



**Dr. Devarajan Ramasamy, GIEM.**

Senior Lecturer  
Faculty of Mechanical Engineering,  
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**Universiti  
Malaysia  
PAHANG**  
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### Academic Qualifications

1. PHD (Internal Combustion), USM, 2015.
2. M.Eng. (Mechanical), UTM, 2006.
3. B.Eng. (Hons) Mechanical (Aeronautical), UTM, 2002.

### Brief Profile

Currently, Dr. Devarajan is a senior lecturer, researcher and consultant at Faculty of Mechanical Engineering in Universiti Malaysia Pahang. He graduated from Universiti Sains Malaysia with a PHD in 2015 and University Teknologi Malaysia with Master's of Engineering in 2006. After his first degree in UTM 2002, he worked at Kolej WIT (M) Sdn. Bhd. for about 2 year with last position as Lecturer of Mechanical Engineering. He continued his studies to Masters and later joined Scott and English as Production Engineer in 2005. As a franchise holder representative for TATAMOTORS LTE, he managed production of commercial vehicles in Scott and English (DRB-HICOM). He has shown vast interest in Thermofluid, Vehicle Technology, Engine Testing and Alternative Fuel research area. At present, involve in an internal research grant and research actively involves in CNG fuel, finite element, computational fluid mechanics and materials research activities. He has published papers in both local, international conference and journals. He is a member of several professional body and scientific society such as Board of Engineers Malaysia, The Institution of Engineers Malaysia (IEM); and Fellow in UMP Automotive Excellence Centre, UMP.

### Working Experiences / Appointment

1. Oct 2006~ to date Senior Lecturer, Faculty of Mechanical Engineering (FKM), Universiti Malaysia Pahang.
2. Aug 2005~Sep 2006 Production Engineer, Scott And English M Sdn Bhd., Selangor.
3. May 2002~ 30 Jul 2005 Lecturer, Kolej Wit Sdn Bhd.

### Expert Area

Automotive Manufacturing, CNG Research, NANO Technology, Teaching Fluid Mechanics, Thermodynamics, Production Technology, Materials Science, Aerodynamics

### Research Area / Research Interest

Thermo-Fluid Engineering, Combustion, Automotive Engine, Applied and Computational Mechanics, Renewable Energy

### Professional Qualification / Membership / Affiliation / Experience

**A) Membership of Professional Body**

1. Graduate Engineer, Board of Engineer, Malaysia (BEM) (43461R)
2. Member, UMP Automotive Excellent Centre, 2008 to date.
3. Graduate Member, The Institution of Engineers Malaysia (IEM), (G41325)

**B) As a Journal & Paper Reviewer**

Reviewer, National conference of post graduate research, NCON PGR09, 28 Sept 2009, University Malaysia Pahang

1. M.M. Shahzamanian, M. Bayat, F. Mustapha, Z.N. Ismarrubie, A.Shahrjerdi, "Effect Of Internal Curved Boundary Condition On Natural Frequency Parameters In Square Plates", Mechanical and Manufacturing Engineering Department, Universiti Putra Malaysia.
2. N.E. Salehudin, A. Jalar and A.R. Daud, "On The Correlation Between Heat Treatment And Impact Energy Of 6061 And 6063 Aluminum Alloy", Faculty of Science and Technology, Universiti Kebangsaan Malaysia.

Reviewer, National conference of post graduate research, NCON PGR09, 28 Sept 2009, University Malaysia Pahang

1. Rafidah Rahim, Rizalman Mamat, M.Yusof Taib, "One-Dimensional Simulation For Single Cylinder Diesel Engine Operating With Ethanol", The 1st National Conference In Mechanical Engineering For Research & Post Graduate Studies (Ncmer 2010), 31ST May~1st Jun, UMP, Malaysia.

### Reviewer International

Materials Science and Engineering B,  
R. Barbuca<sup>1</sup>, M. Janke<sup>1</sup>, M. Tański<sup>1</sup>, M. Kocik<sup>1</sup>, J. Mizeraczyk, Electrohydrodynamic Micropump for Cooling Electronic Components, MIRCOTHERM 2011

#### Measurement

Fatih Celllek, Hayri Yaman, The Experimental Investigation of Torque-Vibration Characteristics Of A Four Cylinder Four-Stroke Otto Engine At Partial Load And Speed, 2016, Measurement.

#### Applied Energy

Ana Paula Filippin, Lucídio Molina Filho, Valmir Fadel, Maria Aparecida Mauro, Thermal Intermittent Drying of Apples And Its Effects On Energy Consumption, 2017 Applied Energy

#### Measurement C

Electrochemical detection of L-Dopa using crude Polyphenol oxidase enzyme immobilized on electrochemically reduced RGO-Ag nanocomposite modified graphite electrode.

## Teaching Experience

1. JUL 2016/2017  
MME6143 Mechanical Engineering Design, 3 credits (14 Students)  
BMA4733 Automotive Design & Styling, 3 credits (33 Students)  
BMM4853 Air Conditioning and Refrigeration, 3 credits (31 Students)  
BMA4733 Automotive Design & Styling, 3 credits (2 Students)  
BMM4924 Final Year Project 2, 4 credits (20 Students)  
BMA2523 Internal Combustion Engine, 3 credits (24 Students)  
BMM4924 Final Year Project 2, 4 credits (2 Students)
2. DEC 2015/2016  
BMA4733 Automotive Design and Styling, 3 credits (22 Students)  
BMM3521 Engineering Fluid Mechanics Lab, 1 credits (23 Students)  
BMA4853 Air Conditioning and Refrigeration, 3 credits (24 Students)  
MME 6143 Mechanical Engineering Design, 3 credits (22 Students)  
BMM4912 Final Year Project 1, 2 credits (228 Students)  
BMM4924 Final Year Project 2, 2 credits (13 Students)
3. JUL 2015/2016  
BMA4733 Automotive Design and Styling, 3 credits (29 Students)  
BMM3521 Engineering Fluid Mechanics Lab, 1 credits (60 Students)  
BMA4713 Internal Combustion Engine, 3 credits (34 Students)  
MME 6143 Mechanical Engineering Design, 3 credits (22 Students)  
BMM4912 Final Year Project 1, 2 credits (234 Students)  
BMM4924 Final Year Project 2, 2 credits (9 Students)  
BMM4999 Industrial Training (9 students)
4. DEC 2014/2015  
BMA 4733 Automotive Design and Styling, 3 credits (27 Students)  
BMM3521 Engineering Fluid Mechanics Lab, 1 credits (60 Students)

- MME 6143 Mechanical Engineering Design, 3 credits (17 Students)  
BMM4999 Industrial Training (9 students)
5. JUL 2014/2015  
BMA 4733 Automotive Design and Styling, 3 credits (34 Students)  
BMM3521 Engineering Fluid Mechanics Lab, 1 credits (26 Students)  
BMM4999 Industrial Training (11 students)
  6. DEC 2013/2014  
BMA 4733 Automotive Design and Styling, 3 credits (30 Students)  
BMM3521 Engineering Fluid Mechanics Lab, 1 credits (32 Students)  
BMM4999 Industrial Training (7 students)
  7. JUL 2013/2014  
BMA 4733 Automotive Design and Styling, 3 credits (23 Students)
  8. DEC 2009/2010  
BMA 4743 Road Vehicle Aerodynamics, 3 credits (33 Students)  
BMM 1512 Engineering Drawing, 2 Credits (26 Students)  
BMM3912 Final Year Project 1, 2 credits (6 Students)  
BMM4999 Industrial Training (12 students)  
BMM4993 Industrial Training Report, 3 credits (12 students)
  9. JUL 2009/2010  
BMM3521 Engineering Fluid Mechanics Lab, 1 credits (239 Students)  
BMM2533 Fluid Mechanics 1, 3 Credits, (252 Students)  
BMM3923 Final Year Project 2, 4 credits (7 Students)
  10. DEC 2008/2009  
BMA 4743 Road Vehicle Aerodynamics, 3 credits (33 Students)  
BMM3912 Final Year Project 1, 2 credits (7 Students)  
BMM4999 Industrial Training (7 students)  
BMM4993 Industrial Training Report, 3 credits (7 students)
  11. JUL 2008/2009  
BMM3521 Engineering Fluid Mechanics Lab, 1 credits (3+0) (240 Students)  
BMM3923 Final Year Project 2, 4 credits (8 Students)  
BMM4999 Industrial Training (5 students)  
BMM4993 Industrial Training Report, 3 credits (5 students)
  12. DEC 2007/2008  
BMM2543 Fluid Mechanics 2, 3 credits (3+1) (220 Students)  
BMM3912 Final Year Project 1, 2 credits (5 Students)
  13. JUL 2007/2008  
BMM2533 Fluid Mechanics I, 3 credits (3+0) (180 Students)  
BMM3923 Final Year Project 2, 4 credits (7 Students)
  14. DEC 2006/2007  
BMM2543 Fluid Mechanics 2, 3 credits (3+1) (210 Students)  
BMM3912 Final Year Project 1, 2 credits (9 Students)

## Faculty Post

1. JAN 2017-JAN 2018 CEO AUTOMOTIVE RESEARCH GROUP
2. JAN 2015-JAN 2016 CEO AUTOMOTIVE RESEARCH GROUP
3. JAN 2014-JAN 2015 CEO AUTOMOTIVE RESEARCH GROUP
4. JAN 2015-JAN 2016 CEO AUTOMOTIVE RESEARCH GROUP
5. JAN 2014-JAN 2015 FYP COORDINATOR (236 Students, 80 Lecturers)
6. JAN 2015-JAN 2016 FYP COORDINATOR (232 Students, 80 Lecturers)
7. JAN 2016-JAN 2017 FYP COORDINATOR (228 Students, 80 Lecturers)
8. JAN 2017-JAN 2018 FYP COORDINATOR (230 Students, 90 Lecturers)

## Post Graduate Supervision

### Main Supervisor

1. Sakinah Hisham, MMM14027, Master in Mechanical (Tribology) Wear Mechanism (graduated)
2. Kong Chung Hwa, MMA16001: Master in Mechanical (Tribology) Piston Surface Wear (graduated)
3. Balakumaran Yeesvaran, MMM16015, Master in Mechanical, Design and Development Of Internal Cooling System For Dry Machining With The Application Of Automotive Titanium Product, 2016 On-Going (graduated)
4. Ganesan Kadirgama,, MMA16008, Masters Heat Transfer of Nanocellulose Coolant, 2017On Going
5. Mohanesen Krishna Kumar, MMM17001, Flame Ionization Testing In An Internal Combustion Engine And Measure The Speed Of The Flame, on going
6. Nor Azmira, PMM15002, PHD student, Investigations of Diesel Engines Characteristics from the Combustion of Emulsion Fuel, On Going.

### Co-Supervisor

1. MMM16004, Nurhanis Sofiah Bt Abd Ghafar (Nano Technology), master, Process-Physical Property Correlation of 1-D Magnetic Nanostructures for Automotive Application
2. Mazrul Akmal Bin Mustapha, PMA16002, PhD, Design Of Port Manifold Using Additive Machining For Nano-Additive Spark Ignition Engine Performance Enhancement

## Post Graduate Examiner

1. Mohammad Mehedi Hasan, Internal Examiner, " An Experimental Study of Jatropha Biodiesel Oil on Homogeneous Charge Compression Ignition Engine Combustion", UMP, 2016
2. Yap Wee Leong, Internal Examiner, " Development of A Coreless Electricity Generator for Automotive Electricity Regeneration", UMP 2016.
3. Shafiq Bin Suhaimi, Internal Examiner, " Air Intake Port Improvement Using CFD", UMP, 2016.

## Degree Final Year Project

No.	Academic Year	Name of Student	Student ID	Title of Project
1	2016-2017	MUHAMMAD HAFIZUDDIN BIN MOHD JAFRIDDIN	MH12028	1 Dimensional Radiator Simulation Validation of Experimental Data
2	2016-2017	SIEW FONG LAM	MH11093	Analysis of 3 Dimensional Engine Combustion Simulation using CFD
3	2016-2017	VIDYATHARRAN A/L KRISHNA	MA13104	Design and Develop a Ball Mill for steel powder grinding
4	2016-2017	RUTHERAVAN A/L MARIA	MA13102	Design and Development of Ball Mill for Al <sub>2</sub> O <sub>3</sub> powder grinding
5	2015-2016	AHMAD HUZAIFAH BIN ABDUL GHANI	MH12051	Flame Visualization Analysis For CNG DVL
6	2015-2016	Muhammad Muzani bin Masri	MH12016	Combustion analysis for a 1.3L engine using Computational Fluid Mechanics
7	2015-2016	CHEAH HOOI SENG	MH12011	Flame Ionization Testing
8	2015-2016	NURULSHUHADA MOHAMED	MH12024	TRIBOLOGICAL BEHAVIOUR FOR WASTE COOKING OIL AS BIOLUBRICANT
9	2014-2015	NUR AFIFAH ZULKIFLI	MA11119	Tribological Study of Grey Cast Iron Wear Mechanism
10	2014-2015	RADIN AFIQ BIN RADIN ABD HALIM	MC11037	VALVE SEAT RECESSION ON CNG FUELLED ENGINE
11	2013-2014	SHAFRIQ HAFIZZAN BIN SALIM	MH08050	ON BOARD HYDROGEN GENERATOR FOR GASOLINE ENGINE
12	2013-2014	NOR FAEIZZA BINTI ARSYAD	MA 09043	SIMULATION OF LOW SPEED WATER FLOW ON WATER CHANNEL
13	2009-2010	JOHARI BAR AZWAR	ME08021	INVESTIGATION OF CIRCULAR BASED MICROPUMP DIFFUSER ANGLE USING CFD
14	2009-2010	MUHAMMAD ZAIM HASSAN	MA07045	FLOW CHARACTERISTICS OF A PIEZOACTUATED MICROPUMP

15	2009-2010	MUHAMAD IZZUDDIN HILMI	MA07043	COMPUTATIONAL FLUID DYNAMICS (CFD) ANALYSIS OF A MINIATURE WIND TURBINE
16	2009-2010	GOBINATH RAMAN	MH07074	DESIGN OF A LIFT REDUCTION DEVICE FOR SMALL HATCHBACK
17	2009-2010	VIJAYAKUMAR MARIMUTHU	MH07051	ANALYSIS OF AIR INTAKE EFFICIENCY OF 1.6 L ENGINE
18	2008 – 2009	MOHD FAEZ BAHAROM	MH06012	VIRTUAL TESTING WIND AND ROLLING RESISTANCE OF UMP LAB CIRCUIT
19	2008 – 2009	ABDUL HAFIZ KAMIL	MH06053	DESIGN AND DEVELOP A HYDROGEN FUEL MIXER ON A PROTON WAJA INTAKE SYSTEM
20	2008 – 2009	KOGILAN GOVINDASAMY	MH06020	DESIGN AND ANALYSIS OF A REAR WHEEL COVER FOR A CAR USING COMPUTATIONAL FLUID DYNAMICS (CFD)
21	2008 – 2009	MAHASAUFEE MAHAZIS	MH06013	DESIGN AND DEVELOP FRONT HOOD FAIRING FOR CARS
22	2008 – 2009	MOHAMAD SAFWAN AHMAD LOTHFY	MH06039	PRESSURE DROP ANALYSIS OF PROTON WAJA AIR INTAKE SYSTEM
23	2008 – 2009	SARAVANAN VIJAYAN @ GANASEN	MH06038	DESIGN AND DEVELOP GUIDE VANE IN THE INTAKE SYSTEM OF PROTON WAJA
24	2008 – 2009	MUHAMMAD NUR IZNEI HASHIM	MA06017	MODELING OF A FRANCIS TURBINE USING COMPUTATIONAL FLUID DYNAMICS (CFD)
25	2007 – 2008	REDZUAN BIN AHMAD	MH05061	DRAG ESTIMATION OF HEV MODEL USING CFD
26	2007 – 2008	JOHARI	MH05050	ANALYSE VORTEX GENERATOR OF HEV MODEL
27	2007 – 2008	MOHD AZRUL BIN MOHD OTHMAN	MH05015	SIMULATION OF SIDE MIRROR AIRFLOW
28	2007 – 2008	MOHD SYAZRIN BIN SOPNAN	MH05020	DESIGN AND DEVELOP REAR DIFFUSER FOR HEV MODEL
29	2007 – 2008	SHASHEENDRAN KUPPUSAMY	MH06076	DESIGN AND DEVELOP A HOT AIR EXTRACTOR FOR VEHICLE CABIN
30	2006 – 2007	MUHAMAD KHUMAINI BIN KUZAIMAN	MD04025	AIR COOLING (HVAC) A TYPICAL LECTURE HALL
31	2006 – 2007	MOHD HAIRUL NIZAM BIN MOHAMED	MA04011	CFD SIMULATION OF CNG (METHANE) GAS AND AIR MIXING ON A MIXER DEVICE
32	2006 – 2007	MUHAMMAD RAZALI BIN BUSRAK	MA04003	INVESTIGATE A CNG MIXER FOR ITS PRESSURE LOSS AT DIFFERENT AIR SPEEDS BY SIMULATION
33	2006 – 2007	WAN MOHD SUHAIMI BIN WAN A. BAKAR	MC04013	SIMULATION OF VORTEX INDUCERS ON THE BODY OF A HEV IN UMP
34	2006 – 2007	MOHD NAJMUDDIN BIN MOHD TAIB	ME05101	DEVELOPMENT OF REAR SPOILER FOR HEV
35	2006 – 2007*	ANDI RAHMAN NUR BIN ANDI RAHIM (CO-SUPERVISOR)	MD04011	DESIGN AND SIMULATE MIXING OF PRESSURIZED CNG AND AIR USING A MIXING DEVICE
36	2006 – 2007*	AUDI BIN SYA RIZAL (CO-SUPERVISOR)	MD04010	DESIGN A CNG MIXER FOR A 1600 CC ENGINE AIR REQUIREMENT AND TEST THE AIR FLOW BY CFD SIMULATION
37	2006 – 2007	MOHD SHAHRULNIZAM BIN ABU SEMAN	MC04007	ENERGY BALANCE OF "CUSSONS" BOILER IN UMP
38	2006 – 2007	AMIR SHIDIQUE	ME05001	SIMULATE AIR FLOW ON HEV CAR MODEL TO ANALYZE VELOCITY AND PRESSURE DISTRIBUTION

## Diploma Final Year Project Supervision

-Nil-

## Industrial Training Supervision

### (Sem. 2 Session 08/09)

1. Latifah Binti Md Yusof, Me05029, Perodua Engine Manufacturing., Sungai Choh, 48009, Rawang, Selangor.

2. Afiq Bin Hamdan, MH05033, MAN TRUCK AND BUS Sdn. Bhd., Taman Industri Integrasi, 48000,Rawang, Selangor.
3. Mohd Nordin Bin Zazali, MH05069, MAN TRUCK AND BUS Sdn. Bhd., Taman Industri Integrasi, 48000,Rawang, Selangor.
4. Ahmad Farhan Bin Azmi, MH05047, MAN TRUCK AND BUS Sdn. Bhd., Taman Industri Integrasi, 48000,Rawang, Selangor.
5. Mohd Firdaus Naquiddin Bin Che Pa, Tan Chong Motors, Mukim Serendah, 48009, Rawang, Selangor.
6. Muhammad Haikal Haron, MH05066, Perodua Engine Manufacturing, Sungai Choh, 48009, Rawang, Selangor.
7. Muhammad Zulfqadli Bin Che Zakaria, MB06039, Ingress Technology, 48009, Rawang, Selangor.

**(Sem 2 Session 09/10)**

1. Muhammad 'afif Bin Mohamed Azmi, CA07006, Fujiseats Sdn Bhd, No 6, Jalan Jasmine 3,Kawasan Perindustrian Bukit Beruntung,, Sek. Bb10, Bandar Bukit
2. Hilmi Asyraf Bin Razali, MA06036, Perodua Manufacturing, SUNGAI CHOH, LOCKED BAG, 226, 48009, RAWANG, SELANGOR DARUL EHSAN.
3. Mohamed Zaid Bin Mohamed Zakaria, MA06082, Perodua Manufacturing, SUNGAI CHOH, LOCKED BAG, 226, 48009, RAWANG, SELANGOR DARUL EHSAN.
4. Nur Farah Bazilah Binti Wakhi Anuar, MH06044, Perodua Manufacturing, SUNGAI CHOH, LOCKED BAG, 226, 48009, RAWANG, SELANGOR DARUL EHSAN.
5. Azrol Bin Arof, MH06066, Perodua Manufacturing, SUNGAI CHOH, LOCKED BAG, 226, 48009, RAWANG, SELANGOR DARUL EHSAN.
6. Muhammad Hilmi Bin Azahar, MH06055, MAN Truck and Bus Sdn. Bhd., LOT 4, JALAN INDUSTRI 3/2, TAMAN INDUSTRI INTEGRASI RAWANG, 48000, RAWANG.
7. Soh Yan Xin, MB07005, ASE Electronics (M) Sdn Bhd, Plot 20, Phase IV, Free Industrial Zone, 11900, Bayan Lepas, Pulau Pinang.
8. Mohamad Azwan Bin Mohd Ghazali, WD Media (M) Sdn Bhd, Bayan Lepas Free Industrial Zone, phase 3, 11900, Bayan Lepas, Pulau Pinang.
9. Yeong Choy Huey, ME06023, Robert Bosch (M) Sdn Bhd, Phase 1, Bayan Lepas Free Industrial Zone ,11900, Bayan Lepas, Pulau Pinang.
10. Heng Chun Chieh, ME06029, Philips Lumiled Lighting Company, Lebuh Kampung Jawa, Phase 3, 11900, Bayan Lepas, Pulau Pinang.
11. Anuarul Ikhwan, ME07001, Osram Opto Semiconductors (M) Sdn Bhd, Phase 1, Bayan Lepas Free Industrial Zone ,11900, Bayan Lepas, Pulau Pinang.

**(Sem 1 Session 2013/2014)**

1. Sharifah Amirah Binti Syed Husin, INSTITUT PENDIDIKAN GURU KAMPUS DARULAMAN, Gurun, Kedah
2. Nuraini Binti Sulong, INSTITUT PENDIDIKAN GURU KAMPUS DARULAMAN, Gurun, Kedah
3. Farahiyah Binti Mahzan, INSTITUT PENDIDIKAN GURU KAMPUS DARULAMAN, Gurun, Kedah
4. Vee Sak A/I Kim Lai, MOTOSIKAL DAN ENJIN NASIONAL SDN. BHD (MODENAS), KAWASAN PERINDUSTRIAN GURUN
5. Selvaganabathy A/I Devarajan, MATTEL(MALAYSIA) SDN. BHD., PLOT 206, Prai Free Trade Zone Prai Industri Estate, Pulau Pinang

**Sem 2 Session 2013/2014)**

1. Lim Keng Aik, MS ELEVATORS SDN. BHD. Kawasan Perindustrian Prai, Pulau Pinang
2. Lai Kok Man MS ELEVATORS SDN. BHD., Kawasan Perindustrian Prai, Pulau Pinang
3. Ooi Joon Seng, MS ELEVATORS SDN. BHD., Kawasan Perindustrian Prai, Pulau Pinang
4. Chew Yong Sheng BHL METAL INDUSTRIES SDN. BHD., Kawasan Perindustrian Prai, Pulau Pinang
5. Khor Ting Wei, BHL METAL INDUSTRIES SDN. BHD., Kawasan Perindustrian Prai, Pulau Pinang
6. Fatin Nor Amira Binti Ashad @ Arshad CONTINENTAL AUTOMOTIVE COMPONENTS MALAYSIA SDN. BHD., Kawasan Perindustrian Prai, Pulau Pinang

**(Sem 2 Session 2014/2015)**

1. Muhammad Hafizuddin Bin Mohd Jafriddin DYNAMIC TRAFFIC SYSTEM, NO.13.JALAN SEROJA 6D SEKSYEN BS6 BUKIT SENTOSA LOT 14643 LOCKED BAG NO. 222. LOT 14643 LOCKED BAG NO. 222.
2. NO.5 JALAN JASMINE 3, KAWASAN PERINDUSTRIAN,BUKIT BERUNTUNG
3. Mohamad Muzakir Bin Hasin, PEPS-JV (M) SDN BHD, LOT 1403, 1406 & 1409 BATU 29, JALAN IPOH 44300 BATANG KALI SELANGOR
4. Mohamad Iamie Bin Rosli, PUNCAK NIAGA (M) SDN. BHD., LOJI PEMBERSIHAN AIR SUNGAI SELANGOR FASA II, JALAN BUKIT BADONG
5. Muhammad Hazwan Bin Ahmad Marzuki, SME AEROSPACE SDN BHD, LOT 14643 LOCKED BAG NO. 222 47000 SUNGAI BULOH
6. Nur Syazana Binti Yahya, SME AEROSPACE SDN BHD, LOT 14643 LOCKED BAG NO. 222 47000 SUNGAI BULOH
7. Chung Kar Yee, UNILEVER FOODS (MALAYSIA) SDN BHD, LOT 23, JALAN BATU ARANG RAWANG INTEGRATED INDUSTRIAL PARK
8. Muhammad Mustaqim Bin Abdull Rahman, FUJI SEATS (M) SDN. BHD., NO 5. JALAN JASMINE 3 KAWASAN PERINDUSTRIAN BUKIT BERUNTUNG
9. Muhammad Afandi Bin Yean, FUJI SEATS (M) SDN. BHD., NO 5. JALAN JASMINE 3 KAWASAN PERINDUSTRIAN BUKIT BERUNTUNG
10. Mohamad Syahmi Bin Musa, DYNAMIC TRAFFIC SYSTEM, NO 13, JALAN SEROJA 6D SEKSYEN BS6 BUKIT SENTOSA

#### (Sem 1 Session 2016/2017)

1. Tuan Muhamad Nasarudin Bin Tuan Kaulan, HB13003, OSRAM OPTO SEMICONDUCTORS (M) SDN. BHD., BAYAN LEPAS FREE INDUSTRIAL ZONE PHASE 1
2. Muhammad Athif Bin Mohamad Amran, HB13024, OSRAM OPTO SEMICONDUCTORS (M) SDN. BHD., BAYAN LEPAS FREE INDUSTRIAL ZONE PHASE 1
3. Hazizie Bin Hazuan, HB13009, OSRAM OPTO SEMICONDUCTORS (M) SDN. BHD., BAYAN LEPAS FREE INDUSTRIAL ZONE PHASE 1

#### (Sem 2 2017/2018)

1. Nor Aishah Binti Nadzri MA14045, TIALOC MALAYSIA SDN. BHD. 52 SOLOK KAMPUNG JAWA 8, MUKIM 12, BANDAR BAYAN LEPAS
2. Loh Chai Siah MA14094 VITROX CORPORATION BERHAD NO.85-A, LINTANG BAYAN LEPAS II, BAYAN LEPAS INDUSTRIAL PARK, PHASE 4
3. Syouzi Morishita MA14123 PENTAMASTER INSTRUMENTATION SDN. BHD PLOT 18&19, TECHNOPLEX, MEDAN BAYAN LEPAS TAMAN PERINDUSTRIAN BAYAN LEPAS, PHASE IV,
4. Chong Jia Zheng MA14212 agile technologies Ida malaysia sdn bhd bayan lepas free industrial zone
5. Ung Kah Hock MH14020 SAM ENGINEERING & EQUIPMENT (M) SDN BHD PLOT 17, HILIR SUNGAI KELUANG TIGA, BAYAN LEPAS FI2, PHASE IV
6. Kavintaran A/I Ratnam MH14064 kt micro handling sdn bhd plot 30, hilir sungai kluang 1, bayan lepas industrial park, phase 4, penang

### List of Publications

#### A) International and National Journal

1. Rosli Abu Bakar, Gan Leong Ming, Wong Hung Mun, **Devarajan A/L Ramasamy**, Fazli Ismail, "Intelligent Height and Reach Adjustable Electronic Chair for Children With Dwarfism (ZUMP)", Journal UMP, ISSN1985-5176, pg. 47-58.
2. **Devarajan Ramasamy**, Khoo Aik Soon, Horizon Walker-Gitano Briggs & Z.A Zainal (2012): Variation of air flow pattern through dissimilar valve lift in a spark ignition engine, Journal of the Chinese Institute of Engineers. (IF:0.5)
3. **Devarajan Ramasamy**, Goh Chin Yuan, Rosli Abu Bakar, Z.A Zainal, 2014, Validation Of Road Load Characteristic Of A Sub-Compact Vehicle By Engine Operation, International Journal Of Automotive & Mechanical Engineering (Issn: 2229-8649 (Print)

4. Y. Muthusamy, K. Kadirgama, M. Rahman, **D. Ramasamy**, and K. Sharma, "Wear analysis when machining AISI 304 with ethylene glycol/TiO<sub>2</sub> nanoparticle-based coolant," *The International Journal of Advanced Manufacturing Technology*, pp. 1-14, 2015.
5. **D. Ramasamy**, K. Kadirgama, M. Rahman, and Z. Zainal, "Analysis Of Compressed Natural Gas Burn Rate And Flame Propagation On A Sub-Compact Vehicle Engine," *International Journal of Automotive & Mechanical Engineering*, vol. 11, 2015.
6. M. Shukri, M. Rahman, **D. Ramasamy**, and K. Kadirgama, "Artificial Neural Network Optimization Modeling On Engine Performance Of Diesel Engine Using Biodiesel Fuel," *International Journal of Automotive & Mechanical Engineering*, vol. 11, 2015.
7. M. Yogeswaran, K. Kadirgama, M. Rahman, and **R. Devarajan**, "Temperature Analysis When Using Ethylene-Glycol-Based TiO<sub>2</sub> As A New Coolant For Milling," *International Journal of Automotive & Mechanical Engineering*, vol. 11, 2015.
8. M.M. Rahman, K. Kadirgama, M.M. Noor And **D. Ramasamy**, Optimization Of Abrasive Machining Of Ductile Cast Iron Using TiO<sub>2</sub> Nanoparticles: A Multilayer Perceptron Approach, *ARPN Journal of Engineering And Applied Sciences*, ©2006-2015 Asian Research Publishing Network (ARPN). All Rights Reserved, ISSN 1819-6608
9. Muthusamy, Y., K. Kadirgama, M. Rahman, **D. Ramasamy** and K. Sharma (2016). "Wear analysis when machining AISI 304 with ethylene glycol/TiO<sub>2</sub> nanoparticle-based coolant." *The International Journal of Advanced Manufacturing Technology* 82(1-4): 327-340.
10. Sakinah, M., A. Amiruddin, K. Kadirgama, **D. Ramasamy**, M. Rahman and M. Noor (2016). "The Application of Response Surface Methodology in the Investigation of the Tribological Behavior of Palm Cooking Oil Blended in Engine Oil." *Advances in Tribology* 2016.
11. **D. Ramasamy**, Z.A. Zainal, K. Kadirgama, Horizon Walker-Gitano Briggs, R.A.Bakar, Effect of dissimilar valve lift on a bi-fuel CNG engine operation, *Energy*, 112 (2016) 509-519.
12. K. Ramachandran, K. Kadirgama, **D. Ramasamy**, W. Azmi, and F. Tarlochan, "Investigation on effective thermal conductivity and relative viscosity of cellulose nanocrystal as a nanofluidic thermal transport through a combined experimental–Statistical approach by using Response Surface Methodology," *Applied Thermal Engineering*, vol. 122, pp. 473-483, 2017.
13. K. Kadirgama, **D. Ramasamy**, K. A. El-Hosseini, K. Hwa, and G. Kadirgama, "Assessment of alternative methods of preparing internal combustion engine cylinder bore surfaces for frictional improvement," *Journal of the Brazilian Society of Mechanical Sciences and Engineering*, pp. 1-15, 2017.
14. K. Ramachandran, A. Hussein, K. Kadirgama, **D. Ramasamy**, W. Azmi, F. Tarlochan, et al., "Thermophysical properties measurement of nano cellulose in ethylene glycol/water," *Applied Thermal Engineering*, vol. 123, pp. 1158-1165, 2017.
15. S. Hisham, K. Kadirgama, **D. Ramasamy**, M. Noor, A. Amiruddin, G. Najafi, et al., "Waste cooking oil blended with the engine oil for reduction of friction and wear on piston skirt," *Fuel*, 2017.
16. **D. Ramasamy**, C. Goh, K. Kadirgama, F. Benedict, M. Noor, G. Najafi, et al., "Engine performance, exhaust emission and combustion analysis of a 4-stroke spark ignited engine using dual fuel injection," *Fuel*, vol. 207, pp. 719-728, 2017.
17. M. Sakinah, M. Hassan, K. Kadirgama, G. Kadirgama, **D. Ramasamy**, A. Amiruddin, et al., "Optimization on Wear Performance of Anti Wear Additive Added Biolubricant," in *Improved Performance of Materials*, ed: Springer, Cham, 2018, pp. 1-9.
18. M. Hasan, M. Rahman, K. Kadirgama, and **D. Ramasamy**, "Numerical study of engine parameters on combustion and performance characteristics in an n-heptane fueled HCCI engine," *Applied Thermal Engineering*, 2017.

## B) International and National Conference Papers



1. M.M.Noor, A.Sulaiman, K.Kadirgama, M.R.M.Rejab, M.S.M. Sani, F.R.M.Romlay, R.Daud, Z.Ghazalli, **R. Devarajan**, M.F.Ghazalli, W.S.W.Harun, M.Y.Taib, "Simulation of the Corrosion Point and Repairing Technique at the Crane with Finite Element Analysis", 2<sup>nd</sup> Regional Engineering Conference on Sustainable Engineering Infrastructures Development & Management (ENCON 08), 18-19 December, Crowne Plaza Riverside Hotel, Kuching, Sarawak, Malaysia, 33-38, 2008.
2. M.M.Noor, K.Kadirgama, **Devarajan R.**, M.S.M.Sani, M.F.M.Nawi, T.F.Yusaf, "CFD Simulation and Validation of the In-Cylinder within a Motored Two Stroke SI Engine", 2<sup>nd</sup> International Conference on Science and Technology, Applications in Industry and Education, ICSTIE08, 12~13 December, UiTM Penang, 1461-1468, ISBN 978-983-42204-1-9, 2008.
3. M.M.Noor, K.Kadirgama, **R.Devarajan**, M.R.M.Rejab, N.M.Zuki N.M., T.F.Yusaf, "Design of a High Pressure Compressed Natural Gas Mixer for 1500cc Engine", National Conference on Design and Concurrent Engineering (DECON08), 28-29th October, Avillion Legacy Hotel, Melaka. 435-438, ISBN 978-983-2948-54-4, 2008.
4. Rosli Abu Bakar, **Devarajan Ramasamy**, Fazli Ismail, Ahmad Syahrizan Sulaiman, Design and Development of Hybrid Electric Vehicle Rear Diffuser,National Seminar Science Technology and Sosial Sciences, Malaysia, 3-4 Jun, 2008.
5. **Devarajan Ramasamy**, Rosli Abu Bakar, Mohd Fadzil Rahim, M.M.Noor, "Comparative Evaluation Of A Two Stroke Compressed Natural Gas Mixer Design Using Simulation And Experimental Techniques", Proceedings of the Fourth IASTED International Conference POWER AND ENERGY SYSTEMS (AsiaPES 2008) April 2-4, 2008 Langkawi, Malaysia, 2008, ISBN CD: 978-0-88986-732-1
6. A.R.N.A. Rahim, K.Kadirgama, M.M.Noor, **R.Devarajan**, M.R.M.Rejab, N.M.Zuki N.M., Design and Simulate Mixing of Compressed Natural Gas with Air in a mixing device, Proceedings of MUCET2008, Malaysian Technical Universities Conference on Engineering and Technology March 8-10, 2008, Putra Palace, Perlis, Malaysia
7. A. Sulaiman, **D. Ramasamy**, A. Senawi and M. M. Noor, "Static Recovery Process Modelling of Engineering Metallic Alloys", Malaysian Metallurgical Conference – MMC 2008, 3-4 December 2008, UKM, Bangi, Malaysia.
8. **R.Devarajan**, S.Mahendran, Zainal Ambri Abdul Karim, T.Nagarajan, "Development of Valve Less Micropump Preliminary Characteristics from Fluid Flow",11th Electronics Materials And Packaging Conference EMAP, December 1- 3, 2009 Universiti Sains Malaysia, Pulau Pinang, 2009.
9. **R.Devarajan**, S. Mahendran, Zainal Ambri Abdul Karim, T.Nagarajan, "Design of Valve Less Micropump Using Preliminary Characteristics from Fluid Flow", The 2010 IAENG International Conference on Industrial Engineering (ICINDE),March 17~19 2010, Regal Garden Hotel, Hong Kong.
10. S.Mahendran, **R.Devarajan**, T.Nagarajan, and A. Majdi, "A Review of Micro-EDM", The 2010 International Association of Engineers IAENG, International Conference on Control and Automation (ICCA), March 17~19 2010,Regal Garden Hotel, Hong Kong.
11. **D.Ramasamy**, Zamri.M, S.Mahendran, S.Vijayan , "Design Optimization of Air Intake System (AIS) of 1.6L Engine by Adding Guide Vane", The 2010 International Association of Engineers IAENG, International Conference on Control and Automation (ICCA), March 17~19 2010,Regal Garden Hotel, Hong Kong.
12. Zamri Mohamed, **D. Ramasamy**, M. Razali "Side Mirror Aerodynamics Analysis" (The 1st NATIONAL CONFERENCE in MECHANICAL ENGINEERING for RESEARCH & POST GRADUATE STUDIES,NCMER, 31 May 2010, Kuantan).
13. Zamri Mohamed, **D. Ramasamy**, M. Razali Hanipah "Small Sedan Aerodynamics Analysis" (The 1st NATIONAL CONFERENCE in MECHANICAL ENGINEERING for RESEARCH & POST GRADUATE STUDIES,NCMER, 31 May 2010, Kuantan).
14. **D.Ramasamy**, S.Mahendran, Zamri Mohamed, Rosli Abu Bakar "Evaluation Of A Two Stroke Compressed Natural Gas Mixer Design By Simulation And Exp. Techniques" (The 1st NATIONAL CONFERENCE in MECHANICAL ENGINEERING for RESEARCH & POST GRADUATE STUDIES,NCMER, 31 May 2010).

15. **D.Ramasamy**, S. Mahendran, K.Kadrigama, M.M. Noor, "Design Of Compressed Natural Gas (Cng) Mixer Using Computational Fluid Dynamics", (The 1st NATIONAL CONFERENCE in MECHANICAL ENGINEERING for RESEARCH & POST GRADUATE STUDIES,NCMER, 31 May 2010).
16. **D.Ramasamy**, K.Kadrigama, S.Vijayan, "Design Optimization Air Intake System Of 1.6l Engine By Adding Guide Vane", (The 1st NATIONAL CONFERENCE in MECHANICAL ENGINEERING for RESEARCH & POST GRADUATE STUDIES,NCMER, 31 May 2010).
17. **D.Ramasamy**, K.Kadrigama, A.K.Amirruddin, M.Y.Taib," A Vehicle Body Drag Analysis Using Computational Fluid Dynamics", (The 1st NATIONAL CONFERENCE in MECHANICAL ENGINEERING for RESEARCH & POST GRADUATE STUDIES,NCMER, 31 May 2010).
18. **R.Devarajan**, S. Mahendran, Zainal Ambri Abdul Karim, T.Nagarajan, Analysis of a Valveless Micropump Using Preliminary Characteristics from Fluid Flow, 2nd International Conference on Plant Equipment and Reliability (ICPER 2010).
19. **D.Ramasamy**, Goh Chin Yuan, Horizon Walker Gitano, Optimization Of An Automotive Engine For Operation With Natural Gas, RCNRE 2010, Regional Conference On New And Renewable Energy 3/2010 Vistana Hotel, Penang.
20. **D.Ramasamy**, Horizon Walker Gitano Briggs, Optimization of Airflow to Increase Swirl For A Bi-Fuel Automotive Engine, 2nd Mechanical & Aerospace Postgraduate Research Colloquium, February 23-25, 2011.
21. **Devarajan Ramasamy** and Goh Chin Yuan and Rosli Abu Bakar and Z.A, Zainal (2013), Validation of Road Load Characteristic of a Sub-Compact Vehicle by Engine Operation. In: International Conference on Mechanical Engineering Research (ICMER2013), 1-3 July 2013, Bukit Gambang Resort City, Kuantan, Pahang, Malaysia.
22. **Devarajan Ramasamy**, Z.A Zainal, R.A.Bakar, K. Kadrigama, Mass Fraction Burn Comparison Of Compressed Natural Gas And Gasoline, 2014, Applied Mechanics and Materials Vol. 660 (2014) pp 442-446, © (2014) Trans Tech Publications, Switzerland doi:10.4028/www.scientific.net/AMM.660.442.
23. K.Kadrigama, Y.Muthusamy, M.M.Rahman, M.M. Noor, **R.Devarajan**, R.A. Bakar, Ethylene Glycol Based Zno Nano Fluids as a Coolant for Grinding of Aisi P20 Tool Steel, 9th International Conference on Advanced Computational Engineering and Experimenting (ACEX) 2015, 29 June - 2 July Munich, Germany, ACEX2015-096.
24. **R. Devarajan**, K. Kadrigama, M.M. Noor, R.A. Bakar, Computational Analysis Of Dissimilar Valve Lift (DVL) Swirl On A Bi-Fuel Compressed Natural Gas (CNG) Engine, 9th International Conference on Advanced Computational Engineering and Experimenting (ACEX) 2015, 29 June - 2 July Munich, Germany, ACEX2015-204.
25. **D.Ramasamy**, K. Kadrigama, M.M. Noor, M.M. Rahman, R.A. Bakar., Experiments On Dissimilar Valve Lift (DVL) for Turbulence Increment On A Bi-Fuel Compressed Natural Gas (CNG) Engine, ACEX2016, 2-6 Jul 2016, Split, Croatia.
26. M. A. Hassan, M. H. Sakinah, K. Kadrigama, **D. Ramasamy**, M. M. Noor, M. M. Rahman, R.A. Bakar, Optimization on Wear Performance of Anti Wear Additive Added Biolubricant, ACEX2016, 2-6 Jul 2016, Split, Croatia.
27. K. Ramachandran, B. Yeesvaran, K. Kadrigama, **D. Ramasamy**, S. A. C. Ghani, and K. Anamalai, R.A.Bakar, "State of art of cooling method for dry machining," in MATEC Web of Conferences, 2017, p. 01015.
28. A. M. Hussein, K. Kadrigama, K. Sharma, **D. Ramasamy**, and R. Bakar, "Heat Transfer Enhancement with Nanofluids for Automotive Cooling," in Engineering Applications of Nanotechnology, ed: Springer International Publishing, 2017, pp. 71-100.
29. **D. Ramasamy**, K. Kadrigama, M. Noor, and M. Rahman, "Experiments on Dissimilar Valve Lift (DVL) for Turbulence Increment on a Bi-Fuel Compressed Natural Gas (CNG) Engine," in Defect and Diffusion Forum, 2017, pp. 19-28.

30. K. C. Hwa, **D. Ramasamy**, K. Kadirgama, M. Noor, M. Rahman, and M. Samykano, "Methods of preparing internal combustion engine cylinder bore surfaces for frictional improvement," in MATEC Web of Conferences, 2017, p. 01055.

### List of Book

- 1) "Basic Fluid Mechanics", UMP Press, (Writing in Progress). 2009.

### List of Consultancy

1. Consultation for Petronas: Structural Analysis of Crane , thru RIA-Solution Sdn Bhd, RM12,000, Vot No. UIC080102, 10 Mac'08~20 April 2008. in Researcher, Nov 2008, (Completed)
2. Consultation for Mecip Global Sdn Bhd: CFD Analysis of Water Plug RM5,000, P.O UMP/MGE/09-026, Researcher, Apr 2009. (Completed)
3. Consultation for TECHNIP and Petronas: CFD Analysis of Tank Sloshing , P.O UMP/MGE/09-026, Researcher, Apr 2014. RM6,000. (Completed)

### List of Research / Project

#### Internal Grants

1. "Development of In Campus Vehicle (I-V) for UMP Application" as a researcher, which grant amount of RM 41,000. RDU 070303 (Sept'07 ~ Sept'08). completed
2. "Series Hybrid Electric Vehicle Cost-Effective Powertrain Components Development", amounts to RM 85,000 as project leader. RD070305 (Sept'07 ~ Sept'08). completed
3. "Design of A Micropump For Fuel Cell Application" as Leader, Grant amount of RM 40,000. RDU 090366, (May'09~Apr'11). completed
4. "Development of Micro-EDM with Microactuator Feed Control System" as Researcher, Grant amount of RM 40,000. RDU 090367, (May'09~Apr'11). completed
5. "Investigation of Micromachining of Silicon Using Micro-EDM" as Researcher, Grant amount of RM 40,000. RDU 0903131, (May'09~Apr'11). completed
6. "A Novel and Flexible Solar Car Kit for Educational Use", Co-Leader, RDU090201, (Aug'09-June'09). completed
7. "Design and Fabrication of Solar Car Power and Drive System" as Researcher, of RM 40,000. RDU100324, (1 May '10 ~ 30 Apr'11). completed
8. " Development of Fuel Testing System on Chassis Dynamometer for Compressed Natural Gas Direct Injection Powered Vehicle, as Researcher, grant amount RM 35,000.00. RDU130313. (15 May 2013~30 Nov 2015)
9. "Valve Wear Analysis with Nano Coating for Compressed Natural Gas (CNG) Engine", as Leader, Grant amount RM 21,500.00. RDU1403124. (15 Nov 14~ 14 Nov 16). On going
10. " Hybrid Nanoparticles with Ethylene Glycol for Car Radiator Application", as researcher, grant amount RM 35,200.00. RDU1403134. (25 Nov 2011~ 24 Nov 2016)
11. " An Auto-Ignition Study in Engine using HCCI and Carbon Nanotubes", as researcher, grant amount RM 24,750.00. RDU 150351 (25 June 2016~24 June 2017).
12. " Tribological Behavior of Journal Bearing Material under Nano Carbon Tube", as researcher, Grant amount 39,816.00. RDU150373 (1 October 2015~30 Sept 2017)
13. " Thermal Management of Vehicle Radiator by Nanofluids", as researcher, grant amount RM39,816, RDU 151311. (1 June 2016~31 Dec 2018)
14. " Biodiesel-diesel (up to 45%) Fuel Characteristics on Homogeneous Charge Compression Ignition Engine", as researcher, grant amount RM39,790.00. RDU1503101. (15 Dec 2016~14 Dec 2017).
15. "An Experimental Analysis of A Hcci Diesel Fuel Engine Using Copper Nanoparticles Blended Diesel Fuel", As Leader, Grant amount RM28,000.00. RDU160319. (5 May 2016~4 May 2018) On going
16. " Investigation of Dispersion, Stability, And Tribological Performance of Oil-Based Graphene and Copper Nanofluids" as researcher", as Researcher, Grant Amount 37,500.00. RDU160352. (25 May 2016~24 May 2018)
17. " Environmental Friendly Sustainable Biofuel for Diesel Engine using Algae", as researcher, grant amount RM21,500.00. RDU160320. (10 May 2016~9 May 2018).
18. " Investigation of the influence of synthesis parameter on template based electrodeposited Ni nano wires", as researcher, grant amount RM39,500.00. RDU160337. (25 May 2016~24 May 2018)

19. " Smart Cellulose Fibers Coated with Carbon Nanotube Networks for Automotive Cooling System", as researcher, grant amount 32,500.00. (25 May 2016~24 May 2018)
20. " Investigate the effect of Nanolubricant for Enhancing the Vehicle Air-Conditioning Efficiency", as researcher, grant amount RM25,500.00. RDU160306. (5 Apr 2016~4 Apr 2016)
21. " Impact Biodiesel Fuel Characteristics on Ultra-Low Emission Homogeneous", as researcher, grant amount RM38,575.00. RDU 1403126. (15 Nov 2011~14 Nov 2016)
22. "Synthesis Of Silver Nanowires Hybrid Thin Film For Advanced Automotive Application" , RM26,000, RDU170352, (20 June 2016~19 June 2019).
23. "Fundamental study of hybrid graphene oxide and nanofibrillated cellulose for aircraft wings application" RM 83,200.00, FRGS, RDU 170125. (15 August 2017~14 August 2019).
24. "Development of Nickel-Based Nanopolymer For Automotive Dashboard", RM24,500, RDU1703150, (20 June 2017~ 19 June 2019).

#### External Grants

1. "Optimization of Combustion for CNG Fuel engine", researcher, Mosti E-Science Fund, RM375,000.00. (1 March 2011~1 March 2014). completed
2. " The Effect of Steam Injection on Power and Emission of Hybrid Air-Diesel Engine Using Steam Injector", as researcher, grant amount RM 120,500.00. FRGS . RDU130134. (1 Dec 2013~30 Nov 2016). on going
3. "Engine Valve Seat wear study on Compressed Natural Gas (CNG)by using Nano Powder", Leader, FRGS, RM125,000.00. RDU140125. (1 Jul 14~ 30 Sept 2017). On going
4. "Nano-structured diamond and silica coatings on Co-Cr-Mo substrate for biomedical applications", COMSTECH-TWAS Joint Research Grants Programme , USD 10,000.00. As Researcher. Grant number. 15-397 RG/MSN/AS\_C – FR3240288959. (31 March 2016~ August 2017).

#### International Grants

5. "DIRECT METAL LASER SINTERING TECHNOLOGY FOR THE MANUFACTURE OF FULLY POROUS FUNCTIONALLY GRADED TITANIUM ALLOY FEMORAL STEMS (FABRICATION AND DESIGNING OF FULLY POROUS FUNCTIONALLY GRADED TITANIUM ALLOY FEMORAL STEMS)", UIC161505, RM 71,370.80, (1 June 2016~1 June 2019). On Going

#### Research Achievements / Awards

1. Silver Medal Research Award – Development of In Campus Vehicle (I-V) for UMP Application, Anugerah Penyelidikan Terbaik UMP, 2007.
2. Silver Medal Research Award – Series Hybrid Electric Vehicle Cost-Effective Powertrain Components Development, Anugerah Penyelidikan Terbaik UMP, 2007.
3. Research Award: Bronze – Title: CarJack Using Internal Car Power, 20<sup>th</sup> International Invention, Innovation, Industrial Design & Technology Exhibition (ITEX09), as Researcher, KLCC Kuala Lumpur, 15~17 May 2009.
4. Participation for "A Novel and Flexible Solar Car Kit for Educational Use", PECEPTA 2009, KLCC, 8~10 October 2009.
5. Anugerah Cendekia Bitara, Kategori Produk Penyelidikan, UMP, 2010.
6. Gold – Eco-Nano-Coolant For Manufacturing Cutting Process, Creation, Innovation, Technology & Research Exposition (CITREX 2015), Project Researcher, 9~10 March, UMP, Pahang.
7. Silver – Advance Motorized Car Jack, Creation, Innovation, Technology & Research Exposition (CITREX 2015), Project Researcher, 9~10 March, UMP, Pahang.
8. Silver –Hybrid Intelligent Non-Conventional Machining For Biomedical Materials, Creation, Innovation, Technology & Research Exposition (CITREX 2015), Project Researcher, 9~10 March, UMP, Pahang.
9. Silver – Tribological Engine Wear Tester, Creation, Innovation, Technology & Research Exposition (CITREX 2015), Project Researcher, 9~10 March, UMP, Pahang.
10. Silver – A Novel Heat Transfer Model for Eco-Friendly Zero Emission Engine, Creation, Innovation, Technology & Research Exposition (CITREX 2015), Project Researcher, 9~10 March, UMP, Pahang.
11. Silver – Hybrid Nano-coolant, Creation, Innovation, Technology & Research Exposition (CITREX 2015), Project Researcher, 9~10 March, UMP, Pahang.
12. Silver – Hybrid Multi-axial Fatigue Life Analyzer Based on Continuum Mechanics and Genetic Algorithm, Creation, Innovation, Technology & Research Exposition (CITREX 2015), Project Researcher, 9~10 March, UMP, Pahang.
13. Bronze – Environmental-Friendly Near-Dry Machining System for Aluminum Alloy Metal Removal Processes, Creation, Innovation, Technology & Research Exposition (CITREX 2015), Project Researcher, 9~10 March, UMP, Pahang.
14. Bronze – Waste Cooking Oil, Creation, Innovation, Technology & Research Exposition (CITREX 2015), Project Researcher, 9~10 March, UMP, Pahang.

15. Gold- Eco-Nano-Coolant for Manufacturing Cutting Process, Invention & Innovation Awards 2016, Malaysia Technology Expo 2016, 18-20 February 2016, PWTC Kuala Lumpur.
16. Gold – Dissimilar Cam Profile for Airflow Improvement in a CNG Engine (CITREX 2016), Leader, 7–8 March 2016, UMP, Pahang
17. Special Award, Automotive Excellence Centre, RM 500. Citrex 2016.
18. Silver – Novel Combustion of n-heptane Fueled in Homogenous Charge Compression Ignition Engine, (CITREX 2016), Project Researcher, 7–8 March 2016, UMP, Pahang
19. Bronze – Waste Cooking Oil, Creation, Innovation, Technology & Research Exposition (CITREX 2016), Project Researcher, 7–8 March 2016, UMP, Pahang
20. Gold – Dissimilar Cam Profile for Airflow Improvement in a CNG Engine, (ITEX 2016), Project Leader, 12 ~ 14 May 2016, Kuala Lumpur Convention Centre, Malaysia
21. Gold – Novel Combustion of n-heptane Fueled in Homogenous Charge Compression Ignition Engine, (ITEX 2016), Project Researcher, 12 ~ 14 May 2016, Kuala Lumpur Convention Centre, Malaysia
22. Gold- Dissimilar Cam Profile for Airflow Improvement in a CNG Engine, (SIIF 2016), Leader, 3-5 December 2016, Coex Mall, Seoul, South Korea.
23. Gold- Water-Ethylene Glycol Based Hybrid (TiO<sub>2</sub> and ZnO) Nano-Coolant for Sustainable Green Machining, (ITEX 2017), 11-13 May 2017, Kuala Lumpur Convention Centre, Malaysia.

## Patent

1. Dissimilar Cam Profile for Airflow Improvement in A CNG Engine, (Status: IP Filed PI2016001154), 2016.

## List of Course / Conference Attended

YEAR 2016				
1	AUTODESK AUTOCAD CERTIFIED PROFESIONAL	19/01/2016	27/01/2016	FTA17 MAKMAL KOMPUTER FKKSA
2	BENGKEL PENILAIAN KUALITI IJAME/JMES JAN 2016	22/01/2016	24/01/2016	DE RHU BEACH RESORT
3	KURSUS PERTAULIAHAN DAN PERSIJILAN PROGRAM AUTODESK	18/01/2016	24/01/2016	MAKMAL KOMPUTER FKM
4	KURSUS PERTAULIAHAN DAN PERSIJILAN PROGRAM AUTODESK	25/01/2016	29/01/2016	MAKMAL KOMPUTER FKM
5	MAJLIS AMANAT TAHUNAN NAIB CANSELOR 2016	17/02/2016	17/02/2016	DEWAN KOMPLEKS SUKAN UMP
6	PUBLIC LECTURE BY CEO@FACULTY PROGRAMME	09/03/2016	09/03/2016	DEWAN KULIAH UTAMA PBMSK KAMPUS PEKAN
7	MESYUARAT FAKULTI BIL. 1/2016	24/06/2016	24/06/2016	DEWAN AUDITORIUM FKM (DK300)
8	MESYUARAT MAJLIS FAKULTI KALI KE-6 BIL. 2/2016	21/07/2016	21/07/2016	DEWAN PEPERIKSAAN MEKANIKAL (DPM)
9	PERARAKAN STAF AKADEMIK, MAJLIS KONVOKESYEN KE-11 UMP	18/11/2016	19/11/2016	KOMPLEKS SUKAN UMP GAMBANG
YEAR 2015				
10	LATEX WORKSHOP 2015	22/01/2015	22/01/2015	FKM COMPUER LAB
11	MAJLIS AMANAT TAHUNAN NAIB CANSELOR 2015	25/02/2015	25/02/2015	KOMPLEKS SUKAN UMP
12	SEXUAL HARASSMENT ACT INSTITUTION	12/02/2015	12/02/2015	DEWAN KULIAH 2, FAKULTI KEJURUTERAAN PEMBUATAN
13	BENGKEL DOKUMEN PERMOHONAN PROFESIONAL ENGINEER (PE)	05/03/2015	05/03/2015	SRI MANJA BOUTIQUE HOTEL, KUANTAN
14	SEMINAR TAKLIMAT PERMOHONAN GERAN KTP, ROLLING KE5 TAHUN 2015	02/03/2015	02/03/2015	DEWAN AUDITORIUM FKM
15	BENGKEL PERANCANGAN STRATEGIK	10/04/2015	12/04/2015	CENTURY PINE RESORT, CAMERON HIGHLANDS

16	INFORMATION SKILL CLASS: ONLINE DATABASE (SESSION 1)	13/05/2015	13/05/2015	CAI LAB GAMBANG LIBRARY
17	BENKEL SEMAKAN	13/07/2015	13/07/2015	THE ZENITH HOTEL, KUANTAN
18	MAJLIS PERHIMPUNAN BERSAMA NAIB CANSELOR (WACANA:HARI INI DAN MASA HADAPAN)	14/08/2015	14/08/2015	KOMPLEKS SUKAN UMP
19	MAJLIS AMANAT TAHUNAN NAIB CANSELOR 2014	19/02/2014	19/02/2014	DEWAN KOMPLEKS SUKAN
20	TAKLIMAT PROSEDUR PENGAJARAN	12/02/2014	12/02/2014	DEWAN AUDITORIUM FKM (DK300)
21	FROM GENERAL SYSTEMS THEORY TO CYBER-PHYSICAL SYSTEM: THE THEORY THAT IS SHAPING OUR WORLD.	07/03/2014	07/03/2014	AUDITORIUM FKM (DK300)
22	AWARENESS OF OBE & EAC	10/04/2014	10/04/2014	AUDITORIUM FKM (DK300)
23	MESYUARAT FAKULTI BIL. 1/2014	04/04/2014	04/04/2014	DEWAN AUDITORIUM FKM (DK300)
24	SEMINAR ON E-SCIENCE FUND PROPOSAL WRITING TECHNIQUES	02/04/2014	02/04/2014	AUDITORIUM FKM (DK300)
25	BENKEL PENILAIAN KERTAS KERJA PERSIDANGAN AIGEV 2014	07/06/2014	07/06/2014	HOTEL ZENITH KUANTAN
26	BENKEL KEMAHIRAN SIDANG EDITOR	26/09/2014	28/09/2014	PULLMAN HOTEL PUTRAJAYA
27	1 DAY OBE WORKSHOP (PREPARATION FINAL EXAM QUESTION)	19/12/2014	19/12/2014	DEWAN PEPERIKSAAN MEKANIKAL (DPM)
28	MAJLIS SYARAHAN UMUM ANTARABANGSA 2014 OLEH MR MATTHIAS GELBER (THE GREENEST PERSON)	10/12/2014	10/12/2014	KOMPLEK SUKAN UMP GAMBANG
29	HARI KUALITI DAN INOVASI 2013	06/06/2013	06/06/2013	GRAND BALLROOM ARABIAN, BUKIT GAMBANG RESORT
30	MESYUARAT FAKULTI KEJURUTERAAN MEKANIKAL	24/12/2013	24/12/2013	AUDITORIUM FKM
31	KURSUS KAD HIJAU	08-02-2010	08-02-2010	BILIK LATIHAN KPU, UMP
32	PALESTIN: REALITI & MASA DEPAN	14-01-2009	14-01-2009	DKU 1
33	KURSUS A COURSE ON IELTS	25-03-2009	27-03-2009	BILIK LATIHAN KPU, UMP
34	KURSUS KAEDAH PENYELIDIKAN (SLAB/SLAI)	12-04-2009	18-04-2009	HOTEL ANCASA, KL
35	KURSUS PENULISAN JURNAL	12-05-2009	13-05-2009	MINI TEATER, UMP
36	KURSUS INDUKSI MODUL UMUM KUMPULAN PENGURUSAN & PROFESIONAL SERTA SOKONGAN 1 (GRED 27 KE ATAS)	18-08-2007	30-08-2007	SANCTUARY BEACH RESORT, BESERAH
37	KURSUS INDUKSI MODUL KHUSUS BIL.2/2007	18-09-2007	19-09-2007	DKU1, BLOK W, UMP

**Declaration:**

**I hereby declare that the information's given are true to the best of my knowledge.**



**Dr. Devarajan Ramasamy**  
**Date: 20/1/2018**