



Dr. Siti Rabiattull Aisha binti Idris

Senior Lecturer

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Academic Qualification

PhD Eng. Mechanical, Universiti Teknologi Malaysia

M. Eng. Mechanical, Universiti Teknologi Malaysia

B.Eng. Mechanical (Materials), Universiti Teknologi Malaysia

Brief Profile

She just joined Universiti Malaysia Pahang in the year 2012 as a senior lecturer. She received her PhD in Mechanical Engineering, Masters of Engineering and B. Eng. in Mechanical Engineering from Universiti Teknologi Malaysia, Malaysia. Currently, she authored more than 50 publications in international journals and conferences, on topics related to electronic packaging engineering, materials engineering, electronic manufacturing and joining technology, and mechanical engineering.

Working Experiences / Appointment

Academic:

1. 11th March 2016 ~ Invited motivational speaker for SPM and PT3 students, Sekolah Menengah Kebangsaan Indera Shahbandar, Pekan.
2. 9th March 2016 ~ Fasilitator for Sample Analysis Workshop, Faculty of Mechanical Engineering, Universiti Malaysia Pahang.
3. 15th February 2016 ~ Invited speaker for career in engineering, Sekolah Menengah Kebangsaan Dato' Mahmud Mat, Pekan, Pahang.
4. October 2011 ~ to date: Lecturer, Faculty of Mechanical Engineering, Universiti Malaysia Pahang.
5. September 2011~January 2012: Part time lecturer, Faculty of Manufacturing and Mechanical Engineering, Universiti Tun Hussein Onn Malaysia
6. June 2010~December 2010: Teaching Assistant, Faculty of Mechanical Engineering, Universiti Teknologi Malaysia
7. March 2008~December 2010: Invited Speaker at PLKN, STARZA Corporation SDN. BHD.
8. January 2007-January 2008: Felo Assistant, Kolej Tuanku Canselor, Universiti Teknologi Malaysia.
9. June 2006~June 2010: Short Course Fasilitator, Faculty of Mechanical Engineering, Universiti Teknologi Malaysia
10. May 2006~October 2006: Research Assistant, Faculty of Mechanical Engineering, Universiti Teknologi Malaysia.
11. May 2004~July 2004: Teacher, Institut Tunas Bakti

Administrative:

1. Appointment as Advisor for Students Representative Body, Universiti Malaysia Pahang (Januari 2018 – Januari 2019).
2. Appoinment as a Secretary I for Tin Solder Techlogy (TST) Research Group for 2017-2019, Ministry Chamber of Mines, Malaysia.
3. Appoinment as a Paper Reviewer for Joining and Welding Symposium 2017 (JWS2017), Faculty of Mechanical Engineering, Universiti Malaysia Pahang (July 2017)
4. Appoinment as a Paper Reviewer for International Conference on Mechanical Engineering Research 2017 (ICMER2017), Faculty of Mechanical Engineering, Universiti Malaysia Pahang (August 2017).
5. Secretarat (Viva-Voce) For Postgraduate Student, Universiti Malaysia Pahang (9 December 2016).
6. Reporter for Faculty of Mechanical Engineering, Universiti Malaysia Pahang Bulletin 2016
7. Paper Reviewer for The Third National Conference For Postgraduate Research 2016 (NCON-PGR2016), Universiti Malaysia Pahang (24th – 25th September 2016).
8. Panel for Internal and External Research Grant Application, Universiti Malaysia Pahang, session 2016/2017.
9. Pre-viva Panel for Masters Student, Faculty of Mechanical Engineering, Universiti Malaysia Pahang (8 June 2016)
10. Secretariat for Manufacturing Research Group (MFG), Faculty of Mechanical Engineering, Universiti Malaysia Pahang (2 January – 31 December 2016)
11. Research Coordinator for Research and Postgraduate Studies, Faculty of Mechanical Engineering, Universiti Malaysia Pahang (4 February – 31 December 2016)
12. Chaperon for Kejohanan Institusi Pengajian Tinggi Malaysia (SUKIPT) 2016, Universiti Teknologi Malaysia (25 January – 5 February 2016).
13. Principle of Kolej Kediaman 5, Universiti Malaysia Pahang (1 Ogos 2015-31 Disember 2016)
14. Secretariat (viva-voce) for Postgraduate Student, Faculty of Mechanical Engineering, Universiti Malaysia Pahang (27 January 2015).
15. Panel for Poster Presentation at National Conference Postgradure Research 2015 (NCON-PGR 2015), Universiti Malaysia Pahang, 24 January 2015
16. Member of the secretariat sub-committee for the 3rd international conference on mechanical engineering research (ICMER 2015).
17. Coordinator of Curriculum and Examination for Bachelor of Mechanical Engineering (BMM) Program, Faculty of Mechanical Engineering, Universiti Malaysia Pahang, (1 August 2014 – 31 Julai 2015).
18. Facilitator for Graduate Short Course Programme under ICoE Automotive Cluster (30 June – 8 July 2014)
19. Evaluating Panel For Pre-Viva Session of Postgraduate students at Faculti y of Mechanical Engineering, Universiti Malaysia Pahang (21st May 2014)
20. Wakil Universiti Malaysia Pahang ke Program “Memilih Menara Gading” di UiTM Kmapus Puncak Alam (14-16 Februari 2014),
21. Member of The Secretariate For The Seminar on Advanced Powder Metallurgy For Biomedical Applications (27th February 2014),
22. Ahli Jawatankuasa Taskforce Penyediaan Laporan SAR Program Ijazah Sarjana Muda Kejuruteraan Mekanikal (BMM), Kejuruteraan Mekanikal dengan Automotif (BMA) dan Kejuruteraan Automotif (BHA) Bagi Lawatan EAC (6 Januari 2014),
23. Wakil Majikan Jawatankuasa Keselamatan dan Kesihatan Pekerjaan (JKKKP) Fakulti Kejuruteraan Mekanikal (1 November 2013 – 31 Disember 2015),
24. Jawatankuasa Pelaksana Majlis Penghargaan dan Hi-Tea bersama wakil industry Fakulti Kejuruteraan Mekanikal (17 Ogos 2013),
25. Internal reviewer for 2nd International Conference on Mechanical Engineering Research (ICMER2013),

26. Ahli Jawatankuasa Kecil Unit Aktiviti dan Kelab Kebajikan dan Sukan Staf Fakulti Kejuruteraan Mekanikal (1 September 2012 – 31 Ogos 2013),
27. Quality Coordinator of Fakulti Kejuruteraan Mekanikal (1 Ogos 2012 – 31 Julai 2013),
28. Member of The Proceedings and Journals Publication Subcommittee For The Second International Conference on Mechanical Engineering Research (ICMER2013),
29. Ahli Jawatankuasa Task Force Penyediaan Dokumen Kualiti: Jawatankuasa EAC Fakulti Kejuruteraan Mekanikal sesi Akademik 2012/2013,
30. Ahli Jawatankuasa Dokumentasi: Jawatankuasa ISO Fakulti Kejuruteraan Mekanikal (1 Mei 2012 – 30 April 2013),
31. Ahli Jawatankuasa Task Force Penyediaan Prospektus Pra Siswazah Fakulti Kejuruteraan Mekanikal sesi Akademik 2012/2013,
32. Ahli Jawatankuasa Kecil Pembangunan Laman Web Fakulti Kejuruteraan Mekanikal (1 Januari 2012 – 31 Disember 2012),
33. Ahli Jawatankuasa Kecil Penerbitan Buletin Fakulti Kejuruteraan Mekanikal (1 Januari 2012 – 31 Disember 2012),
34. Ahli Jawatankuasa Kecil Pembangunan Kursus Baharu Sarjana (Kerja Kursus) Fakulti Kejuruteraan Mekanikal (1 Januari 2012 – 31 Disember 2012),

Expert Area

Metallurgy, Microelectronics (electronic packaging materials), Coating, Soldering, Joining

Research Interest

Electronic packaging, Materials science, Coating, Joining

Research Project / Grant

1. Investigation of Microstructure Development and Corrosion Performance of Friction Stir Welded Light Alloys (**Internal Grant:** RDU 160394), 25 June 2016 – 24 June 2018 (Project Member)
2. Enhancement Solder Alloy Strength Using Different Sn, Ag, Cu Composition Through Mechanical Mixing (**Internal Grant:** GRS 1503130), 15 August 2015 – 14 August 2017 (Project Leader)
3. Effect of Fibre Laser Parameters onto Solder Alloy Joining Properties (**Internal Grant:** RDU 160348), 25 May 2016 – 24 May 2018 (Project Leader)
4. Effect of Laser Welding Parameters on Dissimilar Welded Austenitic and Duplex Stainless Steel for Tailor-Welded Blank Application (**Internal Grant:** RDU 150378), 1 October 2015 – 30 September 2017. (Project Member)
5. Development of Force and Temperature Controlled Friction Stir Welding Machine (FSW) For Dissimilar Metal Joining Application (**External Grant, PRGS:** RDU 150802), 1 December 2015 – 30 November 2017. (Project Member)
6. Development of a Solder Alloy (Sn-Cu-Ni) For Electrical Connection at Automotive Electronic Devices using Powder Metallurgy Method (**Internal grant:** RDU 1403125), 15 November 2014 – 14 November 2016 (Project Leader)
7. Development of Welded Stiffener Plates using Dissimilar and Similar Metal Joining Technique (**Internal grant:** RDU 1403114), 25 October 2014 – 24 October 2016 (Project Member)
8. Dissimilar Metal Joining of Aluminium and Magnesium Based Alloy by Gas Metal Arc Spot Welding Technique (**External Grant, FRGS:** RDU 140118), 1 Julai 2014 – 30 Jun 2017 (Project Member)

9. Solder Joint Reliability Between Lead-Free Solder and Direct Immersion Gold Surface Finish For Automotive Devices Application (**External Grant, FRGS: RDU 130107**), 1 April 2013 – 31 Mac 2015, (Project Leader)
10. Enhancement of Weldability in Light Alloys (A6061 & A7075) Dissimilar Metal Welding (**Internal grant: RDU 130112**), 1 April 2013 – 31 Mac 2015 (Project Member)
11. New Type of Coating Materials For Automotive Electronic Devices Application, (**Internal grant: RDU 120359**), 1 Jun 2012 – 31 Mei 2014 (Project Leader)
12. Development of a New Technique to Weld Dissimilar Metals for Automotive Applications, (RDU 120341), 1 Jun 2012 – 31 Mei 2014 (Project Member)
13. Modelling and Performance Characteristics of Finned Flat Tubes Heat Exchanger, (**External Grant, FRGS: RDU 120103**), 1 Mei 2012 – 30 April 2015 (Project Member)

Professional Qualification / Membership / Affiliation / Experience

1. Board of Engineers Malaysia (Borad of Engineers Malaysia)
2. Dive Master in training (Professional Association of Diving Instructors certification)
3. Rescue and Emergency First Responder Diver (Professional Association of Diving Instructors certification)
4. Advanced Open Water Diver (Professional Association of Diving Instructors certification)
5. ASP Kor SUKESIS UMP
6. Open Water Diver (Professional Association of Diving Instructors certification)

Teaching Experience

1. September 2016 ~ till date : Strength of Materials 1 and Engineering Mechanics Lab
2. September 2013 ~ August 2016: Manufacturing Process and Advanced Manufacturing
3. February 2013 ~ August 2013: Strength of Materials I, Manufacturing Process Lab, Mechanical Lab 1 and Advanced Manufacturing
4. December 2011 ~ December 2012: Strength of Materials I and Dynamics
5. October 2011 ~ December 2012: Strength of Materials II
6. September 2011~January 2012: Engineering Design II
7. June 2010~December 2010: Jominy end test, Metallography and Materials Analysis
8. March 2008~December 2010: Culture, Religion, Role of man and woman
9. June 2006~June 2010: Metallography and Materials Analysis
10. May 2004~July 2004: Science and mathematics (additional and modern)

Post Graduate Supervision

Semester 1, 2016/2017 till date

Master (Research)-main supervisor:

1. Maliessa Nabilah binti Mazelan. Thesis: The Effect of Different Solder Type on Solder Joint Performance Throu Reflow Soldering with Microwave Energy

Semester 1, 2015/2016 till date

Master (Research)-main supervisor:

1. Nabila Tamar Jaya. Thesis: Study on Intermetallic Compound Formation and Growth at the Solder Joint Interface during Laser Soldering Using Sn-Ag-Cu Powdered Compact Solder on Copper Pad

Semester 2, 2014/2015 till date

Master (Research)-main supervisor:

1. Nadrah binti Murad. Thesis Title: Enhancement on Solder Alloy Strength Using Different Sn, Ag, Cu Composition Through Mechanical Mixing

Semester 1, 2014/2015 till date

Master (Research)-co supervisor:

1. Khairul Ihsan bin Yaakob. Thesis Title: Laser Welding

Semester 2, 2012/2013 (**Graduated**)

Master (Research)-main supervisor:

1. Hardinnawirda Binti Kahar. Thesis Title: Effect Of Nickel Surface Finish On Solder Joint Reliability
2. Zetty Akhtar Bt Abd Malek. Thesis Title: Effect Of Nickel Doping On Immersion Gold Surface Finish

Degree / Final Year Supervision

Semester 1, 2017/2018 and Semester 2, 2017/2018

Degree:

1. Ikhwal Nur Azzim bin Ihsan, Thesis Title: Characterisation of Cu-based Material Joint Through Tube Furnace
2. Muhamad Izuddin bin Ismail, Thesis Title: A Study of Modification on Kitchen Microwave For Soldering
3. Muhammad Wafy Syahzani bin Mohd Yusof, Thesis Title: Mechanical Characterisation of Solder Wire Joints With Various Volume

Semester 1, 2016/2017 and Semester 2, 2016/2017

Degree:

1. Muhd Faizal Amir bin Omar, Thesis Title: Improvisation of Smart Motion Sensing Device Powered by Solar Energy
2. Muhamad Zamir bin Kholil, Thesis Title: Study on Laser Cutting for Semiconductor Application
3. Muhammad Fadli bin Fauzi, Thesis Title: A Design of Tensile Test Jig For Semiconductor Application
4. Safiq Irsyad bin Harun, Thesis Title: A Design of Ventilation System For Laser Cutting Machine

Semester 1, 2015/2016 and Semester 2, 2015/2016

Degree:

1. Muhammad Yasir bin Udzir. Thesis Title: Shelf Life Evaluation of Lead Free Solder Joint
2. Muhd Faizal Amir bin Omar, Thesis Title: Improvisation of Smart Motion Sensing Device Powered by Solar Energy
3. Stemarlia Burat. Thesis Title: Study on Properties of Powder Compacted Solder Alloy
4. Nadiyah binti Shahidan. Thesis Title: Improvement on Properties Akok Mould

Diploma:

1. Muhamad Hakim bin Yaakob. Thesis: Design And Fabricate An Archery Target Board

Semester 1, 2014/2015 and Semester 2, 2014/2015

Degree:

1. Siti Zuleikha binti Zahrin. Thesis Title: The Effect of Alloying Elements In The Solder Paste Onto Intermetallic Compound Formation
2. Noor Farihan binti Mashor. Thesis Title: The Effect of Using Different Flux Type in The Solder Paste On Intermetallic Formation At The Solder Joint
3. Badrul Ariffin bin Badaluddin. Thesis Title: Fabrication of of Shear Test Machine For Lab Application
4. Nor Fadilah binti Ahmad. Thesis Title: Stress Analysis and Life Prediction of Copper-Tin Joint Strength In Automotive Devuces Application
5. Sharif bin Mohd Zaki. Thesis Title: Stress Analysis and Life Prediction of Copper-Nickel-Tin Joint Strength In Automotive Devuces Application

Diploma:

1. Muhammad Amirul Shafiq Bin Ali. Thesis Title: Effect of Nickel Addition on Solder Joint Strength

Semester 1, 2013/2014 and Semester 2, 2013/2014

Degree:

1. Umi Salmah Binti Mohd Isa. Thesis Title: Portable Hybrid Fan For Commercialization
2. Noorafizah Binti Othaman. Thesis Title: Portable Strato-Folder For Household Application
3. Muhammad Syaheer Bin Sahidan. Thesis Title: Effect of Cooling Rate on IMC Properties Using ImAu Surface Finish.
4. Muhammad Kamarudin Bin Hassan. Thesis Title: Effect of Cooling Rate on IMC Properties Using ENIG (B) Surface Finish.

Semester 1, 2012/2013 and Semester 2, 2012/2013

Degree:

1. Muhammad Firdaus Bin Ab Moin. Thesis Title: Effect Of Corrosion On Coated Aluminium Tailor Welded Blank
2. Angelina Anak Lawrence. Thesis Title: Effect Of Thickness Ratio And Loading Direction On Fatigue Properties Of Tailored Welded Blanks
3. Wan Iryana Bt Wan Md Nor. Thesis Title: Fatigue Behaviour Of Aluminium 6061 Tailor Welded Blank
4. Amir Syahmi Bin Nordin. Thesis Title: Effect Of Different Cooling Rates On Ic Package
5. Muhammad Aminuddin Bin Adnan. Thesis Title: Effect Of Corrosion On Printed Circuit Board
6. Zulfadly Syazwan Bin Zolkhair. Thesis Title: Different Coating Thickness On Copper Substrate

Semester 2, 2011/2012

Degree:

1. Aeyzarq Muhammad Hadzreel Bin Mohd Razali, Thesis Title: Effects of the alignment of reinforcement materials to the properties of Polymer Matrix Composites (PMC)
2. Hardinnawirda Binti Kahar, Thesis Title: A study on the effect of using rice husks as filler in Polymer Matrix Composites
3. Muhammad Fahmi Bin Jasri, Thesis Title: Investigation of machining performance of the coated carbide by acid etching surface pretreatment
4. Khairul Azmi Bin MOhd Mawardzi, Thesis Title: Investigation of machining performance of the coated carbide by murakami surface pretreatment
5. Hariz Sufiyan Bin Mohamed Sunari, Thesis Title: Investigation of machining performance of the coated carbide by sand blasting surface pretreatment

6. Mohd Idham Bin Rosman, Thesis Title: Investigation of machining performance of the coated alumina by acid etching surface pretreatment

List of Publications

A) International and National Journal

1. M. Ishak, MNM Salleh, **SR Aisha**, The Mechanical And Microstructural Study of Welded AA7075 Using Different Filler Metals, International Journal of Computational Methods and Experimental Measurements, Vol 5, Issue 5, pp 696-712, 2017.
2. Nadhrah Murad, **Siti Rabiattull Aisha**, Mahadzir Ishak, Effects of Cooling Rates on Microstructure, Wettability and Strength of Sn₃. 8Ag₀. 7Cu Solder Alloy, Procedia Engineering, Vol. 184, pp 266-273, 2017 (**SCOPUS**).
3. KI Yaakob, M Ishak, **SRA Idris**, MH Aiman, MM Quazi, Characterization of heat-treated gas metal arc-welded boron steel sheets, The International Journal of Advanced Manufacturing Technology, Vol. 94, Issue 1-4, pp 827-834, 2017 (**ISI, Q2, IF 2.209**)
4. M. R. Islam, M. Ishak, L. H. Shah, **S. R. A. Idris**, C. Meric, Dissimilar welding of A7075-T651 and AZ31B alloy by gas metal arc plug welding method, International Journal of Advanced Manufacturing Technology, Vol. 88, Issue 9-12, pp 2773-2783, 2017 (**ISI, Q2, IF 2.209**)
5. K Hardinnawirda, AM Zetty Akhtar, **I Aisha**, I Mahadzir, Deposition of Electroless Nickel Boron as Printed Circuit Board Surface Finish, Advanced Materials Research, Vol. 1133, pp 391-395, 2016 (**SCOPUS**).
6. Hardinnawirda Kahar, Zetty Akhtar Abd Malek, **Siti Rabiattull Aisha Idris**, Mahadzir Ishak, Intermetallic growth and shear strength of SAC305/EN-Boron, Soldering and Surface Mount Technology, Vol. 28, Issue 3, pp 141-148, 2016 (**ISI, Q4, IF 0.913**)
7. Ervina Efzan Mhd Noor, Nur Faziera Mhd Nasir, **Siti Rabiattull Aisha Idris**, A review: lead free solder and its wettability, Soldering and Surface Mount Technology, Vol. 28, Issue 3, pp. 125-132, 2016 (**ISI, Q4, IF 0.913**).
8. **I. Siti Rabiattull Aisha**, A. Ourdjini, M.A. Azmah Hanim and O. Saliza Azlina, Development of Diffusion Barrier Layer on Copper-Printed Circuit Board Using Electroless Plating Method, International Journal of Computational Methods and Experimental Measurements, Vol. 3, No. 4, pp. 329-339, 2015.
9. **I. Siti Rabiattull Aisha**, A. Ourdjini, M.A. Azmah Hanim and O. Saliza Azlina, Effect of Reflow Soldering Profile on Intermetallic Compound Formation, International Journal of Computer Applications in Technology, Vol 52, No. 4, pp 244-250, 2015 (**SCOPUS**).
10. K.Hardinnawirda, A.M. Zetty Akhtar, **I.Siti Rabiattull Aisha** and I.Mahadzir, Effect of Cooling Rate and Isothermal Aging on Microstructure Using Electroless Nickel (Boron) Plating, Applied Mechanics and Materials, Vol. 695, pp 352-356, 2015 (**SCOPUS**).
11. M.A. Azmah Hanim, A. Ourdjini, **I. Siti Rabiattull Aisha** and O. Saliza Azlina, Thermal cyclic test for Sn-4Ag-0.5Cu solders on high P Ni/Au and Ni/Pd/Au surface finish, Journal of Mechanical Engineering and Sciences, Vol. 9, pp 1572-1579, 2015 (**SCOPUS**).
12. **ISR Aisha**, A Ourdjini, OS Azlina, The Effectiveness of Bismuth Addition to Retard the Intermetallic Compound Formation, World Academy of Science, Engineering and Technology, International Journal of Chemical, Molecular, Nuclear, Materials and Metallurgical Engineering, Vol. 10, No.1, pp 107-111, 2016.
13. A.M Zetty Akhtar, K. Hardinna Wirda, **I. Siti Rabiattull Aisha**, I. Mahadzir, Effect of Deposition Time on Immersion Gold Coating Properties, Advanced Materials Research, Vol. 1133, pp 361-365, 2016 (**SCOPUS**).
14. Hardinnawirda Kahar, Abd Malek, Zetty Akhtar, **Siti Rabiattull Aisha Idris**, Mahadzir Ishak, Influence of Second Reflow on the Intermetallic Compound Growth with Different Surface Finish, Key Engineering Materials, Vol. 701, pp 127-131, 2016 (**SCOPUS**).

15. O. Saliza Azlina¹, A. Ourdjini, A. Astuty, and **I. Siti Rabiattul Aisha**, Effect Of Solder Volume On Interfacial Reaction Between SAC405 Solders And EN(B)EPIG Surface Finish, *Advanced Materials Research*, Vol. 845, pp 76-80, 2014 (**SCOPUS**).
16. M. Ishak, L. H. Shah, **I. S. R. Aisha**, W. Hafizi and M. R. Islam, Study of Resistance Spot Welding Between AISI 301 Stainless Steel and AISI 1020 Carbon Steel Dissimilar Alloys, *Journal of Mechanical Engineering and Sciences*, Volume 6, pp. 793-806, 2014 (**SCOPUS**).
17. M.A.Azmah Hanim, Ourdjini, A., O. Saliza Azlina, and **I. Siti Rabiattul Aisha**, Intermetallic Evolution for Isothermal Aging up to 2000hours on Sn-4Ag-0.5Cu and Sn-37Pb Solders with Ni/Au Layers, *International Journal of Automotive and Mechanical Engineering*, Vol. 8, pp. 1348-1356, 2013 (**SCOPUS**).
18. M.A.Azmah Hanim, Ourdjini, A., **I. Siti Rabiattul Aisha** and O. Saliza Azlina, Effect of Isothermal Aging 2000 Hours on Intermetallics Formed Between Ni-Pd-Au with Sn-4Ag-0.5Cu Solders, *Advanced Materials Research*, Volume 650, pp. 194-199, 2013 (**SCOPUS**).
19. M. R. Aeyzarq Muhammad Hadzreel and I. Siti Rabiattul Aisha, Effect Of Reinforcement Alignment To The Properties Of Polymer Matrix Composite, *Journal of Mechanical Engineering and Sciences*, Vol. 4, pp 548-554, 2013 (**SCOPUS**).
20. **I. Siti Rabiattul Aisha**, A. Ourdjini, Effect of multiple reflow on IMC formation using various surface finishes, *International Journal of Microstructure and Materials Properties*, Volume 1, No. 6, pp. 502-516, 2012 (**SCOPUS**).
21. O. Saliza Azlina, A. Ourdjini, **I. Siti Rabiattul Aisha**, Effect of Nickel Doping on Interfacial Reaction between Lead-Free Solder and Ni-P Substrate, *Advanced Material Research*, Volumes 415 – 417, pp. 1181-1185, 2012 (**SCOPUS**).
22. Azlina, O.S., Ourdjini, A., **Aisha, I.S.R.**, Azmah Hanim, M.A., Effect of different aging temperatures on interfacial reaction between SAC305 and EN-EPIG surface finish, *Advanced Material Research*, Volume 415-417, pp. 1375-1379, 2012 (**SCOPUS**).
23. K. Hardinnawirda and **I. Siti Rabiattul Aisha**, Effect of Rice Husks as Filler in Polymer Matrix Composite, *Journal of Mechanical Engineering and Sciences*, Volume 2, pp. 181-186, 2012 (**SCOPUS**).
24. **I. Siti Rabiattul Aisha**, A. Ourdjini, O. Saliza Azlina, Effect of Surface Finish on Intermetallic Compound Formation during Soldering With Ni-Doped Solders, *International Journal of Solid State Science*, Malaysian Solid State Science and Technology Society, Vol. 19, No2, pp. 319-329, 2011 (**ISI, Q2, IF 1.558**).
25. Nor Akmal Fadil, Ali Ourdjini, Azmah Hanim, **Siti Rabiattul Aisha Idris**, Effect Of Solder Bump Size On Interfacial Reactions During Soldering Between Pb-Free Solder And Cu And Cu Ni/Pd/Au Surface Finishes, *Jurnal Mekanikal*, Vol. 52, No. 4, pp 1-12, 2010 (**SCOPUS**).
26. **I. Siti Rabiattul Aisha**, A. Ourdjini, A. Astuty and O. Saliza Azlina, Effect of Silver Content on Intermetallics Formation On Copper and Immersion Silver Surface Finishes, *International Journal of Science Engineering and Technology*, Vol 2, No 2, 2009.

B) International and National Conference Papers

1. S. I. Harun, **S.R.A. Idris**, N. Tamar Jaya, A Study on The Development of Local Exhaust Ventilation System (LEV's) for Installation of Laser Cutting Machine, *Joining and Welding Symposium (JWS2017)*, IOP Conference Series: Materials Science and Engineering, Vol 238, Issues 1, pages 012013, September 2017 (**SCOPUS**).
2. KI Yaakob, M Ishak, **SRA Idris**, MH Aiman, NZ Khalil, Hardness variation of welded boron steel using continuous wave (CW) and pulse wave (PW) mode of fiber laser, *Joining and Welding Symposium (JWS2017)*, IOP Conference Series: Materials Science and Engineering, Vol 238, Issues 1, pages 012007, September 2017 (**SCOPUS**).
3. MNM Salleh, M Ishak, MH Aiman, **SRA Idris**, FRM Romlay, Investigation on the Effect of Pulsed Energy on Strength of Fillet Lap Laser Welded AZ31B Magnesium Alloys, *Joining and*

- Welding Symposium (JWS2017), IOP Conference Series: Materials Science and Engineering, Vol 238, Issues 1, pages 012009, September 2017 (SCOPUS).
4. TJ Nabila, **SRA Idris**, M Ishak, Optimization on Laser Soldering Parameters Onto Lead-Free Solder Joint, Joining and Welding Symposium (JWS2017), IOP Conference Series: Materials Science and Engineering, Vol 238, Issues 1, pages 012011, September 2017 (SCOPUS).
 5. Nadhrah Murad, **Siti Rabiattull Aisha**, Mahadzir Ishak, Effects of Sintering Temperatures on Microstructures and Mechanical Properties Sn4.0Ag0.5Cu1.0Ni Solder Alloy, Electronics Manufacturing Technology (IEMT) & 18th Electronics Materials and Packaging (EMAP) Conference, 2016 IEEE 37th International, Penang, pp. 1-7, 20th-22nd September 2016 (SCOPUS).
 6. **Idris, S.R.A.**, Farihan, N., Kahar, H., Effect of Flux onto Intermetallic Compound Formation and Growth, 3rd International Conference on Mechanical Engineering research, ICMER 2015, Kuantan, Pahang, MATEC Web of Conference, Vol. 74, No. 34, pp 1-7, 29 August 2016 (SCOPUS).
 7. **Idris, S.R.A.**, Zuleikha, S., Abd Malek, Z.A., Wettability Study of Lead Free Solder Paste and Its Effect Towards Multiple Reflow, 3rd International Conference on Mechanical Engineering research, ICMER 2015, Kuantan, Pahang, MATEC Web of Conference, Vol. 74, No. 38, pp 1-5, 29 August 2016 (SCOPUS).
 8. A.M. Zetty Akhtar, K. Hardinna Wirda, and **I. Siti Rabiattull Aisha**, A Review on Effect of Nickel Doping on Solder Joint Reliability, National Conference on Postgraduate Studies, January 2015, UMP Gambang, Malaysia.
 9. Zetty Akhtar, A.M, Wirda, K.H. ; **Aisha, I.S.R.**; Mahadzir, I., Microstructure evolution at the solder joint during isothermal aging, Proceedings of the IEEE/CPMT International Electronics Manufacturing Technology (IEMT) Technology, pp.1-5, 2014 (SCOPUS).
 10. Ourdjini, **I. Siti Rabiattull Aisha**, Y.T. Chin, Effect of Nickel Addition into Sn-3Ag-0.5Cu on Intermetallic Compound Formation during Soldering on copper, 35th International Electronic Manufacturing Technology, pp. 148-151, 6th – 8th November 2012, Ipoh, Perak Malaysia (SCOPUS).
 11. **Aisha, S.R.**, Ourdjini, A., Wah, N.M., How, H.C., Chin, Y.T., Interfacial Reactions of SAC305 and SAC405 Solders on Electroless Ni(P)/ Immersion Au and Electroless Ni(B)/ Immersion Au Finishes, Proceedings of the IEEE/CPMT International Electronics Manufacturing Technology (IEMT) Symposium, Article number 5746712, pp. 1-6, 2010 (SCOPUS).
 12. **I. Siti Rabiattull Aisha**, A. Ourdjini, A. Astuty, N.S. Boo and O. Saliza Azlina , Effect of Ag Concentration on Electroless Ni(P)/Immersion Au, Electroless Ni(B)/Immersion Au And Copper Surface Finishes, 19th Scientific Conference of the Electron Microscopy Society of Malaysia, 14th – 16th December 2010, Langkawi, Malaysia
 13. O. Saliza Azlina, A. Ourdjini, **I. Siti Rabiattull Aisha**, Intermetallic Formation between Sn37Pb and Sn3Ag0.5Cu Solders and Immersion Silver Surface Finish, 3rd International Conference on Solid State Science & Technology, 1st – 3rd December 2010, Sarawak, Malaysia.
 14. **I. Siti Rabiattull Aisha** and A. Ourdjini , Effect of Multiple Reflow On Intermetallic Compound Formation on Copper and Immersion Silver Surface Finishes, International Conference for Technical Postgraduates, 7th-8th December 2009, Kuala Lumpur, Malaysia.
 15. **I. Siti Rabiattull Aisha**, A. Ourdjini, O. Safoura and Y.T Chin, Effect of Nickel Doping in Sn-Ag-Cu Solders on Intermetallic Compound Formation with Immersion Silver and Copper Surface Finishes, 11th International Conference on Electronic Materials and Packaging, 1st-3rd December 2009, Penang, Malaysia.
 16. **I. Siti Rabiattull Aisha**, A. Ourdjini and A. Astuty , Effect of Bismuth Percentage on Intermetallic Compound Formation with Immersion Silver and Copper Surface Finishes, 11th International Conference on Electronic Materials and Packaging, 1st-3rd December 2009, Penang, Malaysia.
 17. **I. Siti Rabiattull Aisha**, A. Ourdjini, A. Astuty and, O. Saliza Azlina, Effect of Silver Content on Intermetallics Formation on Copper and Immersion Silver Surface Finishes, International

Conference on Green Technology and Engineering, 15th-17th April 2009, Bandar Lampung, Indonesia.

18. **I. Siti Rabiattull Aisha**, A. Ourdjini, A. Astuty and O. Saliza Azlina, Effect of Solder Volume and Pad Area on Intermetallic Compounds Formation During Soldering Between Sn-4Ag-0.5Cu and Immersion Silver Finish, International Graduate Conference on Engineering and Science, 23rd-24th December 2009, Johor, Malaysia.
19. Ourdjini, A, Azmah Hanim, M.A., **Siti Rabiattull Aisha**, I., Chin, Y.T., Effect of surface finish metallurgy on intermetallic compounds during soldering with tin-silver-copper solders, Proceedings of the IEEE/CPMT International Electronics Manufacturing Technology (IEMT) Symposium , art. no. 5507773, pp.1-4, 2008 (**SCOPUS**).
20. **I. Siti Rabiattull Aisha**, A. Ourdjini, Saliza A. Osman and A. Astuty, Study on Interfacial Reaction Between Lead-Free Solders and Alternative Surface Finishes, Proceeding of National Metallurgical Conferences, Vol. 1 No.1, 2007.
21. F. Nor Akmal, A. Ourdjini, M. A. Azmah Hanim, **I. Siti Aisha** and Y. T. Chin, Effect of solder bump size on interfacial reactions during soldering between Pb-free solder and Cu and Ni/Pd/Au surface finishes, Proceeding of National Metallurgical Conferences, Vol. 1 No.1, 2007.
22. Ourdjini, A., Azmah Hanim, M.A., Joyce Koh, S.F., **Siti Aisha**, I., Tan, K.S., Chin, Y.T. Effect of solder volume on interfacial reactions between eutectic Sn-Pb and Sn-Ag-Cu solders and Ni(P)-Au surface finish, Proceedings of the IEEE/CPMT International Electronics Manufacturing Technology (IEMT) Symposium , art. no. 4456491, pp. 437-442, 2006 (**SCOPUS**)

List of Books/ Chapter in book / Module

1. A Review on Mechanical Properties of SnAgCu/Cu Joint using Laser Soldering, *Lecture Notes in Mechanical Engineering - Advances in Joining Technology*, SPRINGER, Nabila Tamar Jaya, **Siti Rabiattull Aisha Idris**, Mahadzir Ishak, 2017
2. Strength of Materials Workbook, **Siti Rabiattull Aisha Idris**, Mahadzir Ishak, *UMP Publisher* June 2017.
3. Manufacturing Process Laboratory, Mahadzir Ishak, **Siti Rabiattull Aisha Idris**, Syarifah Nur Aqida Syed Ahmad, Siti Haryani Tomadi, Mohd Rashidi Maarof, *UMP Publisher*, Oktober 2016.
4. The effect of ER4043 and ER5356 filler metal on welded Al 7075 by metal inert gas welding, M.N.M. Salleh, M. Ishak, L.H. Shah and **S.R.A. Idris**, *High Performance and Optimum Design of Structures and Materials II*, Vol. 166, pp. 213, WIT Press, 2016.
5. A review on the effect of surface finish and cooling rate on solder joint reliability, K Hardinnawirda, AMZ Akhtar, A Malek, **I Siti Rabiattull Aisha**, *High Performance and Optimum Design of Structures and Materials II*, Vol. 66, pp. 201, WIT Press, 2016.

List of Consultancy

Nama dan alamat klien	Latihan dan Nilai Projek	Nombor Vot
Esteem Energy Engineering Sdn. Bhd, 4533, 1 st Floor, Jalan Jakar, 24000 Kemaman, Terengganu	Materials Failure Analysis (Package1)	UMPS/140190/006
Petronas Chemicals Derivatives Sdn. Bhd., KM106 Jalan Kuala Terengganu-Kuantan, 24300 Kerteh, Terengganu	Failure Analysis on Inlet Guide Vanes & Expander Wheel – K/KT 2302	UMPS/150190/003
Intestmal Corporation Sdn Bhd/PETRONAS ETHYLENE, No 12, Jln Utama ¼, Taman perindustrian Puchong Utama, 47140 Puchong, Selangor	Materials Failure Analysis #2: Compressor Wheel	UMPS/160190/009
Petrotechnical Inspection (M) Sdn Bhd	Comparison Study of Material	UCTL170111

/ SGS (M) Sdn Bhd, No. 23, Jalan Selar 1, Taman Pasir Putih, 81700 Pasir Gudang, Johor	Characteristics of Copper Shoes	
Institut Kemahiran Belia Negara Pekan, KM 55, Jalan Kuantan-Segamat Paloh Hinai, Pekan, Pahang	Heat Treatment on Metal Alloy and Metallorgraphy Analysis	UCT170313

Awards / Research / Achievements

1. Merit Award 2016 – Publication (Journal) Category
2. Merit Award 2015 – Publication (Journal) Category
3. Best paper award – First runner up, 37th International Electronics Manufacturing Technology (IEMT) & 18th Electronic Materials & Packaging Conference, September 2016.
4. 8km finisher for Uda Pekan Bridge Run 2016
5. Anugerah Perkhidmatan Cemerlang 2015, Universiti Malaysia Pahang
6. Citrex 2014: Bronze medal; Corrosion effect on surface finish, Universiti Malaysia Pahang
7. INTEL Fellowship (2007-2011)
8. Jabatan Perkhidmatan Awam, B.Eng, Universiti Teknologi Malaysia (2001-2006)
9. Dean list, 2003/2004, Faculty of Mechanical Engineering, Universiti Teknologi Malaysia
10. Dean list, 2004/2005, Faculty of Mechanical Engineering, Universiti Teknologi Malaysia
11. MARA Scholarship, Maktab Rendah Sains Mara-Yayasan Terengganu Mara Besut, (1995-2000)
12. Australian National Chemistry Quiz Award, 2000.
13. Police Sargent Cadet, 2000.

Patents

none

List of Course / Conference Attended

A) Courses

1. Bengkel Latihan Pegawai Kehormat Kor Suksis Siri 1/2014, 1-3 Disember 2014, UiTM Shah Alam
2. One Day Workshop on Accreditation Assessment, 24 November 2014, Marriot Hotel, Putrajaya
3. Introduction to Mechanics Based Quality and Reliability Assessment Methodology, 11 November 2014, Renaissance Hotel, Johor Bahru, Johor
4. Board of Engineers Malaysia Roadshow 2014/2015 Staying Relevant, 20 Oktober 2014, Equatorial Hotel, Pulau Pinang
5. Seminar Tadbir Urus Cemerlang Edisi ke-7, 24-26 November 2014, Hotel Bayview, Langkawi
6. One Day International Workshop and Demo: Weld Fatigue Integrity, 20 Ogos 2014, UiTM Shah Alam
7. BEM Mandatory Course, Engineering Management, 10-11 May 2014, Hotel Vistana, Kuantan
8. Eurocode 2: Service-life Design and Durability Requirements, 30 April 2014, Sri Manja Boutique Hotel, Indera Mahkota, Kuantan
9. Workshop on Complex Problem Solving, 15 Februari 2014, Marriot Hotel, Putrajaya.
10. Acellt Leadership Development Training Programme In Learning Assessment (Level 1)-sambungan, 17-19 June 2013, Kampus AKEPT Bandar Enstek, Negeri Sembilan
11. Seminar On Damage And Fracture Mechanics Of Material: An Essential for Engineers, 3-5 June 2013, Fakulti Kejuruteraan Mekankal, Universiti Malaysia Pahang, Pekan.

12. BEM Mandatory Course, Module B: Code of Ethics, 9-10 May 2013, Kompleks Dagangan Mahkota Kuantan.
13. Taguchi Method workshop, 22-23 April 2013, UTM KL
14. Acellt Leadership Development Training Programme In Learning Assessment (Level: Basic), 26-28 March 2013, Kampus AKEPT Bandar Enstek, Negeri Sembilan
15. BEM Mandatory Course, Module A: Safety and Health, 21-22 March 2013, Kompleks Dagangan Mahkota Kuantan.
16. Building Academia Leadership Through The Tremendous Skill of Research Presentation 2012: Akept Campus, Nilai
17. Workshop on The Collaboration of Application of Electron Microscopy 2012: MJIT UTM KL
18. 3rd short course on Introduction to finite element method for engineering applications 2010: UTM Skudai
19. Kursus "Train of Trainer" bagi program integrasi, program latihan khidmat Negara 2008: STARZA Corporation SDN. BHD., Johor Bahru
20. 10th Short Course on Advanced Metallography & Microstructural Analysis 2009: UTM Skudai
21. 9th Short Course on Advanced Metallography & Microstructural Analysis 2008: UTM Skudai
22. Strategic Course, 2008: UTM Skudai
23. Introduction to finite element method for engineering application 2007: UTM Skudai
24. 2007 OLYMPUS LEXT, DUV and Analysis Five Workshop, Olympus Corporation Tokyo, Kuala Lumpur.
25. *Konvensyen Felo 2007*: Port Dickson: UTM Skudai
26. Seminar on Corrosion, 2007: UTM Skudai
27. *Kursus induksi felo 2007*: UTM Skudai
28. 8th Short Course on Advanced Metallography & Microstructural Analysis 2007: UTM Skudai
29. 7th Short Course on advanced metallography & microstructural analysis 2006 : UTM Skudai
30. BioTechnology 2006; UTM Skudai
31. Robot Automation 2006: UTM Skudai
32. How to get yourself employed 2006: UTM Skudai
33. Leadership Course at MARA College of Besut: MRSM-YT Besut

B) Conferences

1. International Conference on Mechanical, Manufacturing and Process Plant Engineering (ICMMPE 2017), Batu Feringghi, Pulau Pinang, Malaysia, 22-23 November 2017.
2. Joining and Welding Symposium 2017 (JWS2017), Universiti Malaysia Pahang, 11th July 2017.
3. Seminar Memperkasa Amalan Terbaik Kor SUKSIS Universiti Awam Malaysia (SMART 2017), Universiti Malaysia Perlis, Perlis, 26-27 February 2017.
4. 18th International Conference on Metallurgical and Materials Engineering (ICMME 2016), Tokyo, Japan, 26-27 May 2016.
5. International Conference on The Science and Engineering Materials (ICOSEM 2015), Kuala Lumpur, Malaysia, 16-18 November 2015.
6. 3rd International Conference on Mechanical Engineering Research (ICMER 2015), Kuantan, Pahang, Malaysia, 18-19 August 2015.
7. 7th International Conference on Computational Methods and Experiments in Materials Characterisation (ICMEMC 2015), Valencia, Spain, 22-24 April 2015.
8. International Conference on Electronics Packaging (ICEP 2014), Toyama, Japan, 23-25 April 2014.
9. 2nd Advanced Materials Conference, Pulau Langkawi, Malaysia, 25-26 November 2014
10. 2nd International Conference on Mechanical Engineering Research 2013 (ICMER 2013), Bukit Gambang Resort, Kuantan, Pahang, 1-3 July 2013.
11. International Conference on Manufacturing, Optimisation, Industrial and Material Engineering (MOIME 2013), Bandung, Indonesia, 9-10 March 2013.

12. 35th International Electronics Manufacturing Technology (IEMT) Conference, Ipoh, 2012
13. 1st International Conference and Exhibition of Women Engineer (ICEWE), Pahang, 2011.
14. 13th Asian Congress of Fluid Mechanics, IUT Dhaka, Bangladesh, 2011.
15. 3rd International Conference on Solid State Science & Technology (ICSSST), Sarawak, 2010.
16. 19th Scientific Conference of the Electron Microscopy Society of Malaysia (SCEMSM), Langkawi, 2010
17. 34th International Electronics Manufacturing Technology Conference (IEMT), Melaka, 2010
18. International Conference for Technical Postgraduates (ICTP), Kuala Lumpur, 2009
19. 11th International Conference on Electronic Materials and Packaging (EMAP), Penang, 2009
20. International Conference on Green Technology and Engineering (ICGTE), Indonesia, 2009
21. International Graduate Conference on Engineering and Science (IGCES), UTM Skudai, 2008
22. 33rd International Electronic Manufacturing Technology (IEMT), Penang, 2008
23. National Metallurgical Conference (NMC), Johor, 2007
24. 32nd International Electronic Manufacturing Technology (IEMT),Putrajaya, 2006.