



## CURRICULUM VITAE

Assoc. Prof. Ir. Ts. Dr. Mohamed Thariq Bin Haji Hameed Sultan

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SCOPUS ID: 36802758400

### Education

1. Doctor Of Philosophy (Mechanical Engineering), University Of Sheffield, U.K. – 2011
2. MSc In Aerospace Engineering, University Putra Malaysian – 2007
3. B Eng. (Hons) Mechanical Engineering, University Tun Hussien Onn Malaysia – 2004
4. Diploma In Mechanical Engineering, University Technology Malaysia – 2001
5. Certificate In Architectural Drafting, Industrial Training Institute, Kuala Lumpur – 1996

### Areas of Interest

1. Structural Health Monitoring (SHM)
2. Damage Detections and Repairs
3. Impact Studies
4. Composite and Biocomposite Materials
5. Signal Processing and Instrumentations
6. Non Destructive Testing and Destructive Testing

### Professional Qualification/ Membership/ Affiliation

1.	Member	Board of Engineers Malaysia (BEM)	2005
2.	Member	The British Society of Strain Measurement (BSSM)	2010
3.	Member	American Institute of Aeronautics and Astronautics (AIAA)	2011
4.	Member	Society of Experimental Mechanics (SEM)	2011
5.	Member	American Society of Mechanical Engineers (ASME)	2011
6.	Member	AKEPT Young Researchers Circle (AYRC)	2011
7.	Member	Associate of ASEAN Engineers (AAE)	2012
8.	Member	Malaysian Society of Structural Health Monitoring (MSSHM)	2013
9.	Member	Malaysian Society for Non Destructive Testing (MSNDT)	2014
10.	Member	Institute of Engineers Malaysia (IEM) (Membership Number: 25175)	2015
11.	Ir. (Professional Engineer)	Board of Engineers Malaysia (BEM) PEng (Registration Number: 16954) – Mechanical Division	2015



		PEng with Practicing Certificate (Registration Number: C116954) – Mechanical Division	
12.	Chartered Engineer (CEng)	Institute of Mechanical Engineers (IMechE) (Registration Number: 632790)	2016
13.	Member	The Institution of Mechanical Engineers (IMechE), United Kingdom (Membership Number: 80088582)	2016
14.	Member	Institute of Science and Technology (IScT) (Membership Number: 15647)	2016
15.	Member	Malaysian Society For Engineering & Technology (MySET) (Membership Number: 1535)	2016
16.	Member	Malaysian Board of Technologist (MBOT) Professional Technologist, PTech (PT17120026)	2018

### Administrative Work Listing (Inside and Outside UPM)

	Position		Duration
1.	Draughtsman, Mechanical and Electrical, SSM Associates – <b>Outside UPM</b>		1996-1997
2.	Part Time Tutor, Program Pengajian Diploma (UTM) - <b>Outside UPM</b>		1999-2004
3.	Site Engineer, Mechanical and Electrical, SSM Associates - <b>Outside UPM</b>		2004-2005
4.	Assistant Lecturer, Department of Aerospace Engineering, UPM - <b>Inside UPM</b>		2005-2011
5.	Special Officer, Industrial Relation Division, Ministry of Higher Education (MOHE) Malaysia - <b>Outside UPM</b>		2011-2013
6.	Senior Lecturer, Department of Aerospace Engineering, UPM - <b>Inside UPM</b>		2013 to 2016
7.	Director / Head, Aerospace Manufacturing Research Centre (AMRC), UPM - <b>Inside UPM</b>		2013 to date
8.	Guest Lecture/Trainer, ADMAL Aviation College, Nilai - <b>Outside UPM</b>		2013
9.	Guest Lecture/Trainer, Department of Mechanical and Manufacturing, University Malaysia Pahang (UMP) - <b>Outside UPM</b>		2013
10.	Deputy President of Malaysian Society of Structural Health Monitoring (MSSHM) - <b>Outside UPM</b>		2013 to 2016
11.	Non-Executive Independent Scientific Advisor in Aerospace Malaysia Innovation Centre (AMIC) - <b>Outside UPM</b>		2014 to date
12.	Main Researcher in Aerospace Manufacturing Research Centre (AMRC), UPM - <b>Inside UPM</b>		2014 to date
13.	Research Associates, Institute of Tropical Forestry and Forest Product (INTROP) - <b>Inside UPM</b>		2015 to 2017
14.	Co-opted Member for the Engineering Education Technical Division (E2TD)		2016 to 2018



The Institution of Engineer Malaysia (IEM) – **Outside UPM**

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| 15. Assoc. Professor at the Department of Aerospace Engineering, Universiti Putra Malaysia- <b>Inside UPM</b>                                  | 2016 to date         |
| 16. Secretary of Malaysian Society of Structural Health Monitoring (MSSHM) – <b>Outside UPM</b>  | 2016 to date         |
| 17. Acting Head of Department at the Department of Aerospace Engineering, Universiti Putra Malaysia- <b>Inside UPM</b>                         | Nov 2016 to Jan 2017 |
| 18. Engineering Technology Accreditation Council (ETAC) Task Force – <b>Outside UPM</b>  | 2016 to date         |
| 19. Head, Laboratory of Biocomposite Technology (BIOCOMPOSITE), Institute of Tropical Forestry and Forest Product (INTROP) - <b>Inside UPM</b> | October 2017 to date |
| 20. Council Member of Defense and Safety Engineering Sub Cluster – <b>Outside UPM</b>  | Jan 2017 to date     |
| 21. International Advisory Panel Kalasalingam University, India – <b>Outside UPM</b>   | 2017 to date         |
| 22. Chairman of the Engineering Education Technical Division (E2TD) The Institution of Engineer Malaysia (IEM) – <b>Outside UPM</b>            | 2018 to date         |
| 23. Visiting professor Bharath Institute of Higher Education and Research – <b>Outside UPM</b>   | 2018 to date         |
| 24. Main Reference Officer for the collaboration between UPM-Proton – <b>Outside UPM</b>   | 2018                 |
| 25. Felo Kanan Bersekutu Institut Perubahan Iklim (IPI) Universiti Kebangsaan Malaysia – <b>Outside UPM</b>                                    | Jan 2018 to Dec 2019 |

## Teachings

### Undergraduate Programme

1. ECC 3011 Engineering Mathematics I 3(3+0)
2. ECC 3002 Engineering Mathematics II 3(3+0)
3. EAS 4401 Finite Element Analysis 3(3+0)
4. ECC 3001 Engineering Mathematics I 3(3+0)
5. EAS 3102 Numerical Methods 2(2+0)
6. ECC 3003 Engineering Mathematics III 3(3+0)

### Postgraduate Programme

1. EAB 5100 Research Methodology 3(3+0)
2. EAS 5701 Global Design 3(3+0)
3. KBP 5900 Research Methodology 3(3+0)
4. EAS 5001 Advanced Engineering Mathematics 3(3+0)
5. EAS 5104 Finite Element Analysis 3(3+0)
6. EAS 5955 Special Topic 3(3+0)

Journals (recent journals)

2009

**Cited Journals (2009)**

1. **Sultan M.T.H.**, Worden K., Staszewski W.J., Pierce S.G., Duliue-Barton J.M., Hodzic A. *Impact damage detection and quantification in CFRP laminates: A precursor to machine learning*. Structural Health Monitoring 2009: From System Integration to Autonomous Systems – Proceedings of the 7<sup>th</sup> International Workshop on Structural Health Monitoring, IWSHM 2009, Vol. 2, 1528-1537.

2010

**Cited Journals (2010)**

2. **M.T.H.Sultan**, A. Hodzic, W.J. Staszewski, and K. Worden. *A SEM-Based Study of Structural Impact Damage*. Applied Mechanics and Materials, 2010, Vol. 24-25, 233-238. doi: 10.4028/www.scientific.net/AMM.24-25.233
3. N.Yidris, R. Zahari, D.L. Majid, F. Mustapha, **M.T.H. Sultan** and A.S.M.Rafie. *Crush Simulation of Woven C-Glass/Epoxy Unmanned Ariel Vehicle Fuselage Section*. International Journal of Mechanical and Material Engineering, 2010, Vol. 5(2), 260-267.
4. Ho, K. S., Pierce, S. G., Li, M. H., Hayward, G., & **Sultan, M. T. H.**. *Improved C-scan imaging using a Bayesian approach*. In Proceedings – IEEE Ultrasonics Symposium, 2010, 1813-1816. doi: 10.1109/ULTSYM.2010.5935517

2011

**Cited Journals (2011)**

5. **M.T.H. Sultan**, K. Worden, S.G. Pierce, D. Hickey, W.J. Staszewski, J.M. Dulieu- Barton, and A. Hodzic. *On Impact Damage Detection and Quantification for CFRP Laminates*. Mechanical System and Signal Processing. 2011, Vol. 25(8), 3135-3152. doi: 10.1016/j.ymssp.2011.05.014 **Impact Factor (2.210)**.
6. **Sultan, M. T. H.**, Worden, K., & Staszewski, W. J.. *Damage Identification in CRFP Laminates using a Statistical Method*. In Conference Proceedings of the Society for Experimental Mechanics Series, Vol. 6, 91-101.

**Non-Cited Journals (2011)**

7. **M.T.H. Sultan**, F. Mustapha, A.S.M. Rafie, D.L. Majid, and R. Ajir. *Impact Damage Detection and Quantification for CFRP Laminates Subjected To Low Velocity Impact Damage – A NDT Approach*. Journal of Malaysian Society for Non-Destructive Testing (NDT Spectra). 2011. Issue 5, 15-20.

2012

**Cited Journals (2012)**

8. **M.T.H.Sultan**, K.Worden, W.J.Staszewski, and A.Hodzic. *Impact Damage Characterisation of Composite Laminates Using A Statistical Approach*. Composites Science and Technology. 2012, Vol. 72(10), 1108-1120. doi: 10.1016/j.compscitech.2012.01.019
9. **M.T.H.Sultan**, N. Yidris, F.Mustapha, A.S.M.Rafie and D.L. Majid. *Damage Identification and Classification in CFRP Laminates – A SEM Based Study*. Applied Mechanics and Materials, 2012, Vol. 225, 138-143. doi: 10.4028/www.scientific.net/AMM.225.138
10. N. Yidris, J. Loughlan, **M.T.H.Sultan** and A.S.M.Rafie. *Failure Mechanics of Uniformly Compressed Thin-Walled Box Section Struts*. Applied Mechanics and Materials, 2012, Vol. 255, 172-177. doi: 10.4028/www.scientific.net/AMM.225.172
11. M. Z. Zainol, F. Mustapha, **M.T.H. Sultan** and N. Yidris. *Implementation of Extreme Low Power Micro-controller for a Wireless Structural Health Monitoring (SHM) System*. Applied

- Mechanics and Materials, 2012, Vol. 225, 344-349. doi: 10.4028/www.scientific.net/AMM.225.344
12. X.H. Cheong, A.S.M. Rafie, F.I. Romli, **M.T.H.Sultan** and N. Yidris. *A Study on the Effect of Upstream Square Blockage of a Rotating Cylinder*. Applied Mechanics and Materials, 2012, Vol. 225, 13-17. doi: 10.4028/www.scientific.net/AMM.225.13
  13. D.L. Majid, M.H.A. Sani, F. Mustapha, H. Hanafi and **M.T.H.Sultan**. *Model Properties of a Cantilevered Laminated Woven Composite Plate as Affected by Stacking Sequence and Fibre Orientation: An Experimental Study*. Applied Mechanics and Materials, 2012, Vol. 255, 132-137. doi: 10.4028/www.scientific.net/AMM.225.132
  14. **M.T.H.Sultan**, A.S.M.Rafie, N. Yidris, F. Mustapha and D.L. Majid. *Damage Classification in CFRP Laminates Using the Principal Components Analysis (PCA) Approach*. Applied Mechanics and Materials, 2012, Vol. 225, 189-194. doi: 10.4028/www.scientific.net/AMM.225.189
  15. F. Mustapha, K.D.M. Aris, N.A. Wardi, **M.T.H. Sultan** and A. Shahrjerdi. *Structural Health Monitoring (SHM) for Composite Structure Undergoing Tensile and Thermal Testing*. Journal of Vibroengineering, 2012, Vol. 14(3), 1342-1353.
  16. **Sultan M.T.H.**, Worden K., Staszewski W.J., Hodzic A. *Erratum to "Impact damage characterisation of composite laminates using a statistical approach" [Compos. Sci. Technol. 72 (2012) 1108-1120]*. Composites Science and Technology, 2012, Vol. 72(12), 1477. doi: 10.1016/j.compscitech.2012.06.020
  17. Barthorpe, R., Worden, K., **Sultan, M. T. H.**, Eaton, M., Pullin, R., & Holford, K. M.. *The Effect of Attenuation On the Identification of Impact Damage in CFRP Laminates*. In AIP Conference Proceedings, 2012, Vol. 1, 698-706.
  18. **M.T.H.Sultan**, S.Basri, A.S.M.Rafie, F.Mustapha, D.L. Majid, and R. Ajir. *High Velocity Impact Damage Analysis for Glass Epoxy – Laminated Plates*. Advanced Materials Research, 2011, Vol. 399 – 401, 2318- 2328. doi: 10.4028/www.scientific.net/AMR.399-401.2318

#### Non-Cited Journals (2012)

19. R. Zahari, F. Mustapha, D.L. Majid, A.S.M. Rafie and **M.T.H.Sultan**. *Geometric Non-Linear Analysis of Composite Laminated Plates Using Higher Order Finite Strip Element*. Applied Mechanics and Materials, 2012, Vol. 225, 165-171. doi: 10.4028/www.scientific.net/AMM.225.165

#### 2013

##### Cited Journals (2013)

20. A.N.M. Annuar, A.S.M. Rafie and **M.T.H.Sultan**. *The Study of Blockages Effect at Leading Edge on Rectangular Cavity in Subsonic Flow Using Particles Image Velocimetry*. Applied Mechanics and Materials. 2013. Vol. 300-301, 781-784. doi: 10.4028/www.scientific.net/AMM.300-301.781

##### Non-Cited Journals (2013)

21. **M.T.H.Sultan**, A.S.M.Rafie, N. Yidris, F. Mustapha and R. Zahari. *Damage Classification in CFRP Laminates Using the NDT/E Approach*. Journal of Malaysian Society for Non-Destructive Testing (NDT Spectra). 2013. Issue 7, 217-224.

#### 2014

##### Cited Journals (2014)

22. A.Hamdan, F.Mustapha, K.A.Ahmad, A.S.M.Rafie, **M.T.H.Sultan** and M.R. Ishak. *A Review On The Self Energize Structural Health Monitoring (SHM) In Vertical Axis Wind Turbine (VAWT) System*. Applied Mechanics and Materials. 2014. Vol. 564, 157-163. doi: 10.4028/www.scientific.net/AMM.564.157
23. N.Yidris, **M.T.H.Sultan**, M.Y.Harmin and A.S.M. Rafie. *Local-Overall Flexural Interaction of Pinned-Ended Thin Walled I-Section Columns*. Applied Mechanics and Materials. 2014. Vol. 564, 444-448. doi: 10.4028/www.scientific.net/AMM.564.444

24. M.K.H.Muda, F.Mustapha, K.D. Mohd Aris and **M.T.H.Sultan**. *Fabrication Technique for Bio-Composite Patch Repair On Laminated Structures of CFRP Plate*. Applied Mechanics and Materials. 2014. Vol. 564, 366-371. doi: 10.4028/www.scientific.net/AMM.564.366
25. P.Zakikhani, R.Zahari, **M.T.H.Sultan** and D.L.Majid. *Extraction and Preparation of Bamboo Fibre-Reinforced Composites*. Materials and Design. 2014. Vol 63, 820-828. doi: 10.1016/j.matdes.2014.06.058
26. P.Zakikhani, R.Zahari and **M.T.H.Sultan**. *Simulation of Low Velocity Impact on Composite Hemispherical Shell*. Applied Mechanics and Materials. 2014. Vol. 564, 406-411. doi: 10.4028/www.scientific.net/AMM.564.406
27. S.N.A. Safri, **M.T.H.Sultan**, N.Razali, S.Basri, N.Yidris and F.Mustapha. *The Effect of Layers and Bullet Type On Impact Properties of Glass Fibre Reinforced Polymer (GFRP) Using a Single Stage Gas Gun (SSGG)*. Applied Mechanics and Materials. 2014. Vol. 564, 428-433. doi: 10.4028/www.scientific.net/AMM.564.428
28. N.Razali, **M.T.H.Sultan**, S.N.A.Safri, S.Basri, N.Yidris and F.Mustapha. *High Velocity Impact Test On Glass Fibre Reinforced Polymer (GFRP) Using A Single Stage Gas Gun (SSGG) – An Experimental Based Approach*. Applied Mechanics and Materials. 2014. Vol. 564, 376-381. doi: 10.4028/www.scientific.net/AMM.564.376
29. **M.T.H.Sultan**, S.Basri, A.S.M.Rafie, N.Yidris, F.Mustapha, R.Zahari and M.R.Ajir. *Impact Damage Analysis For Glass Reinforced Laminated Plates Using Single Stage Gas Gun*. Applied Mechanics and Materials. 2014. Vol. 564, 382-387. doi: 10.4028/www.scientific.net/AMM.564.382
30. N.Razali, **M.T.H.Sultan** and Y.Aminanda. *The Study of Impact Behaviour of Two Types of Glass Fibre Reinforced Polymer (GFRP) Subjected to Low Velocity Impact*. Advanced Materials Research. 2014. Vol. 1044-1045, 153-157. doi: 10.4028/www.scientific.net/AMR.1044-1045.153
31. S.N.A.Safri, **M.T.H.Sultan** and Y.Aminanda. *Impact Characterisation of Glass Fibre Reinforced Polymer (GFRP) Type C-600 and E-800 Using a Drop Weight Machine*. Applied Mechanics and Materials. 2014. Vol. 629, 461-466. doi: 10.4028/www.scientific.net/AMM.629.461
32. Q.M.Jamal, D.L.Majid, M.Y.Haris, N.Yidris and **M.T.H.Sultan**. *Quasi Static Analysis of a Biocomposite Aircraft Radome*. Applied Mechanics and Materials. 2014. Vol. 629, 78-81. doi: 10.4028/www.scientific.net/AMM.629.78

#### Non-Cited Journals (2014)

33. S.N.A. Safri, T.Y.Chan and **M.T.H.Sultan**. *A Novel Method for Detecting And Characterizing Low Velocity Impact (LVI) In Commercial Composite*. International Journal of Research in Engineering and Technology. 2014. Vol 3(8), 101-106.
34. N.Razali and **M.T.H.Sultan**. *A Novel Approach for Detecting, Localising And Characterising Damages In Glass Fibre Reinforced Polymer (GFRP) Using The Drop Weight Impact Tester*. International Journal of Research in Engineering and Technology. 2014. Vol 3(8), 295-306.
35. L.K.Teek, R.Zahari, F.Mustapha and **M.T.H.Sultan**. *Experimental Assessment of Collapse Behavior and Energy Absorption of Composite and Hybrid Composite Square Tube Subjected to Oblique Loads*. The International Journal of Engineering and Science. 2014. Vol 3(3), 13-29.
36. N.Razali, **M.T.H.Sultan**, F.Mustapha, N.Yidris and M.R.Ishak. *Impact Damage on Composite Structures – A Review*. The International Journal of Engineering and Science. 2014. Vol 3(7), 8-20.
37. S.N.A.Safri, T.Y.Chan and **M.T.H.Sultan**. *An Experimental Study of Low Velocity Impact (LVI) On Fibre Glass Reinforced Polymer (FGRP)*. The International Journal of Engineering and Science. 2014. Vol 3(8), 1-10.
38. N.Razali, S.S.Sazali and **M.T.H.Sultan**. *The Study of Impact Damage on C-Type and E-Type of Fibreglass Subjected to Low Velocity Impact*. The International Journal of Engineering and Science. 2014. Vol 3(8), 11-25.
39. S.N.A.Safri, **M.T.H.Sultan**, N.Yidris and F.Mustapha. *Low Velocity and High Velocity Impact Test on Composite Materials – A Review*. The International Journal of Engineering and Science. 2014. Vol 3(9), 50-60.

40. P. Zakikhani, R. Zahari, **M. T. H. Sultan** and D. L. Majid. *Bamboo Fibre Extraction and Its Reinforced Polymer Composite*. International Journal of Chemical, Molecular, Nuclear, Materials and Metallurgical Engineering. 2014. Vol 8(4), 315-318.

## 2015

### Cited Journals (2015)

41. Suhad D. Salman, Mohaiman J. Sharba, Z. Leman, **M.T.H.Sultan**, M.R.Ishak and F.Cardona, *Physical, Mechanical, and Morphological Properties of Woven Kenaf/Polymer Composites Produced Using a Vacuum Infusion Technique*, International Journal of Polymer Science, 2015, Vol. 2015, 1-10. doi: 10.1155/2015/894565
42. F. Cardona and **M.T.H. Sultan**, *Improved Phenolic Composites with Natural Renewable Cardanol-Tanin and E-Spheres Micro-Filler*, International Journal of Engineering and Technology, 2015, Vol 12(1), 1-6.
43. Suhad D. Salman, Zulkiflle Leman, **M.T.H. Sultan**, Mohamad R. Ishak and Francosco Cardona, *Kenaf/Synthetic and Kevlar®/Cellulosic Fiber-ReinforcedHybrid Composites: A Review*, Bioresources. 2015, Vol 10(4), 8580-8603. doi: 10.15376/biores.10.4.salman
44. S.N.A. Safri, **M.T.H.Sultan** and F.Cardona, *Impact Damage Evaluation of Glass-Fiber Reinforced Polymer (GFRP) Using the Drop Test Rig- An Experimental Based Approach*, ARPN Journal of Engineering and Applied Sciences. 2015, Vol 10(20), 9916-9928.
45. Amin Khajeh, Faizal Mustapha , **M.T.H. Sultan**, György Bánhegyi, Zsuzsanna Karácsony and Viktor Baranyai, *The Effect of Thermo-Oxidative Aging on the Durability of Glass Fibre-Reinforced Epoxy*. Advances in Materials Science and Engineering, Hindawi Publishing Corporation. 2015, Vol(1), 1-14. doi: 10.1155/2015/372354
46. Mohaiman J. Sharba, Suhad D. Salman, Zulkiflle Leman, **M.T.H. Sultan**, Mohamad R. Ishak and Mohammad A. Azmah Hanim, *Effects of Processing Method, Moisture Content, and Resin System on Physical and Mechanical Properties of Woven Kenaf Plant Fiber Composites*, Bioresources. 2015, Vol 11(1), 1466-1476. doi: 10.15376/biores.11.1.1466-1476
47. Francisco Cardona, **M.T.H. Sultan**, Abd. Rahim Abu Talib, Farah Ezzah and Aishah Derahman, *Interpenetration Polymer Network (IPN) with Epoxidized and Acrylated Bioresins and their Composites with Glass and Jute Fibres*, Bioresources. 2015, Vol 11(1), 2820-2838. doi: 10.15376/biores.11.1.2820-2838
48. Sharba, M. J., Leman, Z., **Sultan, M. T. H.**, Ishak, M. R., & Hanim, M. A. A.. *Monotonic and fatigue properties of kenaf/glass hybrid composites under fully reversed cyclic loading*. In IOP Conference Series: Materials Science and Engineering, 2015, Vol. 100(1). doi: 10.1088/1757-899X/100/1/012055
49. Salman, S. D., Leman, Z., **Sultan, M. T. H.**, Ishak, M. R., & Cardona, F.. *Influence of resin system on the energy absorption capability and morphological properties of plain woven kenaf composites*. In IOP Conference Series: Materials Science and Engineering, 2015, Vol. 100(1). doi: 10.1088/1757-899X/100/1/012053

### Non-Cited Journals (2015)

50. Elias Randjbaran, Rizal Zahari, Dayang Laila Majid, **Mohamed Thariq Hameed Sultan** and Norkhairunnisa Mazlan, *Effects of Carbon Nanotube on Mechanical Properties of Composite plates – A Review Paper*, Matrix Academic International Online Journal of Engineering and Technology. 2015, Vol 3(2), 9-16.
51. Razali, N., & **Sultan, M. T. H.**. *The Study of Damage Area and Non-Destructive Testing On Glass Fibre Reinforce Polymer after Low Velocity Impact Event*. Applied Mechanics & Materials, 2015, Vol. 754, 874-880. doi: 10.4028/www.scientific.net/AMM.754-755.874
52. Salman, S. D., Leman, Z., **Sultan, M. T.**, Ishak, M. R., & Cardona, F.. *Mechanical and morphological properties of 45/- 45 woven kenaf reinforced PVB-phenolic resin produced using a hot press technique*. In Malaysia Polymer International Conference, 2015, 1-10.

**Cited Journals (2016)**

53. Parnia Zakikhani, Rizal Zahari, **Mohamed T.H. Sultan** and Dayang L. Majid, *Thermal Degradation of Four Bamboo Species*, *Bioresources*. 2016, Vol 11(1), 414-425. doi: 10.15376/biores.11.1.414-425
54. Suhad D. Salman, Zulkiflle Leman, **Mohamed T. H. Sultan**, Mohamad R. Ishak and Francisco Cardona, *The Effects of Orientation on the Mechanical and Morphological Properties of Woven Kenaf-reinforced Poly Vinyl Butyral Film*, *Bioresources*. 2016, Vol 11(1), 1176-1188. doi: 10.15376/biores.11.1.1176-1188
55. Francisco Cardona and **M.T.H. Sultan**, *Characterization of Environmentally Sustainable Resole Phenolic Resins Synthesized with Plant-based Bio-Resources*, *Bioresources*. 2016, Vol 11(1), 965-983. doi: 10.15376/biores.11.1.965-983
56. Mohaiman J. Sharba, Zulkiflle Leman, **M.T.H. Sultan**, Mohamad R. Ishak and Mohammad A. Azmah Hanim, *Effects of Kenaf Orientation on Mechanical Properties and Fatigue Life of Glass/Kenaf Hybrid Composites*, *Bioresources*. 2016, Vol 11(1), 1448-1465. doi: 10.15376/biores.11.1.1448-1465
57. Mohaiman J. Sharba, Zulkiflle Leman, **M.T.H. Sultan**, Mohamad R. Ishak and Mohammad A. Azmah Hanim, *Partial Replacement of Glass Fibre by Woven Kenaf Hybrid Composites and its Effect on Monotonic and Fatigue Properties*, *Bioresources*. 2016, Vol 11(1), 2665-2683. doi: 10.15376/biores.11.1.2665-2683
58. Mohaiman J. Sharba, Zulkiflle Leman, **M.T.H. Sultan**, Mohamad R. Ishak and Mohammad A. Azmah Hanim, *Tensile and Compressive Properties of Woven Kenaf/Glass Sandwich Hybrid Composites*, *International Journal of Polymer Science*. 2016, Vol 1, 1-6. doi: 10.1155/2016/1235048
59. Suhad D. Salman, Mohaiman J. Sharba, Zulkiflle Leman, **Mohamed T. H. Sultan**, Mohamad R. Ishak and Francisco Cardona, *Tension-Compression Fatigue Behavior of Plain Woven Kenaf/Kevlar Hybrid Composites*, *Bioresources*. 2016, Vol 11(2), 3575-3586. doi: 10.15376/biores.11.2.3575-3586
60. Nawras H. Mostafa, Z.N. Ismarrubie, S.M. Sapuan and **M.T.H.Sultan**. *Effect of Fabric Biaxial Prestress on the Fatigue of Woven E-Glass/Polyester Composites*. *Materials and Design*. 2016. Vol 92, 579-589. doi: 10.1016/j.matdes.2015.12.109
61. Suhad D. Salman, Z. Leman, **M.T.H. Sultan**, M.R. Ishak and F. Cardona, *Influence of Fibre Content on Mechanical and Morphological Properties of Woven Kenaf Reinforced PVB Film Produced Using a Hot Press Technique*, *International Journal of Polymer Science*. 2016, Vol (1), 1-9. doi: 10.1155/2016/7828451
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## Conference Proceedings

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1. **M.T.H. Sultan**, A. Hussain, M.Z. Mohd Yusof, A.B. Leman. *Controlling Indoor Air Temperature and Air Movement Using Convection Ventilator*. Proceedings, National Conference on Advances in Mechanical 2004.

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2. **M.T.H. Sultan**, S. Basri, R. Zahari, M.R. Ajir, N. Yidris and A.S.M Rafie. *Design and Development of Ballistic Impact Test Facility*. Proceeding of the AEROTECH-II 2007 conference on Aerospace Technology of XXI Century, 20-21<sup>st</sup> June 2007, Kuala Lumpur.
3. A.S.M. Rafie, S. Basri, A.H. Attaran, D.L. Majid, **M.T.H. Sultan** and N. Yidris, *Computational Analysis for Eagle 150b Aircraft Wings*. Proceedings of AEROTECH-II 2007 conference on Aerospace Technology of XXI Century, 20-21<sup>st</sup> June 2007, Kuala Lumpur.
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## 2009

5. **M.T.H.Sultan**, K.Worden, S.G.Pierce, D.Hickey, W.J.Staszewski, and J.M.Dulieu-Barton. *Impact Damage Detection and Quantification for CFRP Laminates*. Proceeding of the 10<sup>th</sup> Deformation of Composites (DFC10), 15-17<sup>th</sup> April 2009, Sheffield, UK.
6. **M.T.H.Sultan**, K. Worden, J.M. Dulieu-Barton, W.J. Staszewski, A. Hodzic, and S.G. Pierce. *Identification of impact damage in CFRP laminates using the NDT approach*. Proceedings of the AEROTECH III, 18-19<sup>th</sup> November 2009, Kuala Lumpur, Malaysia.
7. N.Yidris, J.Loughlan, A.S.M. Rafie, and **M.T.H.Sultan**. *The Influence of Post-Local Buckling Mechanics on the Stress Variations, Axial Stiffness and Ultimate Failure Strength of Uniformly Compressed Thin-Walled Channel Section Struts*. Proceedings of the AEROTECH III, 18-19<sup>th</sup> November 2009, Kuala Lumpur, Malaysia.

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8. **M.T.H.Sultan**, W.J. Staszewski, and K. Worden. *Wavelet Feature Extraction for Impact Damage Analysis for CFRP Laminates*. Proceedings of 10<sup>th</sup> International Conference on Recent Advances in Structural Dynamics, 12-14<sup>th</sup> July 2010, Southampton, UK.
9. **M.T.H.Sultan**, K. Worden, A. Hodzic, and W.J. Staszewski. *Identification of Impact Damage in CFRP Laminates Based on a SEM Approach*. Proceedings of the IMEKO TC 11<sup>th</sup> Workshop on Smart Diagnostics of Structures, 18-20<sup>th</sup> October 2010, Kraków, Poland.
10. K.S.Ho, S.G.Pierce, M.H.Li, G.Hayward, and **M.T.H.Sultan**. *The Improvement of the Reliability in Imaging using the Bayesian Approach*. IEEE International Ultrasonics Symposium (IUS), 11-14<sup>th</sup> October 2010, San Diego, California.
11. **M.T.H.Sultan**, K. Worden, A. Hodzic, and W.J. Staszewski. *Damage Detection in CFRP Laminates using an Interface-based Model*. Material KTN 4<sup>th</sup> Annual General Meeting, Societal Challenges-Material Solutions, 22<sup>nd</sup> April 2010, Church House Conference Centre, Westminster, London, UK.
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15. **M.T.H.Sultan**, K.Worden, W.J.Staszewski, *Impact Damage Characterisation using a statistical approach*, 8<sup>th</sup> International Workshop on Structural Health Monitoring, 13<sup>th</sup>-15<sup>th</sup> September 2011, Stanford University, California, USA.
16. **M.T.H.Sultan**, K.Worden, W.J.Staszewski, *Impact Damage Detection and Quantification for CFRP Laminates Subjected to Low Velocity Impact Damage-A NDT Approach*. Malaysian International NDT Conference and Exhibition 2011 (MINDTCE 11), 21<sup>st</sup>-22<sup>nd</sup> November 2011, Malaysia.
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19. Annuar A.N.M., Mohd Rafie A.S., **Sultan M.T.H.**, *The study of blockages effect at leading edge on rectangular cavity in subsonic flow using particle image velocimetry (PIV)*, 2<sup>nd</sup>

- International Conference on Mechatronics and Applied Mechanics (ICMAM2012), 6-7 December 2012, Hong Kong.
20. Yidris N., Loughlan J., **Sultan M.T.H.**, Rafie A.S.M, *Failure mechanics of uniformly compressed thin-walled box-section struts*, AEROTECH IV, 21<sup>st</sup>-22<sup>nd</sup> November 2012, Kuala Lumpur, Malaysia.
  21. Zainol M.Z., Mustapha F., **Sultan M.T.H.**, Yidris N, *Implementation of extreme low power micro-controller for a wireless structural health monitoring (SHM) system*, AEROTECH IV, 21<sup>st</sup>-22<sup>nd</sup> November 2012, Kuala Lumpur, Malaysia.
  22. **Sultan M.T.H.**, Rafie A.S.M., Yidris N., Mustapha F., Majid D.L, *Damage classification in CFRP laminates using principal component analysis (PCA) approach*, AEROTECH IV, 21<sup>st</sup>-22<sup>nd</sup> November 2012, Kuala Lumpur, Malaysia.
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26. N. Yidris, **M.T.H. Sultan**, M.Y. Harmin and A.S.M. Rafie. *Local-Overall Flexural Interaction of Pinned-Ended Thin-Walled I-Section Columns*. International Conference on Advances in Mechanical and Manufacturing Engineering, 25-28<sup>th</sup> November 2013, Hotel Istana, Kuala Lumpur.
27. S.N.A. Safri, **M.T.H. Sultan**, N. Razali, S. Basri, N. Yidris and F. Mustapha. *The Effect of Thickness and Bullet Type on Impact Properties of Glass Fibre Reinforced Polymer (GFRP) Using A Single Stage Gas Gun (SSGG)*. International Conference on Advances in Mechanical and Manufacturing Engineering, 25-28<sup>th</sup> November 2013, Hotel Istana, Kuala Lumpur.
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34. P. Zakikhani, R. Zahari, **M.T.H. Sultan** and D.L. Majid. *Bamboo Fibre Extraction and Its Reinforced Polymer Composite Material*. International Conference on Bio-Based Materials and Composites, 28-29 April 2014, Paris, France.
35. N.Razali, **M.T.H.Sultan** and Y.Aminanda. *The Study of Impact Behavior of Two Types of Glass Fibre Reinforced Polymer (GFRP) Subjected to Low Velocity Impact*. International Conference on Frontiers of Energy, Materials and Information Engineering, ICFEMI, 21-22 August 2014, Hong Kong.
36. Q.M.Jamal, D.L.Majid, M.Y.Haris, N.Yidris and **M.T.H.Sultan**. *Quasi Static Analysis of a Biocomposite Aircraft Radome*. AEROTECH V. Conference on Progressive Aerospace Research 2014, 29-30 October, Kuala Lumpur Malaysia.
37. S.N.A.Safri, **M.T.H.Sultan** and Y.Aminanda. *Impact Characterisation of Glass Fibre Reinforced Polymer (GFRP) Type C-600 and E-800 Using a Drop Weight Machine*. AEROTECH V. Conference on Progressive Aerospace Research 2014, 29-30 October, Kuala Lumpur Malaysia.
38. Francisco Cardona and **M.T.H. Sultan**. *Improved Phenolic Composites With Natural Renewable Cardanol-Tannin and E-Spheres Micro-Filler*. World Research and Innovation Convention on Engineering and Technology, WRICET, 25<sup>th</sup> – 26<sup>th</sup> November 2014, Marriot Hotel, Putrajaya, Malaysia.
39. Suhad D. Salman, Z. Leman, **M.T.H.Sultan** and F.Cardona. *The Effect of Stacking Sequence on Tensile Properties of Hybrid Composite Materials*. World Research and Innovation Convention on Engineering and Technology, WRICET, 25<sup>th</sup> – 26<sup>th</sup> November 2014, Marriot Hotel, Putrajaya, Malaysia.
40. N.Razali, **M.T.H.Sultan** and Y.Aminanda. *The Study of Impact Behaviour of Two Types of Glass Fibre Reinforced Polymer (GFRP) Subjected to Low Velocity Impact*. International Conference On Advanced Material Engineering & Technology 2014 (ICAMET 2014), 5-6 December 2014, Ho Chi Mint City, Vietnam.
41. S.N.A. Safri, **M.T.H. Sultan**, F. Cardona and S. Basri. *Damage Detection of Glass Fibre Reinforced Polymer (GFRP) using the Non-Destructive testing (NDT)*. International Conference on Computational Method in Engineering and Health Sciences, ICCMEH, 17<sup>th</sup>-19<sup>th</sup> December 2014, MIT, Manipal, India.
42. **M.T.H.Sultan** and K.Worden. *Damage Detections and Classifications in CFRP Laminates Using Structural Response Data*. 2<sup>nd</sup> International Symposium on Applied Engineering and Sciences (SAE2014), 20<sup>th</sup> to 21<sup>st</sup> December 2014, KYUSHU Institute of Technology, Japan.

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43. Suhad D. Salman, Z. Leman, **M.T.H. Sultan**, M.R. Ishak and F. Cardona, *Mechanical Properties of Woven Kenaf Reinforced Phenolic Resin Produced Using a Hot Press Technique*. Postgraduate Symposium on Biocomposite Technology 2015, 3<sup>rd</sup> March 2015, Universiti Putra Malaysia (UPM) Malaysia.
44. Suhad D. Salman, Z. Leman, **M.T.H. Sultan**, M. R. Ishak and F. Cardona, *Mechanical and Morphological Properties of 45° /-45° Woven Kenaf Reinforced PVB-Phenolic Resin Produced Using a Hot Press Technique*. Malaysia Polymer International Conference 2015 (MPIC 2015), 10<sup>th</sup> – 11<sup>th</sup> June 2015, Palm Garden Hotel, IOI Resort, Putrajaya.
45. Suhad D. Salman, Z. Leman, **M.T.H. Sultan**, M. R. Ishak and F. Cardona, *Influence Of Resin System On The Energy Absorption Capability And Morphological Properties Of Plain Woven Kenaf Composites*. 3<sup>rd</sup> International Conference on Mechanical Engineering Research 2015 (3<sup>rd</sup> ICMER 2015), 18<sup>th</sup> – 19<sup>th</sup> August 2015, Zenith Hotel, Kuantan Pahang.
46. Sharba M.J., Leman Z., **Sultan M.T.H.**, Ishak M.R., Hanim M.A.A., *Monotonic and fatigue properties of kenaf /glass hybrid composites under fully reversed cyclic loading*. 3<sup>rd</sup> International Conference on Mechanical Engineering Research 2015 (3<sup>rd</sup> ICMER 2015), 18<sup>th</sup> – 19<sup>th</sup> August 2015, Zenith Hotel, Kuantan Pahang.
47. S.N.A. Safri, **M.T.H. Sultan** and F. Cardona, *The Impact Characterization of Glass Fiber Reinforced Polymer (GFRP) Type C-600 and E-800 Using a Single Stage Gas Gun (SSGG)*, International Conference on Computational Methods in Engineering and Health Sciences (ICCMEH-2015), 19<sup>th</sup> – 20<sup>th</sup> December 2015, Universiti Putra Malaysia (UPM), UPM Serdang, Selangor Darul Ehsan, Malaysia.

2016

48. Jeyakumar, S., Yuvaraj, K.A., Jayaraman, K., Cardona, F., **Sultan, M.T.H.**, *Effect Of Cavity Fore Wall Modifications In Supersonic Flow*, 6<sup>th</sup> Innovation in Aerospace Engineering and Technology, AEROTECH 2016; Kuala Lumpur; Malaysia; 8 – 9 November 2016.
49. Mohammed, I., Talib, A.R.A., **Sultan, M.T.H.**, Saadon, S., *Temperature And Heat Flux Measurement Techniques For Aeroengine Fire Test: A Review*, 6<sup>th</sup> Innovation in Aerospace Engineering and Technology, AEROTECH 2016; Kuala Lumpur; Malaysia; 8 – 9 November 2016.
50. Razali, N., **Sultan, M.T.H.**, Cardona, F. *An Experimental Study Of Non-Destructive Testing On Glass Fibre Reinforced Polymer Composites After High Velocity Impact Event*, 6<sup>th</sup> Innovation in Aerospace Engineering and Technology, AEROTECH 2016; Kuala Lumpur; Malaysia; 8 – 9 November 2016.
51. Jayakrishna, K., Balasubramani, K., **Sultan, M.T.H.**, Karthikeyan, S., *Investigations Of The Mechanical Properties Of Bi-Layer And Trilayer Fiber Reinforced Composites*, 6<sup>th</sup> Innovation in Aerospace Engineering and Technology, AEROTECH 2016; Kuala Lumpur; Malaysia; 8 – 9 November 2016.
52. Balasubramanian, K., **Sultan, M.T.H.**, Cardona, F., Rajeswari, N. *Machining Analysis Of Natural Fibre Reinforced Composites Using Fuzzy Logic*, 6<sup>th</sup> Innovation in Aerospace Engineering and Technology, AEROTECH 2016; Kuala Lumpur; Malaysia; 8 – 9 November 2016.
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54. Shanmugavel, R., Jayamani, M., Nagarajan, R., Irullappasamy, S., Cardona, F., **Sultan, M.T.H.**, *Processing And Characterization Of Redmud Reinforced Polypropylene Composites*, 6<sup>th</sup> Innovation in Aerospace Engineering and Technology, AEROTECH 2016; Kuala Lumpur; Malaysia; 8 – 9 November 2016.
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56. Senthilkumar, K., Siva, I., Jappes, J.T.W., Amico, S.C., Cardona, F., **Sultan, M.T.H.**, *Effect Of Inter-Laminar Fibre Orientation On The Tensile Properties Of Sisal Fibre Reinforced Polyester Composites*, 6<sup>th</sup> Innovation in Aerospace Engineering and Technology, AEROTECH 2016; Kuala Lumpur; Malaysia; 8 – 9 November 2016.
57. Razali N., **Sultan M.T.H.**, Cardona F., Jawaid M., *Damage characterization of E-glass and C-glass fibre polymer composites after high velocity impact*, Advanced Materials For Sustainability And Growth: Proceedings of the 3rd Advanced Materials Conference 2016 (3rd AMC 2016), 28–29 November 2016, Langkawi, Malaysia
58. Amir S.M.M., **Sultan M.T.H.**, Jawaid M., Cardona F., Ishak M.R., Yusof M.R., *Effect of Kevlar and carbon fibres on tensile properties of oil palm/epoxy composites*, Advanced Materials For Sustainability And Growth: Proceedings of the 3rd Advanced Materials Conference 2016 (3rd AMC 2016), 28–29 November 2016, Langkawi, Malaysia.

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59. Azmi A.M.R., **Sultan M.T.H.**, Hamdan A., Nor A.F.M., Jayakrishna K., *Flexural and Impact Properties of A New Bulletproof Vest Insert Plate Design Using Kenaf Fibre Embedded with X-Ray Films*. International Conference on Materials Manufacturing and Modelling, ICMMM - 2017, 9 - 11 March 2017, VIT University, Vellore.
60. Nor A.F.M., **Sultan M.T.H.**, Hamdan A., Azmi A.M.R., Jayakrisna K. *Hybrid Composites Based on Kenaf, Jute, Fiberglass Woven Fabrics: Tensile and Impact Properties*. International Conference on Materials Manufacturing and Modelling, ICMMM - 2017, 9 - 11 March 2017, VIT University, Vellore.
61. Bakar N.A., **Sultan M.T.H.**, Azni M.E., Hazwan M.H., Ariffin A.H. *Extraction and surface characterization of novel bast fibers extracted from the Pennisetum Purpureum plant for composite application*. The 3rd International Conference on Green Chemical Engineering and Technology (3rd GCET): Materials Science, 07-08 November 2017

62. Raunika A., Raj S.A., Jayakrishna K., **Sultan M.T.H.**, *Carbon nanotube: A review on its mechanical properties and application in aerospace industry*, AEROS Conference 2017, 12 December 2017, Putrajaya, Malaysia
63. Mohammed I., Talib A.R.A., **Sultan M.T.H.**, Saadon S., *Ballistic impact velocity response of carbon fibre reinforced aluminium alloy laminates for aero-engine*, AEROS Conference 2017, 12 December 2017, Putrajaya, Malaysia

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64. Nor A.F.M., **Sultan M.T.H.**, Shah A.U.M., Azmi A.M.R., Ismail K.I., *Carbon nanotubes (CNTs) as nanofillers in bamboo/glass hybrid composites and their effect on tensile, flexural and impact properties*, Green Design And Manufacture: Advanced And Emerging Applications: Proceedings of the 4th International Conference on Green Design and Manufacture 2018, 29–30 April 2018, Ho Chi Minh, Vietnam.
65. Ismail K.I., **Sultan M.T.H.**, Shah A.U.M., Nor A.F.M., Azmi A.M.R., Ariffin A.H. *Effect of carbon nanotube (CNT) concentration on flexural properties of flax hybrid bio-composite*, Green Design And Manufacture: Advanced And Emerging Applications: Proceedings of the 4th International Conference on Green Design and Manufacture 2018, 29–30 April 2018, Ho Chi Minh, Vietnam.
66. Azmi A.M.R., **Sultan M.T.H.**, Shah A.U.M., Jawaid M., Nor A.F.M., Ismail K.I., *Tensile properties of a kenaf/x-ray film hybrid composite*. Green Design And Manufacture: Advanced And Emerging Applications: Proceedings of the 4th International Conference on Green Design and Manufacture 2018, 29–30 April 2018, Ho Chi Minh, Vietnam.
67. Mostafa N.H., Ismarrubie Z.N., Sapuan S.M., **Sultan M.T.H.** *Theoretical Development of Biaxial Fabric Prestressed Composites under Tensile or Flexural Loading*, 3rd International Conference on Mechanical, Manufacturing and Process Plant Engineering (ICMMPE 2017), 22–23 November 2017, Batu Ferringhi, Penang, Malaysia
68. Zahari R., Pillai J.R., Ordys A., **Hameed Sultan M.T.**, Yidris N., *Ballistic impact analysis of double-layered metal plates*, AEROTECH VII - Sustainability in Aerospace Engineering and Technology, 7-8 August 2018, Putrajaya, Malaysia

## **Seminar Papers Presented (orally)**

1. **M.T.H. Sultan**, A. Hussain, M.Z. Mohd Yusof, A.B. Leman. *Controlling Indoor Air Temperature and Air Movement Using Convection Ventilator*. Proceedings, National Conference on Advances in Mechanical 2004.
2. **M.T.H. Sultan**, S. Basri, R. Zahari, M.R. Ajir, N. Yidris and A.S.M Rafie. *Design and Development of Ballistic Impact Test Facility*. Proceeding of the AEROTECH-II 2007 conference on Aerospace Technology of XXI Century, 20-21<sup>st</sup> June 2007, Kuala Lumpur.
3. **M.T.H.Sultan**, K.Worden, S.G.Pierce, D.Hickey, W.J.Staszewski, and J.M.Dulieu-Barton. *Impact Damage Detection and Quantification for CFRP Laminates*. Proceeding of the 10<sup>th</sup> Deformation of Composites (DFC10), 15-17<sup>th</sup> April 2009, Sheffield, UK.
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5. **M.T.H.Sultan**, W.J. Staszewski, and K. Worden. *Wavelet Feature Extraction for Impact Damage Analysis for CFRP Laminates*. Proceedings of 10<sup>th</sup> International Conference on Recent Advances in Structural Dynamics, 12-14<sup>th</sup> July 2010, Southampton, UK.
6. **M.T.H.Sultan**, K. Worden, A. Hodzic, and W.J. Staszewski. *Identification of Impact Damage in CFRP Laminates Based on a SEM Approach*. Proceedings of the IMEKO TC 11<sup>th</sup> Workshop on Smart Diagnostics of Structures, 18-20<sup>th</sup> October 2010, Kraków, Poland.
7. **M.T.H.Sultan**, K. Worden, A. Hodzic, and W.J. Staszewski. *Damage Detection in CFRP Laminates using an Interface-based Model*. Material KTN 4<sup>th</sup> Annual General Meeting, Societal Challenges-Material Solutions, 22<sup>nd</sup> April 2010, Church House Conference Centre, Westminster, London, UK.
8. **M.T.H.Sultan**, K.Worden, W.J.Staszewski, and A.Hodzic. *Novel Methods of Impact Damage Analysis in Composites*. Proceeding of the 11<sup>th</sup> Deformation of Composites (DFC11), 13-15<sup>th</sup> April 2011, Cambridge, UK.



9. **M.T.H. Sultan**, S. Basri, A.S.M. Rafie, N. Yidris, F. Mustapha, R. Zahari and M.R. Ajir. *Impact Damage Analysis For Glass Reinforced Epoxy Laminated Plates Using Single Stage Gas Gun (SSGG)*. International Conference on Advances in Mechanical and Manufacturing Engineering, 25-28<sup>th</sup> November 2013, Hotel Istana, Kuala Lumpur.
10. **M.T.H.Sultan** and K.Worden. *Damage Detections and Classifications in CFRP Laminates Using Structural Response Data*. 2<sup>nd</sup> International Symposium on Applied Engineering and Sciences (SAE2014), 20<sup>th</sup> to 21<sup>st</sup> December 2014, KYUSHU Institute of Technology, Japan.

#### Books

1. Mohammad Jawaid, **Mohamed Thariq**, Naheed Saba, *Structural Health Monitoring of Biocomposites, Fibre-Reinforced Composites and Hybrid Composites*. Woodhead Publishing Series in Composites Science and Engineering. Woodhead Publishing. ISBN: 0081022999, 9780081022993, 2018.
2. Mohammad Jawaid, **Mohamed Thariq**, Naheed Saba. *Failure Analysis in Biocomposites, Fibre-Reinforced Composites and Hybrid Composites*. Woodhead Publishing Series in Composites Science and Engineering. Woodhead Publishing, ISBN: 0081023014, 9780081023013, 2018.
3. Mohammad Jawaid, **Mohamed Thariq**, Naheed Saba. *Mechanical and Physical Testing of Biocomposites, Fibre-Reinforced Composites and Hybrid Composites*. Woodhead Publishing Series in Composites Science and Engineering. Woodhead Publishing, ISBN: 0081023006, 9780081023006, 2018.
4. Mohammad Jawaid, **Mohamed Thariq**, Naheed Saba. *Durability and Life Prediction in Biocomposites, Fibre-Reinforced Composites and Hybrid Composites*. Woodhead Publishing Series in Composites Science and Engineering. Woodhead Publishing. ISBN: 0081022980, 9780081022986, 2018.
5. Mohammad Jawaid, **Mohamed Thariq**. *Sustainable Composites for Aerospace Applications*. Woodhead Publishing Series in Composites Science and Engineering. Woodhead Publishing, ISBN: 0081021380, 9780081021385, 2018.
6. Mohammad Jawaid, **Mohamed Thariq**. *Modelling of Damage Processes in Biocomposites, Fibre-Reinforced Composites and Hybrid Composites*. Woodhead Publishing Series in Composites Science and Engineering. Woodhead Publishing. ISBN: 9780081022894, 2018.

#### Article in Magazine

1. **Mohamed Thariq**. Mandeep Singh Jit Singh, Ali Ahmad Mazlan, Imran Najeeb. *Engineers of the Future*. Jurutera, The Institution of Engineer Malaysia (IEM), December 2018. ISSN: 0126-9909
2. **Mohamed Thariq**. Mandeep Singh Jit Singh, Ain Umaira Md Shah. *Professor on Duty – Organised by E2TD in Collaboration with Universiti Putra Malaysia & Universiti Kebangsaan Malaysia*. Jurutera, The Institution of Engineer Malaysia (IEM), December 2018. ISSN: 0126-9909
3. **Mohamed Thariq**. *Professor on Duty @ Bijak Matematik in Masjid Nurul Iman, Kampung Batu 10, Kebun Baharu*. Jurutera, The Institution of Engineer Malaysia (IEM), No. 10, October 2018. ISSN: 0126-9909

#### Keynotes/Invited Presentations

##### International

1. **Keynote Speaker**, 2nd International Conference on Thermal, Energy and Environment (INCOTEE 2016), India, 25-26 March 2016.
2. **Keynote Speaker**, International Conference on Emerging Trends in Engineering and Technology (ICETET 2016), India, 7<sup>th</sup> April 2016.
3. **Keynote Speaker**, 3rd International Conference on Computational Methods in Engineering and Health Sciences (ICCMEH-2016), Japan, 17-18 December 2016.
4. **Keynote Speaker**, International Conference on Automotives systems, Agricultural Equipments and Manufacturing (ICAAM 2017), India, 24-25 March 2017.
5. **Invited Speaker**, International Conference on Advancements in Polymeric Materials, India, 12-14 February 2016.



6. **Invited Speaker**, 3rd Malaysia Super Satellite Campus (MSSC) International Workshop on Engineering & Health Science 2017 Collaboration for Bioengineering, Mechanics & Nano-Materials, Malaysia, 31<sup>st</sup> January 2017.
7. **Invited Speaker**, International Workshop on Advanced Composites and Its Manufacturing, Malaysia, 10-13 April 2017.

#### National

1. **Invited Speaker**, Bengkel Pembangunan Kurikulum Program Teknologi Kejuruteraan Tenaga, Universiti Malaysia Kelantan, 26 Jun 2018.
2. **Invited Speaker**, An Overview of Skill Based Education vs Academic Based Education, Kuala Lumpur, 27 February 2015.
3. **Invited Speaker**, Bengkel Pemurnian 'Self-Assessment Report' (SAR), Putrajaya, 15-16 November 2016.
4. **Invited Speaker**, ETAC Self-Assessment Report (SAR) and Accreditation Workshop for IHL, Putrajaya, 8-9 October 2016.
5. **Invited Speaker**, ETAC Evaluation Panel Members Workshop, Putrajaya, 3-4 November 2016.
6. **Invited Speaker**, ETAC Evaluation Panel Members Workshop, Putrajaya, 5-6 November 2016.
7. **Invited Speaker**, Bengkel Pengisian Borang Permohonan Menjadi Ahli Korporat IEM, UKM, 14 February 2017.
8. **Invited Speaker**, Teen Camp, Malaysia, 20 May 2017.
9. **Invited Speaker**, On The Route to Become a Chartered Engineer (CEng) and Profesional Engineer (Peng), Universiti Putra Malaysia (UPM), 22 August 2017.
10. **Invited Speaker**, Bengkel Pengisian Borang Permohonan BEM, UKM, 17 October 2017.
11. **Invited Speaker**, How to Become Professional Engineers and Professional Technologies, UTHM Pagoh, 28 December 2017.
12. **Invited Speaker**, Briefing on Routes to Professional Engineer (PE) Through MySET, IIUM, 26 April 2018.
13. **Invited Speaker**, How to Become Professional Engineers and Professional Technologies, UTHM Pagoh, 28 February 2018.

#### Research Grants

No	Project Title	Amount (RM)	Year	Source of Fund
1.	Operational Modal Analysis of An Aeroelastically Induced Composite Wind Tunnel Model <b>(Co-Researcher)-Completed</b>	218,200	2011-2013	E-Science Fund, MOSTI
2.	A Novel Method of Impact Damage Detection and Characterisation in Composite Materials <b>(Principal Researcher)-Completed</b>	30,000	2011-2013	RUGS (5) (UPM)
3.	Structural Health Monitoring Benchmark Problem Using Monitored Data From Non-Damage And Damaged Composite Structures – An Experimental Based Approach <b>(Principal Researcher)-Completed</b>	50,000	2013-2015	GP-IPM (UPM)
4.	The Post-Buckled Coupled Mode Interaction Behaviour of Aircraft Aluminium Stiffened Panels in Compression <b>(Co-Researcher)- Completed</b>	59,000	2013-2015	FRGS (MoE)
5.	A Novel Method For Detecting (Low Velocity, High Velocity and Ballistic Impact) In Commercial	166,000	2014-2015	GP-IPB (UPM)

Composite As Well As Bio-Composite Material  
Using Advanced Signal Processing Methods  
**(Principal Researcher)- Completed**

6.	Upstream Fundamental Research in Bamboo-Determining the Characterization of Different Species of bamboo as Reinforced Composite Material <b>(Principal Researcher)- Completed</b>	79,000	2014-2016	FRGS (MoE)
7.	Impact Resistance, Penetration Behaviour and Vibration Analysis of Glass/Sugar Palm Fibre Reinforced Polyurethane Hybrid Composite for Anti Roll Bar (ARB) Applications <b>(Principal Researcher)- Completed</b>	88,200	2015-2018	GP-IPB (UPM)
8.	Design and fabrication of Crash Box and Food Tray Table from Bamboo/Roselle Hybrid Composites <b>(Principal Researcher)-On-Going</b>	152,300.00	2016-2018	GP-IPB (UPM)
9.	Impact Characterization and Thermal Analysis Of Flax/Kenaf/Epoxy Composites With The Hybridization Of Different Types OF Woven Glass Fibre Reinforced Polymer (GFRP) <b>(Principal Researcher)-Completed</b>	20,000.00	2016-2018	GP-IPS (UPM)
10.	Mechanical Properties and Impact Behavior Of Glass/Sugar Palm Fibre Reinforced Hybrid Composite <b>(Principal Researcher)-Completed</b>	20,000.00	2016-2018	GP-IPS (UPM)
11.	Safe Biodegradable Packaging (safeBioPack) <b>(Collaborator) – On Going</b>	600,000.00	2016-2019	Newton-Ungku Omar Fund (Application Number: 62334-455277)
12.	Development of Novel Pineapple leaf fibre extraction machine for villagers from waste to wealth <b>(Principal Researcher)-On-Going</b>	25,000	2017-2019	KTGS
13.	Investigation of Shape Memory Nanocomposite for Morphong Wing Skin Application <b>(Principal Researcher)-On-Going</b>	25,000	2018-2020	GP-IPS (UPM)
14.	A Study of Physical, Mechanical and Thermal Properties on Napier Grass/Fiber Hybrid Fiber Reinforced Epoxy Hybrid Composites for Aerospace Industry <b>(Principal Researcher)-On-Going</b>	25,000	2018-2020	GP-IPS (UPM)
15.	Investigation on Physical, Mechanical and Thermal Properties of New Hybrid Kenaf/Pineapple Leaf Fibre Composites for Structural Applications <b>(Principal Researcher)-On-Going</b>	80,000	2018-2019	HiCoE
16.	Development of Advanced Commercial Composite Materials with Malaysian Palm Oil Fibres <b>(Principal Researcher)-On-Going</b>	150,000	2018-2020	GP-IPB (UPM)

**Awards/Recognition (Current) – Inside and Outside UPM**

No	Name of awards	Title	Award Authority	Award Type	Year
1.	Award for Architectural Drafting	Best Trainee	Industrial Training Institute, Kuala Lumpur	National	1996
2.	Dean's List	Best Student Award	University Technology Tun Hussien Onn Malaysia (UTHM)	National	2004
3.	Chancellor's Award	Best Student in Mechanical Engineering	University Technology Tun Hussien Onn Malaysia (UTHM)	National	2004
4.	Professional Paper in the Field of Space Application (Presentation at the International Conference), Third Prize	Malaysian Space Publication Award	Ministry of Science and Technology, Malaysia (MOSTI)	International	2011
5.	Outstanding Graduate Award	Best Graduate Award	Ministry of Human Resources (MOHR) Malaysia	National	2012
6.	Excellent Award	Excellent Service 2011 (97.34)	Faculty of Engineering, UPM	Faculty/ University	2011
7.	Excellent Award	Excellent Service 2012 (96.33)	Faculty of Engineering, UPM	Faculty/ University	2012
8.	Excellent Award	Excellent Service 2013 (92.50)	Faculty of Engineering, UPM	Faculty/ University	2013
9.	Excellent Award	Excellent Service 2014 (97.75)	Faculty of Engineering, UPM	Faculty/ University	2014
10.	Book of Success of ITI Graduate, Industrial Training Institutions (ITI's)	Student's Icon	Department Of Manpower, Ministry of Human Resources Malaysia	National	2015
11.	Excellent Award	Excellent Service 2015 (97.75)	Faculty of Engineering, UPM	Faculty/ University	2015
12.	Excellent Award	Excellent Service 2016 (99)	Faculty of Engineering, UPM	Faculty/ University	2016
13.	Excellent Award	Excellent Service 2017	Faculty of Engineering, UPM	Faculty/ University	2017



13.	Presidential Award of Excellence	Most Improved Technical Division	National	2017
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### Professional Services/Consultation

No	Year	Title	Authority	Amount
1.	2012	Single Stage Gas Gun for Engineering Material Laboratory, Faculty of Process and Manufacturing, Universiti Malaysia Pahang	ZKK Sdn. Bhd.	RM413,000
2.	2014	Centre for Aerospace Design Sdn. Bhd.	UniKL, MIAT	RM3,000
3.	2014	Railway Wheel Crack Detection	MASDAR Technologies	RM 300,000
4.	2014	Bamboo Slicer Machine	ZKK Sdn. Bhd.	RM 30,000
5.	2015	Innovative Structural Health Monitoring (SHM) System Capable of Detecting, Localizing and Characterizing Damages In Bio-Based Composite Aircraft Structures	ZKK Sdn. Bhd.	RM 150,000
6.	2015	Experimental & Computational Analysis of Composite Structures	Aeronautical Research Centre (ARC) Sudan	RM 60,000
7.	2015	Non-Destructive Testing Facilities Between AMRC and CUAT Algeria	Centre Universitaire Ain Temouchent – CUAT	RM 10,000
8.	2015	Non-Disclosure Agreement (NDA) Between UPM and PROTON	Universiti Putra Malaysia (UPM) and PROTON (In Kind)	RM 556,800
9.	2016	Collaboration and Utilization of Bio Composite Laboratory & Testing Facility for University Research at AMRC UPM	Centre for Composite (CfC), UTM	RM 5,000
10.	2017	Institute of Technology PETRONAS Sdn Bhd	Universiti Teknologi Petronas (UTP)	RM 4,800

### Student Supervisions, PostGraduates (MSc and PhD)

#### Doctor of Philosophy

	Name of Students	Remarks	Status (Completed/Ongoing)	Year Graduated
1.	Mohd Fairuz Bin Alias <i>(Universiti Tun Hussien Onn Malaysia)</i>	Member	Ongoing	-
2.	Ho Choon Sin <i>(Universiti Tun Hussien Onn)</i>	Member	Ongoing	-



	<i>Malaysia)</i>			
3.	Nayak Suhas Yeshwant (Manipal University)	Member	Ongoing	-
4.	Siti Madiha binti Muhammad Amir	Chairman	Ongoing	-
5.	Syafiqah Nur Azrie bt Safri	Chairman	Ongoing	-
6.	Noorshazlin binti Razali	Chairman	Ongoing	-
7.	Muhamad Hasfanizam bin Mat Yazik	Chairman	Ongoing	-
8.	Norrahim bin Abu Bakar	Chairman	Ongoing	-
9.	Tabrej Khan	Chairman	Ongoing	-
10.	Nor Izaida binti Ibrahim	Chairman	Ongoing	-
11.	Nur Marini binti Zainal Abidin	Chairman	Ongoing	-
12.	Farah Syazwani binti Shahar	Chairman	Ongoing	-
13.	Tamil Moli a/p Loganathan	Chairman	Ongoing	-
14.	Elias Randjbaran	Member	Ongoing	-
15.	Mohd Shamsul Azmi bin Mohd Alim	Member	Ongoing	-
16.	Noor Azammi b. Abd Murat	Member	Ongoing	-
17.	Ernie Illyani binti Basri	Member	Ongoing	-
18.	Nik Syamsul Bahari bin Che Yusof	Member	Ongoing	-
19.	Lau Kia Kian	Member	Ongoing	-
20.	Chee Siew Sand	Member	Ongoing	-
21.	Amin Khajeh	Member	Ongoing	-
22.	Naveen Jesu Arockiam	Member	Ongoing	-
23.	Al Behadili Ali Kareem Hilo	Member	Ongoing	-
24.	Farah Hanan binti Abd Malek	Member	Ongoing	-
25.	Murniwati binti Anwar	Member	Ongoing	-
26.	Ain Umaira binti Md. Shah	Chairman	Completed	2018
27.	Umran bin Abdul Rahman	Member	Completed	2018
28.	Ibrahim Mohammed	Member	Completed	2018
29.	Suhad Dawood Salman	Member	Completed	2017
30.	Mohaiman Jaffar Kashkol	Member	Completed	2017
31.	Nawras Haidar Mostafa Al-Said Haidar	Member	Completed	2017
32.	Parnia Zaki Khani	Member	Completed	2016

### MSc with Thesis

	Name of Students	Remarks	Status (Completed/Ongoing)	Year Graduated
1.	Muhammad Hafizal bin Hamidon	Chairman	Ongoing	-
2.	Ali Ahmad bin Mazlan	Chairman	Ongoing	-
3.	Muhammad Imran bin Najeeb	Chairman	Ongoing	-
4.	Mohamad Norazmi bin Kamarolzaman	Member	Ongoing	-
5.	Muhammad Fitri bin Mohd Zulkeple	Member	Ongoing	-
6.	Yasir Khaleel Ibrahim Kermasha	Member	Ongoing	-
7.	Muhammad Faizzuddin bin Ismail	Chairman	Completed	2019
8.	Tay Chai Hua	Member	Completed	2019
9.	Ahmad Safwan bin Ismail	Member	Completed	2019
10.	Ahmad Mustafa bin Rayney Azmi	Chairman	Completed	2018
11.	Ariff Farhan bin Mohd Nor	Chairman	Completed	2018
12.	Khairul Izwan bin Ismail	Chairman	Completed	2018
13.	Qistina binti Mohd Jamal	Member	Completed	2017



14.	Noorshazlin binti Razali	Chairman	Completed	2015
15.	Syafiqah Nur Azrie bt Safri	Chairman	Completed	2015
16.	Lim Keng Teek	Member	Completed	2015
17.	Ahsan Nur Mubarak Zahari @ Annur	Member	Completed	2013

#### MSc without Thesis

No.	Name	Remarks	Status
1.	Farah Syazwani Binti Shahar	Main Supervisor	<u>2018</u>
2.	Nadhira Fathiah Binti Kamarulzaman	Main Supervisor	<u>2017</u>
3.	Muhammad Nor Hakim Bin Mohd Arif	Main Supervisor	<u>2016</u>

#### Student Supervisions, Undergraduates

#### Bachelor Degree

No.	Name	Remarks	Status
1.	Noorshazlin Bt. Razali	Main Supervisor	<u>Completed 2012</u>
2.	Khairina Hafizah Bt. Ramlan	Main Supervisor	<u>Completed 2013</u>
3.	Chan Teng Yan	Main Supervisor	<u>Completed 2014</u>
4.	Syafiq Syahmi B. Sazali	Main Supervisor	<u>Completed 2014</u>
5.	Muhammad Faizzuddin Bin Ismail	Main Supervisor	<u>Completed 2015</u>
6.	Ariff Farhan Bin Mohd Nor	Main Supervisor	<u>Completed 2016</u>
7.	Ahmad Mustafa Bin Rayney Azmi	Main Supervisor	<u>Completed 2016</u>
8.	Muhammad Hafizal Bin Hamidon	Main Supervisor	<u>Completed 2017</u>
9.	Ali Ahmad Mazlan	Main Supervisor	<u>Completed 2018</u>

#### Student Examination (Internal/External Examiner/ Chairman)

#### Doctor of Philosophy

No.	Name	Title	Level	Year
1.	Mr. R. Kamalakannan (Anna University - India) <i>International Level</i>	Cell Formation With Real Time Production Factors Using Swarm Intelligence  (EXTERNAL EXAMINER)	PhD	2017
2.	Mr. S. Sundararajan (Anna University - India) <i>International Level</i>	Investigation on Tribological Characteristics of Self Lubricated Copper Hybrid Composites by Solid State Blending Technique  (EXTERNAL EXAMINER)	PhD	2018
3.	Mr. T. Amuthan (Anna University - India) <i>International Level</i>	Performance Analysis on Electrical and Mechanical Properties of Various Natural Fibre Reinforced Composite Materials  (EXTERNAL EXAMINER)	PhD	2018
4.	Mr. N. Vijay Ponraj (Anna University - India)	Processing, Characterization and Experimental Investigation on Mechanical and Wear Behaviour	PhD	2018



*International Level*

of Graphene Nanosheet  
Reinforced Copper Composite  
(EXTERNAL EXAMINER)

- |    |   |   |     |      |
|----|---|---|-----|------|
| 5. | Prenesh Krishnan<br>Ragunathan<br><i>(Universiti Malaysia Perlis<br/>– UniMAP)</i><br><i>National Level</i> | Performance of Glass Fibre<br>Reinforced Epoxy (GRE)<br>Composite Pipes Under Various<br>Stress Ratios, Winding Angles<br>and Aging Conditions<br>(EXTERNAL EXAMINER)                                     | PhD | 2017 |
| 6. | Munerah A B S Faraj<br><i>(Universiti Putra Malaysia)</i><br><i>National Level</i>                          | Study on air Ventilation Syatem<br>Based on CFD Simulation for the<br>Hospital Operation Theater in<br>Kuwait<br>(INTERNAL EXAMINER)  | PhD | 2019 |
| 7. | Chandrasekar<br>Muthukumar<br><i>(Universiti Putra Malaysia)</i><br><i>National Level</i>                   | Experimental Investigation on the<br>Mechanical Properties of Fibre<br>Metal Laminates with Carbon,<br>Flax and Sugar Palm Fibre Based<br>Composites for Aerospace<br>Applications<br>(INTERNAL EXAMINER) | PhD | 2019 |

**MSc**

No.	Name	Title	Level	Year
1.	Wan Mohd Azlan Bin Wan Mohd Nowalid <i>(Universiti Malaysia Pahang)</i> <i>National Level</i>	Integration of Chatter Avoidance and Minimum Quantity Lubrication Condition In Machining Processing	MSc	2019
2.	Shahrul Nizam Md Saleh <i>(Universiti Teknologi Petronas)</i> <i>National Level</i>	Tensile, Physical and Chemical Characterization of Oleic Acid Post Spinning Treatment on PAN Fibre	MSc	2018
3.	Norzarina Binti Ma'at <i>(Universiti Tun Hussien Onn Malaysia)</i> <i>National Level</i>	Modeling Dynamic Behavior Including Shockwave Propagation And Spall Failure In Orthotropic Materials (EXTERNAL EXAMINER)	MSc	2017
4.	Nurhazwani Binti Othman <i>(Universiti Putra Malaysia)</i> <i>National Level</i>	Physical, Mechanical and Morphological Properties of Hybrid Particleboard made from Bamboo Veneer Wastes (Dendrocalamus Asper) and Rubber Wood (CHAIRMAN)	MSc	2017



5.	Nurhanisah bt Mohd Hawari (Universiti Putra Malaysia) National Level	Design And Fabrication Of Eco-Friendly Prosthetic Leg Socket Made From Woven Kenaf-Glass Fibre Hybrid Composites (INTERNAL EXAMINER)	MSc	2017
6.	Nurul Reffa Azyan Bt Nasrudin (Universiti Putra Malaysia) National Level	Effects Of Nanoclay Addition On The Properties Of Rice Husk Ash/Kaolin Based Geopolymer Coating Composite (INTERNAL EXAMINER)	MSc	2017
7.	Mohd Nizam Bin Hassan (Universiti Putra Malaysia) National Level	The Influence of Stiffener Aluminum Perforated Plates Subjected to In-Plane Shear Loading (INTERNAL EXAMINER)	MSc	2017
8.	Muhammad Jaber Bin Suleiman@Ahmad (Universiti Putra Malaysia) National Level	Development of Inconel 718 Parts Produced by Metal Injection Molding (MM) Technique for Aerospace Applications (INTERNAL EXAMINER)	MSc	2017
9.	Mohd Saffuan Bin Yaakob (Universiti Putra Malaysia) National Level	Applications of Auxetic Cell Structure As Impact Absorbing Material in Bio-Composite Aero Helmet (CHAIRMAN)	MSc	2017
10.	Rao Muhammad Shahroze Ali (Universiti Putra Malaysia) National Level	Effect of Nanoclay and Silica Aerogel on Mechanical, Thermal and Physical Properties of Sugar Palm Fibre Reinforced Unsaturated Polyester Composite (INTERNAL EXAMINER)	MSc	2018
11.	Afiqah Musa (Universiti Putra Malaysia) National Level	Scanning Laser Thermographic Imaging System for Non-Destructive Evaluation of Incipient Thermal Damages in Aerospace Composite Material (INTERNAL EXAMINER)	MSc	2018
12.	Farid bin Bajuri (Universiti Putra Malaysia) National Level	Impregnation of Nanosilica Into Kenaf Natural Fibre to Reinforce Epoxy Thermoset Resin (CHAIRMAN)	MSc	2018
13.	Hayder Abdullah Luaibi Alrazen (Universiti Putra Malaysia) National Level	Numerical Simulation of The Effect of Combination of CNG.H2 and Diesel Usage on the 4 Stroke Engine (CHAIRMAN)	MSc	2016



## INTELLECTUAL PROPERTY

### Patent Filed

1. **M.T.H. Sultan**, F.S. Shahar, A.A. Basri. Medical Information Access Device, Patent Pending, MyIPO LY2018006915

### Attended Seminars/Workshops/Forums both National And International

1. Seminar Workshop New Breakthrough in Modern CFD, August 2011.
2. 8<sup>th</sup> International Workshop on Structural Health Monitoring, 13<sup>th</sup>-15<sup>th</sup> September 2011, Stanford University, California, USA.
3. Industry Forum: Route to Commercialisations by Prof. Dr. Shamsuddin Baharin, 24<sup>th</sup> October 2011, Seminar Hall C, Convention Centre, Centre for University -Industry Collaboration, Universiti Utara Malaysia.
4. 1<sup>st</sup> Malaysian-German Conference of Education & Training, Malaysia – German Chamber of Commerce and Industry, 3<sup>rd</sup> November 2011, Crown Plaza Mutiara Hotel, Kuala Lumpur.
5. Kursus Awareness and understanding of MS ISO/IEC 17205:2005. UPM, 27-28 Julai 2017.
6. ASEM University-Business Forum, Destination Employment, Bonn, Germany, 10 -11<sup>th</sup> November 2011.
7. Research Methodology Course, Series 3/2011, 25-30<sup>th</sup> November 2011, Ancasia All Suites Resort & Spa, Port Dickson.
8. Bengkel Pemantapan Halatuju dan Perancangan Strategik AKEPT Young Researchers Circle (AYRC), Malaysia, 6-8 Mac 2012.
9. 1<sup>st</sup> National Entrepreneurship Educators Forum (NEEF) 2012, 27 February 2012, Putrajaya, Malaysia.
10. Program Health for Malaysia, 18-20<sup>th</sup> November 2012, Rural Transformation Centre, Terminal Agribisnes Negara, Gopeng, Perak Darul Ridzuan.
11. Seminar Khatib Profesional, Jabatan Agama Islam Selangor, Masjid Negeri Shah Alam, 24 October 2013.
12. MTS Lab Expert Seminar Series: Leveraging Material Testing for Academic Research. April 2014.
13. ASME VII Training (Pressure Vessel Code Simplified), Malaysian Society of Structural Health Monitoring (MSSHM), Universiti Putra Malaysia, 21<sup>st</sup> to 25<sup>th</sup> April 2014.
14. Mechanical Characterization of Engineering Materials, Aerospace Manufacturing Research Centre (AMRC), Universiti Putra Malaysia, 22<sup>nd</sup> to 26<sup>th</sup> September 2014.
15. Preconference workshop on Computational Methods for Interdisciplinary Research December 15 – 16, Manipal, India, 2014.



16. 2<sup>nd</sup> International Symposium on Applied Engineering and Sciences (SAES2014) Kyushu Institute of Technology, Japan, 20<sup>th</sup> – 21<sup>th</sup> Dec, 2014.
17. Code of Ethics / Regulations, Board of Engineers Malaysia, Institute of Engineers Malaysia Training Centre, 4<sup>th</sup> to 5<sup>th</sup> February 2015.
18. Engineering Management Practice, Board of Engineers Malaysia, Institute of Engineers Malaysia Training Centre, 9<sup>th</sup> to 10<sup>th</sup> February 2015.
19. Safety & Health At Work, Board of Engineers Malaysia, Institute of Engineers Malaysia Training Centre, 12<sup>th</sup> to 13<sup>th</sup> February 2015.
20. Workshop on Dynamic Mechanical Analyzer (DMA), Laboratory of Technology Biocomposite (BIOCOMPOSITE), Universiti Putra Malaysia, 11<sup>th</sup> March 2015.
21. Professional Engineer Course, Malaysian Society of Agricultural Engineers (MSAE), Universiti Putra Malaysia, 19<sup>th</sup> March 2015.
22. Convention on Consolidation and Empowerment of Management for Surau's in Selangor, Raja Haji Fisabilillah Mosque Hall, Cyberjaya, 12<sup>th</sup> November 2015.
23. EAC New Panel Evaluators Workshop, Subang, 14-16 December 2015.
24. 3<sup>rd</sup> Malaysia Super Satellite Campus (MSSC) International Workshop on Engineering & Health Science 2017 Collaboration for Bioengineering, Mechanics & Nano-Materials, Malaysia, 31<sup>st</sup> January 2017.
25. Program Himpunan Bakat (Kumpulan Akademik) 'Perlembagaan Universiti', UPM, 2017.
26. Program Himpunan Bakat (Kumpulan Akademik) 'Pengurusan Kewangan Universiti', UPM, 2017.
27. ETAC Workshop for Panel Evaluators, Subang, 25 September 2017.
28. Workshop on ETAC Self Assessment Report (SAR), Putrajaya, 28-30 October 2017.
29. One Day Workshop: Gap Analysis of The Engineering Accreditation Council Manual 2017, Petaling Jaya, 3 March 2018.
30. One Day Workshop: Gap Analysis of The Engineering Accreditation Council Manual 2017, Petaling Jaya, 3 April 2018.

International

<b>No.</b>	<b>Name of Activity/Project/ Program</b>	<b>Organiser</b>	<b>Place</b>	<b>Date</b>
1.	Formal Teaching Activities, Supporting Module Leader	The University of Sheffield, United Kingdom	UK	March 2011
2.	Guest Lecture	The University of Sheffield, United Kingdom	UK	March 2011
3.	Organizing Committee	AEROTECH IV	Malaysia	2012
4.	Conference Committee (Technical Committee)	AUN/SEED-Net Regional Conference on Mechanical and Manufacturing Engineering	Malaysia	2013
5.	International Reviewer	AUN/SEED-Net Regional Conference on Mechanical and Manufacturing Engineering	Malaysia	2013
6.	Conference Committee (Technical Committee)	International Conference on Advances in Mechanical and Manufacturing Engineering (ICAM2E)	Malaysia	2013
7.	International Reviewer	AUN/SEED-Net Regional Conference on Mechanical and Manufacturing Engineering	Malaysia	2013
8.	Reviewer	AEROTECH V	Malaysia	July 2014
9.	Session Chair	AEROTECH V	Malaysia	October 2014
10.	Session Chair	International Conference on Computational Methods in Engineering & Health Sciences	India	December 2014
11.	Head of Sponsorship	AEROTECH VI	Universiti Putra Malaysia, UPM	17 November 2015 to 16 November 2016
12.	Reviewer	International Conference on Computational Methods in Engineering & Health Sciences (ICCMEH:2015)	Universiti Putra Malaysia, UPM	2015
13.	Head of Sponsorship	International Conference on Computational Methods in Engineering & Health Sciences (ICCMEH:2015)	Universiti Putra Malaysia, UPM	2015
14.	Session Chair	International Conference on Computational Methods in	Universiti Putra Malaysia, UPM	2015



Engineering & Health  
Sciences (ICCMEH:2015)

15.	Judge	Prodex	Malaysia	2016
16.	Judge	INOTECH 2016	Malaysia	2016
17.	Converner	Wood and Biofiber International Conference 2017 (WOBIC2017)	Malaysia	2017
18.	Judge	Wood and Biofiber International Conference 2017 (WOBIC2017)	Malaysia	2017
19.	Judge	InoTech 2017	Malaysia	2017
20.	Panel Penilai Projek Pelajar Tahun Akhir	UKM	Malaysia	2017
21.	Panel Penilai MyGrants	UPSI	Malaysia	2017
22.	Judge	ProDex 2019	Malaysia	2018
23.	Judge for 3 Minute Competition	UNITEN	Malaysia	2018
24.	Chairman of Organizing Committee	1 <sup>st</sup> International Conference on Safe Biodegradable Packaging Technology (SafeBiopack 2018)	MiGHT Partnership Hub, Cyberjaya, Malaysia	2018
25.	Deputy Chairman of Steering Committee	1 <sup>st</sup> International Conference on Safe Biodegradable Packaging Technology (SafeBiopack 2018)	MiGHT Partnership Hub, Cyberjaya, Malaysia	2018
26.	Conference Committee (Technical Committee)	6 <sup>th</sup> International Conference on Space Science and Communication (IconSpace2019)	Malaysia	2019
27.	Judge	INOTECH 2019	Malaysia	2019
28.	Judge	ProDex 2019	Malaysia	2019

National

No.	Name of Activity/Project/ Program	Organiser	Place	Date
1.	Session Chair for Seminar Workshop	NUMIT Enterprise	Malaysia	August 2011
2.	Committee Member for AKEPT Young Researchers Circle Conference & Exhibition	Ministry of Higher Education, Malaysia	Malaysia	2011





3.	Committee Member for Mesyuarat Majlis Perundingan Akademia Industri	Ministry of Higher Education, Malaysia	Malaysia	2012
4.	Session Chair	Malaysia Workshop of Structural Health Monitoring (MSSHM)	Malaysia	2013
5.	Contract Lecturer	ADMAL Aviation College	Sepang, Malaysia	July 2013
6.	Guest Lecture/Trainer	Universiti Malaysia Pahang (UMP), Malaysia	UMP, Malaysia	October 2013
7.	Committee Member of Sydney Accord and Dublin Accord	Board of Engineer Malaysia	Malaysia	August 2016
8.	Joint Researcher for 'Memperkasakan minat pelajar sekolah anak-anak yatim kepada pengetahuan Sains dan Matematik Melalui Kawalan Pintar Helikopter'	ANGKASA, UKM	Malaysia	February 2017
9.	Working Group on License Aircraft Maintenance Qualifications (Member)	Board of Engineer Malaysia	Malaysia	March 2018

#### Journal Reviewer

No.	Name of Activity/Project/Program	Organiser	Place	Date
1.	Editorial Member	International Journal on Engineering & Technology	Malaysia	2016
2.	Journal Reviewer	Journal of Composite Part (B)	International	2013
3.	Journal Reviewer	Journal of Composite Part (B)	International	2013
4.	Advisory Board Member	International Journal of Modern Trends in Engineering and Science	India	December 2014
5.	Journal Reviewer	Modern Applied Science	International	2014
6.	Journal Reviewer	Process Safety and Environmental Protection	International	2019
7.	Journal Reviewer	Journal of Composite Part (B)	International	2018



8.	Journal Reviewer	Journal of Thermoplastic Composite Materials	International	2018
9.	Journal Reviewer	Aerospace Science and Technology	International	2018
10.	Journal Reviewer	Polymer Testing	International	2018
11.	Journal Reviewer	Journal of the Industrial Textile	International	2018
12.	Journal Reviewer	Pertanika: Journal Science and Technology	Malaysia	2015
13.	Journal Reviewer	AIP Conference Proceeding	International	2017
14.	Journal Reviewer	Applied Mechanics and Materials	International	2014
15.	Journal Reviewer	Engineering Failure Analysis	International	2013

#### University

No.	Name of Activity/Project/Program	Organiser	Place	Date
1.	Ahli Jawatan Kuasa Karnival Fakulti dan Hari Terbuka Projek Pelajar Tahun Akhir	Department of Aerospace Engineering, Faculty of Engineering	Universiti Putra Malaysia, UPM	2014
2.	Organizing Committee for MTS Lab Expert Seminar Series: Leveraging Material Testing for Academic Research	Department of Aerospace Engineering, Faculty of Engineering	Universiti Putra Malaysia, UPM	2014
3.	Ahli Jawatankuasa (AJK) <i>Materials Lecture Competition (MLC) 2015</i>	Department of Aerospace Engineering, Faculty of Engineering	Universiti Putra Malaysia, UPM	2015
4.	Pempamer sempena Sesi Jaringan Industri	Fakulti Kejuruteraan, UPM	Universiti Putra Malaysia, UPM	2015
5.	Deputy Technical Manager (Aerospace Structure Laboratory)	Fakulti Kejuruteraan, UPM	Universiti Putra Malaysia, UPM	2016-2019
6.	Approved Signatory (Aerospace Structure Laboratory)	Fakulti Kejuruteraan, UPM	Universiti Putra Malaysia, UPM	2016-2019



7.	Panel Penilai Geran Penyelidikan Peringkat Universiti	Universiti Putra Malaysia, UPM	Universiti Putra Malaysia, UPM	2016-2017
8.	Committee of PutraMOOC Malaysia	Universiti Putra Malaysia, UPM	Universiti Putra Malaysia, UPM	2017
9.	Panel penilai Fakulti Kejuruteraan	Fakulti Kejuruteraan, UPM	Universiti Putra Malaysia, UPM	2017
10.	Reviewer for INTROP Research Colloquium	Institut Perhutanan Tropika & Produk Hutan UPM	Universiti Putra Malaysia, UPM	2017
11.	Panel penilai Fakulti Kejuruteraan	Fakulti Kejuruteraan, UPM	Universiti Putra Malaysia, UPM	2018
12.	Committee of Centralize Equipment Management System (CEMS)	Universiti Putra Malaysia, UPM	Universiti Putra Malaysia, UPM	2018
13.	Deputy Technical Manager	Fakulti Kejuruteraan, UPM	Universiti Putra Malaysia, UPM	2018-2021
14.	Panel Penilai Geran Penyelidikan Peringkat Universiti	Universiti Putra Malaysia, UPM	Universiti Putra Malaysia, UPM	2018-2019
15.	Ahli Jawatankuasa Bebas Bagi Permohonan Naik Taraf MSc ke PhD	Institut Perhutanan Tropika & Produk Hutan UPM	Universiti Putra Malaysia, UPM	2019

#### Community

No.	Name of Activity/Project/ Program	Organiser	Place	Date
1.	Khatib Khutbah Jumaat	Majlis Agama Islam Selangor	Madrasah ASSIRATUL MUSTAQEEM Jalan Reko, Kajang	2013
2.	Pakar Rujuk dan Penceramah Matematik	Natinal Blue Ocean Strategy (NBOS) – UMNO Cawangan Jalan Reko Kajang	Dewan Undangan Negeri Kajang (DUN N25) dan Dewan Undangan Negeri Bangi	5 Januari 2015 – 4 Januari 2018
3.	Perlantikan sebagai Khatib Jumaat dan Penceramah	Jabatan Agama Islam, Selangor	Madrasah Assiratul Mustaqeem, Jalan Reko, Kajang	2 Januari 2015 – 1 Januari 2018

**EAC / ETAC Accreditation Visit**

No.	Name of Programme	Date of Visit	Role
1.	Bachelor of Engineering (Aerospace) (Honours)	22 <sup>nd</sup> – 23 <sup>rd</sup> February 2017 EAC	Observer
2.	Bachelor of Engineering with Honours (Mechanical Engineering)	17 <sup>th</sup> – 18 <sup>th</sup> May 2017 EAC	Panel
3.	(i) Bachelor of Mechanical Engineering Technology (Manufacturing) with Honours (ii) Bachelor of Civil Engineering Technology (Environment) with Honours (iii) Diploma in Civil Engineering (iv) Diploma in Electrical Engineering	24 <sup>th</sup> – 25 <sup>th</sup> October 2017 ETAC – Mock Visit	Head of Delegation
4.	(i) Bachelor of Mechanical Engineering Technology (Manufacturing) with Honours (ii) Bachelor of Civil Engineering Technology (Environment) with Honours (iii) Diploma in Civil Engineering (iv) Diploma in Electrical Engineering	8 <sup>th</sup> – 9 <sup>th</sup> November 2017 ETAC – Actual Visit	Head of Delegation
5.	Bachelor of Engineering (Honours) Mechanical Engineering	6 <sup>th</sup> – 7 <sup>th</sup> December 2017 EAC	Panel
6.	Bachelor of Engineering Technology (Hons)	5-6 March 2018 ETAC	Panel
7.	Bachelor of Engineering (Mechanical Aeronautics)	2 <sup>nd</sup> -3 <sup>rd</sup> May 2018 EAC	Panel
8.	Bachelor of Engineering Mechanical Automotive (Honours)	2 <sup>nd</sup> -3 <sup>rd</sup> October 2018 EAC	Panel
9.	Bachelor of Engineering (Honours) Mechanical Engineering	6-9 November 2018	Panel