

## PERSONAL PARTICULAR

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### Current Position:

- **Leader**, Green Design and Manufacture Research Group, Center of Excellence Geopolymer & Green Technology (CEGeoGTech), Universiti Malaysia Perlis.
- **Associate Professor**, School of Manufacturing Engineering, Main Campus Pauh Putra Universiti Malaysia Perlis.
- **Programe Chairman**, Bachelor School of Manufacturing Engineering, Main Campus Pauh Putra Universiti Malaysia Perlis.
- **The President of Parents and Teachers Association**, SK Kayang, Perlis.

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**Scopus Link:** [http://tiny.cc/ZShayfull\\_Scopus](http://tiny.cc/ZShayfull_Scopus)



**Google Scholar:** <https://urlzs.com/PCqtd>

	Scopus	Google Scholar
<b>H-Index</b>	14	16
<b>Total Journal</b>	159	165
<b>Total Citations</b>	529	651

(Source: Scopus & Google Scholar database, updated 02<sup>nd</sup> December 2019)

## EDUCATION BACKGROUND

1. Phd. Mechanical Engineering (Injection Moulding), Universiti Teknologi Malaysia, Skudai, Johor, November 2015.
2. Master of Engineering (MEng) in Advanced Manufacturing Technology, Universiti Teknologi Malaysia, Skudai, Johor, 2006.
3. Bachelor (BEng) of Mechanical Engineering, Universiti Teknologi Malaysia, Skudai, Johor, 2000.

## PROFESSIONAL MEMBERSHIPS

1. Professional Engineer, Board of Engineers Malaysia (BEM), PE18590, 26 Feb 2018.
2. Corporate Member, The Institution of Engineers Malaysia (IEM), M 43795, 11 September 2017.
3. Member of the Technological Association of Malaysia, 22 May 2011.
4. Committee of Malaysia Research & Innovation Society (MyRIS), July 2014.

## 1.0 WORKING EXPERIENCES

1. **Engineer**, Engineering Department, Tongkah Moulding Technologies Sdn. Bhd., Kawasan Perusahaan Juru, Penang, June 2000 - July 2001.
2. **Designer**, Design Department, Infinite Zest Technology Sdn. Bhd. Kawasan Perusahaan Sungai Lokan, Sungai Dua, Penang, July 2001 – October 2001.
3. **Mechanical Engineer**, Engineering Department, Kaga Components (M) Sdn. Bhd. Jalan Jelawat, Seberang Jaya, Penang, October 2001 - June 2004.
4. **Senior R&D Mechanical Design Engineer**, Kaga Components (M) Sdn. Bhd. Jalan Jelawat, Seberang Jaya, Penang, April 2005 - June 2006.
5. **Senior R&D Mechanical Design Engineer**, Funfiek Technology Sdn. Bhd., Kulim Techno Park, Kulim Hi- Tech, Kulim, Kedah, June 2006 – June 2007.
6. **Lecturer**, School of Manufacturing Engineering, Universiti Malaysia Perlis, Perlis, July 2007 – May 2013.
7. **Senior Lecturer**, School of Manufacturing Engineering, Universiti Malaysia Perlis, Perlis, May 2013 – October 2019.
8. **Deputy Dean, Student Affairs & Alumni**, Center for Diploma Studies, Universiti Malaysia Perlis, Mac 2015 – February 2017.
9. **Program Chairman** for Bachelor Degree of Engineering (Product Design Engineering), School of Manufacturing Engineering, Universiti Malaysia Perlis, March 2017 – February 2019.
10. **Associate Professor**, School of Manufacturing Engineering, Universiti Malaysia Perlis, Perlis, November 2019 until now.
11. **Program Chairman** for Bachelor Degree of Engineering (Product Design Engineering), School of Manufacturing Engineering, Universiti Malaysia Perlis, March 2019 – February 2021.

## 2.0 TEACHING EXPERIENCES

### **Undergraduate Courses Taught**

1. EPT 448, **Product Design Integrated Project**, Bachelor Degree of Engineering (Product Design Engineering), Semester 1, 2017/2018, 2018/2019, 2019/2020.
2. EPT 393, **Engineering Product Design II**, Bachelor Degree of Engineering (Product Design Engineering), Semester 1, 2015/16, 2016/2017, 2017/2018, 2018/2019, 2019/2020.
3. EPT 395, **Engineering Product Design III**, Bachelor Degree of Engineering (Product Design Engineering) Semester 2, 2014/15, 2015/16, 2016/2017, 2017/2018, 2018/2019.
4. PDT 311, **Advanced Machining Technology**, Program Bachelor of Mechanical Engineering Technology (Machining), Semester 1, 2014/2015.
5. PDT 317, **Injection Mould Design**, Bachelor of Mechanical Engineering Technology (Machining), Semester 2, 2014/15.
6. EPT 466, **Injection Mould Design**, Bachelor Degree of Engineering (Product Design Engineering) & Bachelor Degree of Engineering (Manufacturing Engineering), Semester 2, 2008/2009, 2009/2010, 2010/2011.
7. EPT 421, **Product Design II**, Bachelor Degree of Engineering (Product Design Engineering), Semester 1, 2009/2010, 2010/2011.
8. EPT 227, **Product Design II**, Bachelor Degree of Engineering (Product Design Engineering), Semester 2, 2009/2010, 2010/2011.
9. EPT 321, **Product Design I**, Bachelor Degree of Engineering (Product Design Engineering), Semester 1, 2007/2008.
10. EPT 222, **Design for Manufacture**, Bachelor Degree of Engineering (Product Design Engineering) & Bachelor Degree of Engineering (Manufacturing Engineering), Semester 2, 2007/2008.
11. EPT 211, **Manufacturing Technology II**, Bachelor Degree of Engineering (Product Design Engineering) & Bachelor Degree of Engineering (Manufacturing Engineering), Semester 1, 2007/2008, 2008/2009.

## Diploma Courses Taught

1. DPT 321, **Injection Mould Design**, Diploma in Manufacturing Engineering, Semester 1, 2008/2009, 2009/2010.
2. DPT 225, **Design II**, Diploma in Manufacturing Engineering, Semester 2, 2008/2009.

### Undergraduate Supervision Project (Graduated)

1. Ch'ng Shu Qing, 2018, "Warpage analysis on thick shell part (thickness above 2 mm) using Response Surface Methodology (RSM) and Bat Algorithm".
2. Muhammad Ilyas Bin Md Yusof, 2018, "Optimisation of thick plate part using Response Surface Methodology (RSM) and Bat Algorithm".
3. Nurul Syazwani Binti Muhamad Yazid, 2018, "Optimisation of thin shell parts (thickness below 2 mm) using Response Surface Methodology (RSM) and Differential Evolution (DE)".
4. Arulmullai A/P Rathakrishnan, 2018, "Optimisation of injection moulding process parameters of thin shell part using Firefly Symbiosis Algorithm".
5. Norshahira Binti Roslan, 2017, "Optimisation of thin shell plastic (thickness 2mm and below) using Response Surface Methodology (RSM) and Particle Swarm Optimisation (PSO)".
6. Nurul Hidayah Binti Mohamad Huzaim, 2017, "Optimisation of thin shell plastic (thickness 2 mm and below) using Response Surface Methodology (RSM) and Particle Swarm Optimisation (PSO)".
7. Amir Syahir Bin Shah Bani, 2016, "A case study of investigating the effect of optimisation using Taguchi method toward mechanical strength of the thick plate part".
8. Mohd Afiq Bin Harun, 2016, "Analysis of warpage on front panel housing using Response Surface Methodology".
9. Muhammad Ezuddin Bin Shafiee, 2016, "Analysis of shrinkage and warpage on front panel housing using Genetic Algorithm (GA)".
10. Muhammad Isafiq Bin Mohd Disa, 2016, "Analysis of shrinkage on the thick plate part using Response Surface Methodology".
11. Siti Noor Najihah Binti Mohd Nasir, 2016, "Analysis of shrinkage on the thick plate part using Genetic Algorithm (GA)".
12. Syed Mohd Azlan Bin Syed Othman, 2016, "Analysis of strength on the thick plate part using Genetic Algorithm (GA) Methodology".
13. Zamri Bin Razali, 2016, "Analysis of Strength on the thick plate part using Response Surface Methodology".
14. Naimzudin Bin Mohd Tajudin, 2010, "Design and developement of ping pong training device" **(This Project won the Gold Medal and 'Creative Product Award' at Engineering Innovation and Innovation Exhibition - ENVEX 2010)**.
15. Mohd Taufik Zakaria, 2010, "Improvement design of safety sugarcane juicing machine".
16. Mazlan Bin Anuar, 2010, "The optimization in drilling on the effect of parameter of Aluminium 7075".
17. Mohd Hakim Bin Sazali, 2010, "A study on the machining parameters optimization of CNC end milling machining Aluminium alloy 7075".
18. Azmeer Zairee Bin Omar, 2009, "Design and developement the seat and steering mechanism for go-kart".
19. Mohd Hazwan Mohd Hanid, 2009, "Design and developement an external shell for go-kart".
20. Muhammad Firdaus Sulaiman, 2009, "Design and developement the power transmission mechanism and rim for go-kart".
21. Farhan Akmal Bin Azmi, 2009, "Design and developement of chassis for go-kart".
22. Muhammad Iqbal Ab Razak, 2008, "Design and development of air compressor for automotive application".
23. Norainihayati Harun, 2008, "Design and development of coconut peeler machine".
24. Mazura Azlina Awang, 2008, "Design and development of paint building device".
25. Ira Syadilla Binti Ibrahim, 2008, "Design and development of Eggs Cooker".
26. Norazrul Nordin, 2007, "To study a design of two and three-plate mould for injection moulding process".

## Diploma Supervision Project (Graduated)

1. Nur Nadira Bte Muhamad Ismail, 2008, "Design and development of paint building device".
2. Narimah Binti Suhaili, 2008, "Design and development of paint building device".
3. Muhammad Najmuddin Bin Hamzah, 2008, "Design and development of paint building device".
4. Aiman Akmal Bin Abd. Nasir, 2009, "Design and development of mechanism to dehusk paddy".
5. Azmi Safwan Bin Abdullah, 2009, "Design and development of mechanism to dehusk paddy".
6. Nur Illa Binti Idris, 2009, "Design and development of mechanism to clean paddy before milling process".
7. Muhammad Shafiq Bin Mustaffa, 2009, "Design and development of mechanism to clean paddy before milling process".
8. Mohd Shahrul Nizam Mat Rani, 2009, "Design and development of cooling roof device".
9. Muhammad Azlan Bin Awang Teh, 2009, "Design and development of cooling roof device".

### Postgraduate Student Supervision (As Main Supervisor)

1. **Main Supervisor**, Mohd Nasir Mat Saad, 2017, PhD Manufacturing Engineering, Universiti Malaysia Perlis **(On Going)**.
2. **Main Supervisor**, Nur Aisyah Miza Binti Ahmad Tamizi, 2018, Master of Science in Manufacturing Engineering (By Research), Universiti Malaysia Perlis **(On Going)**.
3. **Main Supervisor**, Nurul Hidayah Binti Mohamad Huzaim, 2018, Master of Science in Manufacturing Engineering (By Research), Universiti Malaysia Perlis **(On Going)**.
4. **Main Supervisor**, Norshahira Binti Roslan, 2018, Master of Science in Manufacturing Engineering (By Research), Universiti Malaysia Perlis **(On Going)**.
5. **Main Supervisor**, Mohd Aizuddin Bin Daud, 2019, Master of Science in Manufacturing Engineering (By Research), Universiti Malaysia Perlis **(On Going)**.

### Postgraduate Student Supervision (As Co-Supervisor)

1. **Co-Supervisor**, PhD Material Engineering, Haliza Binti Jaya, 2014, Universiti Malaysia Perlis, Characterization and Properties of LDPE/Rice Husk Composites for Industry Injection Moulded Parts, **(On Going)**.
2. **Co-Supervisor**, PhD Manufacturing Engineering, Mohd Khairul Fadzly Bin Abu Bakar, 2016, Universiti Malaysia Perlis, Cooling Temperature Control to Improve The Injection Moulding Process, **(On Going)**.
3. **Co-Supervisor**, Master by Research, Nur Aini Binti Zakaria, 2016, Universiti Teknologi Malaysia, Parameter Optimisation of The Injection Moulding Process on Recycled Material, **(On Going)**.
4. **Co-Supervisor**, Mr Saadoudi Messoud, Medea University Algeria, 2018, **(On-Going)**.
5. **Co-Supervisor**, Mr Boukhari Zakaria Messoud, Medea University Algeria, 2018, **(On-Going)**.
6. **Co-Supervisor**, PhD Mechanical, Radhwan Hussin, 2018, Universiti Teknologi Malaysia, Metal Epoxy Composite for Rapid Tooling Application, **(On Going)**.

### Graduated Postgraduate Student

1. **Co-Supervisor**, Masters by Research, Mohd Nasir Mat Saad, 2011, Universiti Malaysia Perlis, Evaluate on Shrinkage and weld line strength on thick plate flat part in injection moulding process, **(Graduated on 30th September 2016)**.
2. **Main Supervisor**, Masters by Research, Mohd Hazwan Mohd Hanid, 2016, Universiti Malaysia Perlis, Optimising The Warpage On The Front Panel Housing Using Artificial Intelligence Methods, **(Graduated on April 2018)**, **Awarded the Best Thesis for Master of Science, In Conjunction with the 13th Convocation Ceremony, Universiti Malaysia Perlis, October 26, 2018.**
3. **Co-Supervisor**, PhD Manufacturing Engineering, Khairu Bin Kamarudin, 2015, Universiti Tun Hussein Onn Malaysia, Evaluation on Performance of Square Finned Conformal Cooling Channel (SFCCC) Fabricated by Selective Laser Melting (SLM) on Plastic Moulded Part, **(Graduated on 07 April 2019)**.

4. **Co-Supervisor**, Master by Research, Noramalina Binti Mohd Hatta, 2016, Universiti Teknologi Malaysia, An Improved Grey Wolf Optimiser Sine Cosine Algorithm for Minimisation of Injection Moulding Shrinkage, **(Graduated on 07 July 2019)**.

#### **Msc Examiner(s)**

1. **External Examiner**, Master of Mechanical Engineering, Universiti Tun Hussein Onn Malaysia, Aznizam bin Ahmad, Investigation of Mould Design and Process Parameter Optimisation of Plastic Injection Moulding for Thin Wall Part, 5 May 2019.
2. **Internal Examiner**, Master Mixmode, Shazzuan Bin Shahari, Warpage Minimisation on Side Arm using Response Surface Methodology (RSM), 14 February 2017.
3. **Internal Examiner**, Pre-Viva, Master by Research, Ahmad Mohamed Wahba El Hadad, Using DFMA To Reduction of Assembly Time in Rapman 3.1 3D Printer by Redesign Part Assembly, 12 August 2016.

#### **PhD Examiner(s)**

1. **Internal Examiner**, Pre-Viva, Product Design Engineering (PhD in Product Design Engineering), Muhammad Aiman bin Ahmad Fozi, New Fabrication Method for Head Garment in Pressure Therapy Treatment, 7 March 2017.

#### **University Examiner Panel(s) (Confirmation Position)**

1. Dr. Muhammad Aiman Ahmad Fozi, Senior Lecturer, School of Manufacturing Engineering, University Malaysia Perlis, 08 October 2018.
2. Mr. Sanusi Hamat, Lecturer, School of Manufacturing Engineering, University Malaysia Perlis, 12 November 2018.

### 3.0 RESEARCH EXPERIENCES

#### Grants Acquired

1. **Main-Researcher**, Elucidating the effects and correlation of process parameters towards Phase Distribution of Recycled Polymers on injection Moulding Weld Line, FRGS/1/2019/TK03/UNIMAP/02/20, September 2019 – August 2021, RM 95,267.00.
2. **Co-Researcher**, Development of Cobalt Composite Implant (CCI) Using Rapid Prototyping Technique for Medical Applications, KPT (FRGS-RACER), RM 40,000.00, August 2019 – July 2021.
3. **Co-Researcher**, Design and development of Automated Boiling, Filling, Capping Machine for Dadih and Milk for Faza Marketing, KPT, Public Private Research Network Grant (PPRN) 9002-00055, July 2017 - January 2018, RM 49,350.00.
4. **Co-Researcher**, Enhanced Flower Pollination Algorithm for Map Object Simplification, KPT (FRGS) R.J130000.7828.4F868, August 2016 - July 2018, RM 56,792.45.
5. **Main Researcher**, Design and Development of Automated Rose Cookies (Kuih Loyang) Frying Machine for Al Ridhwee Holding (M) Sdn. Bhd., KPT, Public Private Research Network Grant (PPRN) KPT 600-6/12/18/20, December 2018 - June 2019, RM 44,310, 2018.
6. **Main Researcher**, National Special Grant: 9002-00083, Design and Development Drone for Agriculture-Fishery, RM 10,000, April 2019 – April 2022.
7. **Co-Researcher**, Design and development of Automated Soap Cutting and Logo Stamping Machine for D'Excellence One Marketing Sdn. Bhd., KPT, Public Private Research Network Grant (PPRN) 9002-00057, July 2017 - January 2018, RM 43,987.00.
8. **Co-Researcher**, Photoluminescence properties of Lithium Europium Molybdate phosphor and its correlational effects with the crystal structure in the substitution of non-activating cations, KPT (FRGS) 9003-00572, August 2016 - January 2019, RM 78,301.89.
9. **Co-Researcher**, An Equivalent Generating Algorithm to Model Fuzzy Petri Net for Knowledge Representation, KPT (FRGS) R.J130000.7828.4F721, November 2015 - November 2017, RM 76,700.00.
10. **Co-Researcher**, Design and Development Automated Bottle Filling and Capping System for Gah Global Enterprise, KPT, Public Private Research Network Grant (PPRN), December 2015 - June 2016, RM 48,000.
11. **Main Researcher**, Grant Incentive for Research Journal: 9007-00245, RM 5,000, February 2015 – January 2016.
12. **Main Researcher**, National Special Grant: 9004-00035, Skill Development in Product Design Engineering, National RM 30,000, April 2013 – April 2016.
13. **Main Researcher**, National Special Grant: 9004-00036, Analysis of Plastic Material Flow into Injection Molds and Optimize the Injection Molding Parameters, Amount: RM 35,000, April 2013 – April 2016.
14. **Main Researcher**, Seed Money Research Grant, Phase 1/2011: 9014-00043, RM 15,000, January 2012 – December 2015.
15. **Co-Researcher**, Analytical Deformation (Shrinkage and Warpage Behaviors) Model Based on Reissner's Theory for Spherical Shallow Thin Walled Plastic Shell, KPT (FRGS) 9003-00237, March 2010 – February 2012, RM 40,000.
16. **Co-Researcher**, Design Improvement of Side Arm Rejected Due To Burning Process. Awarded by: UniMAP Short Term Grant: 9001-00180, RM 15,000, August 2009 – July 2010.
17. **Main Researcher**, The Study and Design of Mobile Rice Milling Machine. Awarded by: UniMAP Short Term Grant: 9001-00112, RM 8,000, December 2008 – March 2010.
18. **Co-Researcher**, Examination of Wire Electrical Discharge Machining of Aluminium Alloy 7075. Awarded by: UniMAP Short Term Grant: 9001-00111, RM 10,000, December 2008 – March 2010.
19. **Co-Researcher**, Development of Portable Signage with LED Lighting System. Awarded by: UniMAP Short Term Grant: 9001-00113, RM 10,000, December 2008 – December 2009.

## 4.0 PUBLICATIONS

### Publications (ISI Indexed, Impact Factor Journal)

1. Abdelhakim Younsi, Abdellah. Abdellah El-Hadj, **Shayfull Zamree Bin Abd. Rahim**, Tahar Rezoug, Aerodynamic investigation of an airfoil under two hovering modes considering ground effect, Journal of Fluids and Structures, **(accepted to be published on 30 September 2019). Impact Factor: 3.070, Q1.**
2. NM Hatta, Azlan Mohd Zain, Roselina Sallehuddin, **Z. Shayfull**, Yusliza Yusoff, Recent studies on optimisation method of Grey Wolf Optimiser (GWO): a review (2014–2017), Artificial Intelligence Review, 1-33, 2018. **Impact Factor: 3.814, Q1 (Cited 2 times).**
3. **Z. Shayfull**, S. Sharif, Azlan Mohd Zain, R. Mohd Saad and S.M. Nasir, Improving the Quality and Productivity of Molded Parts with a New Design of Conformal Cooling Channels for the Injection Molding Process, Advances in Polymer Technology, 35(1), 2015. **Impact Factor: 1.291, Q3 (Cited 21 times).**
4. **Z. Shayfull**, S. Sharif, Azlan Mohd Zain, M.F. Ghazali and R. Mohd Saad Potential of Conformal Cooling Channels in Rapid Heat Cycle Molding: A Review, Advances in Polymer Technology, 33(1): 1-24, 2014. **Impact Factor: 1.114, Q3 (Cited 19 times).**
5. **Z. Shayfull**, S. Sharif, Azlan Mohd Zain, R. Mohd Saad, and M. A. Fairuz, Milled Groove Square Shape Conformal Cooling Channels in Injection Molding Process, Materials and Manufacturing Processes, 28: 884–891, 2013. **Impact Factor: 1.486, Q2 (Cited 25 times).**

### Publications (SCOPUS Indexed Journal)

1. N.A Shuaib, S.M. Nasir, M. Fathullah, **Z. Shayfull**, M.S. Abdul Manan, “The influence of different mold temperature on warpage in a thin shallow injection molding process,” International Review of Mechanical Engineering, 6(1), 11-16, 2012 **(Cited 2 times).**
2. N.A Shuaib, S.M. Nasir, M. Fathullah, **Z. Shayfull**, M.S. Bahari, “Optimization on parameter settings in determining warpage factors of a side-gated thin shallow part injection molding for PP, ABS & PC+ABS materials,” International Review of Mechanical Engineering, 2012, 6(4), 865-870, 2012 **(Cited 1 time).**
3. SM Nasir, KA Ismail, **Z Shayfull**, NA Shuaib, Strength of the Weld Line and Warpage Defects on the Molded Parts in Injection Molding Process, International Review of Mechanical Engineering, 7(5), 977- 990, 2013 **(Cited 7 times).**
4. **Z Shayfull**, MS Bahari, SA Adam, SM Nasir, Z Nooraizedfiza, Improving Warpage on Thin Shallow Parts in Two-Plate Moulds with Conformal Cooling Channels, International Review of Mechanical Engineering (IREME), 7(3), 512-518, 2013.
5. NA Shuaib, M Fathullah, **Z Shayfull**, SM Nasir, MFMA Hamzas, Warpage Analysis between Straight and Conformal Cooling Channels on Thin Shallow Shell, Key Engineering Materials, 594, 676-685, 2014 **(Cited 1 time).**
6. MM Rashidi, MH Idris, **Z Shayfull**, The Effect of Inoculation on Properties of Modified Ductile Ni-Resist Alloy, Key Engineering Materials, 594, 98-112, 2014.
7. SM Nasir, KA Ismail, **Z Shayfull**, NA Shuaib, Comparison between single and multi gates for minimization of warpage using taguchi method in injection molding process for ABS material, Key Engineering Materials, 594, 842-851, 2014 **(Cited 3 times).**
8. **Z Shayfull**, S Sharif, AM Zain, RM Saad, MA Fairuz, Warpage analysis with straight drilled and conformal cooling channels on front panel housing by using Taguchi method, Key Engineering Materials, 594, 593- 603, 2014 **(Cited 2 times).**
9. MSM Effendi, **ZShayfull**, MS Saad, SM Nasir, AHB Azmi, A new invention of alarm reminder locking (ARL) security system, International Journal of Engineering and Technology, 8 (1), 465-472, 2016.
10. **Z Shayfull**, S Sharif, AM Zain, SM Nasir, RM Saad, Improving Warpage with Milled Groove Square Shape Conformal Cooling Channels, Key Engineering Materials, 700, 31-41, 2016.
11. SM Nasir, KA Ismail, **Z Shayfull**, Application of RSM to Optimize Moulding Conditions for Minimizing Shrinkage in Thermoplastic Processing, Key Engineering Materials, 700, 12-21, 2016 **(Cited 17 times).**

12. SM Azlan, Z Shayfull, SM Nasir, MS Saad, MM Rashidi, M Fathullah, Analysis of Strength on Thick Plate Part using Genetic Algorithm Optimisation Method, MATEC Web of Conferences, 78, 01085, 2016 **(Cited 1 time)**.
13. AA Raus, MS Wahab, Z Shayfull, K Kamarudin, M Ibrahim, The influence of selective laser melting parameters on density and mechanical properties of AlSi10Mg, MATEC Web of Conferences, 78, 01078, 2016 **(Cited 2 times)**.
14. MS Saad, MI Kamal, Z Shayfull, SM Nasir, M Fathullah, Application of Firefly Algorithm for Parameter Estimation of Damped Compound Pendulum, MATEC Web of Conferences, 78, 01119, 2016.
15. MS Saad, LNHM Deri, Z Shayfull, SM Nasir, M Fathullah, Parameter Estimation of Damped Compound Pendulum Using Bat Algorithm, MATEC Web of Conferences, 78, 01118, 2016.
16. K Kamarudin, MS Wahab, Z Shayfull, A Ahmed, AA Raus, Dimensional Accuracy and Surface Roughness Analysis for AlSi10Mg Produced by Selective Laser Melting (SLM), MATEC Web of Conferences, 78, 01077, 2016 **(Cited 1 time)**.
17. M Isafiq, Z Shayfull, SM Nasir, MM Rashidi, M Fathullah, NZ Noriman, Shrinkage Analysis on Thick Plate Part using Response Surface Methodology (RSM), MATEC Web of Conferences, 78, 01084, 2016 **(Cited 12 times)**.
18. SN Najihah, Z Shayfull, SM Nasir, Mohd Sazli Saad, MM Rashidi, M Fathullah, NZ Noriman, Analysis of Shrinkage on Thick Plate Part using Genetic Algorithm, MATEC Web of Conferences, 78, 01083, 2016 **(Cited 32 times)**.
19. MS Saad, Z Shayfull, SM Nasir, M Fathullah, Parameter Estimation of Damped Compound Pendulum Differential Evolution Algorithm, MATEC Web of Conferences, 78, 01117, 2016.
20. AK Muzafar, MM Rashidi, I Mahadzir, Z Shayfull, Investigation on Microstructure of Heat Treated High Manganese Austenitic Cast Iron, MATEC Web of Conferences, 78, 01079, 2016.
21. AK Muzafar, MM Rashidi, I Mahadzir, Z Shayfull, Effect on Mechanical Properties of Heat Treated High Manganese Austenitic Cast Iron, MATEC Web of Conferences 78, 01081, 2016.
22. Omar S Dahham, NZ Noriman, ST Sam, H Rosniza, N Al-Samarrai Marwa, Z Shayfull, AM Alakrach, The Effects of Trans-Polyoctylene Rubber (TOR) as a Compatibilizer on The Properties of Epoxidized Natural Rubber/Recycled Silicone Catheter (ENR-25/rSC) Vulcanizate, MATEC Web of Conferences, 78, 01076, 2016 **(Cited 13 times)**.
23. Omar S Dahham, NZ Noriman, ST Sam, N Marwa Al-Samarrai, Z Shayfull, AM Alakrach, SA Abduati Elnaid, The influence of Rice Husk Fiber on The Properties of Epoxidized Natural Rubber/Rice Husk Compounds, MATEC Web of Conferences, 78, 01075, 2016 **(Cited 11 times)**.
24. Editorial Open Access, Sandu, A.V., Abdullah, M.M.A.B., Vizureanu, P., Rahim, S.Z.A., Sandu, I. IOP Conference Series: Materials Science and Engineering, 133(1), 011001, 2016.
25. MHM Hazwan, Z Shayfull, S Sharif, SM Nasir, MM Rashidi, Warpage Optimisation on the Moulded Part with Conformal Cooling Channels using Response Surface Methodology (RSM) and Glowworm Swarm Optimisation (GSO), MATEC Web of Conferences, 97, 01104, 2017.
26. MHM Hazwan, Z Shayfull, S Sharif, SM Nasir, MM Rashidi, Warpage Optimisation on the Moulded Part using Response Surface Methodology (RSM) and Glowworm Swarm Optimisation (GSO), MATEC Web of Conferences, 97, 01105, 2017 **(Cited 1 time)**.
27. MHM Hazwan, Z Shayfull, S Sharif, SM Nasir, N Zainal, Optimisation of warpage on plastic injection moulding part using response surface methodology (RSM), AIP Conference Proceedings, 1835 (1), 020037, 2017 **(Cited 2 times)**.
28. MHM Hazwan, Z Shayfull, S Sharif, N Zainal, SM Nasir, Optimisation of warpage on plastic injection moulding part with MGSS conformal cooling channels moulds using response surface methodology (RSM), AIP Conference Proceedings, 1835 (1), 020038, 2017 **(Cited 1 time)**.
29. XN Lee, M Fathullah, Z Shayfull, SM Nasir, MHM Hazwan, S Shazzuan, Deploying response surface methodology (RSM) and glowworm swarm optimization (GSO) in optimizing warpage on a mobile phone cover, AIP Conference Proceedings, 1885 (1), 020047, 2017 **(Cited 1 time)**.
30. N Rayhana, M Fathullah, Z Shayfull, SM Nasir, MHM Hazwan, Analyzing parameters optimisation in minimising warpage on side arm using response surface methodology (RSM), AIP Conference Proceedings, 1885 (1), 020039, 2017.



31. A Miza, **Z Shayfull**, SM Nasir, M Fathullah, MM Rashidi, Optimisation of warpage on plastic injection moulding part using response surface methodology (RSM), AIP Conference Proceedings, 1885 (1), 020006, 2017 **(Cited 1 time)**.
32. NS Safuan, M Fathullah, **Z Shayfull**, SM Nasir, MHM Hazwan, Warpage improvement on wheel caster by optimizing the process parameters using genetic algorithm (GA), AIP Conference Proceedings 1885 (1), 020013, 2017.
33. NS Safuan, M Fathullah, **Z Shayfull**, SM Nasir, MHM Hazwan, Warpage minimization on wheel caster by optimizing process parameters using response surface methodology (RSM), AIP Conference Proceedings, 1885 (1), 020040, 2017.
34. N Ain, M Fathullah, **Z Shayfull**, SM Nasir, MHM Hazwan, Minimising warpage on side arm using response surface methodology (RSM), AIP Conference Proceedings, 1885 (1), 020024, 2017.
35. A Miza, **Z Shayfull**, SM Nasir, M Fathullah, MHM Hazwan, Optimisation of warpage on plastic injection moulding part using response surface methodology (RSM) and genetic algorithm method (GA), AIP Conference Proceedings, 1885 (1), 020007, 2017.
36. CK Sow, M Fathullah, **Z Shayfull**, SM Nasir, S Shazzuan, Warpage minimization on nylon side arm using response surface methodology (RSM): An analysis, AIP Conference Proceedings, 1885 (1), 020143, 2017 **(Cited 1 time)**.
37. NA Zakaria, MZ Azlan, **Z Shayfull**, S Roselina, SM Nasir, Optimal injection process parameter analysis for front panel housing using response surface methodology, AIP Conference Proceedings, 1885 (1), 020169, 2017.
38. MHM Hazwan, **Z Shayfull**, S Sharif, SM Nasir, MM Rashidi, Warpage optimisation on the moulded part with straight-drilled and MGSS conformal cooling channels using response surface methodology (RSM), AIP Conference Proceedings, 1885 (1), 020217, 2017.
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6. M.F. Ghazali, **Z. Shayfull**, N. A. Shuaib, S.M. Nasir, M. Mat Salleh, "Injection Mould Analysis in Reducing Warpage of Nylon PA66 Side Arms Using Taguchi Method and ANOVA, International Journal of Basic & Applied Sciences, 11(1), 2011.
7. N.A.Shuaib, M.F. Ghazali, **Z. Shayfull**, M.Z.M. Zain, S.M. Nasir, "Warpage Factors Effectiveness of a Thin Shallow Injection-Molded Part using Taguchi Method," International Journal of Engineering & Technology, 11(1), 2011.



## Book Publications

1. **Shayfull Zamree Abd Rahim**, Mohd Fathullah Ghazali, Mohd Nasir Mat Saad, Mohd Sabri Hussin & Norshah Afizi Shuaib, 2013, "Inovasi Produk – Tips dan Panduan", Penerbit UniMAP, ISBN 978-967-5415- 63-0.
2. Mohd Khairl Fadzly Abu Bakar, **ShayfullZamreeAbdRahim**, Mohd Nasir Mat Saad, Irfan Abd Rahim, 2015, "Asas Sistem Pneumatik & Hidraulik", Penerbit UniMAP, ISBN 978-967-5415-80-7.
3. Mohd Mustafa Al Bakri Abdullah, Rafiza Abd Razak, Muhammad Mahyiddin Ramli, **Shayfull Zamree Abd Rahim**, Rizalafande Che Ismail and Mohd Nasir Mat Saad, Design and Development of Sustainable Manufacturing Systems, Applied Mechanics and Materials (Volume 815), 2015.
4. S. Sharif, M.M.A.B. Abdullah, **S.Z. Abd Rahim**, M.F. Ghazali, M. N. Mat Saad, M.M. Ramli, S.A. Ramli, S.A. Zainol Murad, S.S. Mat Isa, 2nd International Conference on Green Design and Manufacture 2016 (IConGDM 2016), ISBN: 978-1-5108-3111-7, Curran Associates, Inc. 2016.
5. Andrei Victor Sandu, Mohd Mustafa al Bakri Abdullah, Petrică Vizureanu, **Shayfull Zamree Abd Rahim** and Ion Sandu, International Conference on Innovative Research - ICIR Euroinvent 2016, IOP Conference Series: Materials Science and Engineering, Volume 133, conference 1, IOP Publishing Ltd., 2016.
6. Mohd. Mustafa Albakri Abdullah, Muhammad Mahyiddin Ramli, **Shayfull Zamree Abd Rahim**, Siti Salwa Mat Isa, Mohd Nasir Mat Saad, Rizalafande Che Ismail and Mohd Fathullah Ghazli, 3rd Electronic And Green Materials International Conference 2017 (EGM 2017), ISBN: 9780735415652, AIP Publishing 2017.
7. Mohd Mustafa Al-Bakri Abdullah, **Shayfull Zamree Bin Abd. Rahim**, Mohd Nasir Bin Mat Saad, Mohd Fathullah bin Ghazli, Romisuhani Ahmad, Muhammad Faheem Bin Mohd Tahir and Liyana Binti Jamaludin, 4th International Conference on Green Design and Manufacture 2018 (IConGDM 2018), ISBN: 978-0-7354-1752-6, AIP Publishing 2018.
8. Omar Sabbar Dahham, Nik Noriman Zulkepli, Saad Sabbar Dahham, Rosniza Hamzah, **Shayfull Zamree Abd Rahim**, International Conference on Materials Engineering and Science (IConMEAS 2018), ISBN: 978-1-5108-8000-9 ISSN: 1757-8981, IOP Conference Series: Materials Science and Engineering Volume 454, IOP Publishing Ltd., 2018.

## Patent(s) Filed

**Patent Filing:** A DE-SEEDING APPARATUS (Pintas ref: PT/3729/Unimap/11, UniMAP ref: Unimap/PPKPHI/HI/PDPF(02)(2011)-1)

**Patent Application Number:** PI 2011700184

**Main Applicant:** **Shayfull Zamree Abd. Rahim**

**Co-Applicant:** Mohd Fathullah Ghazli @ Ghazali, Norshah Afizi Shuaib, Mohd. Nasir Bin Mat Saad, Radhwan Hussin, Muhamad Farizuan Rosli.

## 5.0 ACADEMIC AWARD AND RECOGNITION

### Academic Award

1. **Excellent Service Award 2017**, Anugerah Seri Gemilang University Malaysia Perlis 2018, Hotel Seri Malaysia, Kangar, Perlis.

### Academic Recognition

1. **Care Taker**, Memorandum of Understanding (MoU) between Universiti Malaysia Perlis (UniMAP) and University of Medea, Algeria in term of exchange of staff and students (mobility) and collaboration in the field of research, April 2018 – March 2023.
2. Consultancy for Funfiek Technology Sdn Bhd on Design and Development Drone for Agriculture-Fishery, National Special Grant: 9002-00083, RM 10,000, April 2019 – April 2022, **Main Researcher**.
3. **Academic Advisory Panel**, Diploma in Welding Technology, Kangar Vocational College, Perlis, September 2019 – December 2021.
4. **Invited Speaker**, Workshop on Project Innovation Exposure, SK Sungai Baru, 27 August 2019.
5. **Invited Speaker**, Enhancement TVET MARA: IR4.0, MARA SIK Skills Institute, Kedah, 01 August 2019.
6. The **President of Parents And Teachers Association**, SK Kayang, Perlis, April 2019 – March 2021.
7. **Panel of Assessors**, Engineering Technology Accreditation Council (ETAC), for Accreditation Assessment of Diploma in Mechanical Engineering (Plant), Polytechnic Seberang Perai, 22-25 September 2019.
8. **External Advisor** of the program review workshops for full accreditation preparation, for Diploma in Engineering Technology (Precision CNC Machining), Institut Kemahiran Tinggi PERDA (PERDA-TECH), Pulau Pinang, 14-16 August 2019.
9. **Invited Speaker**, Latest Procedure Briefing And Tips Requested for P. Eng/Ir Through IEM-BEM, School of Material Engineering, UniMAP, 23 July 2019.
10. **Head of Panel Evaluators** for Internal Audit Evaluation in preparation for receiving the EAC (New Cycle) audit for the Bachelor of Engineering (Mechanical Engineering) Program, University Malaysia Perlis, 13 September 2018.
11. The **President of Parents And Teachers Association**, SK Kayang, Perlis, April 2017 – March 2019.
12. **Facilitator**, Program “Be MyRIS 19”, Institut Pendidikan Guru Kampus Darul Aman, Kedah, 19 March 2019.
13. **Project Consultant**, International Conference on Applied Computing 2019 (ICAC 2019), UNI-Technologies Sdn. Bhd., Universiti Teknologi Malaysia, 81310, UTM Skudai Johor, Malaysia, January 2019.
14. **Invited Speaker**, Registration Brief as Graduate Engineer / Professional Engineer for Engineering Degree graduated (Staff), Politeknik Sultan Abdul Halim Mu'adzam Shah (POLIMAS), 20 September 2018.
15. **Facilitator Curriculum Review Workshop** for Diploma in Engineering Technology (Product Design) and Diploma in Engineering Technology (Precision CNC Machining), Institut Kemahiran Tinggi PERDA (PERDA-TECH), Pulau Pinang, 09-12 October 2018.
16. **Facilitator**, Personal Coaching for Professional Engineer Programs, School of Material Engineering, university Malaysia Perlis, 11 April 2018.
17. **Invited Speaker**, Briefing on Science, Technology, Engineering, and Mathematics, SMK Derma, Perlis, 02 May 2018.

18. **Invited Speaker**, Workshop & Innovation Competition, Sekolah Rendah Agama Attarbiyah Al-Islamiyah – Sraati, Perlis, 08 November 2017.
19. **Academic Advisor for Curriculum Review & Enhancement Workshop**, Enhancement Review Workshop, for Diploma in Engineering Technology (Product Design), Institut Kemahiran Tinggi PERDA (PERDA-TECH), Pulau Pinang, 05-08 September 2017.
20. **Facilitator Curriculum Review Workshop**, Diploma in Engineering Technology (Product Design) as preparation for program assessment by Malaysian Qualifications Agency (MQA), Institut Kemahiran Tinggi PERDA (PERDA-TECH), Pulau Pinang, 23-25 May 2017.
21. **Program Director**, 1st Innovation Design & Research International Symposium 2017 (IDRIS 2017), 23-25 April 2017, Silka May Tower, Kuala Lumpur, Malaysia.
22. **Curriculum Academic Advisor** for Diploma in Engineering Technology (Product Design), Institut Kemahiran Tinggi PERDA (PERDA-TECH), Pulau Pinang, 11-12 April 2017.
23. **Invited Speaker**, Courses and Metrology Module Development, Institut Kemahiran Tinggi PERDA (PERDA-TECH), 10-14 April 2017.
24. **Invited Speaker**, Courses and Metrology Module Development, Institut Kemahiran Tinggi PERDA (PERDA-TECH), 27 Feb – 01 March 2017.
25. **Consulting & Innovation Trainer**, District Education Office, Seberang Prai Selatan, 23 February 2017.
26. **Facilitator**, Innovation Program, Innovation & Robotics Club, Sekolah Kebangsaan Kayang, Perlis, 19 January 2017.
27. **Facilitator**, Innovation & Robotics Camp (ADVANCE) and Creativity & Innovation Competition (CIC), 2017.
28. **Invited Speaker**, Conference Publications Proceeding Workshop with Malang University, Indonesia, Organised by Center of Excellent Geopolymer & Green Technology, Faculty of Engineering Technology, Universiti Malaysia Perlis, 18 November 2016.
29. **Facilitator**, Innovation Project Empowerment Workshop, Kolej MARA Kuala Nerang, Kedah, 08 November 2016.
30. Consultancy for Funfiek Technology Sdn Bhd on Skill Development in Product Design Engineering, National Special Grant: 9004-00035, RM 30,000, April 2013 – April 2016, **Main Researcher**.
31. Consultancy for i-Zest Sdn Bhd on Analysis of Plastic Material Flow into Injection Molds and Optimize the Injection Molding Parameters, National Special Grant: 9004-00036. Amount: RM 35,000, Duration: April 2013 – April 2016, **Main Researcher**.
32. **Advisor for the Academic Curriculum Development Workshop** for Diploma in Engineering Technology (Precision CNC Machining) Phase 3, Institut Kemahiran Tinggi PERDA (PERDA-TECH), TH Hotel, Pulau Pinang, 21-23 March 2016.
33. **Advisor for the Academic Curriculum Development Workshop** for Diploma in Engineering Technology (Precision CNC Machining) Phase 2, Institut Kemahiran Tinggi PERDA (PERDA-TECH), Hotel Seri Costa, Melaka, 24-27 February 2016.
34. **Advisor for the Academic Curriculum Development Workshop** for Diploma in Engineering Technology (Precision CNC Machining), Institut Kemahiran Tinggi PERDA (PERDA-TECH), Tower Regency Hotel & Apartments, Ipoh, Perak, 27-29 January 2016.
35. **Academic Curriculum Development Committee**, for Diploma in Engineering Technology (Precision CNC Machining), Institut Kemahiran Tinggi PERDA (PERDA-TECH), Diploma Teknologi Kejuruteraan Pemesinan, 29 October 2015.
36. **Academic Advisory Panel**, Workshop on Development of Diploma in Manufacturing Engineering Program (Product Design) Institut Kemahiran Tinggi PERDA (PERDA-TECH), Swiss Inn Hotel, Sungai Petani, Kedah, 25-28 February 2014.

## Journal Reviewer

1. Ashtankar, Kishor, Shinde, Mahesh, Experimental analysis of milled groove conformal cooling in injection molding, Manuscript ID:ADV-06-17-177, Advances in Polymer Technology, Wiley, July, 2017. (IF: 2.073)
2. Quan Wang, Xiao Sun, Chaohua Huang, A Double-Toggle Clamping Unit of Injection Molding Machine, Recent Patents on Mechanical Engineering, Bentham Science Publishers, 2014.

## Proceeding Reviewer (Indexed Scopus)

1. S Zakaria, A F A Osman, S N H Mustapha and L K Yiew, "Soft-Hard Hybrid Filler for Silicone Based Dielectric Elastomer: Glycerol and Titanium Dioxide", 4th International Conference on Green Design and Manufacture (IConGDM 2018), 2018.
2. Mohd Asyraf Mahboob Ali, Azwan Iskandar Azmi, Mohd Zahiruddin Md. Zain, Ahmad Nabil Mohd. Khalil, Ahmad Fairuz Mansor and Hadisah M Salleh, "The effect of concentration of coco amido propyl betaine (CAPB) as green additive in bio-based coconut oil lubricant on the machining performance of Inconel 718", 4th International Conference on Green Design and Manufacture (IConGDM 2018), 2018.
3. W Dony, Saloma and I F Astira, "Oil Palm Ash-based Geopolymer Mortar with Variation Na<sub>2</sub>SiO<sub>3</sub>/NaOH Ratio", 4th International Conference on Green Design and Manufacture (IConGDM 2018), 2018.
4. V Itteridi, Saloma, and I F Astira, "Microstructure Characterization of Fly Ash-Based Geopolymer Mortar with Substitution of Oil Palm Ash", 4th International Conference on Green Design and Manufacture (IConGDM 2018), 2018.
5. Shakrani, Shahrul Azwan, Afizah Ayob, and Mohd Asri Ab Rahim, "Applications of waste material in the pervious concrete pavement: A review", 3rd International Conference on Green Design and Manufacture (IConGDM 2017), 2017.
6. Shakrani, Shahrul Azwan, Afizah Ayob, and Mohd Asri Ab Rahim, "A review of nanoclay applications in the pervious concrete pavement", 3rd International Conference on Green Design and Manufacture (IConGDM 2017), 2017.
7. FA, Fauzi, J. P. Siregar, and C. Tezara, "Investigation of Thermal Behavior for Natural Fibres Reinforced Epoxy using Thermogravimetric and Differential Scanning Calorimetric Analysis", 2nd International Conference on Green Design and Manufacture (IConGDM 2016), 2016.
8. Sarwani, Khairul Ilman, Rais Hanizam Madon, Siti Aida Ibrahim, and Mas Fawzi, "Effect of Calcination Temperature on Morphological and Topography of Nickel-Alumina Thin Film", 2nd International Conference on Green Design and Manufacture (IConGDM 2016), 2016.
9. Shaari, Muhammad Farid, Z. Samad, M. H. Othman, and O. M. F. Marwah, "Feasibility Study on IPMC Actuated Contractile Water Jet Thruster Body Contraction", 2nd International Conference on Green Design and Manufacture (IConGDM 2016), 2016.
10. Peng, H. K., M. N. Salleh, and A. F. Aiman, "Computer Aided Facial Prosthetics Manufacturing System", 2nd International Conference on Green Design and Manufacture (IConGDM 2016), 2016.
11. Razali, Zol Bahri, Mohammad Haniff Othman, and Mohd Hisam Daud, "Optimum Design of Multi-Function Robot Arm Gripper for Varying Shape Green Product", 2nd International Conference on Green Design and Manufacture (IConGDM 2016), 2016.
12. Aiman, A. F., M. N. Salleh, and K. A. Ismail, "A New Invention Method to Determine the Reduction Factor for Low Fabric Tension Properties for Head Garment Fabrication", 2nd International Conference on Green Design and Manufacture (IConGDM 2016), 2016.
13. Abdul Karim, Zainal A., Bin Haron, and Mohamed Haziq, "Experimental investigation of in-situ soot oxidation using electromagnetic waves", 3rd International Conference on Advanced Material Engineering & Technology (ICAMET 2014), 2014.

14. Khan, Shah Fenner, M. J. German, and K. W. Dalgarno, "Indirect Additive Manufacturing Processing of Poly-Lactide-co-Glycolide", 3rd International Conference on Advanced Material Engineering & Technology (ICAMET 2014), 2014.
15. Maizana, Dina, Y. Yanawati, and A. Nazifah, "Performance Comparison on 0.35 mm and 0.50 mm thicknesses of Nonoriented Steel Sheets Using FEM", 4th International Malaysia-Ireland Joint Symposium on Engineering, Science and Business (IMiEJS) 2014, 2014.

#### **Proceeding Reviewer (Non-Indexed Scopus)**

1. Bharadwaj, Abhilash M., Sonny Irawan, Saravanan Karuppanan, Mohamad Zaki bin Abdullah, and Ismail bin Mohd Saaid. "Finite Element Analysis of Casing Material Behavior in Steam Injection Well Operations", International Conference on Green Design and Manufacture (IConGDM 2015), 2015.
2. Hilmi, Ahmad Humaizi, Ariffin Ismail, and Mohd Firdaus, "Simulation and Experimental Studies on Optimum Barrel Length for High Impact Penetrator", International Conference on Green Design and Manufacture (IConGDM 2015), 2015.

#### **Committee/Chairman/Seminar/Workshop**

1. Committee Member, 7<sup>th</sup> International Conference on Advanced Material Engineering (ICAMET 2014), 29-30 Nov 2019, Seoul, Korea 2019.
2. Chairman, 5th International Conference on Green Design & Manufacture (IConGDM 2019), Aston Tropicana Hotel, Bandung, Indonesia, 29-30 April 2019.
3. Conference Co-Chairman, International Conference On Green Engineering & Technology 2019 (IConGETech2019), Eastin Hotel Makkasan Bangkok, Bangkok, Thailand, 04-05 February 2019.
4. Conference Co-Chairman, 4th International Conference on Green Design & Manufacture (IConGDM 2018), Eden Star Saigon Hotel, Ho Chi Minh, Vietnam, 29-30 April 2018.
5. Committee Member, International Engineering Invention Innovation Exhibition (i-ENVEX 2018), 2018.
6. Conference Co-Chairman, 3rd International Conference on Green Design & Manufacture (IConGDM 2017), Ibis Style Hotel, Krabi, Thailand, 29-30 April 2017.
7. Conference Co-Chairman, 2nd International Conference on Green Design & Manufacture (IConGDM 2016), Royal Phuket City Hotel, Phuket, Thailand, 01-02 Mei 2016.
8. Committee Member, International Engineering Invention Innovation Exhibition (i-ENVEX 2016), 2016.
9. Conference Co-Chairman, 1st International Conference on Green Design & Manufacture (IConGDM 2015), Swiss Belinn Manyar Hotel, Surabaya, Indonesia, 29-30 April 2015.
10. Committee Member, International Engineering Invention Innovation Exhibition (i-ENVEX 2015), 2015.
11. Committee Member, International Conference on Advanced Material Engineering (ICAMET 2014), Ho Chi Minh City, Vietnam 2014.

## 6.0 RESEARCH AWARDS AND MEDALS AWARDS

### Awards (International)

1. **Best Invention Award** from Iran, New Discovery Method of Manufacturing Catheters, 21st International Invention, Innovation and Technology Exhibition, Invention, Innovation & Technology Exhibition (ITEX), 2010, **Co-Researcher**.
2. **Grand Award** from Asian Invention Association, Dried Chili Seeds Separating Machine, Malaysia Technology Expo (MTE) 2011, **Main Researcher**.
3. **Special Award** from Chinese Innovation & Invention Society - Taiwan (CIIS), New Design of Milled Groove Square Shape Conformal Cooling Channels in Injection Molding Process, International Warsaw Invention Show (IWIS) 2013, Warsaw, Poland, **Main Researcher**.
4. **Special Award** from Korea Invention News, New Design of Milled Groove Square Shape Conformal Cooling Channels in Injection Molding Process, International Warsaw Invention Show (IWIS) 2013, Warsaw, Poland, **Main Researcher**.
5. **Award in Invention Academics & Education Order of Merit Category**, World Inventor Award Festival (WIAF) 2013, New Design of Milled Groove Square Shape Conformal Cooling Channels in Injection Molding Process, Seoul, Korea, **Main Researcher**.
6. **Award in Manufacturing Order of Merit Category**, World Inventor Award Festival (WIAF) 2013, New Design of Milled Groove Square Shape Conformal Cooling Channels in Injection Molding Process, Seoul, Korea, **Main Researcher**.
7. **Special Award** from Korea Invention News, Gas Leakage Precaution System, International Warsaw Invention Show (IWIS) 2013, Warsaw, Poland, **Co-Researcher**.
8. **Special Award**, Honor of Invention from World Invention Intellectual Property Associations, A New Design of Milled Groove Square Shape Conformal Cooling Channels (Milled Grooved Square Shape Conformal Cooling Channels) in Injection Molding Process, Invention, Innovation & Technology Exhibition (ITEX) 2014, Kuala Lumpur Convention Centre (KLCC), Malaysia, **Main Researcher**.
9. **Leading Innovation Award** from International Intellectual Property Network Forum, Improving Productivity and Quality in Conventional and Rapid Heat Cycle Molding with A New Design of Conformal Cooling Channels, International Exhibition on Invention Kunshan (IEIK) 2014, Kunshan, China, **Main Researcher**.
10. **Special Award** from Korea University Invention Association, Improving Productivity and Quality In Conventional and Rapid Heat Cycle Molding With A New Design of Conformal Cooling Channels, International Exhibition on Invention Kunshan (IEIK) 2014, Kunshan, China, **Main Researcher**.
11. **Special Award** from Croatian Inventors Association, Improving Productivity and Quality In Conventional and Rapid Heat Cycle Molding With A New Design of Conformal Cooling Channels, International Exhibition on Invention Kunshan (IEIK) 2014, Kunshan, China, **Main Researcher**.
12. **Special Award** from Romania, Multi-Objective Optimization of Plastic Injection Molding Process, 17th Moscow International Salon of Inventions and Innovation Technologies 2014, Moscow, Russia, **Co- Researcher**.
13. **Grand Award** from World Invention Intellectual Property Associations, Multi-Objective Optimization on Shrinkage and Weld Line Strength Injection Moulding Process, Green Technology Research Exposition GTRex, 5-6 Dec. 2014, Ho Chi Minh, Vietnam, **Co-Researcher**.
14. **Special Prize** from International Club Archimedes, Roadside Wind & Pressure Energy Harvester, 17th Moscow International Salon of Inventions and Innovation Technologies 2014, Moscow, Russia, 2014, **Co- Researcher**.
15. **Special Award** from Romania, Portable Aprs Igate Using For Amateur Radio, 17th Moscow International Salon of Inventions and Innovation Technologies 2014, Moscow, Russia, **Co- Researcher**.

16. **Special Award** from Korea Invention News, A New Innovation of Fire Alarm System, 7th European Exhibition of Creativity and Innovation (EUROINVENT) 2015, Iasi, Romania, **Co-Researcher**.
17. **Excellence Award** from Lebanese Innovators Society, Potential technique of improving the part quality using natural fibre and geopolymer composites and Artificial Intelligence for the injection moulding process, 2nd World Invention and Innovation Forum (WIIF) 2017, Foshan, China, **Co-Researcher**.
18. **Special Award** from Association of Thai Innovation and Invention Promotion, New Discovery of Sm<sup>3+</sup> in Reducing Cost for Red Phosphor in White LED Applications, 10th European Exhibition of Creativity and Innovation (EUROINVENT) 2018, Iasi, Romania, **Co-Researcher**.

#### Awards (University)

1. **Anugerah Seri Gemilang UniMAP**, 2014 for APRS Igate for Amateur Radio, 24 Mac 2015, Universiti Malaysia Perlis.
2. **Anugerah Seri Gemilang UniMAP**, 2014 for GSM X1 Smart Home Automation System, 24 Mac 2015, Universiti Malaysia Perlis.
3. **Anugerah Seri Gemilang UniMAP, 2014** for PDIGI IGATE, 24 Mac 2015, Universiti Malaysia Perlis.
4. **Anugerah Seri Gemilang UniMAP, 2014** for Multi-Objective Optimization of Plastic Injection Moulding Process, 24 Mac 2015, Universiti Malaysia Perlis.
5. **Anugerah Seri Gemilang UniMAP, 2014** for Novel Red Phosphor for LEDs and Displays, 24 Mac 2015, Universiti Malaysia Perlis.
6. **Anugerah Seri Gemilang UniMAP, 2014** for GSM Temperature Alert System to Detect Human Body Temperature, 24 Mac 2015, Universiti Malaysia Perlis.
7. **Anugerah Seri Gemilang UniMAP, 2014** for Low Cost Home Automation System, 24 Mac 2015, Universiti Malaysia Perlis.
8. **Anugerah Seri Gemilang UniMAP, 2014** for Roadside Wind & Pressure Energy Harvester, 24 Mac 2015, Universiti Malaysia Perlis.
9. **Anugerah Seri Gemilang UniMAP, 2014** for A Design of Conformal Cooling Channels (Milled Grooved Square Shape) in Injection Moulding Processes, 24 Mac 2015, Universiti Malaysia Perlis.
10. **Anugerah Seri Gemilang UniMAP, 2014** for New Design of Milled Grooved Square Shape Conformal Cooling Channels for Conventional and Rapid Heat Cycle Moulding, 24 Mac 2015, Universiti Malaysia Perlis.
11. **Anugerah Seri Gemilang UniMAP, 2014** for Improving Quality and Productivity in Rapid Heat Cycle Moulding with A New Design of Conformal Cooling Channels, 24 Mac 2015, Universiti Malaysia Perlis.
12. **Anugerah Seri Gemilang UniMAP, 2015** for Improving Productivity and Quality in Injection Moulding Process with A New Design of MGSS Conformal Cooling Channels, 29 Mac 2016, Universiti Malaysia Perlis.
13. **Anugerah Seri Gemilang UniMAP, 2015** for H2E Charger, 29 Mac 2016, Universiti Malaysia Perlis.
14. **Anugerah Seri Gemilang UniMAP, 2015** for GSM Air Quality Monitoring System to Detect the Haze, 29 Mac 2016, Universiti Malaysia Perlis.
15. **Anugerah Seri Gemilang UniMAP, 2015** for X1 GSM Automation Security with Auto Alert System, 29 Mac 2016, Universiti Malaysia Perlis.
16. **Anugerah Seri Gemilang UniMAP, 2015** for GSM Temperature Alert System to Detect Human Body Temperature, 29 Mac 2016, Universiti Malaysia Perlis.
17. **Anugerah Seri Gemilang UniMAP, 2015** for A New Improvement Method on Strength and Warpage in Injection Moulding Process, 29 Mac 2016, Universiti Malaysia Perlis.
18. **Anugerah Seri Gemilang UniMAP, 2015** for New Intelligent of Fire Alarm System, 29 Mac 2016, Universiti Malaysia Perlis.
19. **Anugerah Seri Gemilang UniMAP, 2015** for A New Innovation of Fire Alarm System, 29 Mac 2016, Universiti Malaysia Perlis.

20. **Anugerah Seri Gemilang UniMAP, 2015** for Roadside Wind & Pressure Energy Harvester, 29 Mac 2016, Universiti Malaysia Perlis.
21. **Anugerah Seri Gemilang UniMAP, 2015** for A New Invention on Roadside Energy Harvester, 29 Mac 2016, Universiti Malaysia Perlis.
22. **Anugerah Seri Gemilang UniMAP, 2015** for Dried Chilli Seeds Separating Machine V2 (DCSSM V2), 29 Mac 2016, Universiti Malaysia Perlis.
23. **Anugerah Seri Gemilang UniMAP, 2016** for A New Design of MGSS Conformal Cooling Channels in Injection Moulding Process, 13 Mac 2017, Universiti Malaysia Perlis.
24. **Anugerah Seri Gemilang UniMAP, 2016** for Evaluation of Shrinkage and Weld Lines Strength on Thick Flat Part in Injection Moulding Process, 13 Mac 2017, Universiti Malaysia Perlis.

### **Medals (International Exhibition)**

1. **Bronze Medal**, Development of A Lighting System for Automotive, Malaysia Technology Expo (MTE) 2008, **Co-Researcher**.
2. **Silver Medal**, Portable Traffic Light with Radio Frequency Technology, Invention, Innovation & Technology Exhibition (ITEX) 2009, **Main Researcher**.
3. **Silver Medal**, Hexagonal LED Module for Display System, Malaysia Technology Expo (MTE) 2009, **Co-Researcher**.
4. **Silver Medal**, Road Block Lantern and Vigilant Light (VIGITERN), Invention, Innovation & Technology Exhibition (ITEX) 2009, **Co-Researcher**.
5. **Silver Medal**, Portable Paddy De-Husking Machine, Malaysia Technology Expo (MTE) 2010, **Main Researcher**.
6. **Silver Medal**, Halal Logo Verification Device, Invention, Innovation & Technology Exhibition (ITEX) 2010, **Main Researcher**.
7. **Gold Medal**, New Discovery Method of Manufacturing Catheters, Invention, Innovation & Technology Exhibition (ITEX) 2010, **Co-Researcher**.
8. **Bronze Medal**, Portable Paddy Cleaning Machine, Malaysia Technology Expo (MTE) 2010, **Main Researcher**.
9. **Bronze Medal**, Let's Shop Scooter, Invention, Innovation & Technology Exhibition (ITEX) 2011, **Co-Researcher**.
10. **Bronze Medal**, Dried Chili Seeds Separating Machine, INOVA 2011, 36th International Invention Show, Zagreb, Croatia, 2011, **Main Researcher**.
11. **Gold Medal**, Dried Chili Seed Separating Machine, Malaysia Technology Expo (MTE) 2011, **Main Researcher**.
12. **Silver Medal**, Roselle Seed Capsule Cutting Machine, Malaysia Technology Expo (MTE) 2011, **Co-Researcher**.
13. **Silver Medal**, Smart Qiblat, Invention, Innovation & Technology Exhibition (ITEX) 2011, **Co-Researcher**.
14. **Silver Medal**, Kapok Separating Machine, Invention, Innovation & Technology Exhibition (ITEX) 2011, **Co-Researcher**.
15. **Silver Medal**, New Discovery Design of Side Arm for Catheters Manufacturing Process, Seoul International Invention Fair (SIFF), 2011, **Co-Researcher**.
16. **Silver Medal**, Fruits Wrapping Device, Invention, Innovation & Technology Exhibition (ITEX) 2012, **Co-Researcher**.
17. **Gold Medal**, New Design of Milled Groove Square Shape Conformal Cooling Channels in Injection Molding Process, International Warsaw Invention Show (IWIS) 2013, Warsaw, Poland, **Main Researcher**.
18. **Silver Medal**, Fruits Wrapping and Harvesting Device, Korea International Women's Invention Exposition (KIWIE) 2013, **Co-Researcher**.
19. **Silver Medal**, Improving Quality and Productivity in Rapid Heat Cycle Moulding with A New Design of Conformal Cooling Channels, 6th European Exhibition of Creativity and Innovation (EUROINVENT) 2014, Iasi, Romania, **Main Researcher**.



20. **Silver Medal**, Improving Productivity and Quality In Injection Molding Process with a New Design of Conformal Cooling Channels, Malaysia Technology Expo (MTE) 2014, Kuala Lumpur Convention Centre (KLCC), Malaysia, **Main Researcher**.
21. **Silver Medal**, Low Cost Home Automation System, 17th Moscow International Salon of Inventions and Innovation Technologies 2014 at Moscow, Russia, **Co-Researcher**.
22. **Silver Medal**, Portable Aprs Igate Using For Amateur Radio, 17th Moscow International Salon of Inventions and Innovation Technologies 2014 at Moscow, Russia, **Co-Researcher**.
23. **Gold Medal**, A New Design of Milled Groove Square Shape Conformal Cooling Channels (Milled Grooved Square Shape Conformal Cooling Channels) in Injection Molding Process, Innovation & Technology Exhibition (ITEX) 2014, Kuala Lumpur Convention Centre (KLCC), Malaysia, **Main Researcher**.
24. **Gold Medal**, Roadside Wind & Pressure Energy Harvester, 17th Moscow International Salon of Inventions and Innovation Technologies 2014, Moscow, Russia, 2014, **Main Researcher**.
25. **Gold Medal**, Multi-Objective Optimization of Plastic Injection Molding Process, 17th Moscow International Salon of Inventions and Innovation Technologies 2014, Moscow, Russia, 2014, **Co-Researcher**.
26. **Bronze Medal**, Improving Productivity and Quality In Conventional and Rapid Heat Cycle Molding With A New Design of Conformal Cooling Channels, International Exhibition on Invention Kunshan (IEIK) 2014, Kunshan, China, **Main Researcher**.
27. **Bronze Medal**, GSM X1 Smart Home Automation System, Innovation & Technology Exhibition (ITEX) 2014, Kuala Lumpur Convention Centre (KLCC), Malaysia, **Co-Researcher**.
28. **Gold Medal**, A New Innovation of Fire Alarm System, 7th European Exhibition of Creativity and Innovation (EUROINVENT) 2015, Iasi, Romania, **Co-Researcher**.
29. **Gold Medal**, GSM Air Quality Monitoring System to Detect Haze, 40th International Invention Show, Karlovac, Croatia, 05-07 November 2015, **Co-Researcher**.
30. **Silver Medal**, GSM Temperature Alert System to Detect Human Body Temperature, 7th European Exhibition of Creativity and Innovation (EUROINVENT) 2015, Iasi, Romania, **Co-Researcher**.
31. **Silver Medal**, New Intellegent of fire alarm system, International Warsaw Invention Show (IWIS) 2015, Warsaw, Poland, **Co-Researcher**.
32. **Silver Medal**, Re-iGate, 7th European Exhibition of Creativity and Innovation (EUROINVENT) 2015, Iasi, Romania, **Co-Researcher**.
33. **Silver Medal**, H2E Charger, Thailand Inventors' Day 2015, 2-5 February 2015, Bangkok, Thailand, **Main Researcher**.
34. **Silver Medal**, X1 GSM Automation Security with Auto Alert System, Thailand Inventors' Day 2015, 2-5 February 2015, **Co-Researcher**.
35. **Silver Medal**, A New Improvement Method on Strength and Warpage in Injection Moulding Process, Malaysia Technology Expo, 12-14 Feb. 2015, Malaysia, **Co-Researcher**.
36. **Gold Medal**, Dried Chillies Seeds Separating Machine V2, Malaysia Technology Expo (MTE) 2015, **Co-Researcher**.
37. **Silver Medal**, ARL Door System, 7th European Exhibition of Creativity and Innovation (EUROINVENT) 2015, Iasi, Romania, **Co-Researcher**.
38. **Gold Medal**, A new design of MGSS conformal cooling channels in injection moulding process, International Salon on Research, Innovation and Technological Transfer, 2016 IVENTICA, 29 June - 01 July 2016, Iasi, Romania, **Main Researcher**.
39. **Gold Medal**, Evaluation on shrinkage and weld line strength on thick flat part in injection moulding process, International Salon on Research, Innovation and Technological Transfer, 2016 IVENTICA, Iasi, Romania, 29 June - 01 July 2016, **Co-Researcher**.
40. **Gold Medal**, Integrated Fuzzy Topsis for Machining Process, International EUREKA Innovation Exhibition (i-EIE) 2016, **Co-Researcher**.
41. **Silver Medal**, Hybrid Grey Relational Analysis-Support Vector Machine (GR-SVM) In Predicting machining Surface Roughness, International Intellectual Exposition (IIE) 2017, Ancasa Hotel & Spa, Kuala Lumpur, 29 April 2017, **Co-Researcher**.

42. **Silver Medal**, Alarm Device for Immediate Action (ADImA), World Young Inventors Exhibition (WYIE) 2017, 11-13 May 2017, **Co-Researcher**.
43. **Silver Medal**, CuckoPEA: Cuckoo Parameter Estimation Analyzer, International Eureka Innovation Exhibition 2017, 25-27 July 2017, Universiti Kuala Lumpur Malaysia Spanish Institute (UniKL MSI), Kulim Hitech Park, Kedah, **Co-Researcher**.
44. **Gold Medal**, Potential 3D printer filament using natural fibre and geopolymer thermoplastic composite materials, 2nd World Invention and Innovation Forum (WIIF), 23 - 25 Nov. 2017, **Main Researcher**.
45. **Gold Medal**, Potential technique of improving the part quality using natural fibre and geopolymer composites and Artificial Intelligence for the injection moulding process, 2nd World Invention and Innovation Forum (WIIF), 23 - 25 Nov. 2017, **Co-Researcher**.
46. **Gold Medal**, An Optimisation of Novelty MGSS Conformal Cooling Channels for Injection Moulding Process, Thailand Inventors' Day 2018, 2-6 February 2018, Bangkok, Thailand, **Main Researcher**.
47. **Gold Medal**, Portable water purification system, Thailand Inventors' Day, 2-6 Feb. 2018, **Co-Researcher**.
48. **Gold Medal**, Ezy-Care Iron, International Engineering Invention Innovation Exhibition (i-ENVEX) 2018, 13- 15 April 2018, Perlis, Malaysia, **Co-Researcher**.
49. **Silver Medal**, Design & Development of Automated Boiler UHT Machine for Dadih and Milk, Malaysia Technology Expo (MTE) 2018, Kuala Lumpur Convention Centre (KLCC), Malaysia, **Co-Researcher**.
50. **Gold Medal**, Design and Development of Automated Boiler UHT Machine for Dadih and Milk, Thailand Inventors' Day 2019, 2-6 February 2019, Bangkok, Thailand, **Co-Researcher**.
51. **Silver Medal**, Productivity and Quality Enhancement of Moulded Parts Produced Through An Innovative Design of MGSS Conformal Cooling Channels, Seoul International Invention Fair (SIFF), 2019, **Main-Researcher**.

#### Medals (National Exhibition)

1. **Silver Medal**, New Discovery Method of Manufacturing Catheters, Invention, Innovation & Design (IID) 2010, UiTM Kedah, **Co-Researcher**.
2. **Silver Medal**, Satay Grill, Invention, Innovation & Design (IID) 2010, UiTM Kedah, **Co-Researcher**.
3. **Gold Medal**, Halal Logo Verification Device, Invention, Innovation & Design (IID) 2010, UiTM Kedah, **Main Researcher**.
4. **Silver Medal**, Fruits Wrapping and Harvesting Device, Biomalaysia & Asean Bioeconomy Conference & Exhibition (BioMalaysia) 2013, **Co-Researcher**.

## 7.0 CONSULTATION AND COMMUNITY SERVICES

1. **Consultancy for Funfiek Technology Sdn Bhd** on Design and Development Drone for Agriculture-Fishery, National Special Grant: 9002-00083, **RM 10,000**, April 2019 – April 2022, **Main Researcher**.
2. **Care Taker**, Memorandum of Understanding (MoU) between Universiti Malaysia Perlis (UniMAP) and University of Medea, Algeria in term of exchange of staff and students (mobility) and collaboration in the field of research, April 2018 – March 2023.
3. The **President of Parents And Teachers Association**, SK Kayang, Perlis, April 2019 – March 2021.
4. **Jury**, Indonesia Inventors Day 2019, Innovation and invention, Indonesian Invention and Innovation Promotion Association (INNOPA), 09-12 October 2019, Sasana Kriya Building Jakarta, Indonesia.
5. **Panel of Assessors**, Engineering Technology Accreditation Council (ETAC), for Accreditation Assessment of Diploma in Mechanical Engineering (Plant), Polytechnic Seberang Perai, 22-25 September 2019.
6. **Head of Jury**, Innovation Competition, Professional Practice and Educational Innovation Research Conference 2019 (PPAPino), National Level, Teacher Education Institute, Perlis Campus, September 11-12, 2019, Putra Brasmana Hotel, Kuala Perlis, Perlis.
7. The **President of Parents And Teachers Association**, SK Kayang, Perlis, April 2017 – March 2019.
8. **Invited Speaker**, Workshop on Project Innovation Exposure, SK Sungai Baru, 27 August 2019.
9. **Invited Speaker**, Enhancement TVET MARA: IR4.0, MARA SIK Skills Institute, Kedah, 01 August 2019.
10. **Invited Speaker**, Latest Procedure Briefing And Tips Requested for P. Eng/Ir Through IEM-BEM, School of Material Engineering, UniMAP, 23 July 2019.
11. **Facilitator**, Program “Be MyRIS 19”, Institut Pendidikan Guru Kampus Darul Aman, Kedah, 19 March 2019.
12. **Project Consultant**, International Conference on Applied Computing 2019 (ICAC 2019), UNI-Technologies Sdn. Bhd., Universiti Teknologi Malaysia, 81310, UTM Skudai Johor, Malaysia, January 2019.
13. **Jury**, Innovation Competition, PRiSm’ 19 IPG Kampus Darul Aman, Dewan Besar, Institut Pendidikan Guru Kampus Darulaman (IPGKDA), 22-23 July 2019
14. **Facilitator**, Personal Coaching for Professional Engineer Programs, School of Material Engineering, university Malaysia Perlis, 11 April 2018.
15. **Invited Speaker**, Briefing on Science, Technology, Engineering, and Mathematics, SMK Derma, Perlis, 02 May 2018.
16. **Jury**, International Engineering Invention Innovation Exhibition (i-ENVEX) 2018.
17. **Jury**, Integrated Design Project (IDP) Day 2018, School of Mechatronic Engineering, 24 May 2018.
18. **Jury**, Innovation & Exhibition Competition (BOS 2018), Peringkat Kebangsaan, Institut Pendidikan Guru Kampus Darul Aman (IPDA), 16-17 July 2018.
19. **Invited Speaker**, Registration Brief as Graduate Engineer / Professional Engineer for Engineering Degree graduated (Staff), Politeknik Sultan Abdul Halim Mu'adzam Shah (POLIMAS), 20 September 2018.
20. **Facilitator**, Innovation Program, Innovation & Robotics Club, Sekolah Kebangsaan Kayang, Perlis, 19 January 2017.
21. **Consulting & Innovation Trainer**, District Education Office, Seberang Prai Selatan, 23 February 2017.
22. **Invited Speaker**, Courses and Metrology Module Development, Institut Kemahiran Tinggi PERDA (PERDA- TECH), 27 Feb – 01 March 2017.
23. **Invited Speaker**, Courses and Metrology Module Development, Institut Kemahiran Tinggi PERDA (PERDA- TECH), 10-14 April 2017.
24. **Program Director**, 1st Innovation Design & Research International Symposium 2017 (IDRIS 2017), 23-25 April 2017, Silka May Tower, Kuala Lumpur, Malaysia.
25. **Jury**, Innovation Design Research International Symposium (IDRIS) 2018, Silka Maytower Hotel Kuala Lumpur, 23-25 April 2017.

26. **Jury**, Innovation & Exhibition Competition (BOS 2017), Peringkat Kebangsaan, Institut Pendidikan Guru Kampus Darul Aman (IPDA), 03-04 July 2017.
27. **Jury**, Innovation Competition, Kolej Komuniti Wilayah Utara (PERTIWI) 2017, Kolej Komuniti Padang Terap, Kedah, 20 September 2017.
28. **Invited Speaker**, Workshop & Innovation Competition, Sekolah Rendah Agama Attarbiyah Al-Islamiah – Sraati, Perlis, 08 November 2017.
29. **Facilitator**, Innovation & Robotics Camp (ADVANCE) and Creativity & Innovation Competition (CIC), 2017.
30. **Consultancy for Funfiek Technology Sdn Bhd** on Skill Development in Product Design Engineering, National Special Grant: 9004-00035, **RM 30,000**, April 2013 – April 2016, **Main Researcher**.
31. **Consultancy for i-Zest Sdn Bhd** on Analysis of Plastic Material Flow into Injection Molds and Optimize the Injection Molding Parameters, National Special Grant: 9004-00036. Amount: RM 35,000, Duration: April 2013 – April 2016, **Main Researcher**.
32. **Jury**, International Engineering Invention Innovation Exhibition (i-ENVEX) 2016, 08-10 April 2016.
33. **Jury**, Educational Expo Competition, IPG Kampus Darul Aman (IPDA), 18-27 July 2016.
34. **Facilitator**, Innovation Project Empowerment Workshop, Kolej MARA Kuala Nerang, Kedah, 08 November 2016.
35. **Jury**, International Engineering Invention Innovation Exhibition (i-ENVEX) 2015, 17-19 April 2015.
36. **Jury**, 1st Green Technology Research Exposition (GTReX 2014), Ho Chi Minh City, Vietnam, 04 December 2014.
37. **Event Director**, Formula UniMAP 2013, UniMAP International Circuit, 13-15 September 2013.

## **8.0 REFEREE**

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