

CURRICULUM VITAE



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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 Technology 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 Materials
5. Signal Processing and Instrumentations
6. Non Destructive Testing and Destructive Testing

Professional Qualification/ Membership/ Affiliation

1. BEM, Member of Board of Engineers Malaysia, Peng (No: 16954)
2. AMIMechE, Associate Members of Institute of Mechanical Engineers
3. MAIAA, Member of American Institute of Aeronautics and Astronautics
4. MASME, Member of American Society of Mechanical Engineers
5. MBSSM, Member of The British Society of Strain Measurement
6. MSEM, Member of Society for Experimental Mechanics
7. MAYRC, Member of AKEPT Young Researchers Circle
8. AAE, Associate of ASEAN Engineers
9. MMSSHM, Member of Malaysian Society of Structural Health Monitoring
10. MMSNT, Member of Malaysian Society for Non Destructive Testing
11. MIEM, Member of Institution of Engineers Malaysia, MIEM (No: 25175)

Administrative Work Listing (Inside and Outside UPM)

Position	Duration
1. Draughtsman, Mechanical and Electrical, SSM Associates – Outside UPM	1996-1997
2. Part Time Tutor, Program Pengajian Diploma (UTM) - Outside UPM	1999-2004
3. Site Engineer, Mechanical and Electrical, SSM Associates - Outside UPM	2004-2005
4. Assistant Lecturer, Department of Aerospace Engineering, UPM - Inside UPM	2005-2011

5. Special Officer, Industrial Relation Division, Ministry of Higher Education (MOHE) Malaysia - **Outside UPM** 2011-2013
6. Senior Lecturer, Department of Aerospace Engineering, UPM - **Inside UPM** 2013 to date
7. Director / Head, Aerospace Manufacturing Research Centre (AMRC), UPM - **Inside UPM** 2013 to date
8. Guest Lecture/Trainer, ADMAL Aviation College, Nilai - **Outside UPM** 2013
9. Guest Lecture/Trainer, Department of Mechanical and Manufacturing, University Malaysia Pahang (UMP) - **Outside UPM** 2013
10. Deputy President of Malaysian Society of Structural Health Monitoring (MSSHM) - **Outside UPM** 2013 to date
11. Non-Executive Independent Scientific Advisor in Aerospace Malaysia Innovation Centre (AMIC) - **Outside UPM** 2014 to date
12. Research Associates, Institute of Tropical Forestry and Forest Product (INTROP) 2015 to date

Publications

Journals (40 recent journals)

2010

1. **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. – **Journal**.
2. 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. – **Journal**.

2011

3. **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. **Impact Factor (2.210)**. – **Journal**.
4. **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*. Applied Mechanics and Materials, 2011, Vol. 399 - 401, 2318- 2328. – **Journal**.
5. **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. – **Journal**.

2012

6. **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(12), 1108-1120. **Impact Factor (3.818)** – **Journal**.
7. **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. 255, 138-143. – **Journal**.
8. 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. – **Journal**.
9. 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. 255, 344-349. – **Journal**.

10. 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. 255, 13-17. – **Journal**.
11. 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. – **Journal**.
12. **M.T.H.Sultan**, A.S.M.Rafie, N. Yidris, F. Mustapha and D.L. Majid. *Damage Detection in CFRP Laminates Using the Principal Components Analysis (PCA) Approach*. Applied Mechanics and Materials, 2012, Vol. 255, 189-194. – **Journal**.
13. 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. 255, 165-171. – **Journal**.
14. 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. – **Impact Factor (0.42) – Journal**.

2013

15. **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. – **Journal**.
16. 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*. Journal of Applied Mechanics and Materials. 2013. Vol. 300-301, 781-784. – **Journal**.

2014

17. 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*. Journal of Applied Mechanics and Materials. 2014. Vol. 564, 157-163. – **Journal**.
18. 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*. Journal of Applied Mechanics and Materials. 2014. Vol. 564, 444-448. – **Journal**.
19. 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*. Journal of Applied Mechanics and Materials. 2014. Vol. 564, 366-371. – **Journal**.
20. P.Zakikhani, R.Zahari, **M.T.H.Sultan** and D.L.Majid. *Extraction and Preparation of Bamboo Fibre-Reinforced Composites*. Journal of Material and Design. 2014. Vol 63, 820-828. – **Impact Factor (3.171) – Journal**.
21. P.Zakikhani, R.Zahari and **M.T.H.Sultan**. *Simulation of Low Velocity Impact on Composite Hemispherical Shell*. Journal of Applied Mechanics and Materials. 2014. Vol. 564, 406-411. – **Journal**.
22. 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)*. Journal of Applied Mechanics and Materials. 2014. Vol. 564, 428-433. – **Journal**.
23. 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*. Journal of Applied Mechanics and Materials. 2014. Vol. 564, 376-381. – **Journal**.
24. **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*. Journal of Applied Mechanics and Materials. 2014. Vol. 564, 382-387. – **Journal**.
25. 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.– **Impact Factor (2.375) – Journal**.

26. 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. – **Impact Factor (2.375) – Journal.**
27. 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), 13-26. – **Journal.**
28. 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. – **Journal.**
29. 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. – **Journal.**
30. 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. – **Journal.**
31. 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. – **Journal.**
32. 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*. Journal of Advanced Materials Research. 2014. Vol. 1044-1045, 153-157. – **Journal.**
33. 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*. Journal of Applied Mechanics and Materials. 2014. Vol. 629, 461-466. – **Journal.**
34. Q.M.Jamal, D.L.Majid, M.Y.Haris, N.Yidris and **M.T.H.Sultan**. *Quasi Static Analysis of a Biocomposite Aircraft Radome*. Journal of Applied Mechanics and Materials. 2014. Vol. 629, 78-81. – **Journal.**

2015

35. 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. – **Journal.**
36. 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. – **Journal.**
37. Suhad D. Salman, Zulkiflle Leman, **Mohamed T.H.Sultan**, Mohamad R. Ishak and Francisco Cardona, *Kenaf/Synthetic and Kevlar®/Cellulosic Fiber-Reinforced Hybrid Composites: A Review*, Bioresources Journal. 2015, Vol 10(4), 8580-8603. – **Journal.**
38. 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. – **Journal.**
39. 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), 1-8 – **Journal.**
40. Parnia Zakikhani, Rizal Zahari, **Mohamed T.H. Sultan** and Dayang L. Majid, *Thermal Degradation of Four Bamboo Species*, Bioresources Journal. 2015, Vol 11(1) - (Accepted) – **Journal.**
41. 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 Journal. 2015, Vol 11(1) - (Accepted) – **Journal.**
42. Francisco Cardona and **Mohamed Thariq Bin Hameed Sultan**, *Characterization of Environmentally Sustainable Resole Phenolic Resins Synthesized with Plant-based Bio-Resources*, Bioresources Journal. 2015, Vol 11(1) - (Accepted) – **Journal.**
43. Amin Khajeh, Faizal Mustapha , **Mohamed Thariq Hameed Sultan**, György Bánhegyi, Zsuzsanna Karácsony and Viktor Baranyai, *The Effect of Thermo-Oxidative Aging on the Durability of Glass Fiber-*

Conference Proceedings (30 recent Conference Proceedings)

2004

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.

2007

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, 20-21st 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, 20-21st June 2007, Kuala Lumpur.
4. A.S.M. Rafie, S. Basri, A.H. Attaran, D.L. Majid, N. Yidris and **M.T.H. Sultan**. *Experimental Analysis for Eagle 150b Aircraft Wings*. Proceedings of AEROTECH-II 2007 conference on Aerospace Technology of XXI Century, 20-21st June 2007, Kuala Lumpur.

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 10th Deformation of Composites (DFC10), 15-17th 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, 18-19th 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, 18-19th November 2009, Kuala Lumpur, Malaysia.

2010

8. **M.T.H.Sultan**, W.J. Staszewski, and K. Worden. *Wavelet Feature Extraction for Impact Damage Analysis for CFRP Laminates*. Proceedings of 10th International Conference on Recent Advances in Structural Dynamics, 12-14th 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 11th Workshop on Smart Diagnostics of Structures, 18-20th 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), 11-14th 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 4th Annual General Meeting, Societal Challenges-Material Solutions, 22nd April 2010, Church House Conference Centre, Westminster, London, UK.

2011

12. **M.T.H.Sultan**, K. Worden, W.J.Staszewski, and A.Hodzic. *Novel Methods of Impact Damage Analysis in Composites*. Proceeding of the 11th Deformation of Composites (DFC11), 13-15th April 2011, Cambridge, UK.

2012

13. R. Barthorpe, K. Worden, **M.T.H. Sultan**, M. Eaton, R. Pullin, K. Holford. *The Effect of Attenuation on the Identification of Impact Damage in CFRP Laminates*. 6th European Workshop on Structural Health Monitoring and 1st European Conference on the Prognostics and Health Management (PHM) Society, 3-6th July 2012, Dresden, Germany.

2013

14. 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, 25-28th November 2013, Hotel Istana, Kuala Lumpur.
15. 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, 25-28th November 2013, Hotel Istana, Kuala Lumpur.
16. 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*. International Conference on Advances in Mechanical and Manufacturing Engineering, 25-28th November 2013, Hotel Istana, Kuala Lumpur.
17. **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, 25-28th November 2013, Hotel Istana, Kuala Lumpur.
18. P. Zakikhan, R. Zahari and **M.T.H. Sultan**. *Simulation of Low Velocity Impact on Composite Hemispherical Shell*. International Conference on Advances in Mechanical and Manufacturing Engineering, 25-28th November 2013, Hotel Istana, Kuala Lumpur.
19. M.K.H. Muda, F. Mustapha, K.D.M. Aris and **M.T.H. Sultan**. *Fabrication Technique for Bio-Composite Patch Repair on Laminated Structures of CFRP Plate*. International Conference on Advances in Mechanical and Manufacturing Engineering, 25-28th November 2013, Hotel Istana, Kuala Lumpur.

2014

20. 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.
21. 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.
22. 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.

23. 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.
24. 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, 25th – 26th November, 2014, Marriot Hotel, Putrajaya, Malaysia.
25. 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, 25th – 26th November, 2014, Marriot Hotel, Putrajaya, Malaysia.
26. 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.
27. 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, 17th-19th December 2014, MIT, Manipal, India.
28. **M.T.H.Sultan** and K.Worden. *Damage Detections and Classifications in CFRP Laminates Using Structural Response Data*. 2nd International Symposium on Applied Engineering and Sciences (SAE2014), 20th to 21st December 2014, KYUSHU Institute of Technology, Japan.

2015

29. 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, 3rd March 2015, Universiti Putra Malaysia (UPM) Malaysia.
30. 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), 10th – 11th June 2015, Palm Garden Hotel, IOI Resort, Putrajaya.
31. 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*. 3rd International Conference on Mechanical Engineering Research 2015 (3rd ICMER 2015), 18th – 19th August 2015, Zenith Hotel, Kuantan Pahang.
32. 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), 19th – 20th December 2015, Universiti Putra Malaysia (UPM), UPM Serdang, Selangor Darul Ehsan, 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, 20-21st 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 10th Deformation of Composites (DFC10), 15-17th April 2009, Sheffield, UK.
4. **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, 18-19th November 2009, Kuala Lumpur, Malaysia.

5. **M.T.H.Sultan**, W.J. Staszewski, and K. Worden. *Wavelet Feature Extraction for Impact Damage Analysis for CFRP Laminates*. Proceedings of 10th International Conference on Recent Advances in Structural Dynamics, 12-14th 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 11th Workshop on Smart Diagnostics of Structures, 18-20th 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 4th Annual General Meeting, Societal Challenges-Material Solutions, 22nd 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 11th Deformation of Composites (DFC11), 13-15th 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, 25-28th 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*. 2nd International Symposium on Applied Engineering and Sciences (SAE2014), 20th to 21st December 2014, KYUSHU Institute of Technology, Japan.

Research Grants

No	Project Title	Amount (RM)	Year	Source of Fund
1.	Operational Modal Analysis of An Aeroelastically Induced Composite Wind Tunnel Model (Co-Researcher)- Completed	218,200	2011-2013	E-Science Fund, MOSTI
2.	A Novel Method of Impact Damage Detection and Characterisation in Composite Materials (Principal Researcher)- Completed	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 (Principal Researcher)- On-Going	50,000	2013-2015	GP-IPM (UPM)
4.	The Post-Buckled Coupled Mode Interaction Behaviour of Aircraft Aluminium Stiffened Panels in Compression (Co-Researcher)- On-Going	59,000	2013-2015	FRGS (MoE)
5.	A Novel Method For Detecting (Low Velocity, High Velocity and Ballistic Impact) In Commercial Composite As Well As Bio-Composite Material Using Advanced Signal Processing Methods (Principal Researcher)- On-Going	166,000	2014-2015	GP-IPB (UPM)
6.	Upstream Fundamental Research in Bamboo-Determining the Characterization of Different Species of bamboo as Reinforced Composite Material (Principal Researcher)- On-Going	79,000	2014-2016	FRGS (MoE)
7.	Development of Glass/Sugar Palm Fibre Reinforced Polyurethane Hybrid Composites for	88,200	2015-2018	GP-IPB (UPM)

Automotive Anti-Roll Bar (Principal Researcher)-
On-Going

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 2013 (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

Professional Services/Consultation

No	Year	Title	Authority	Amount
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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

Student Supervisions, PostGraduates (MSc and PhD)

MSc / PhD

No.	Name	Remarks	Status
1.	Parnia Zaki Khani	Co-Supervisor (PhD)	Ongoing
2.	Ahsan Nur Mubarak B. Zahari @ Annuar	Co-Supervisor (MSc)	<u>Completed</u>
3.	Lim Keng Teek	Co-Supervisor (MSc)	<u>Completed</u>
4.	Noorshazlin Bt. Razali	<u>Main Supervisor</u> (MSc)	<u>Completed</u>
5.	Syafiqah Nur Azrie Bt. Safri	<u>Main Supervisor</u> (MSc)	<u>Completed</u>
6.	Siti Madiha Binti Muhammad Amir	<u>Main Supervisor</u> (PhD)	Ongoing
7.	Suhad Dawood Salman	Co-Supervisor (PhD)	Ongoing
8.	Umrans Bin Abdul Rahman	Co-Supervisor (Industrial PhD)	Ongoing
9.	Noorshazlin Bt. Razali	<u>Main Supervisor</u> (PhD)	Ongoing
10.	Syafiqah Nur Azrie Bt. Safri	<u>Main Supervisor</u> (PhD)	Ongoing
11.	Ain Umaira Binti Md. Shah	<u>Main Supervisor</u> (MSc)	Ongoing
12.	Mohamad Norazmi Bin Kamarolzaman	Co-Supervisor (MSc)	Ongoing
13.	Qistina Bt. Mohd Jamal	Co-Supervisor (MSc)	Ongoing

Student Supervisions, PostGraduates (MSc and PhD)

MSc / PhD

No.	Name	Remarks	Status
14.	Mohaiman Jaafar Kashkol	Co-Supervisor (PhD)	Ongoing
15.	Nawraz H. Mostafa	Co-Supervisor (PhD)	Ongoing
16.	Elias H. Mostafa	Co-Supervisor (PhD)	Ongoing
17.	Mohd Shamsul Azmi Bin Mohd Alim	Co-Supervisor (PhD)	Ongoing

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	On-Going
7.	Ahmad Mustafa Bin Rayney Azmi	Main Supervisor	On-Going

Attended Seminars/Workshops/Forums both National And International

1. Industry Forum: *Route to Commercialisations by Prof. Dr. Shamsuddin Baharin*, 24th October 2011, Seminar Hall C, Convention Centre, Centre for University -Industry Collaboration, Universiti Utara Malaysia.
2. 1st Malaysian-German Conference of Education & Training, Malaysia – German Chamber of Commerce and Industry, 3rd November 2011, Crown Plaza Mutiara Hotel, Kuala Lumpur.
3. ASEM University-Business Forum, *Destination Employment*, Bonn, Germany, 10 -11th November 2011.
4. Research Methodology Course, Series 3/2011, 25-30th November 2011, Ancasia All Suites Resort & Spa, Port Dickson.
5. Program Health for Malaysia, 18-20th November 2012, Rural Transformation Centre, Terminal Agribisnes Negara, Gopeng, Perak Darul Ridzuan.

6. ASME VII Training (*Pressure Vessel Code Simplified*), Malaysian Society of Structural Health Monitoring (MSSHM), Universiti Putra Malaysia, 21st to 25th April 2014.
7. *Mechanical Characterization of Engineering Materials*, Aerospace Manufacturing Research Centre (AMRC), Universiti Putra Malaysia, 22nd to 26th September 2014.
8. Preconference workshop on Computational Methods for Interdisciplinary Research December 15 – 16, Manipal, India, 2014.
9. 2nd International Symposium on Applied Engineering and Sciences (SAES2014) Kyushu Institute of Technology, Japan, 20th – 21th Dec, 2014.
10. *Code of Ethics / Regulations*, Board of Engineers Malaysia, Institute of Engineers Malaysia Training Centre, 4th to 5th February 2015.
11. *Engineering Management Practice*, Board of Engineers Malaysia, Institute of Engineers Malaysia Training Centre, 9th to 10th February 2015.
12. *Safety & Health At Work*, Board of Engineers Malaysia, Institute of Engineers Malaysia Training Centre, 12th to 13th February 2015.
13. Workshop on *Dynamic Mechanical Analyzer (DMA)*, Laboratory of Technology Biocomposite (BIOCOMPOSITE), Universiti Putra Malaysia, 11th March 2015.
14. *Professional Engineer Course*, Malaysian Society of Agricultural Engineers (MSAE), Universiti Putra Malaysia, 19th March 2015.
15. *Convention on Consolidation and Empowerment of Management for Surau's in Selangor*, Raja Haji Fisabilillah Mosque Hall, Cyberjaya, 12th November 2015.

Technical Committee / Paper Reviewers/Session Chairs

No.	Name of Activity/Project/Program	Organiser	Place	Date
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.	Session Chair	NUMIT Enterprise	Malaysia	August 2011
4.	Deputy Director / Special Officer	Ministry of Higher Education, Malaysia	Malaysia	September 2011
5.	Associate Member	Aerospace Manufacturing Research Centre (AMRC)	UPM, Malaysia	October 2012
6.	Khatib Khutbah Jumaat	Majlis Agama Islam Selangor	Madrasah ASSIRATUL MUSTAQEEM Jalan Reko, Kajang	2013
7.	Conference Committee	AUN/SEED-Net Regional Conference on Mechanical and Manufacturing Engineering	Malaysia	2013

8.	International Reviewer	AUN/SEED-Net Regional Conference on Mechanical and Manufacturing Engineering	Malaysia	2013
9.	Conference Committee (Technical Committee)	International Conference on Advances in Mechanical and Manufacturing Engineering	Malaysia	2013
10.	Chair Person	Malaysia Workshop of Structural Health Monitoring (MSSHM)	Malaysia	2013
11.	International Reviewer	AUN/SEED-Net Regional Conference on Mechanical and Manufacturing Engineering	Malaysia	2013
12.	Journal Reviewer	Journal of Composite Part (B)	International	2013
13.	Journal Reviewer	Journal of Composite Part (B)	International	2013
14.	Contract Lecturer	ADMAL Aviation College	Sepang, Malaysia	July 2013
15.	Guest Lecture/Trainer	Universiti Malaysia Pahang (UMP), Malaysia	UMP, Malaysia	October 2013
16.	Director / Head of Research Centre of Excellence	Aerospace Manufacturing Research Centre (AMRC)	UPM, Malaysia	October 2013
17.	Deputy President	Malaysian Society of Structural Health Monitoring	Malaysia	December 2013
18.	Lead Researcher	Aerospace Manufacturing Research Centre (AMRC)	UOM, Malaysia	Jun 2014
19.	Reviewer	AEROTECH V	Malaysia	July 2014
20.	Non-Executive Scientific Advisor	Aerospace Malaysia Innovation Centre (AMIC)	Malaysia	August 2014
21.	Session Chair	AEROTECH V	Malaysia	October 2014
22.	Session Chair	International Conference on Computational Methods in Engineering & Health Sciences	India	December 2014
23.	Advisory Board Member	International Journal of Modern Trends in Engineering and Science	India	December 2014
24.	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



25.	Perlantikan sebagai Khatib Jumaat dan Penceramah	Jabatan Agama Islam, Selangor	Madrasah Assiratul Mustaqeem, Jalan Reko, Kajang	2 Januari 2015 – 1 Januari 2018
26.	Chairman for Viva Voce	Name of Student: Hyder Abdullah Luaibi Al Razen, Title: Numerical Simulation of the Effect of Combination of CNG, H2 and Diesel Usage on the 4 Stroke Engine	Universiti Putra Malaysia	19 November 2015
27.	Head of Sponsorship	AEROTECH VI	Universiti Putra Malaysia, UPM	17 November 2015 to 16 November 2016
28.	Reviewer	International Conference on Computational Methods in Engineering & Health Sciences (ICCMEH:2015)	Universiti Putra Malaysia, UPM	2015
29.	Head of Sponsorship	International Conference on Computational Methods in Engineering & Health Sciences (ICCMEH:2015)	Universiti Putra Malaysia, UPM	2015
30.	Ahli Jawatankuasa (AJK) <i>Materials Lecture Competition (MLC)</i> 2015	Department of Aerospace Engineering, Faculty of Engineering	Universiti Putra Malaysia, UPM	2015
31.	Session Chair	International Conference on Computational Methods in Engineering & Health Sciences (ICCMEH:2015)	Universiti Putra Malaysia, UPM	2015