different fuels.
4	2009/10	<b>Muhammad Alliff Rahim</b>	<b>MH07030</b>	One-dimensional Simulation of two-stroke H <sub>2</sub> -DI Linear Generator Free-piston engine
5	2009/10	<b>Mohammad Amin</b>	<b>MH08005</b>	One-dimensional simulation of a 4-stroke SI engine employing novel cylinder head concept: Intake and exhaust ports optimization.
6	2009/10	<b>Khairul Aizat Abdul Rahim</b>	<b>MH07018</b>	One-dimensional simulation of a 4-stroke SI engine employing novel cylinder head concept: Fuel injection and ignition timing optimization.
7	2009/10	<b>Mohamad Zahari Bin Hamdan</b>	<b>MH 06061</b>	Performance Investigation Of A Small Four-Stroke Carburetted Si Engine
8	2015/16	<b>Muhammad Na'im Bin Yusof</b>	<b>MH12042</b>	Design and analyses of a small two-stroke engine with poppet valves.
9	2015/16	<b>Muhammad Nur Hanis Bin Osman</b>	<b>MH12020</b>	CFD modelling and simulation of a small four-stroke engine.
10	2015/16	<b>Muhammad Kamili Bin Zahidi</b>	<b>MH12068</b>	CFD Modelling and simulation of a two-stroke engine with poppet valves.
11	2016/17	<b>Abdul Mu'iz Bin Ismail</b>	<b>MH13024</b>	Design and development of valve actuator test rig.

12	2016/17	<b>Muhamad Arif Ashraf Bin Abd Satar</b>	<b>MH13041</b>	Design and development of a flexure bearing for linear actuator application.
13	2016/17	<b>Mohamad Nizam Bin Zaitong</b>	<b>MH13051</b>	Investigations into port flow performance of a 65cc four-stroke engine
14	2016/17	<b>Muhammad Faiz Nazeri Bin Zawawi</b>	<b>MH13046</b>	Numerical analyses of solenoid valve actuators for small internal combustion engine
15	2017/18	<b>Ho Cheng Sheang</b>	<b>MH14057</b>	Development and testing of car interior cooling system.
16	2017/18	<b>Hong Wai Siang</b>	<b>MH14026</b>	Design and development of tumble chamber for a small internal combustion engine.
17	2017/18	<b>Muhammad Hadi Bin Hassan</b>	<b>MH14022</b>	Design and development of a linear actuator test rig.
18	2017/18	<b>Muhammad Haziq Adham Bin Rosli (Dual-Degree)</b>	<b>HB13021</b>	Numerical Investigation of A Four Stroke Flexible Valve Timings.

### Diploma Final Year Project Supervision

1	2010/11	<b>Nazirul Izzat Bin Ibrahim</b>	<b>MB08026</b>	Development of single cylinder engine test rig for small engine.
2	2016/17	<b>Mohammad Ayub Bin Mohammad</b>	<b>MB14044</b>	Design and development of tumble chamber for a small internal combustion engine.
3	2016/17	<b>Anizam Bin Adnan</b>	<b>MB14005</b>	Design And Prototyping The Wave Driven Generator
4	2017/18	<b>Ahmad Syahmi Bin Jamli</b>	<b>MB16141</b>	Design and Testing of Linear Actuator Pneumatic Cylinder
5	2017/18	<b>Achmad Rizal Piliang Bin Yusrizal</b>	<b>MB16284</b>	Design and Fabricate An Enclosure for Embedded System with Cooling System

### Industrial Internship Supervision

#### Semester 2-2009/10

Mohamad Tharmizi Bin Mohamad Ehsan	MA06055	Canon Opto (Malaysia) Sdn. Bhd.
Mohd Kader Maidin Bin Y Shahari	ME06052	Canon Opto (Malaysia) Sdn. Bhd.
Tan Choong Kwang	ME06019	OYL Manufacturing Company Sdn. Bhd.
Teh Wai Liang	MA06020	OYL Manufacturing Company Sdn. Bhd.
Chai Fook Siang	MA07097	OYL Manufacturing Company Sdn. Bhd.

#### Semester 2-2016/17

Wan Nurani Aizatzy Binti Wan Saaidi	HB13011	Robert Bosch (Malaysia) Sdn. Bhd.
Azizi Bin Razaid	HB13018	Robert Bosch (Malaysia) Sdn. Bhd.
Muhammad Haziq Adham Bin Rosli	HB13021	Robert Bosch Power Tools Sdn. Bhd.
Muhammad Zamzuri Bin Mohd Ghani	HB13001	Robert Bosch (Malaysia) Sdn. Bhd.

#### Semester 2-2017/18

Amira Qistina Syamimi Binti Zaifuddin	HB14014	Continental Automotive Components Malaysia Sdn. Bhd.
Nurziana Kong	HB14007	Malaysian Automotive Lighting Sdn Bhd
Mohamad Elias Bin Jusoff	HB14026	Malaysian Automotive Lighting Sdn Bhd
Hanis Bin Tarizan	HB14016	Malaysian Automotive Lighting Sdn Bhd

### List of Publications

#### A) International and National Conference Papers

1. **M.R.Hanipah** and A.R.A.Aziz, "Experimental Study Of The Combustion Process In A Two-Stroke, CNG-DI Linear Generator Free Piston Engine For Starting And Idling." ICPER 2008, SUNWAY, March 27-28, 2008.

2. A.K. Amirruddin, **M. H. Razali**, Firmansyah, S. Shaharin Anwar and A. A. Abdul Rashid, "Gasohol Blends Spray Visualisation by Using Video Image", Malaysian Technical Universities Conference on Engineering and Technology (MUCEET), MS Garden, Kuantan, Pahang, Malaysia June 20-22, 2009.
3. "Sideways Looking Probe Camera Image Observation for Burner Flame", A.K. Amirruddin, **Mohd Razali H.**, and I. Abdul Rahim, ISECS 2009.
4. "Development of a two-stroke free piston engine (FPE) for the application of a linear generator (LG)", **Mohd Razali H.**<sup>1</sup>, Amirruddin A.K.<sup>1</sup>, Zamri M.<sup>1</sup> and Abdul Rashid A.A.<sup>2</sup>, **The 1<sup>st</sup> NATIONAL CONFERENCE in MECHANICAL ENGINEERING for RESEARCH & POST GRADUATE STUDIES (NCMER 2010), 31<sup>ST</sup> May~1<sup>ST</sup> Jun 2010, UMP, Pekan, Malaysia.**
5. "Side Mirror Aerodynamics Analysis", Zamri Mohamed, D. Ramasamy, **Mohd Razali H.**, NCMER, 31 May 2010, **UMP, Pekan, Malaysia.**
6. "Small Sedan Aerodynamics Analysis", Zamri Mohamed, D. Ramasamy, **Mohd Razali H.**, NCMER, 31 May 2010, **UMP, Pekan, Malaysia.**
7. "An Insertion Probe for Flame Behavior Observation", A.K. Amirruddin, **Mohd Razali H.**, and I. Abdul Rahim, MUCEET 2010, **June 28-29, 2010, Bayview Hotel, Melaka, Malaysia.**
8. **Mohd Razali, Hanipah** and Zamri, Mohamed (2016) *Numerical Investigations on the Port Flow Field of a Two-stroke Poppet Valve Engine*. In: 2nd International Conference on Automotive Innovation and Green Energy Vehicle (AIGEV 2016), 2-3 August 2016, Malaysia Automotive Institute, **Cyberjaya, Selangor, Malaysia.**
9. **Hanipah, M.R.** and R. Akhtar Razul, The numerical assessment of motion strategies for integrated linear motor during starting of a free-piston engine generator. *IOP Conference Series: Materials Science and Engineering*, 2017. 257(1): p. 012054.
10. Zahidi, M.K. and **M.R. Hanipah**, The two-stroke poppet valve engine. Part 2: Numerical investigations of intake and exhaust flow behaviour. *IOP Conference Series: Materials Science and Engineering*, 2017. 257(1): p. 012024. doi:10.1088/1757-899X/257/1/012024
11. Zahidi, M.K., **M.R. Hanipah** et al., The two-stroke poppet valve engine. Part 1: Intake and exhaust ports flow experimental assessments. *IOP Conference Series: Materials Science and Engineering*, 2017. 257(1): p. 012023. doi:10.1088/1757-899X/257/1/012023.
12. Razali, A., Rahman, F., Leong, Y. W., **Hanipah, M. R.**, & Hizami, M. A. (2018). Performance and optimum characteristics by finite element analysis of a coreless ironless electric generator for low wind density power generation. *IOP Conference Series: Materials Science and Engineering*, 342, 012013. doi:10.1088/1757-899x/342/1/012013
13. Razali, A., Rahman, F., Leong, Y. W., **Hanipah, M. R.**, & Hizami, M. A. (2018). Maximum power point tracking analysis of a coreless ironless electric generator for renewable energy application. *IOP Conference Series: Materials Science and Engineering*, 342, 012012. doi:10.1088/1757-899x/342/1/012012
14. Razali, A., Rahman, F., Leong, Y. W., **Hanipah, M. R.**, & Hizami, M. A. (2018). V-I characteristics of a coreless ironless electric generator in a closed-circuit mode for low wind density power generation. *IOP Conference Series: Materials Science and Engineering*, 342, 012011. doi:10.1088/1757-899x/342/1/012011
15. Razali, A., Rahman, F., Azlan, S., **Hanipah, M. R.**, & Hizami, M. A. (2018). Open circuit V-I characteristics of a coreless ironless electric generator for low density wind power generation. *IOP Conference Series: Materials Science and Engineering*, 342, 012010. doi:10.1088/1757-899x/342/1/012010

## B) Journal paper

1. "Recent commercial free-piston engine developments for automotive applications", M. R. Hanipah, R. Mikalsen, and A. P. Roskilly, *Applied Thermal Engineering*, vol. 75, pp. 493-503, 2015.

## List of Research / Projects

### As Principal Investigator

Topics	Grant Reg. No.	Amount	Period

Design, Modelling and Simulation of Novel Cylinder Head Concept for Single Cylinder Four-Stroke Spark Ignition Engine	RDU 090375	RM 28,000	05/01/2009 31/12/2010
Development of Free-Piston Engine Generator for Series Hybrid Electric Vehicles (Seed Money)	RDU151110	RM5,500	15/08/2015 14/08/2016
Investigation into the Intake and Exhaust Flow Performance for a Poppet Valve Two-Stroke Spark Ignition Engine	RDU160313	RM27,000	25/04/2016 24/04/2018
Development and Characterisation of Flexible Valve Timing System Towards Optimised Performance of Small Internal Combustion Engines	RDU170501	RM214,797.50	01/07/2017 01/11/2019
Motion Control Algorithm Development and Testing for a Free-piston Engine Generator	RDU160384	RM33,500	25/06/2016 24/06/2018
Development of a Concept-Demonstrator Free Piston Linear Generator (FPLG) powered by flexi-fuel	UIC160706	RM56,400	01/06/2016 31/05/2018

### As Co-Researcher

Topics	Grant Reg. No.	Period
Development of Heat Transfer Techniques for Hydrogen Fuelled Internal Combustion Engine	RDU 090393	05/01/2009 31/12/2010
Design and Development of New Antenna Software Based on FDTD Method	RDU 090368	15/08/2015 14/08/2016
Development of REVETEC Engine Cam for Internal Combustion Engines	RDU 0903125	25/04/2016 24/04/2018
Performance and Emission Characteristics of a Diesel Engine Operating with Biofuel	RDU 100333	01/10/2016 01/04/2019
Research Member (PhD Student) under European Regional Development Fund	EU-ERDF	2011~2013
Research Member (PhD Student) under GLOBAL Sustainable Energy through China-UK Research Engagement (SECURE)	SECURE	01 Apr 2012 31 Mar 2013
Research Member (PhD Student) under Low Emission Transport Collaborative Projects Fund	RDF	2014~2015
Development of an aluminium coreless ironless generator for EV applications	RDU150365	01/10/2015 30/09/2017
Investigation on Differential Braking Torque Controller to Improve the Stability of Small In-wheel Electric Vehicle	RDU160312	05/04/2016 04/04/2018
Thermal behavior studies of electrical machine for steer-bywire automotive application	RDU160397	25/06/2016 24/06/2018
Performance of Nano Particle Bases Diesel Blends on Combustion Characteristics, Performance and Exhaust Emission	RDU1603107	25/06/2016 24/06/2018
Investigation on Electric Motor as an Actuator of Anti-Skid Control System to Improve the Safety of Small Electric Vehicle	RDU160138	01/08/2016 31/07/2019

### List of Courses / Conferences Attended

#### From 2003~2008

1. Toyota Production System (TPS) and Total Preventive Maintenance (TPM) Training, PMSB, 2003.
2. CAELUM Training, R&D Dept.,PMSB, 2003.
3. EHS Training, PMSB 2003.
4. On Job Training, DMC, Ikeda Plant 1, Osaka, Japan, 2003.
5. On Job Training, Astra Daihatsu Motor, Jakarta, Indonesia, 2003.
6. LabVIEW Basic 1 Training, 2006, 3~5<sup>th</sup> Apr 2006
7. Participant of ITEX 2006, 19~21<sup>st</sup> May 2006.
8. Participant of KL International Motorshow, 2006
9. International Conference on Plant Equipment and Reliability, ICPER 2008, 27~28<sup>th</sup> March 2008.
10. Basic FLUENT Training, UTP, May 2008.
11. Advance FLUENT Training, 9<sup>th</sup>- 11<sup>th</sup> June 2008, Singapore.

#### From 2009~

Date	Program	Status
16 Feb 2009	Dyno Training, Mechanical Engineering Lab, UMP	Participant



13~15 Mar 2009	Seminar on Fuel Technology, Universiti Teknologi PETRONAS, Tronoh, Perak.	Participant
18 Mar 2009	Fac. of Mechanical Engineering Solidwork Competition Judge/Panel Evaluator, UMP.	Judge / Expert Panel
13, 24 & 26 Mar 2009	Review UMP and FKM Research Grant Application	Panel Member
5 May 2009	FKM EAC Self-Assessment Report Workshop	Participant
12~31 May 2009	Kursus Induksi Modul UMUM & Modul TWC Kumpulan Pengurusan dan Professional serta Kumpulan Sokongan (Gred 27 ke atas)	Participant
25-29 <sup>th</sup> May 2009	FKM CQI Workshop	Participant
20-22 <sup>th</sup> June 2009	Malaysian Technical Universities Conference on Engineering and Technology	Presenter
18~19 August 2009	Kursus Induksi Modul Khusus Kumpulan Pengurusan dan Professional serta Kumpulan Sokongan (Gred 27 ke atas)	Participant
18-19 Oct 2009	Training PIC Micro Controller	Participant
19-21 <sup>st</sup> Oct 2009	ISECS 2009	Presenter
2-6 <sup>th</sup> Nov 2009	Electronic Engine Management Trainer Training	Participant
10-12 <sup>th</sup> Dec 2009	Bengkel CQI, OBE serta Pemurnian Pembangunan Makmal FKM 2009	Participant
9-10 <sup>th</sup> Jan 2010	Bengkel Pemurnian Akademik & kurikulum Siri I/2010	Participant
5-9 <sup>th</sup> Feb 2010	Ansys- FLUENT Training	Participant
18-20 <sup>th</sup> Feb 2010	Mesyuarat Bersama Panel Pemeriksa luar bagi program Ijazah (BMA, & BMF) Fakulti kejuruteraan Mekanikal	Committee Member
7-11 June 2010	Kursus Kaedah Penyelidikan (SLAB/SLAI)	Participant
23-25 June 2010	Kursus IELTS	Participant
2 Aug 2010	Workshop on Writing Research and PhD Proposals	Participant
23~28 Dec 2010	Kursus PTK 3 Pensyarah Universiti (DS45)	Participant
06 Jan, 2011	Training convection & radiation Thermo lab.	Participant
11 Jan, 2011	Bomb Calorimeter Training	Participant
03 Mar, 2011	Training Heat Pump, Marcet Boiler & Perfect Gas	Participant
02 to 04 Jul, 2011	Teaching Skill for Academic staff	Participant
20 to 21 Aug, 2011	CQI & OBE Workshop series 1/2011	Participant
06 to 07 Dec, 2011	1st International Conference on Mechanical Engineering Research 2011	Session Chairperson
26 Jan 2012	Resources for Research- Newcastle University Library	Participant
01 Mar 2012	Publication Quality Images Using Open Source Software	Participant
06 Mar 2012	Writing a Literature Review	Participant
07 Mar 2012	Writing Your PhD Project Proposal	Participant
08 Mar 2012	Managing Your PhD	Participant
29 Mar 2012	Personal Development Planning	Participant
24 Apr 2012	Preparing for the Progress Review Panel	Participant
15 May 2012	Basic Health and Safety	Participant
25 June 2012	Data Handling and Spreadsheet Skills	Participant
26 June 2012	Document Management - Content and Layout	Participant
26 June 2012	Document Management - Images and Tables	Participant
28 June 2012	Editing and Proof Reading Your Written Work	Participant

29 June 2012	SPSS (Beginners)	Participant
05 Nov 2012	Risk Assessment	Participant
02-14 Dec 2012	Research Collaboration Activities in Beijing Institute of Technology, China	Participant
12 June 2013	Introduction to Matlab	Participant
13 June 2013	Advanced Matlab	Participant
22-23 July 2013	LaTeX	Participant
26 Apr to 28 Apr and 2 <sup>nd</sup> June 2016	Training Keysight-Vehicle Electronics Lab (Two-Part training)	Participant
2-3 August 2016	2nd International Conference on Automotive Innovation and Green Energy Vehicle (AIGEV 2016),	Presenter
08 Dec to 09 Dec, 2016	Training Active Safety System of the Vehicle	Participant
1-2 August 2017	4 <sup>th</sup> International Conference In Mechanical Engineering Research (ICMER 2017)	Session Chairperson/Presenter