



Ts. Dr. MOHD RUZAIMI BIN MAT REJAB, CEng MIMechE

Senior Lecturer

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Focus Group: Structural Materials and Degradation, FKM UMP

Academic Qualification

2013	Ph.D (Mechanical Engineering), University of Liverpool, United Kingdom
2004	M.Eng (Mechanical Engineering), Universiti Teknologi Malaysia, Malaysia
2002	B.Eng (Mechanical Engineering), Universiti Teknologi Malaysia, Malaysia

Brief Profile

Ruzaimi was born in Kluang, Johor in July 1980. He received his Bachelor and Master's degrees in Mechanical Engineering from Universiti Teknologi Malaysia (UTM). He started his career as a Research Officer at Centre for Composite (PUSKOM), UTM from 2004 to 2005, and then joined Kolej Universiti Kejuruteraan & Teknologi Malaysia (KUKTEM) (now is known as Universiti Malaysia Pahang (UMP)) as a Lecturer at the Faculty of Mechanical Engineering (FKM) in May 2005. In June 2005, he was selected to be a Fellow of Student's Residential College 1. A year after that in 2006, he was appointed as the Principal of Student's Residential College 2. After completing his tenure as the principal in August 2007, he was holding the position of the Head of the Mechanical Engineering Program until April 2008. Later, he was appointed as the Deputy Dean (Academic & Student Development Affairs) in the FKM from May 2008 until September 2009. In late of year 2013, he completed his Doctorate degree in design, fabrication, modelling and testing of novel lightweight structure, at the Impact Research Centre, University of Liverpool. Now, he is appointed as the Head of Programme (Automotive Engineering), a special collaboration program with the Karlsruhe University of Applied Science, Germany since March 2014. His research interests are in novel lightweight structure, polymer composites, sandwich structures, polymeric foam studies, computational mechanics and finite element method, mechanical design and material testing and performance evaluation. He also involves actively in research and development projects, consultation works, academic discussion activities and social services. He has published more than 100 papers in journals and conferences. He is a Professional Technologies (P.Tech), appointed by Malaysia Board of Technology (MBOT). For international recognition, he is a Chartered Engineer (C.Eng), certified by Institute of Mechanical Engineers (IMechE) UK. He is actively involved as Auditor for Malaysian Qualifications Agency (MQA) and Technology and Technical Accreditation Council (TTAC). He is also the member of several professional bodies such as Board of Engineers Malaysia (BEM), Institute of Engineer Malaysia (IEM), American Society of Mechanical Engineers (ASME), American Society for Composites (ASC), Malaysian Society for Engineering and Technology (MySET), International Association of Engineers (IAENG) and other community services such as ANSARA – Alumni MRSM PDRM.

Working Experiences / Appointment

Profession Experiences

May 2005 – Current	Lecturer, Faculty of Mechanical Engineering, Universiti Malaysia Pahang
Jan 2004 – May 2005	Research Officer, Composite Centre (PUSKOM), Universiti Teknologi Malaysia
Mar 2000 – June 2000	Trainee Engineer, Nagoya Plastic Industries, Kulim, Kedah

Appointments

Mar 2014 – Current	Head of Programme (Automotive Engineering), Faculty of Mechanical Engineering, Universiti Malaysia Pahang
May 2008 – Sept 2009	Deputy Dean (Academic & Student Development Affairs), Faculty of Mechanical Engineering, Universiti Malaysia Pahang
April 2007 – May 2008	Head of Programme (Mechanical Engineering), Faculty of Mechanical Engineering, University Malaysia Pahang
Jun 2006 – Aug 2007	Principal of Student's Residential College 2, Perkampungan Bandar Gambang Perdana, Universiti Malaysia Pahang
Jun 2005 – May 2006	Fellow of Student's Residential College 1, KUKTEM

Expert Area

Applied Mechanics, Composites, Mechanical Design, Impact Mechanics, Finite Element Method, Quality Engineering, OBE and Curriculum Design

Research Interest

Lightweight structures, composites, polymers, sandwich structures, polymeric foam studies, computational mechanics and finite element analysis, machine design and, material testing and performance evaluation.

Professional Qualification / Membership / Affiliation / Experience

Membership of Professional Body

1. Professional Technologies, Malaysia Board of Technology (P.Tech No. PT17120023)
2. Chartered Engineers, UK (C.Eng No. 653641)
3. Member of Institute of Mechanical Engineers, UK (MIMechE No. 80290949)
4. Member of American Society for Composites (ASC No. 123458537)
5. Member of American Society of Mechanical Engineers (ASME No. 100021656)
6. Member of International Association of Engineers (IAENG No. 65487)
7. Member of International Association of Advanced Materials (IAAM No. 807271601735)
8. Member of Malaysian Society of Engineering and Technology (MySET No. 01459)
9. Graduate Engineer of Board of Engineer Malaysia (BEM No.42444R)
10. Graduate Engineer of Institute of Engineers Malaysia (IEM No. G30576)
11. Graduate Technologies of Malaysia Board of Technologies (MBOT No. GT17090010)
12. Member of IAENG Society of Mechanical Engineering (ISME No. 65487)

International Academic Experience

1. Academic and Collaboration Visit to Kasetsart University and Chulalongkorn University, Bangkok, Thailand, 24 – 27 June 2018
2. Academic and Collaboration Visit to National College of Automotive Technology, Sultanate of Oman, 23 – 27 April 2018
3. Visiting Scholar to School of Mechanical Engineering, Ningxia University (NXU), China, 22 – 26 November 2017
4. Visiting Scholar to School of Mechanical Engineering, Ningxia University (NXU), China, 19 – 26 October 2015
5. Coordinator of Dual-degree Automotive Engineering Program, collaboration project with Karlsruhe University of Applied Science (HsKA), Germany. Academic discussion at HsKA, Karlsruhe and Supervisor for Extensive German Language Course (Summer Camp) at Treuchtlingen, Germany, 2 - 7 August 2015
6. Overseas Supervisor, Ningxia University of Excellent Engineer Project approved by Chinese Ministry of Education. Students Exchange Program between UMP and NXU, for one semester. Semester 1 2015/2016.
7. An academic visit to Fakultas Teknik, Universitas Indonesia (UI), Jakarta, 28 June – 1 July 2015. Exploring opportunities for research and academic collaboration between FKM UMP and FT UI.
8. Academic visit to Department of Mechanical Engineering, Imperial College London, United Kingdom, 30 Nov – 6 Dec 2014. Exploring opportunities for research and academic collaboration between FKM UMP and Imperial College London.
9. Research Assistant and Lab Demonstrator, School of Engineering, University of Liverpool, Jan 2010 – Mar 2013

Professional Experience

- a) Associate Editor-in-Chief:
 1. Journal of Mechanical Engineering Sciences (JMES – Scopus indexed Journal [Q2]) – reviewing and editing manuscripts more than 250 articles. (2014 -2017)
- b) Journal Reviewer:
 1. Composites Part B: Engineering (ISI – Q1)
 2. Composite Structures (ISI – Q1)
 3. International Journal of Solids and Structures (ISI – Q1)
 4. Journal of Manufacturing Processes (ISI – Q1)

5. High Performance Polymer (ISI - Q2)
6. Journal of Applied Science & Process Engineering (JASPE – Scopus Indexed Journal)
7. International Journal of Automotive & Mechanical Engineering (IJAME – Scopus Indexed Journal)
8. Indian Journal Science and Technology (IJST)
9. ARPN Journal of Engineering and Applied Sciences (Scopus Indexed Journal)

c) Technical Paper Reviewer:

1. 5th Mechanical Engineering Research Day (MERD2018), 2018, Melaka
2. 4th International Conference on Recent Advances in Automotive Engineering & Mobility Research (ReCAR2017), 2017, Kuala Lumpur.
3. 4th International Conference on Mechanical Engineering Research (ICMER2017), 2017, Kuantan.
4. 3rd Mechanical Engineering Research Day (MERD2017), 2017, Melaka
5. The International Conference on Nano-materials, Function and Composite Materials (ICNFCM2017), 2017, Bangkok
6. 3rd International Conference on Science and Social Research (CSSR2016), 2016, Putrajaya
7. 3rd International Conference on Defence and Security Technology (DSTC2016), 2016, Putrajaya
8. 3rd Advanced Materials Conference 2016 (AMC2016), 2016, Langkawi
9. 3rd International Conference on Mechanical Engineering Research (ICMER2015), 2015, Kuantan.
10. Automotive Innovation and Green Vehicle Conference (AiGEV2014), 2014, Kuantan.
11. IEEE International Conference on Space Science & Communication (IconSpace2013), 2013, Kuala Lumpur.
12. Malaysian Technical Universities Conference on Engineering and Technology (MUCET) 2009, Kuantan, Pahang.
13. 4th International Conference on University Learning and Teaching (InCULT08), 2008, Shah Alam.

d) Evaluator

1. Ahli Panel Penilai (Auditor) for Malaysian Qualifications Agency (MQA), 2015 – now. Audited: Diploma in Technology Programme = 18 Vocational College of Malaysia, 20 private institutions ; Degree in Technology Programme = 2 private institutions
2. Ahli Panel Penilai (Auditor) for Technology and Technical Accreditation Council (TTAC-MBOT), 2017 – 2020. Diploma: 1 on going for Provisional Accreditation.
3. Expert Panel for COPPA –TEVT, evaluation of new MQA manual at one private institution
4. External Examiner for Department of Mechanical Engineering, Politeknik Kota Bharu, Kelantan: 15 April 2018 – 15 April 2020.
5. Auditor for Academic Quality Management System (AQMS) UMP, 2016
6. Interviewer for Mercedes-Benz Scholarship Award, Sept. 2015
7. Lead Auditor in Teaching and Learning MS ISO 9001:2000, 2008
8. Judge for Integrated Design Project and Exhibition, FKM, December 2015
9. Panel umpire for Pertandingan Rekacipta dan Inovasi KUKTEM 2006, in-conjunction with 1st Expoconvo'06

Social and Community Experience

a) Motivation, Counselling and Career Talks:

1. Mentor for Protégé PAKAD (2018 – 2020)
2. Invited speaker for Dual-degree German Programs at Kolej Matrikulasi Melaka, 5-6 January 2018
3. Invited Speaker at Students Skills Development Camp (SSDC2017), Cherating, Pahang 23-24 December 2017
4. Invited speaker for Dual-degree BHA Program at Kolej Matrikulasi Labuan, March 2017
5. Motivational Talk to PMR and SPM Candidates, S.M.K. Peramu Jaya Pekan, 15 March 2016
6. Invited speaker for Dual-degree BHA Program at Kolej Matrikulasi Labuan, March 2016
7. Invited speaker for Promotion Activity at Kolej Matrikulasi Changlun, Kolej Matrikulasi Gopeng and Kolej Matrikulasi Penang, Feb 2016
8. Invited speaker for Program 'Jom Masuk U' Zon Pantai Timur, at UNISZA, Feb 2016
9. Invited speaker for Program 'Jom Masuk U' di Kolej Matrikulasi Johor, Nov 2015
10. Invited speaker for Program 'Jom Masuk U' di Kolej Matrikulasi Kelantan, Feb 2015
11. Invited speaker for Program 'Jom Masuk U' Kementerian Pendidikan Malaysia Zon Utara, at Kolej Matrikulasi Teknikal Kedah, Dec 2014
12. Invited speaker for Program 'Jom Masuk U' Kementerian Pendidikan Malaysia Zon Utara, at Kolej Matrikulasi Pulau Pinang, Dec 2014
13. Invited special guest in "Peluang Pendidikan & Kerjaya dalam Bidang Kejuruteraan Mekanikal" for Rancangan Celoteh Menara Gading with UMP, at *Pahang.fm* radio, 26 April 2008
14. Invited speaker for Program Pendidikan Kementerian Pengajian Tinggi Zon Selatan, Plaza Angsana, Johor Bahru, 7 March 2008

15. Invited speaker for Program Promosi Kolej Matrikulasi, Kolej Matrikulasi Kulim, 23 – 24 November 2007.
16. Invited speaker for Bengkel Felo Kolej Kediaman UMP Kali ke-4, Hotel Seri Malaysia Genting, 21 July 2007.
17. Invited speaker for Program Pembangunan Kerjaya Bersama ANSARA, MRSM Muadzam Shah, 22 July 2007.

b) Community:

1. Volunteer, UMP Emergency Response Team, Flooding Disaster Area in Temerloh, Jan 2015
2. Volunteer, Briged Bencana KUKTEM, flooding disaster area in Rompin, 20 – 21 Jan 2007

c) Student Society Advisory:

1. Advisor for International Student Association (ISA) University Malaysia Pahang, 2018 - now
2. Founding advisor for UMP-IEM Students Section, 2008 - 2009
3. Advisor for Mechanical Engineering Professional Student Club (MECHAPRO), 2006 - 2008

Special Experience

1. Mentor for Structural Materials and Degradation Research Group, FKM UMP. January 2018 – December 2019.
2. Special Officer to Dr Güenter Gruber, Former Ambassador of the Federal Republic of Germany, upon the conferment of the Honorary Doctor of Philosophy (Business Engineering), Convocation UMP 2015.
3. Member of Board of Examination and Board of Study, German Academic Programs at UMP
4. Chairman for Keynote session: Datuk Seri Syed Zainal Abidin Syed Mohamed Tahir (Former CEO PROTON) & Dato' Muhamad Lebai Juri (Director, Malaysian Nuclear Agency), in ICMER 2015
5. Chairman for Parallel session in AiGEV 2014 and ICMER 2015
6. Advisor for OBE Awareness and Implementation, and EAC Team, since 2007 until now.
7. Advisor for student's competition: SHELL Eco-Marathon Challenge, Manila 2015; SolidWork Design Competition 2014 & 2015 ; BOSCH Innovation Around My Campus Challenge 2015
8. Academic Committees; Jawatankuasa Akademik Fakulti, Jawatankuasa Penyelidikan Fakulti, Jawatankuasa Pengajian Siswazah Fakulti, Jawatankuasa Perolehan Fakulti since 2007 until now

Teaching Experience

Semester II 2017/2018

BMM4893	Mechanics of Composite Materials (c); 3 credits ; 3 hours/week ; 30 students
BHA1113	Engineering Materials (c); 3 credits ; 3 hours/week ; 1 student
BHA4624	Supervisor of Team Oriented Project Study ; 3 credits ; 3 hours/week ; 4 students
BMM4912	Supervisor of PSM 1 ; 3 students
DMM3914	Supervisor of PTA ; 3 students

Semester I 2017/2018

MME6143	Mechanical Engineering Design; 3 credits ; 3 hours/week ; 7 students
BMM4893	Mechanics of Composite Materials (c); 3 credits ; 3 hours/week ; 36 students
BMM4624	Mechanical System Design ; 3 credits ; 3 hours/week ; 35 students
BHA3912	Supervisor Internship; 12 credits ; 6-month training ; 6 students
BHA4904	Supervisor of Bachelor Thesis ; 2 students
BMM4912	Supervisor of PSM 1 ; 3 students
DMM3914	Supervisor of PTA ; 1 student

Semester II 2016/2017

BMM4893	Mechanics of Composite Materials (c); 3 credits ; 3 hours/week ; 32 students
BMM4624	Supervisor of Integrated Design Project ; 3 credits ; 3 hours/week ; 5 students
BHA4624	Supervisor of Team Oriented Project Study ; 3 credits ; 3 hours/week ; 5 students
BMM4924	Supervisor of PSM 2 ; 3 students

Semester I 2016/2017

MME6143	Mechanical Engineering Design; 3 credits ; 3 hours/week ; 14 students
BMM4893	Mechanics of Composite Materials (c); 3 credits ; 3 hours/week ; 27 students
BMM4623	Mechanical System Design ; 3 credits ; 3 hours/week ; 35 students
BHA3912	Supervisor Internship; 12 credits ; 6-month training ; 3 students
BHA4904	Supervisor of Bachelor Thesis ; 2 students
BMM4912	Supervisor of PSM 1 ; 2 students

BMM4924 Supervisor of PSM 2 ; 2 students

Semester II 2015/2016

BMM4893 Mechanics of Composite Materials (c); 3 credits ; 3 hours/week ; 30 students
BMM4623 Mechanical System Design ; 3 credits ; 3 hours/week ; 15 students
BMM4924 Supervisor of PSM 2 ; 3 students
DMM3914 Supervisor of PTA; 1 student

Semester I 2015/2016

MME6143 Mechanical Engineering Design; 3 credits ; 3 hours/week ; 21 students
BHA1103 Statics (c); 3 credits ; 3 hours/week ; 16 students
BHM1103 Statics (c); 3 credits ; 3 hours/week ; 15 students
BMM4623 Mechanical System Design ; 3 credits ; 3 hours/week ; 40 students
BHA3912 Supervisor Internship; 12 credits ; 6-month training ; 6 students
BMM3996 Supervisor Internship; 6 credits ; 3-month training ; 10 students
BMM4912 Supervisor of PSM 1 ; 3 students

Semester II 2014/2015

MME6143 Mechanical Engineering Design; 3 credits ; 3 hours/week ; 18 students
BMM4893 Mechanics of Composite Materials (c); 3 credits ; 3 hours/week ; 32 students
BMM4623 Mechanical System Design ; 3 credits ; 3 hours/week ; 15 students
BMM4924 Supervisor of PSM 2 ; 5 students
BMM2021 Quality & Environmental Management System (c); 1 credit ; 1 hour/week ; 10 students
BHA1801 Mechanical Laboratory 2 (c); 1 credit ; 1 hour/week ; 19 students
DMM3914 Supervisor of PTA; 3 students

Semester I 2014/2015

BHA1103 Statics (c); 3 credits ; 3 hours/week ; 19 students
BHM1103 Statics (c); 3 credits ; 3 hours/week ; 16 students
BMM4623 Mechanical System Design ; 3 credits ; 3 hours/week ; 40 students
BMM3996 Supervisor Internship; 6 credits ; 3-month training ; 12 students
BMM4912 Supervisor of PSM 1 ; 5 students
DMM3914 Supervisor of PTA; 1 student

Semester II 2013/2014

BMM3263 Mechanical Design; 3 credits ; 3 hours/week ; 45 students
BMM2511 Engineering Mechanics Lab 2 ; 1 credit ; 4 hours/week ; 40 students
DMM1512 Computer Aided Design (c); 2 credits ; 5 hours/week ; 45 students
DMM3914 Supervisor of PTA; 1 student

Semester I 2012/2013

MATS210 Strength and Ductility Polymers Lab: 4 credits : 2 hours/week ; 78 students

Semester II 2011/2012

ENGG207 Shear Centre of Non-symmetrical Loading Lab: 4 credits : 2 hours/week ; 120 students

Semester I 2011/2012

MATS210 Strength and Ductility Polymers Lab: 4 credits : 2 hours/week ; 95 students

Semester II 2010/2011

MATS210 Strength and Ductility Polymers Lab: 4 credits : 2 hours/week ; 83 students

Semester I 2010/2011

ENGG103 Friction Lab: 4 credits : 2 hours/week ; 110 students

Semester I 2009/2010

BMM4723 Mechanism Design (c) ; 3 credits ; 4 hours/week ; 30 students
BMM1011 Fundamental of Engineering; 1 credit ; 1 hour/week ; 210 students
BMM4924 Supervisor of PSM 2 ; 3 students

Semester II 2008/2009

BMM4723 Mechanism Design (c) ; 3 credits ; 4 hours/week ; 30 students
BMM3912 Supervisor of PSM 1 ; 3 students
BMM4999 Supervisor of Industrial Training ; 9 students

Semester I 2008/2009

BMM4723	Mechanism Design (c) ; 3 credits ; 4 hours/week ; 52 students
BMM3011	Engineer & Society (c) ; 1 credit ; 1 hour/week ; 215 students
BMM4924	Supervisor of PSM 2 ; 7 students
BMM4999	Supervisor of Industrial Training ; 4 students

Semester III 2007/2008

BMM1543	Strength of Materials ; 3 credits ; 6 hours/week ; 27 students
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Semester II 2007/2008

BMM1553	Dynamics (c) ; 3 credits ; 9 hours/week ; 183 students
BMM3912	Supervisor of PSM 1 ; 7 students
BMM4999	Supervisor of Industrial Training ; 9 students
DMM2523	Dynamics (c) ; 3 credits ; 3 hours/week ; 2 students

Semester I 2007/2008

BMM2613	Computer Aided Design ; 3 credits ; 4 hours/week ; 30 students
BMM4924	Supervisor of PSM 2 ; 8 students

Semester II 2006/2007

BMM1543	Strength of Materials (c) ; 3 credits ; 3 hours/week ; 72 students
BMM4723	Mechanism Design (c) ; 3 credit ; 4 hours/week ; 56 students
BMM3912	Supervisor of PSM 1 ; 8 students
BMM4999	Supervisor of Industrial Training ; 3 students

Semester I 2006/2007

BMM3623	Mechanical Design (c) ; 3 credits ; 9 hours/week ; 214 students
BMM4924	Supervisor of PSM 2 ; 5 students
DMM3914	Supervisor of PTA ; 2 students

Semester II 2005/2006

BMM1543	Strength of Materials (c) ; 3 credits ; 9 hours/week ; 203 students
BMM3912	Supervisor of PSM 1 ; 5 students
DMM3999	Supervisor of Industrial Training ; 6 students

Semester I 2005/2006

DMM1132	Engineering Mathematics 1 (c) ; 2 credits ; 3 hours/week ; 53 students
DMM2112	Engineering Statistics (c) ; 2 credits ; 3 hours/week ; 56 students
DMM3914	Supervisor of PTA ; 1 student

* Note: (c) is Course Coordinator

Post Graduate Supervision

PhD Degree Supervision

1. Mohammed Midhat Hasan (PMM14005), Dissimilar Friction Stir Welding Of High Strength Aluminium Alloy (**Completed**) – Co-Supervisor
2. Mohammed Aussama Abbas (PMM14012), Development of Sugar Palm Fibre Reinforced Polyurethane Composites for Automotive Applications (**Completed**) – Co-Supervisor
3. Idris Bin Mat Sahat (PMM15010), Fiber Reinforced Polymer Products with Fused Deposition Modelling Approach (On-going) - Main Supervisor
4. Nor Akmal Binti Halim (PMM16003), Development Of Bio-Based Polymeric Composites Comprising Polylactic Acid (PLA) And Sugar Palm Fibres (On-going) – Co-Supervisor
5. Mohammad Hazim Bin Mohamad Hamdan (PMM16011), Natural Woven Fabric Reinforced Epoxy and Polyester Composite (On-going) - Co-Supervisor
6. Nik Siti Hasniati binti Nik Leh (PMM17012), Perforation Phenomenon and Failure Modes of Aluminium Plate Impacted by Various Projectile Nose Shapes under High Velocity Impact (On-going) – Main Supervisor.
7. Mohd Irman Bin Ibrahim (PMM17014), Composite B-Pillar Structure for Vehicle Protection Application (On-going) – Main Supervisor.
8. Mohd Fadhil Bin Rani (PMM17015), Development of Fibre Metal Laminate Materials for Automotive Components (On-going) – Main Supervisor.

Master Degree Supervision

1. Noor Zakiah Binti Md Zaid (MMM14038), Mechanical Performance of Lightweight Sandwich Structures Based on Trapezoidal Corrugated-cores (**Completed**) - Main Supervisor
2. Zahidah Binti Ansari (MMF15010), Development of Biodegradable Square Honeycomb Composite Sandwich Structure (**Completed**) – Main Supervisor
3. Nor Khaleeda Binti Romli (MMM16033), Quasi-static Behaviour of Fibre Metal Laminate for Automotive Application (**Completed**) – Main Supervisor
4. Ahmad Fahmy Bin Jusoh (MMM14045), Characterization of Natural Fibre Polymer Sandwich Structure based on Corrugated-core (Waiting for Viva) – Main Supervisor
5. Ma Quanjin (MMM17006), Development of Portable Filament Winding Machine (Waiting for Viva) - Main Supervisor
6. Mohamad Nazirul Mubin Bin Merzuki (MMM17020), Dynamical Behaviour of Fibre Metal Laminates by Free Vibration Method (On-going) - Main Supervisor
7. Davindra Brabu A/L Mathivanan (MMM14020), The Study of Mechanical Properties of Pineapple Leaf Fibre to Reinforce Tapioca Bioplastic based Resin Composite (On-going) – Co-Supervisor
8. Nur Syazwani Binti Mohd Noor (MMM14039), Enhanced Driver Seating Comfort In A Small Size Car Through Digital Human (Submitted) – Co-Supervisor
9. Nor Faezah Binti Hamzah (MSM16003), Mechanical Properties Of Treated Sugar Palm Fibre Reinforced Thermoplastic Polyurethane Composites (On-going) – Co-Supervisor
10. Ahmad Kamil Bin Mohamad (KMM15013), Periodic Two-dimensional Self-Reinforced Polypropylene Honeycomb Cores for Sandwich Structures (**Completed**) – Main Supervisor
11. Tuan Mohd Shakir Bin Abu Bakar (KMM15018), Energy Absorption Characteristic of Circular Tubes under Compression Loading (**Completed**) - Main Supervisor
12. Nik Siti Hasniati Binti Nik Leh (KMM15019), Finite Element Simulation of High Velocity Projectile Impact (**Completed**) – Main Supervisor
13. Zikriah Binti Zakaria (KMM15021), Finite Element Analysis of Thin-walled Tube Structures under Axial Compression Load (**Completed**) – Main Supervisor
14. Nor Hazwani Binti Mohd Yusof (KMM16008), Finite Element Analysis of Tube Structures under Oblique Impact (**Completed**) – Main Supervisor
15. Mohd Noorazam Bin Borhan (KMM16003), Finite Element Analysis of Pressure Vessel with Different Head Design (**Completed**) – Co-Supervisor

Post Graduate Examiner

1. Lingenthiran A/L Samylingam (MMM13011) Master of Engineering - Hybrid Fiber Composite For Knee Pad Development, Master of Mechanical Engineering, Universiti Malaysia Pahang
2. Muhammad Doris, Master of Science - Infiltration of PCPDTBT into Nanoporous Alumina using Centrifugal and Polymer Melt Techniques, Universiti Malaya

Degree / Final Year Supervision

Degree Final Year Project (PSM) Supervision

1. Hazizie Bin Hazuan (HB13009), 2017/2018 – Parametric Study on Optimization of Composite B-Pillar
2. Azhar Bin Mohd Jusoh (HB13014), 2017/2018 - Bending Strength and Energy Absorption of Metal Sandwich Corrugated Structure for Automotive Protection
3. Mohamad Hakim Bin Mohd Rosli (MA14078), 2017/2018 – Indentation Study on Glass Fibre Reinforced Plastic (GFRP) Plate
4. Muhamad Amirul Hafiz Bin Darus (MA14190), 2017/2018 – Tensile Test with Digital Image Correlation
5. Nurul Atiqah Binti Razali (HB12010), 2016/2017 – Analysis of Commercial Vehicle Armrest by Using Natural Fibre Reinforced Polymer Composite
6. Muhammad Izzat Bin Mat Daim (HB12014), 2016/2017 – Crashworthiness Analysis for Foam-filled Automotive Bumper Beam
7. Mohamad Nazirul Mubin Bin Merzuki (MA13203), 2016/2017 – Mechanical Behaviour of Aluminium/Glass Fiber-Metal Laminates subjected to Lateral Indentation
8. Nor Khaleeda Binti Romli (MC12017), 2015/2016 – Characterisation of Two-Dimensional Corrugated Core Under Compression Loading
9. Mohd Syafiq Bin Abdul Jalili (MA11145), 2015/2016 – Sensitivity Analysis of Bi-axial Test Rig
10. Nur Dina Binti Suhaimi (MG12011), 2015/2016 – Analysis of Kenaf Composite Corrugated Core
11. Muhammad Fahmi Bin Rosnam (MH11058), 2014/2015 – Mechanical Behaviour and Numerical Simulation of Mercedes Benz Coil Spring under Static Service
12. Muhammad Haziq Bin Mazlan (MH11042), 2014/2015 – Development of Fibre Reinforced Composite Monoleaf Spring using E-Glass Fiber for Automotive Suspension Application

13. Nursyaza Dinie Binti Mohamad Marzuki (MG11013), 2014/2015 – Crushing Behaviour of Composite Square Honeycomb Structure
14. Ting Ai Lan (MC11043), 2014/2015 – Open Hole Tension Characteristics of Glass/Polyester Composite
15. Tan Cheng Wen (MG11018), 2014/2015 - Crushing Behaviour of Composite Square Honeycomb Structure: A Finite Element Analysis. **First-class student*
16. Radin Mohd Ali Radin Bahrom (MA06040), 2008/2009 - Development of a User-Friendly Software Tool for the Stress and Failure Analysis of Composites
17. Mogan Arasappan (MA06043), 2008/2009 - Development of Controller Software System for Cam Manufacturing Machine
18. Yusrie Mohd Yamin (MA06092), 2008/2009 - Development of Variable Loading Rig for Biaxial Testing of Polymeric Foam Cores
19. Teoh Sun Jie (MA05026), 2007/2008 – Computer Aided Interactive Pressure Vessel Design
20. Tengku Fakhruzzaman Bin Tengku Yusoff (MA05042), 2007/2008 – Computational Analysis of Heat Transfer Rate using Thermal Response Factor Method
21. Azizie Bin Nasir (MA05039), 2007/2008 – Design and Analysis of Polymeric Foam Spraying Machine
22. Mohd Hakimi Bin Omar (MA05037), 2007/2008 – Flexural Behaviour of Composite Sandwich Structure
23. Ahmad Faiz Bin Fauzee (MA05048), 2007/2008 – Analysis of Composite Cone under Compression Test
24. Mohd Sobri Bin Husain (MA05009), 2007/2008 – Design and Analysis of Disk Cam Motion for Follower Shapes in Horizontal Position
25. Mohd Rizal Hilmie Bin Abd Rahman (MA05078), 2007/2008 – Design and Analysis of Disk Cam Motion for Follower Shapes in Vertical Position
26. Wan Anuar Bin Wan Hassan (MC04004), 2006/2007– Energy Absorption and Microstructure Analysis of Polymeric Foam, **First-class student and received Anugerah Pelajaran Di-Raja in 3rd UMP Convocation 2008.*
27. Nuzul Umi Bt Ahmad Tarmidi (MD04017), 2006/2007 – Compression Behaviour of Polymeric Foam Cores
28. Chan Wai Theng (MD04030), 2006/2007 - The Effects of Fibre Volume Fraction of Composite Plate, **First-class student and received Anugerah Pelajaran Di-Raja in 3rd UMP Convocation 2008.*
29. Haneef Bin Wan Burhan (MA04016), 2006/2007 - Torsion Strength to the Different Types of Specimen and Cross-Section Shape
30. Umayr Hasan Bin Sohaimi (MC04006), 2006/2007 - Fatigue Strength to the Different Types of Specimen and Cross-Section Shape
31. Syed Mohd Annasrullah B. Syed Abu Bakar (ME04026), 2006/2007 - Design and Analysis of An Automated Winding System For Filament Winding Machine
32. Nor Shazila Bte Shamsuddin (MF04030), 2006/2007 - Analysis of Filament Winding for Composite Cylinders
33. Mohd Solahuddin Bin Abdullah (MA05012), 2006/2007 - Design and Analysis of Composite Fisherman Boat
34. Norshidah Bt Mohamad (MA03043), 2005/2006 – Stacking Sequence Design of Composite Laminates for Maximum Strength Using Genetic Algorithm (GA)
35. Mohd Asyraf Bin Othman (MA03015), 2005/2006 – Engineering Design Analysis of Glass-Fibre Reinforced Plastic (GFRP) for High Capacity Water Storage Tank
36. Mohd Iqbal Bin Abdul Halim (MA03038), 2005/2006 – Lamination of Glass Fiber Design for Artificial Femur
37. Nurlita Binti Samsudin (MA03046), 2005/2006 – Modeling of Polymer Matrix Composite (Hand Lay-up Method), *Co-Supervisor*
38. Mohd Syafiq Bin Sulong (MA03028), 2005/2006 – The Tensile Properties of Injection-Molded Glass Fiber-Reinforced Polymer Composites, *Co-Supervisor*

Diploma Final Year Project (PTA) Supervision

1. Ahmadkamalimran Bin Mohd Zuber (MB15143), 2017 – Design and Fabrication of Nose Indenter Profiles
2. Muhamad Faiz Bin Noraizi (MB14109), 2016 - Clamp Flexural Test Fixture for Foam Sandwich Panel
3. Eshvinder Singh Randhawa (MB13125), 2015 – Design and Fabrication of Tensile and Compression Specimens Mould
4. Nur Shaidatunajwa Binti Ahmad Roki (MB13150), 2015 – Design and Fabrication of Modified Compression Specimen Support Jig
5. Mohd Zaidi Jaafar (MB12072), 2015 – Design and Fabrication of Multiaxial Test Rig
6. Muhammad Nur Ariff Hakimi Bin Mohd Jaafar (MB12129), 2014 – Design and Fabrication of Trapezium Corrugated Moulds
7. Vee Sak A/L Kim Lai (MB12133), 2014 – Design and Fabrication of Tension Foam Test Rig
8. Mohd Zulfadhli Bin Abd Wahab (MB04034), 2006 – Design and Fabrication of Shear Test Rig for Sandwich Cores

9. Mohd Ezuwanizam Bin Masral (MB04068), 2006 – Design and Fabrication of Climbing Drum Peel Test Rig for Sandwich Cores
10. Mohd Hisyam Bin Abd Ghafar (MB03020), 2005 – Design and Fabrication of KUKTEM Go-Kart (Testing: Track Design and Modification)

List of Publications

Journal

Selected Papers:

1. A.A.Mohammed, D.Bachtiar, **M.R.M.Rejab**, J.P. Siregar “*Effect of microwave treatment on tensile properties of sugar palm fibre reinforced thermoplastic polyurethane composites*”. 2018. Defence Technology, Vol. 14, Issue 4, pp. 287-290.
2. .A.Mohammed, D.Bachtiar, **M.R.M.Rejab**, X.X. Jiang, Falak O. Abas, Raghad U. Abass, S.F.Hasany.J.P. Siregar “*Effect of KMnO₄ treatment on the flexural, impact and thermal properties of sugar palm fiber-reinforced thermoplastic polyurethane composites*”. 2018. The Journal of The Minerals, Metals & Materials Society, Vol. 70, Issue 7, pp. 1236-1330.
3. N.A.Halim, J.P.Siregar, D.Mathivanan, D.Bachtiar, Z.Ghazali, **M.R.M.Rejab**, C.Tezara. “The performance of mengkuang leaf fiber reinforced low density polyethylene composites”. 2018. Journal of Mechanical Engineering and Sciences (JMES). Vol. 12(2), pp.3645-3655.
4. Mohammed M.Hasan, M.Ishak, **M.R.M.Rejab**. “*Effect of pin tool flute radius on the material flow and tensile properties of dissimilar friction stir welded aluminum alloys*”. 2018. The International Journal of Advanced Manufacturing Technology, Vol. 92, Issue 9-12, pp. 1-12.
5. Ma Quanjin, **M.R.M.Rejab**, M.S.Idris, M.Amiruddin, D.Bachtiar, J.Siregar, M.I.Ibrahim. “*Design of 3-axis filament winding machine with inexpensive control system*”. 2018. Journal of Mechanical Engineering and Sciences (JMES). Vol. 12(1), pp.3479-3493.
6. T.M.Yusof, H.Ibrahim, W.H.Azmi, **M.R.M.Rejab**. “*The thermal characteristics and performance of a ground heat exchanger for tropical climates*”. 2018. Renewable Energy, Vol. 121, pp. 528-538
7. T.M.Yusof, H.Ibrahim, W.H.Azmi, **M.R.M.Rejab**. “*Thermal analysis of earth-to-air heat exchanger using laboratory simulator*”. 2018. Applied Thermal Engineering, Vol. 134, pp. 130-140.
8. Z.Ansari, C.W.Tan, **M.R.M.Rejab**, D.Bachtiar, J.Siregar, M.Y.M.Zuhri, N.S.D.M.Marzuki. “*Crushing behaviour of composite square honeycomb structure: a finite element analysis.*” 2017. Journal of Mechanical Engineering and Sciences (JMES). Vol. 11 (2), pp.2637-2649
9. Mohammed M.Hasan, M.Ishak, **M.R.M.Rejab**. “*Influence of machine variables and tool profile on the tensile strength of dissimilar AA7075-AA6061 friction stir welds*”. 2017. The International Journal of Advanced Manufacturing Technology, Vol. 90, Issue 9-12, pp. 2605-2615.
10. A.A.Mohammed, D.Bachtiar, **M.R.M.Rejab**, S.F.Hasany. “*Effect of Potassium Permanganate on Tensile Properties of Sugar Palm Fibre Reinforced Thermoplastic Polyurethane*”. 2017. Indian Journal of Science and Technology, Vol. 10, Issue 7, pp. 13-20.
11. Mohammed M.Hasan, M.Ishak, **M.R.M.Rejab**. “*Effect of backing material and clamping system on the tensile strength of dissimilar AA7075-AA2024 friction stir welds*”. 2017. The International Journal of Advanced Manufacturing Technology, pp. 1-17
12. D.B.Mathivanan, J.P.Siregar, **M.R.M.Rejab**, D.Bachtiar, Y.P.Asmara and T. Cionita. “*The mechanical properties of alkaline treated pineapple leaf fibre to reinforce tapioca based bioplastic resin composite*”. 2017. Materials Science Forum, Vo. 882, pp. 66-70.
13. N.K.Romli, **M.R.M.Rejab**, D.Bachtiar, J.Siregar, M.F.Rani, W.S.W.Harun, Salwani Mohd Salleh, M.N.Merzuki. “*The behaviour of Aluminium Carbon/Epoxy fibre metal laminate under quasi-static loading*”. 2017. IOP: Material Science and Engineering, Vol. 257, pp. 012046.
14. Ma Quanjin, **M.R.M.Rejab**, M.S.Idris, D.Bachtiar, J.Siregar, M.N.Harith. “*Design and optimize of 3-axis filament winding machine*”. 2017. IOP: Material Science and Engineering, Vol. 257, pp. 012039.
15. X.X.Jiang, H.Ji, **M.R.M.Rejab**, S.Zhang, M.Ishak, L.Zhu. “*Geometrical parameters influence on the stiffness of steel sandwich plates with web-core*”. 2017. IOP: Material Science and Engineering, Vol. 257, pp. 012081.
16. Mohammed M.Hasan, M.Ishak, **M.R.M.Rejab**. “*Effect of pin tool design on the material flow of dissimilar AA7075-AA6061 friction stir welds*”. 2017. IOP: Material Science and Engineering, Vol. 257, pp. 012022.
17. M.H.M.Hamdan, J.P.Siregar, D.Bachtiar, **M.R.M.Rejab**, M.Samykano, E.H.Agung, C.Tereza, J.Jaafar. “*Effect of alkaline treatment on mechanical properties of woven ramie reinforced thermoset composite*”. 2017. IOP: Material Science and Engineering, Vol. 257, pp. 012044.
18. N.S.M.Noor, Z.Ghazalli, **M.R.M.Rejab**, F.A.Fauzi, R.Mamat, K.Kadrigama, M.S.M.Sani, Z.Ahmad, N.H. Johari. “*A comparison of Muscular Activity Among European, Korea and Malaysia during seating using Musculoskeletal computational analysis method*”. 2017. Advanced Science Letter, Vol. 23, pp. 11467 – 11470.
19. Z. Ansari, **M.R.M.Rejab**, D.Bachtiar, J.Siregar. “*Crushing Response of Green Square Honeycomb Structure from Sugar Palm & PLA*”. 2017. Materials Science Forum, Vol. 99, pp. 122-126.

20. N.Z.M.Zaid, **M.R.M.Rejab**, A.F.Jusoh, D.Bachtiar, J.P.Siregar. "Effect of varying geometrical parameters of trapezoidal corrugated-core sandwich structure". 2017. MATEC Web of Conferences, Vol. 90, pp. 10-18
21. A.A. Mohammed, D. Bachtiar, J.P. Siregar, **M.R.M.Rejab**, S.F.Hasany. "Physicochemical study of eco-friendly sugar palm fiber thermoplastic polyurethane composites". 2016. BioResources. Vol. 11 (4), pp. 9438-9454
22. M. Fauziah, K. Azwan, A. Masniezam, **M.R.M. Rejab**. "Foam filling effectiveness of conical aluminium tubes under dynamic axial and oblique loading". 2016. ARPN Journal of Engineering and Applied Sciences, Vol. 11, pp. 7741-7747.
23. N.Z.M.Zaid, **M.R.M.Rejab**, A.F.Jusoh, D.Bachtiar, J.P.Siregar, Z.D.Ping. "Fracture behaviours in compression-loaded triangular corrugated core sandwich panels". 2016. MATEC Web of Conferences. Vol. 78, pp. 01041
24. A.F.Jusoh, **M.R.M.Rejab**, J.P.Siregar, D.Bachtiar. "Natural fiber reinforced composites: A review on potential for corrugated core of sandwich structures". 2016. MATEC Web of Conferences, Vol. 74, pp. 00033
25. D.Mathivanan, H.Norfazilah, J.P.Siregar, **M.R.M.Rejab**, D.Bachtiar and T.Cionita. "The study of mechanical properties of pineapple leaf fibre reinforced tapioca based bioplastic resin composite". 2016, MATEC Web of Conferences. Vol 74, pp. 00016
26. M.A.Aussama, D.Bachtiar, J.P.Siregar, **M.R.M.Rejab**. "Effect of sodium hydroxide on the tensile properties of sugar palm fibre reinforced thermoplastic polyurethane composites." 2016. Journal of Mechanical Engineering and Sciences (JMES). Vol. 10 (1), pp.1765-1777
27. **M.R.M.Rejab**, N.Z.M. Zaid, J.P.Siregar and D.Bachtiar. "Scaling effects for compression loaded of corrugated-core sandwich panels". 2016. Advanced Materials Research, Vol. 1133, pp. 241-245
28. Mohammed.M.Hasan, M.Ishak, **M.R.M.Rejab**. "A simplified design of clamping system and fixtures for friction stir welding of aluminium alloys." 2015. Journal of Mechanical Engineering and Sciences (JMES), Vol. 9, pp. 1628-1639
29. **M.R.M.Rejab**, W.A.W.Hassan, J.P.Siregar and D.Bachtiar. "Specific properties of novel two-dimensional square honeycomb composite structures". 2015. Applied Mechanics of Materials, Vol. 695, pp. 694-698
30. D. Mathivanan, J.P. Siregar, D. Bachtiar, **M.R.M. Rejab** and T. Cionita. "Effect of fibre loading on the flexural properties of natural fibre reinforced polymer composites". 2015. Applied Mechanics and Materials, Vol. 695, pp. 85-88.
31. D. Bachtiar, J.P. Siregar, A.S. Sulaiman and **M.R.M. Rejab**. "Tensile properties of hybrid sugar palm/kenaf fibre reinforced polypropylene composites". 2015. Applied Mechanics and Materials, Vol. 695, pp. 155-158.
32. J.P. Siregar, T. Cionita, D. Bachtiar and **M.R.M. Rejab**. "Tensile properties of pineapple leaf fibre reinforced unsaturated polyester composites". (2015) Applied Mechanics and Materials, Vol. 695, pp. 159-162
33. **M.R.M.Rejab**, K.Ushijima, W.J.Cantwell. "The shear response of lightweight corrugated core structures". 2013. Journal of Composite Materials, Vol. 48(30), pp. 3785-3798.
34. **M.R.M.Rejab**, W.J.Cantwell. "The mechanical behaviour of corrugated-core sandwich panels". 2013. Composites Part B: Engineering; Vol. 47, pp. 267-277.
35. K.Kadrigama, M.M.Noar, N.M.Zuki.N.M, M.M.Rahman, K.A.Abou-El-Hossein, **M.R.M.Rejab**, R.Daud "Optimization of Cutting Force and Surface Roughness in End Milling on Mould Aluminium Alloys (AA6061-T6) using Response Surface Method and Radian Basis Function Network" 2008. International Journal of Jordan Mechanical Engineering & Industry, Vol. 4, Number 4, pp. 209 – 214.
36. Amran Alias, **Mohd Ruzaimi Mat Rejab**, Mohd Radzai Mohamad, Hazizan Md Akil & Nor Azlan Ahmad Nor, "Behaviour of Circular Sandwich Panel Under Static Loading". Jurnal Mekanikal Universiti Teknologi Malaysia, 2005, Vol. 20, pp. 78-95.
37. Amran Alias, **Mohd Ruzaimi Mat Rejab**, Mohd Radzai Mohamad, Hazizan Md Akil & Nor Azlan Ahmad Nor, "Behaviour of Circular Sandwich Panel Under Dynamic Loading". Jurnal Mekanikal Universiti Teknologi Malaysia, 2005, Vol. 20, pp. 96-111.

Conference

Selected Papers:

1. **M.R.M.Rejab**, D.Bachtiar, J.P.Siregar, P.Paruka, B.Zhang, W.J.Cantwell. "The Mechanical Behavior of Foam-filled Corrugated Core Sandwich Panels in Lateral Compression". Proceedings of the American Society for Composites: Thirty-First Technical Conference (ASC2016), 19 – 22 September 2016, Williamsburg, Virginia, USA.
2. **M.R.M.Rejab**, S.H.S.M.Fadzullah, K.A.Kamarudin, F.Mat. "Numerical modelling of triangular corrugated-core sandwich panel subjected to impact loading", Malaysian Technical Universities Conference on Engineering and Technology (MUCET14), Bandar Hilir, Melaka, 10~11 November 2014.
3. **M.R.M.Rejab**, M.M.Issa, W.J.Cantwell. Novel lightweight composites cores for aerospace applications, 33rd SAMPE EUROPE International Conference (SEICO 12), 2012, Paris, France.

4. **M.R.M.Rejab**, W.J.Cantwell. Fracture modes in compression-loaded corrugated-core sandwich panels, 11th Annual Composites UK Conference, 2011, Manchester, UK.
5. **M.R.M.Rejab**, W.J.Cantwell. Mechanical behaviour of corrugated-core sandwich panels under compression, 32nd SAMPE EUROPE International Conference (SEICO 11), 2011, Paris, France.
6. **M.R.M.Rejab**, W.J.Cantwell. Compression behaviour of super lightweight alloy for corrugated-core panels, 1st Annual UK-Malaysia-Ireland Engineering Science Conference (UMIES2010), 2010, Northern Ireland, UK.
7. Rafidah Hasan, Robert Mines, **Mohd Ruzaimi Mat Rejab** & Wesley Cantwell. Design of Micro-Lattice Structures for Optimal Foreign Object Impact Performance in Sandwich Structures, 1st Annual UK-Malaysia-Ireland Engineering Science Conference (UMIES2010), 2010, Northern Ireland, UK.
8. **M.R.M.Rejab**, M.S.M.Sani, M.M.Noor, K.Kadrigama, M.M.Rahman, A.Alias, Mechanical behaviour of polymeric foam core at various orientation angles, 11th International Conference on Optimum Design of Structures and Materials in Engineering (OPTI09), 2009, Algarve, Portugal.
9. **M.R.M.Rejab**, M.M.Rahman, M.M.Noor and K.Kadrigama, "*Effect of Multiaxial Testing on Polymeric Foams Performance for Shear-Compressive Loading*" 2nd Regional Engineering Conference on Sustainable Engineering Infrastructures Development & Management (ENCON 08), 18-19 December Crowne Plaza Riverside Hotel, Kuching, Sarawak, Malaysia, 2008.
10. Thet T. Mon, Mohd A. Azmir, **Mohd R. M. Rejab** and Mohd A.M. Saleh, "*Impact Response of Composite Material – Computational and Experimental Results*" 2nd Regional Engineering Conference on Sustainable Engineering Infrastructures Development & Management (ENCON 08), 18-19 December Crowne Plaza Riverside Hotel, Kuching, Sarawak, Malaysia, 2008.
11. K.Kadrigama, M.M.Noor, M.M.Rahman, **M.R.M.Rejab**, M.S.M.Sani, N.M.Zuki.N.M, Rosli A. Bakar, "*Prediction Modelling of Torque in End-Milling*", 2nd Regional Engineering Conference on Sustainable Engineering Infrastructures Development & Management (ENCON 08), 18-19 December Crowne Plaza Riverside Hotel, Kuching, Sarawak, Malaysia, 2008.
12. M.M.Noor, K.Kadrigama, M.M.Rahman, M.S.M.Sani, **M.R.M.Rejab**, "*Development of Auto Car Jack Using Internal Car 12 volts Power*", Malaysian Science and Technology Congress, MSTC08, 16~17 Dec, KLCC, Malaysia, 2008.
13. M.M.Rahman, M.M.Noor, **M.R.M.Rejab**, M.S.M.Sani, K.Kadrigama, "*Study of Air Fuel Ratio on Performance of Direct Injection Hydrogen Fueled Engine*", Malaysian Science and Technology Congress, MSTC08, 16~17 Dec, KLCC, Malaysia, 2008.
14. M.S.M.Sani, M.M. Rahman, M.M.Noor, K.Kadrigama, **M.R.M.Rejab**, "*Study on Dynamic Characteristics of Automotive Shock Absorber System*", Malaysian Science and Technology Congress, MSTC08, 16~17 Dec, KLCC, Malaysia, 2008.
15. **M.R.M.Rejab**, M.M.Rahman, Z.Hamedon, M.S.M.Sani, M.M.Noor, K.Kadrigama, "*An Evaluation of Profiles for Disk Cams with In-line Roller Followers in Horizontal Position*", Malaysian Science and Technology Congress, MSTC08, 16~17 Dec, KLCC, Malaysia, 2008.
16. K.Kadrigama, M.M.Noor, R.Daud, **M.R.M.Rejab**, Z.Ghazalli, Z.Hamedon, "*Development of New Genetic Algorithm Software for Blow Mould Process*", Malaysian Science and Technology Congress, MSTC08, 16~17 Dec, KLCC, Malaysia, 2008.
17. K.Kadrigama, M.M.Noor, N.M.Zuki N.M., **M.R.M.Rejab**, B.Mohammad, "*Prediction of Cutting Force by Numerical Solution and Statistic Method in End-Milling Operation*", 2nd International Conference on Science and Technology, Applications in Industry and Education, ICSTIE08, 12~13 December, UiTM Penang, Malaysia, 2008.
18. **M.R.M.Rejab**, K.Kadrigama, M.M.Noor, M.S.M.Sani, R.Daud, "*Modification and Testing of Four Axes Filament Winding Machine*", 2nd International Conference on Science and Technology, Applications in Industry and Education, ICSTIE08, 12~13 December, UiTM Penang, Malaysia, 2008.
19. M.M.Noor, R.Daud, K.Kadrigama, **M.R.M.Rejab**, N.M.Zuki N.M, Z.Hamedon, S.N.Azizan, "*Development of Turret Punch Cutting Tool using Reverse Engineering Method*", National Conference on Design and Concurrent Engineering (DECON08), 28-29th October, Avillion Legacy Hotel, Melaka, 285-288, ISBN 978-983-2948-54-4, 2008.
20. M.M.Noor, K.Kadrigama, 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.
21. M.M.Noor, K.Kadrigama, **M.R.M.Rejab**, M.S.M.Sani, A. Sulaiman, M.M.Rahman, A.N.M.Rose, R.A.Bakar, Abdullah Ibrahim "*Quality Management System in the Implementation of OBE at Faculty of Mechanical Engineering, Universiti Malaysia Pahang*", 4th. International Conference on University Learning and Teaching (InCULT08), Concorde Hotel, Shah Alam, 20-21 October, 277~285, 2008.
22. K.Kadrigama, M.M.Noor, **M.R.M.Rejab**, A.N.M.Rose, N.M. Zuki N.M., M.S.M.Sani, A.Sulaiman, R.A.Bakar, Abdullah Ibrahim, "*Importance of the Pre-Requisite Subject*", 4th. International Conference on University Learning and Teaching (InCULT08), Concorde Hotel, Shah Alam, 20-21 October, 168~172, 2008.
23. **M.R.M.Rejab**, M.M.Noor, M.M.Rahman, A.Sulaiman, K.Kadrigama, M.S.M.Sani, A.N.M.Rose, M.N.O.Zahid, R.A.Bakar, "*Implementation of Outcome-Based Education in the Faculty of Mechanical*

- Engineering, Universiti Malaysia Pahang: An Experience*", 4th. International Conference on University Learning and Teaching (InCULT08), Concorde Hotel, Shah Alam, 20-21 October, 311~316, 2008.
24. M.S.M.Sani, M.M.Noor, A.Senawi, A.Sulaiman, **M.R.M.Rejab**, "Assessment of the Mechanical Engineering Programs by Exit Surveys at University Malaysia Pahang", 4th. International Conference on University Learning and Teaching (InCULT08), Concorde Hotel, Shah Alam, 20-21 October, 317~322, 2008.
 25. K.Kadrigama, K.A.Abou-El-Hossein, M.M.Noor, **M.R.M.Rejab**, B.Mohammad, "Modelling of Tool Life when Milling Nickel Base Super alloys with Two Differently Coated Carbide Inserts", 2nd South African International Aerospace Symposium (SAIAS08), 14~16Sep, Stellenbosch, South Africa, 1~7, 2008.
 26. M.M. Rahman, A.K. Ariffin, S. Abdullah, **M.R.M.Rejab** and Rosli A. Bakar, "Durability Assessment of cylinder block for two-stroke free piston linear engine using narrow band approach", 2nd Regional Conference on Vehicle Engineering and Technology (RIVET 2008), 15-17 July 2008, Kuala Lumpur, Malaysia.
 27. N. M. Zuki. N. M., M.M.Noor, M.M.Rahman, K.Kadrigama and **M.R.M.Rejab** "Investigation Into The Effect of Materials on Joining for Automotive Panel", 2nd Regional Conference on Vehicle Engineering and Technology, RIVET08. 15~17 July, Kuala Lumpur, 2008.
 28. M.M.Noor, M.M.Rahman, K.Kadrigama, **M.R.M.Rejab**, Z. Ghazalli, M.A. Hassan, "Development of a Cutting Tool for Printed Circuit Board using Mild Steel", 7th UMT International Symposium on Sustainability Science and Management (UMTAS) 8-10 June, 2008. ISBN 978-983-2888-72-7.
 29. A.N.M.Rose, M.M.Noor, M.M.Rahman, **M.R.M.Rejab**, M.S. Reza, M.Khairif, "Polypropylene Reinforced with Recycle Polyethylene Terephthalate as an Alternative Material for New Plastic Product", 7th UMT International Symposium on Sustainability Science and Management (UMTAS) 8-10 June, 2008. ISBN 978-983-2888-72-7.
 30. **M.R.M.Rejab**, N. U. A. Tarmidi, N.M.Zuki.N.M and M.M.Noor, "Strain Rate Effects of Polymeric Foam Cores under Compressive Loading", Science, Technology and Social Science Conference, Pahang. 3~4Jun, vol. 1, 267~275. ISBN 978-983-2607-17-5, 2008.
 31. T. T. Mon, Rosli. A. B., W. A. W. Yusoff, M.M.Noor, **M.R.M.Rejab**, "Finite Element Prediction of Heat-Affected Zone in Laser-micromachining of Silicon", International Conference on MEMS and Nanotechnology, ICNM08, IEEE Transaction, 13~15May 2008.
 32. K.Kadrigama, M.M.Noor, A.R.N.A. Rahim, 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", Malaysian Technical Universities Conference on Engineering and Technology (MUCET08), Kangar, Putra Palace, Malaysia, 15~16 March, vol. 2, 99~104. ISBN 978-983-42358-4-0, 2008.
 33. **M.R.M.Rejab**, C.W.Theng, M.M.Rahman, M.M.Noor and A.N.M.Rose, "An Investigation into the Effects of Fibre Volume Fraction on GFRP Plate", Malaysian Technical Universities Conference on Engineering and Technology (MUCET08), Kangar, Putra Palace, Malaysia, 15~16 March, vol. 2, 136~142. ISBN 978-983- 42358-4-0, 2008.
 34. M.M.Rahman, Rosli A. B., M.M.Noor, M. S. M. Sani and **M.R.M.Rejab**, "Fatigue Analysis of Spot-Welded Joints using Finite Element Analysis Approach", Regional Conference on Computational and Experimental Mechanics(CEM), Putrajaya, Palm Garden Hotel, Malaysia, 27-28 November, 228~238. 2007.
 35. **Mohd Ruzaimi Mat Rejab**, Hasnulfikri Mahbot & Shukur Abu Hasan, "Failure Investigation of GFRP Water Storage Tank: A Case Study at IKBN Jitra, Kedah". National Seminar on Science, Technology & Social Sciences 2006 (STSS), Kuantan, 30-31 May 2006.
 36. **Mohd Ruzaimi Mat Rejab**, Amran Alias, & Hazizan Md Akil, "Experimental Studies on Polymeric Structural Foam Properties". International Advanced Technology Congress 2005, Conference of Advanced Materials CAM 2005, Putrajaya, 6-8 December 2005.
 37. **Mohd Ruzaimi Mat Rejab**, Amran Alias, & Yob Saed Ismail, "Low-velocity Impact Behaviour of Side-door Impact Beam filled with PUR Foam". National Conference on Advances in Mechanical Engineering, NAME 2005, Mid Valley, 18-20 May 2005.
 38. **Mohd Ruzaimi Mat Rejab**, Amran Alias, Hazizan Md Akil, Yob Saed Ismail & Kumaaran Arjuman, "Testing and Evaluation of Polymeric Structural Foam". National Seminar on Computational & Experimental Mechanics, CEM 2005, Bangi, 17-18 May 2005.
 39. **Mohd Ruzaimi Mat Rejab**, Amran Alias, Hazizan Md Akil & Yob Saed Ismail, "The Influence of Rigid Polyurethane Foam as Core Material in Automotive Applications". 2nd Colloquium on Postgraduate Research, National Postgraduate Colloquium on Materials, Minerals and Polymer 2004, MAMIP 2004, Pulau Pinang, 7-8 October 2004.
 40. **Mohd Ruzaimi Mat Rejab**, Amran Alias & Yob Saed Ismail, "The Effects of Compaction of Polymeric Structural Foam". Malaysian Science Technology Congress, MSTC 2003, Kuala Lumpur, 15-17 September 2003.
 41. Amran Alias, **Mohd Ruzaimi Mat Rejab** & Hazizan Md Akil, "Rigidity of Foams Used as the Core of Side Door Impact Beams". The 3rd International Conference on Advances in Strategic Technologies 2003, Kuala Lumpur, 12-14 August 2003.

42. **Mohd Ruzaimi Mat Rejab**, Amran Alias & Yob Saed Ismail, "In-situ Technique in Manufacturing Structural Sandwich Beams". Research Seminar on Materials and Constructions 2002, Johor Bahru, 15-16 October 2002.
43. **Mohd Ruzaimi Mat Rejab**, Amran Alias & Yob Saed Ismail, "A Study on the Usage of Rigid Polyurethane Foam in Malaysian Industries". Malaysian Science Technology Congress, MSTC 2002 Symposium A, Johor Bahru, 19-21 September 2002.

List of Consultancy

Professional Services

1. Consultation for Pusat Komposit UTM. Consultation and Fabrication of Fibre Metal Laminate specimens for Blast Test, RM3,000. Vot No. UIC17092 December 2017 (Completed)
2. Consultation for MTBE, Gebeng. The Provision of Fitness for Service through Finite Element Analysis and Failure Analysis Diagram, Vot No. UIC090102 March – June 2014 (Completed)
3. Consultation on Student R&D Development Project for High School, Sekolah Menengah Kebangsaan Abdul Rahman Talib, Kuantan, RM8,000. Mac – Jun 2009 (Completed)
4. Consultation for Pengkalan Offshore Sdn Bhd. The Effect of different quenching rate on the steel microstructure and strength. Vot No. UIC080104. Nov - Dec 2008. (Completed).
5. Consultation for Petronas: The Provision of Fitness for Service through Finite Element Analysis for V-5425 Flare Scrubber, thru UIE-Solution Sdn Bhd, RM9,900, Vot No. UIC080102, Nov 2008, (Completed).
6. Consultation for Petronas Carigali Angsi-B Crane B-7020 Structural Analysis (Researcher), thru RIA-Solution Sdn Bhd, RM12,000. Vot No. UIC080102, Petronas Carigali Sdn. Bhd. thru RIA Solution Sdn. Bhd. Apr ~ July 2008. (Completed)
7. Partially involved as a researcher and consultant on design and fabrication of Rudder and Reverse Trust Unit of the first Malaysian Hi-Tech Hovercraft by Pusat Komposit UTM and CITO Marketing Bhd, 2004.
8. Partially involved as a researcher on fabrication of the first Malaysian Composite Bridge at Taman Tasik UTM by Pusat Komposit UTM, 2004.
9. Partially involved as a consultant on design, testing, fabrication and maintenance of GFRP Water Tank for Autostech Sdn Bhd, Timah Langat Holding, Mokhlas Team Work Sdn Bhd and other water tank fabricators, 2004.

Academic Services

1. Consultancy on MQA Self-Review and Accreditation at Kolej Profesional MARA, Indera Mahkota. 8 August 2017.
2. Coordinator for Latihan Amali Kejuruteraan Semester September 2008: EBMM4103 Strength of Materials and Materials Science, Open University Malaysia (OUM), 15 November 2007.
3. Coordinator for Latihan Amali Kejuruteraan Semester September 2008: EDXS3103 Strength of Materials, Open University Malaysia (OUM), 15 November 2007.
4. Demonstrator for Latihan Amali Kejuruteraan Semester Januari 2007: EBMM4103 Strength of Materials and Materials Science, Open University Malaysia (OUM), 11 March 2007.
5. Demonstrator for Latihan Amali Kejuruteraan Semester Januari 2006: EBMM4103 Strength of Materials and Materials Science, Open University Malaysia (OUM), 5 March 2006.

List of Research / Project

1. The Mechanical Behavior of Sandwich Structures based on Corrugated Cores (Project Leader). International Grant - Ningxia University, from 15 June 2017 – 15 June 2018, RM56,502.11. (UIC171505)
2. Formulation of Initial Flaw Size for New Crack Growth under Fatigue Loading (Researcher) Fundamental Research Grant Scheme (FRGS) from 1 August 2017 – 31 July 2019, RM95,700. (FRGS/1/2017/TK03/UMP/02/24)
3. Peridynamic Modeling of Ductilisation of Lanthanum-based Metallic Glasses Foam (Researcher) Fundamental Research Grant Scheme (FRGS) from 1 August 2017 – 31 July 2019, RM90,700. (FRGS/1/2017/TK05/UMP/01/1)
4. Development of Fibre Metal Laminate Materials for Automotive Application (Project Leader). UMP Internal Grant from September 2016 – August 2018, RM 33,000. (RDU160318)
5. Periodic Two-Dimensional Square honeycomb Structure from Biodegradable Composite: Finite Element Analysis and experimental Investigation (Project Leader). Research Acculturation Collaborative Effort (RACE) from January 2016 – December 2017, RM 50,000. (RACE/F3/TK01/UMP/4)

6. Investigation on Seashell as Additional Armour for Protective Material (Researcher) Fundamental Research Grant Scheme (FRGS) from 1 August 2016 – 31 July 2018, RM46,000. (FRGS/1/2016/TK03/UTHM/03/2)
7. Development of Regenerative Brake Timing Control to Improve the Braking Performance of Small Electric Vehicle (Researcher) RAGS from 30 October 2015 – 30 September 2017, RM 50,000. (RAGS/1/2015/TK0/UMP/02/1)
8. Development of Periodic Two-dimensional Honeycomb Structures for Sandwich Panels (Project Leader). UMP Internal Grant from October 2014 – September 2016, RM 37,000. (RDU143109)
9. Mutiaxial modelling of Corrugated-core Sandwich Structure (Project Leader). Fundamental Research Grant Scheme (FRGS) from July 2014 – June 2017, RM124,000. (FRGS/1/2014/TK01/UMP/02/3)
10. Investigation of Fibre Reinforcement Toward Polymer Production Emphasizing Fused Deposition Modelling (Researcher). UMP Internal Grant from 1 October 2015 – 30 September 2017, RM 20,000. (RDU150387)
11. Computational Method to Estimate Fatigue Life and Durability of Spur Gear by using Stress-Life (SN) and Measurement of Root Stress Data (Researcher). UMP Internal Grant from 25 June 2015 – 24 June 2017, RM 26,500. (RDU150336)
12. Development of Self-Healing Composite Structures (Researcher). UMP Internal Grant from 15 November 2014 – 14 May 2017, RM 30,500. (RDU153121)
13. Enhanced driver seating comfort in a small size car through digital human modelling (DHM) and pressure mapping method (Researcher). Fundamental Research Grant Scheme (FRGS) from 1 September 2014 – 31 August 2017, RM115,100. (FRGS/1/2014/TK01/UMP/02/12)
14. Characterization of Biodegradable Composites Based on Pineapple Leaf Fibre and Tapioca Bioplastic Resin (Researcher). Fundamental Research Grant Scheme (FRGS) from July 2014 – June 2016, RM82,000. (FRGS/1/2014/TK04/UMP/02/4)
15. Development of Welded Stiffener Plates using Dissimilar and Similar Metal Joining Technique (Researcher). UMP Internal Grant from 25 October 2014 – 24 April 2017, RM 35,290. (RDU143114)
16. The effect of PLA matrix architecture on the mechanical performance of PLA-based degradable biocomposites. (Researcher) RAGS from January 2015 – December 2016, RM 50,000. (RAGS/1/2014/TK04/FKM/B00069)
17. Development of Cellular Composite Structure for Lightweight Vehicle Applications (Project Leader). UMP Seed Money from May 2014 – Marc 2015, RM5,000. (RDU141108)
18. Optimization of Grinding Wheel Parameters with Intelligent Techniques (Researcher). UMP Internal Grant from 1 May 2009 – 30 November 2011, RM 40,000. (RDU090374)
19. Investigation of Refrigerator Performance Using Experimental and Simulation Method (Researcher). UMP Internal Grant from 1 August 2009 – 31 July 2011, RM 35,000. (RDU090203)
20. Design and Develop Blow Mould Using Machining Optimization Parameters (Researcher). UMP Internal Grant from 1 August 2009 – 31 July 2010, RM 35,000. (RDU090202)
21. A Novel and Flexible Solar Car Kit for Educational Use (Researcher). UMP Internal Grant from 1 August 2009 – 31 July 2010, RM 32,000. (RDU090201)
22. Development of a Design Evaluation System Software for Home Appliances Remanufacturing (Researcher). Long-term project from July 2008 – January 2010 and funded under Sciencefund, MOSTI grant, RM80,400. (RDU 08050)
23. Utilising multimedia instructional materials on engineering students' creativity (Researcher). Collaboration project from 2008 – 2009 with School of Education Studies, La Trobe University, Australia. Project without grant/funding
24. Analysis of Laser-micromachining of Silicon for MEMS Components (Researcher). Short-term project from 1 August 2008 – 31 July 2009 and funded under RMC UMP grant (RM11,500). Vot: RDU 080325
25. Design and Development of the Multi Purpose Polymer Floor Tile to Meet Performance Needs of Athletes (Researcher). Short-term project from 1 September 2007 – 31 August 2008 and funded under RMC UMP grant (RM19,500). Vot: RDU 070345
26. Development of Cam Manufacturing Machine (Project Leader). Short-term project from 1 April 2007 – 31 March 2008 and funded under RMC UMP grant (RM40,000). (RDU 070307)
27. Development of Computer-based Control System for Motor Applications (Researcher). Short-term project from 1 April 2007 – 31 March 2008 and funded under RMC UMP grant (RM58,400). (RDU 070330).
28. Development of Real-time Computer-based Multiple Motor Drive System (Researcher). Short-term project 2006 and joint venture with FKEE KUKTEM. (Project without fund). (RDU 060102)
29. Development and Performance Evaluation of Polymeric Foam as Cores of Composite Structures for Automotive and Marine Industries (Researcher). Long-term project from 2004-2006 and funded under IRPA grant (RM156,400) Vot: 03-02-06-0122EA001
30. The Behaviour of Polymeric Foam for Cores of Composite Sandwich Structure (Researcher). Short-term project from July 2002 – July 2003 and funded under RMC UTM grant (RM19,500). Vot: 71893

Academic

1. Excellent Achievement Academic Award from *Badan Amal Isteri-Isteri Wakil Rakyat Negeri Johor* (JUITA), 2000
2. Best Mechanical Engineering Student in 28th UTM's Convocation, 2002
3. Best Student Award of Kolej Tuanku Canselor, UTM, 2003
4. JPA Scholarship (Bachelor's Program), 1998 - 2001
5. UTM-PTP Scholarship (Master's Program), 2002 – 2004
6. *Hadiah Skim Latihan Akademik IPTA*, SLAI scholarship (PhD's Program), 2009 - 2013

Competency

1. Special Quality Award – *Anugerah Cendikia Bitara* 2017, Editor of Journal of Mechanical Engineering Sciences, 6 April 2018.
2. Special Quality Award – *Anugerah Cendikia Bitara* 2016, Editor of Journal of Mechanical Engineering Sciences, 28 April 2017.
3. *Anugerah Perkhidmatan Cemerlang* 2015
4. Special Quality Award, 2015, Editor of Journal of Mechanical Engineering Sciences, 6 July 2015.
5. *Anugerah Perkhidmatan Cemerlang* 2007
6. *Penilaian Tahap Kecekapan DS45-TK3*: Overall Band IV/IV [Excellent]

Research

1. Research Award: Bronze – Title: Design and Development of Blow Mould using Machining Optimization Parameters; 19th International Invention, Innovation, Industrial Design & Technology Exhibition (ITEX08), PWTC Kuala Lumpur, 9th – 11th May 2008.
2. Research Award: Silver – Title: UMP Genetic Algorithms Software for Machining of Blow Mold; Malaysia Technology Expo 2009, Kuala Lumpur, 19th – 21th February 2009.
3. Research Award: Gold – Title: Zappit (Motorized Cutter for Harvesting Palm Fruit); Malaysia Technology Expo 2009. Kuala Lumpur, 19th – 21th February 2009.
4. Research Award: Bronze – Title: Zappit: Sispositif de coupe motorise pour la recolte de fruits du palmier; Diplome Salon International Des Inventions 2009. Geneva, 4 April 2009.
5. Research Award: Silver – Title: Portable Filament Winding Machine; Creation, Innovation, Technology & Research Exposition 2017. Kuantan, 15th – 16th March 2017.
6. Research Award: Silver – Title: Green Square Honeycomb Sandwich Structures; Creation, Innovation, Technology & Research Exposition 2017. Kuantan, 15th – 16th March 2017.
7. Research Award: Bronze – Title: Folding Sajadah; Creation, Innovation, Technology & Research Exposition 2017. Kuantan, 15th – 16th March 2017.
8. Research Award: Gold – Title: I-Winder 2.0; Creation, Innovation, Technology & Research Exposition 2017. Kuantan, 7th – 8th February 2018.
9. Research Award: Silver– Title: High Performance Metal Laser I-Core Sandwich Structure; Creation, Innovation, Technology & Research Exposition 2017. Kuantan, 7th – 8th February 2018.
10. Research Award: Silver – Title: Fibre Metal Laminate for Quasi Static Damage Resistance; Creation, Innovation, Technology & Research Exposition 2017. Kuantan, 7th – 8th February 2018.
11. Research Award: Silver – Title: Augmented Reality: Designing Targeted Image Visualization using Low-cost Hardware and Open-source Platform; Creation, Innovation, Technology & Research Exposition 2017. Kuantan, 7th – 8th February 2018.
12. *Anugerah Cedikia Bitara* (Journal), 2013
13. *Anugerah Cedikia Bitara* (International Grant), 2017
14. *Hadiah Sanjungan Cedikia Bitara* (Journal), 2014

UMP MyGift

1. Project Leader in a task on 'Contribution by way of Donation' by BMW Malaysia Group. 8 units of new BMW N20 Engine for Teaching and Learning at Automotive Engine Laboratory, UMP. 2016. (Undisclosed value).
2. Project Leader in negotiation process of KEYSIGHT Electronics Equipment for Automotive Electronics Laboratory. Co-funding agreement between UMP and SIRIM Measurement Technology, 57% and 43% respectively. 2016. (Undisclosed value).
3. Project Leader in donation of 10 CAN-Bus Vehicle Diagnosis Softwares from Vector GmbH, Germany. 2016. (Undisclosed value).
4. Project Leader in donation of Automotive Parts and Office Furniture from Mercedes-Benz Malaysia for Teaching and Learning. 2017. (Undisclosed value)