CURRICULUM VITAE

Professor. Ir. Dr. Faizal Mustapha
Department of Aerospace Engineering,
Faculty of Engineering
Universiti Putra Malaysia,
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Education

1. PhD Structural Health Monitoring, 2006, University of Sheffield, U.K
   PhD Thesis " *Damage Detection and Localisation Using Novelty Indices*"
2. MSc Intelligent Machinery / Aeronautical System, 1997, University of Salford, U.K
   MSc Thesis " *The Fast Fourier Transform (FFT) in Vibration Analysis*"
3. B Eng (Hons) Mechanical Engineering, 1995, University of Salford, U.K

Areas of Interest

1. **Damage Identification:** Damage detection in machinery and structures including smart structures i.e. Condition monitoring, Structural Health Monitoring. Experimental and Computational, and Non Destructive Testing (NDT) Techniques.
2. **Pattern Recognition:** Algorithms for damage identification including: Neural Networks and Statistical Pattern recognition.
3. **Multivariate Statistics:** Algorithms for damage identification including: outlier analysis and Principal Component Analysis (PCA).
4. **Advanced Signal Processing:** Feature selection methods for damage identification and nonlinear system identification for time and frequency-domain analysis and wavelet analysis.
5. **Sensor Technology:** PZT sensor and transducers devices for Structural Health Monitoring (SHM) applications and smart sensor for NDT technique.
6. **Advanced Material and Machine Design System:** Hybrid Composite, Bio-Composite, Composite Patch Repair and Bio-Coating Material, Nano Material, Composite Design and Testing, and Functionally Graded Material (FGM)
7. **Renewable Energy:** Smart Vertical Wind Turbine Blade (VAWT) and Energy Harvesting System

Professional Qualification/ Membership/ Affiliation

1. Professional Engineer, Board of Engineer Malaysia (BEM) (16505)
2. Professional Engineer with Practicing Certificate, PEPC (No: C116505)
3. Corporate Member Institute of Engineer Malaysia (MIEM) (70469)
4. President of Malaysian Society of Structural Health Monitoring Malaysia (MSSHM)
5. Associate Member of Academy Science Malaysia (ASM)
6. Affiliate Member, Institute of Physics, MIOP
7. Accreditation Panel, Engineering Accreditation Council, (EAC)
8. Accreditation Panel, Aerospace Engineering Curriculum Division, Malaysian Qualifications Agency (MQA)
9. Member Dean Of Aerospace Council, Ministry of Education (MOE) Malaysia
10. Panel Expert R,D&C Grants, Ministry of Science, Technology and Innovation (MOSTI) Malaysia, FRGS Panel for Ministry of Education (MOE) Malaysia and Universiti Putra Malaysia (UPM).
11. Editorial Board Member, ASEAN Engineering Journal (AEJ)
12. Editorial Board Member, Journal of Surface Engineered Materials and Advanced Technology
13. Research Associate for Institute of Tropical Forestry and Forest Products (INTROP), (UPM)
14. Research Associate for Aerospace Malaysia Innovation Centre (AMIC), (UPM)

Appointments

Position	Duration
1. Professor, Department of Aerospace Engineering, Faculty of Engineering	August 2017-current
2. Director, Development and Asset Management Office, UPM	Dec 2017-Dec 2022
3. Associate Professor, Department of Aerospace Engineering, Faculty of Engineering, UPM	April 2011- August 2017
4. Deputy Dean Development and Finance Division Development and Finance Division Faculty of Engineering, UPM	Aug 2012 – July 2014
5. Chairman for OSHA Committee, Faculty of Engineering, UPM	Aug 2012 – July 2014
6. Chairman for Calibration Committee, Faculty of Engineering, UPM	Aug 2012 – July 2014
7. Accreditation and Signatory Member of MS ISO/IEC 17025:2005, Faculty of Engineering, UPM	2012 - current
8. Head of Department, Aerospace Engineering, Faculty of Engineering, UPM	Aug 2009 - 2012
9. Head of Research Area (Material and Aerospace Structure), Aerospace Department, Faculty of Engineering, UPM	2007 – 2009
10. Head of Lab Coordinator (Aerospace Structure), Aerospace Department, Faculty of Engineering, UPM	2007 – 2009
11. Coordinator for Faculty Development Aerospace Department, Faculty of Engineering, UPM	2007 – 2009
12. Member of Safety and Hazard, Faculty of Engineering, UPM	2007 – 2009
13. Chairman for ISO 9001, Aerospace Engineering, Faculty of Engineering, UPM	2000-2001
14. Senior Lecturer / Researcher, Aerospace Engineering, Faculty of Engineering, UPM	Sept 1999 - 2011
15. Acting Head of Department, Aerospace Engineering, Faculty of Engineering, UPM	June 2000 – July 2000
16. Research Officer, Artificial Intelligent Sytem Development Laboratory, JICA-SIRIM Berhad	Sept 1999 – Oct 1996
17. Mold Cost Estimation System (Phase I & II), JICA-SIRIM Berhad	Sept 1999 – Oct 1996
18. Intelligent MoldCost System (Phase III) IRPA, JICA- SIRIM Berhad	Sept 1999 – Oct 1996
19. Project Leader, Tour Package expert system, JICA-SIRIM Berhad	June 1997- Oct 1997
20. Project Leader, Job Shop Scheduling, JICA-SIRIM Berhad	Jan 1999 – June 1999
21. Project Leader, Holiday Advisor System, JICA-SIRIM Berhad	Feb 1999 – Jun 1999

Publications

2002

1. S.M.Sapuan, M.S.D. Jacod, **F.Mustapha** and N.Ismail, A prototype knowledge based system of material selection for ceramic matrix composites of automotive engine components Journal of Material and Design, 2002. Vol 23 (8) pp.701-708 (ISI , Impact Factor = 2.193)

2004

2. **F.Mustapha**, S.M.Sapuan and N.Ismail, A.S.Mokhtar, A computer based intelligent system for fault diagnosis of an aircraft engine, Engineering Computation: International Journal for Computer Aided Engineering Software,. Vol .21 (1), 2004 pp. 78-90(13) (ISI , Impact Factor = 1.06)

2005

3. **F.Mustapha**, G.Manson, S.G.Pierce, K.Worden, Structural Health Monitoring of an annular components using Statistical Approach ,International Journal of Strain Measurement, 2005, Vol: 41 (3) pp: 117-127 (ISI , Impact Factor = 1.103)

2007

4. **F.Mustapha**, G.Manson, S.G.Pierce, K.Worden, Damage Detection Using Stress Waves and Multivariate Statistics: an Experimental Case Study of an Aircraft Component, International Journal of Strain Measurement, 2007. Vol: 43(1) pp: 47-53 (ISI , Impact Factor = 1.103)

5. **F.Mustapha**, G.Manson, S.G.Pierce, K.Worden, Damage location in an isotropic plate using a vector of novelty indices. Mechanical System and Signal Processing, 2007. Vol: 21(4) pp: 1885-1906 , (ISI , Impact Factor = 2.471)

6. D. Chetwynd, K. Worden **, F. Mustapha**, J.A. Rongong, Damage detection using Prior Wavelet Decompositions, Key Engineering Materials, 2007 Damage Assessment of Structures VII Vol. 347 pp: 145-150 Published, (ISI, Scopus)

2008

7. D. Chetwynd, **F. Mustapha**, K. Worden, J.A. Rongong, S.G. Pierce, J.M. Dulieu-Barton, Damage Localisation in a Stiffened Composite Panel, International Journal of Strain Measurement, 2008. Vol. 44(4) pp: 298-307 (ISI , Impact Factor = 1.103)

8. R.Zahari, A.H.Azmee, **F.Mustapha**, M.S.Salit, R.Varatharajoo, A.Shakrine. Prediction of Progressive Failure in Woven Glass/Epoxy Composite Laminated Panels. Jurnal Mekanikal , No 25, 80-91, 2008

9. F. Golestaneh ,Aidy Ali, S. V. Wong., **F. Mustapha**, Mehdi Zadeh Mohammad Simulation of Fatigue Crack Growth in Friction Stir Welded Joints in 2024-T351 AL Alloy. 2008, Suranaree Journal of Science Technology Vol (15), Issue (4): pp:271-285 (ISI Scopus)

2009

10. F. Golestaneh,Aidy Ali, S. V. Wong., **F. Mustapha**. Computational investigations of crack behavior in friction stir welding. Simulation: Transactions of The Society for Modeling and Simulation International 2009 (CompuMath Citation Index). Volume 85, Number 1, pp: 45-59 (ISI, Impact Factor = 0.783)

11. S.Taher, R.Zahari, S.Ataollah, **F.Mustapha**, S.Basri. A Double –cell foam-filled composite block for efficient energy absorption under axial compression, Composite Structures, 2009 ,Vol 89 (3), pp 399-407 (ISI ,Impact Factor = 2.06)

12. Esfahani, A.Shahrjedi, A.Farshidianfar**, F.Mustapha**, Longitudinal Vibrations Analysis of Vehicular Clutch, Australian Journal of Basic and Applied Sciences, 2009, Vol 3(4) pp:3633-3641 (ISI Scopus)

13. ShahNor Basri, M. M. Fakir, **F. Musta**pha, D. L. A. Majid, A. A. Jaafar, Heat Distribution in Rectangular Fins Using Efficient Finite Element and Differential Quadrature Methods, Engineering, 2009, Vol.1, pp:151-160, (ISI Scopus)

14. A.Shahjedi, M.Bayat, **F.Mustapha**, S.M.Sapuan and R.Zahari, Free Vibration Analysis of Functionally Graded Quadrangle Plates Using Second Order Shear Deformation Theory, Australian Journal of Basic and Applied Sciences, Vol 4 (5) : pp 893-905, 2009, (ISI Scopus)

2010

15. A. Jahan, M.Y.Ismail, S.M.Sapuan, **F. Mustapha**. Material Screening and Choosing Methods – A review: Journal of Material and Design. 2010 Vol:31(2) pp: 696-705 (ISI , Impact Factor= 2.193)

16. M.M.Shahzamanian, B.B.Sahari, M.Bayat, **F.Mustapha**, Z.N.Ismarrubie, Finite Element Analysis of Thermoelastic contact problem in functionally graded axisymmetric brake disks. Composite Structures, Vol.92 (7), 1591-1602, 2010. (ISI ,Impact Factor = 2.06)

17. S.Taher, A.A.Oshkour , R.Zahari, **F.Mustapha**, S.Basri. On the Cruch Behaviour of an Ultra Light Multi-Cell Foam-Filled Composite Structure under axial compression, Journal of Reinforced Plastics and Composite Structures, Vol 29, No.3 391-407, 2010. (ISI , Impact Factor = 0.4)

18. A. Jahan, M.Y.Ismail, **F. Mustapha**, S.M.Sapuan. Material Selection based on ordinal data, Journal of Material and Design. 2010, Vol: 31(7) pp: 3180-3187 (ISI , Impact Factor= 2.193)

19. A. Shahrjerdi, M. Bayat, **F. Mustapha**, S. M. Sapuan, R. Zahari, Stress Analysis a Functionally Graded Quadrangle Plate Using Second Order Shear Deformation Theory, International Review of Mechanical Engineering ,2010, Vol 4, No.1, pp 92, (ISI Scopus)

20. D.L.A.Majid, R. Zahari and **F. Mustapha**, Vibration Analysis of an Aluminum Instrument Panel Board : Ground and In-Flight Test, International Review of Aerospace Engineering (2010), Vol 2, No.6, pp 315 (ISI Scopus)

21. **F.Mustapha**, Z.Noh, N.Ismail, S.M.Sapuan and, A.S.Mokhtar, Development of a prototype knowledgebases system for troubleshooting of aircraft and engine parts, International Journal of Mechanical and Material Engineering. Vol (5) 2010 (ISI Scopus)

22. L.H.Abbud, A.R.A.Talib, **F.Mustapha**, H.Tawfique and F.A.Najim, Behaviour of Transparent Material under High Velocity Impact, International Journal of Mechanical and Material Engineering. Vol (5) 2010 (ISI Scopus).

23. 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 Aerial Vehicle Fuselage Section, International Journal of Mechanical and Material Engineering. Vol (5) 2010 (ISI Scopus).

24. M.Nurhaniza, M.K.A.Ariffin, Aidy Ali, **F.Mustapha**, and A.W.Noraini, Finite element Analysis of composite materials for aerospace applications, IOP Conf: Materials Science and Engineering 11 (2010) (ISI Scopus)

25. Shahrjerdi, M. Bayat, **F. Mustapha**, S. M. Sapuan, R. Zahari,, Second Order Shear Deformation Theory to Analyze Fundamental Frequency for Solar Functionally Graded Plates**,** Mechanics Based Design Of Structures And Machines An International Journal. 38 (3), pp. 348-361 (2010) (ISI Impact Factor 0.552)

26. **F.Mustapha**, M.Mustapha, K.Noorsal, O.Mamat, P.Hussain, F.Ahmad, N.Muhammad, S.M.Harris, Preliminary Study on the Fabrication of Aluminium Foam Through Pressure Assisted Sintering Dissolution Process, Journal of Materials Processing Technology. Vol 210 (12), pp1598 – 1612, 2010 (ISI Impact Factor =1.42)

27. M.M. Shahzamanian, B.B. Sahari, M. Bayat , Z.N. Ismarrubie, and **F. Mustapha,** Transient and Thermal Contact Analysis for the Elastic Behaviour Functionally Graded Brake Disks Due to Mechanical and Thermal Loads**,** Journal of Material and Design. 31 (10), pp. 4655-4665 2010 (ISI Impact Factor = 2.193)

2011

28. M.Mustapha, **F.Mustapha**, O.Mamat, and P.Hussain, Fabrication of Aluminium Foam Through Pressure Assisted High Frequency Induction Heated Sintering Dissolution Process, An experimental observation, Journal of Powder Metallurgy 54 (3). pp. 343-353, 2011 (ISI Impact Factor = 0.37)

29. H.K.Alsultaney, M.K.A. Ariffin, B.T.H.T. Baharudin, Aidy Ali, **F. Mustapha**. Development of combinatorial optimisation for cutting tool path strategy. Pertanika Journal of Science and technology. Vol 19(2) 2011.

30. Shahrjerdi, **F. Mustapha**, M. Bayat, S.M. Sapuan, R. Zahari and M.M. Shahzamanian, Natural Frequency of FG Rectangular Plate by Shear Deformation Theory IOP Conf: Materials Science and Engineering 17 (1) (2011) (ISI Scopus)

31. Jahan, **F. Mustapha,** M.Y.Ismail**,** S.M.Sapuan, M.Bahraminasab. A comprehensive VIKOR method for material selection, Journal of Material and Design. 2011, Vol: 32 pp: 1215 -1221 (ISI, Impact Factor = 2.193)

32. R. Varatharajoo, **F. Mustapha**, D.L.A. Abdul Majid, R. Zahari and R. Kahle Critical Speeds for Carbon/Epoxy Composite Rotors in Spacecraft Energy Key Engineering Materials, 2011 Composite Science and Technology Vol. 471-472 pp: 37-43., (ISI Scopus)

33. Shahrjerdi, **F. Mustapha**, S.M. Sapuan, M. Bayat, D.L.A. Abdul Majid and R. Zahari, Thermal Free Vibration Analysis of Temperature-Dependent Functionally Graded Plates Using Second Order Shear Deformation Key Engineering Materials, 2011 Composite Science and Technology Vol. 471-472 pp:133-140.(ISI Scopus)

34. Shahrjerdi, **F. Mustapha**, S.M. Sapuan, M. Bayat, D.L.A. Abdul Majid and R. Zahari, Optimal Sintering Procedure to Fabrication of Functionally Graded Hydroxyapatite-Titanium Key Engineering Materials, 2011 Composite Science and Technology Vol. 471-472 pp:140-144,(ISI Scopus)

35. Z.A. Rasid, A. Ayob, R. Zahari, **F. Mustapha**, D.L. Majid and R. Varatharajoo, Buckling and Post-Buckling Improvements of Laminated Composite Plates Using Finite Element Method, Key Engineering Materials, 2011 Composite Science and Technology Vol. 471-472 pp:530-535,. (ISI Scopus)

36. M.Y. Haris, D. Laila, E.S. Zainudin, **F. Mustapha**, R. Zahari and Z. Halim, Preliminary Review of Biocomposites Materials for Aircraft Radome Application, Key Engineering Materials, 2011 Composite Science and Technology, Vol. 471-472,pp:563-567, (ISI Scopus).

37. N.B. Affandi, A.S.M. Rafie, S. Basri, F.I. Romli, D.L.A. Abdul Majid and **F. Mustapha**, A Preliminary Study on Translational Kinetic Energy Absorption Using Coconut-Fiber (Coir) Sheets as a Potential Impact-Worthy Constituent in Advanced Aerospace Material, Key Engineering Materials, 2011 Composite Science and Technology, Vol. 471-472,pp:1028-1033. (ISI Scopus).

38. N.W. Sim, **F. Mustapha**, R. Varatharajoo, R. Zahari and D.L. Majid, Parametric Study on Cohesive Element for Composite Fuselage Model, Key Engineering Materials, 2011 Composite Science and Technology, Vol. 471-472,pp:1085-1090, (ISI Scopus).

39. K.D. Mohd Aris, **F. Mustapha**, S.M. Sapuan and D.L.A. Abdul Majid, A Structural Health Monitoring of a Pitch Catch Active Sensing of PZT Sensor on Normal, Damage and Repair Aircraft Spoiler, Key Engineering Materials, 2011 Composite Science and Technology, Vol. 471-472,pp:1124-11129, (ISI Scopus).

40. A.Norozi, M.K.A.Ariffin, N.Ismail, **F.Mustapha**, An Optimisation technique hybrid GASA algorithm for multi-objective scheduling problem, Scientific Research and Essays , Vol. 6(8), pp. 1720-1731, 2011 (ISI Impact Factor =0.4)

41. Shahrjerdi, **F. Mustapha**, M. Bayat, S.M. Sapuan, D.L.A. Abdul Majid Fabrication of Functionally Graded Hydroxyapatite-Titanium by optimal sintering International Journal of Physical Science, Vol. 6(9), pp. 2258-2267 2011 (ISI Impact Factor =0.55)

42. Shahrjerdi , **F. Mustapha** , M. Bayat, S. M. Sapuan and D.L.A. Majid; Free Vibration Analysis of Solar Functionally Graded Plates with Temperature-dependent Material Properties Using Second Order Shear Deformation Theory, Journal of Mechanical Science and Technology, Springer, Vol 25, 9, pp 2195-2209, 2011. (ISI Impact Factor =0.4).

43. A.R.A.Talib, L.H.Abbud, A.Ali , **F.Mustapha**, Mechanical properties of interlaminar Kevlar29 and Al2O3 powder/epoxy composite plates using an analytical approach, Scientific Research and Essays, Vol. 6(21), pp. 4455-4463, 2011 (ISI Impact Factor = 0.4)

44. **F. Mustapha**, N.W. Sim, and A.Shahrjerdi; FEA Modeling on Adhesive Joint for Composite Fuselage Model, International Journal of Physical Sciences, Vol. 6 (22), pp. 5153-5165,. 2011 (ISI Impact Factor = 0.55)

2012

45. Jahan, A., **Mustapha, F**., Ismail, M.Y., Sapuan, S.M., Bahraminasab, M. A framework for weighting of criteria in ranking stage of material selection process. International Journal of Advanced Manufacturing Technology, Vol 58, Numbers 1-4 (2012), 411-420 (ISI Impact Factor =1.128)

46. **F. Mustapha**, N.W. Sim, A.Shahrjerdi; Investigation of Axial Crushing Behaviour Of A Composite Fuselage Model Using the Cohesive Elements, Journal Of Theoretical And Applied Mechanics, Vol 50, 2, pp. 531-548, 2012 (ISI Impact factor=0.3)

47. **F. Mustapha**, N.W. Sim, A.Shahrjerdi; Finite Element Validation on Adhesive Joint for Composite Fuselage Model, Journal of the Brazilian Society of Mechanical Sciences and Engineering, Vol.34 no.1, 2012 (ISI impact factor = 0.2).

48. Reza Shahrjerdi, Mohd Khairol Anuar**, F. Mustapha,** N. Ismail and M. Esmaeili, An integrated inventory models under cooperative and non-cooperative seller-buyer and vendor supply chain, Scientific Research and Essays, Vol. 6(8), pp. 1720-1731, 2012 (ISI Impact Factor =0.4)

49. Mohamad, N., Ariffin, M.K.A., Ali, A., **Mustapha, F.,** Deflection Analysis of The Thin-Web Workpiece Structure Using Similarity Concept, (2012) Advanced Materials Research, Volume 337, Pages 479-488 (ISI Scopus)

50. Abu Talib, A.R., Abbud, L.H., **Mustapha, F**., Ballistic Impact Performance of Kevlar-29 and Al2O3 Powder/Epoxy Targets Under High Velocity Impact, Materials and Design, Volume 35, Issue 1, Pages 12-19, 2012 (ISI , Impact Factor =2.193)

51. M.T.H. Sultan, S. Basri, A.S.M. Rafie, **F. Mustapha**, D.L. Majid, M.R. Ajir, High Velocity Impact Damage Analysis for Glass Epoxy - Laminated Plates, 2012, Advanced Materials Research, Volume 399-401, Pages 2318-2328 (ISI Scopus)

52. **F. Mustapha,** K. D. Mohd Aris, N. A. Wardi, M. T. H. Sultan, A. Shahrjerdi, Structural health monitoring (SHM) for composite structure undergoing tensile and thermal testing**,** Journal of Vibroengineering, Vol 14, 3 ,pp 1342-1353, 2012 (ISI, Impact Factor =0.5)

53. D.L.Majid, M.N.A.Sani, **F.Mustapha**, H.Hanafi, M.T.H.Sultan, Modal Properties of a Cantilevered Laminated Woven Composite Plate as affected by Stacking Sequence and Fibre Orientation : An Experimental Study , Applied Mechanics and Materials, Vol.225 , pp132-137, 2012, (ISI Scopus)

54. Ali.A, Abbud, L.H, Abu Talib, A.R.,and **Mustapha, F**., Impact Resistance of armor composite made of Kevlar-29 and Al2O3 Powder Materialpruefung/Materials Testing, Volume 54, Issue 3, Pages 169-174, 2012 (ISI , Impact Factor = 0.24)

55. 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, Vol.225, pp138-144, 2012, (ISI Scopus).

56. H.Djojodiharjo, H.Jamali, A.Shokrani, **F.Mustapha**, R.Zahari and S.Wiriadidjaja, Computational Simulation for Static and Dynamic Load of Rectangular Plate in Elastic Region for Analysis of Impact Resilient Structure, Applied Mechanics and Materials, Vol.225 pp150-157, 2012, (ISI Scopus).

57. 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, Vol.225 pp165-171, 2012, (ISI Scopus).

58. M.T.H.Sultan, A.S.M. Rafie , N.Yidris, **F.Mustapha**, and D.L.Majid, Damage Classification in CFRP Laminates using PCA Approach, Applied Mechanics and Materials, Vol.225 pp189-194, 2012, (ISI Scopus).

59. Reza Shahrjerdi, Mohd Khairol Anuar, **F. Mustapha**, N. Ismail and M. Esmaeili**,** Equilibrium and non-equilibrium models of the power markets, African Journal of Business Management Vol.6 (4), pp. 1614-1625, 2012, (ISI, Impact Factor =0.5)

60. 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, Vol.225 pp344-349, 2012, (ISI Scopus).

61. M.Y. Haris, D. Laila, A. Zhahir, **F. Mustapha** and Mohd Aris, K.D., A Comparative Study of an Aircraft Radome Closed Mold through Vacuum Infusion Technique, 2012, Advanced Materials Research, Vol 576, pp 690-694 (ISI Scopus).

62. **F.Mustapha** , K.T.Ng, D.L.A.Majid , Novitect; a novelty detection soft-computing algorithm for Structural Health Monitoring (SHM) system, Procedia Engineering 50, 494-504, 2012 (ISI Scopus)

63. D.L.A.Majid, **F.Mustapha**, M.T.Hameed Sultan, E. J. Abdullah, Hafiz Hanafi, Dynamic analysis of a cantilevered woven composite platelike wing, Procedia Engineering 50, 453-462, 2012 (ISI Scopus)

64. A.Norozi, M.K.A.Ariffin, N. Ismail and **F. Mustapha**, A Hybrid GA-SA Algorithm for Multi-objective Sequencing Problem in High Product**,** Applied Mechanics and Materials Vol.(110-116), pp. 3964-3971, 2012, (ISI Scopus).

2013

65. Z.A.Jassim, N.N.Ali, **F.Mustapha**, N.A.Abdul Jalil, A review on the vibration analysis for a damage occurrence of a cantilever beam, Engineering Failure Analysis Vol (31),pp. 442-461, 2013, (ISI, Impact Factor =0.855).

66. M.Mustapha, E.Abu Othman, K.Norsal, **F.Mustapha**, O.Mamat, S.Ramesh, Carbothermal nitridation of mechanically milled silica sand using Taguchi's Method, Ceramics International Vol (39) pp. 6119-6130, 2013, (ISI, Impact Factor =1.789)

67. S.N.Sakinah Jamaludin, **F**.**Mustapha**, D.M.Nurruzzaman,S.Basri, A review on the fabrication techniques of functionally graded ceramic-metallic materials in advanced composites, Scientific Research and Essays, Vol. 8(21), pp. 828-840, 2013, (ISI Impact Factor =0.4).

2014

68. ZAC Saffry, D.L.A. Abdul Majid, FI Romli, **F. Mustapha**, and EJ Abdullah, Identification of Modal Properties of Composite Thin Plate Using OMA in Wind Tunnel Environment, Applied Mechanics and Materials 446, 606-610, 2014, (ISI Scopus).

69. A Hamdan, **F Mustapha,** KA Ahmad, AS Mohd Rafie, A review on the micro energy harvester in Structural Health Monitoring (SHM) of biocomposite material for Vertical Axis Wind Turbine (VAWT) system: A Malaysia perspective*,* Renewable and Sustainable Energy Reviews 35, 23-30, 2014, (ISI Impact Factor =5.15)

70. MKH Muda, **F Mustapha**, KD Mohd Aris, MTH Sultan, Fabrication Technique for Bio-Composite Patch Repair on Laminated Structures of CFRP Plate, Applied Mechanics and Materials 564, 366-371, 2014, (ISI Scopus).

71. A Hamdan, **F Mustapha**, KA Ahmad, ASM Rafie, MTH Sultan, MR Ishak, A Review on the Self-Energize Structural Health Monitoring (SHM) in Vertical Axis Wind Turbine (VAWT) System, Applied Mechanics and Materials 564, 157-163, 2014, (ISI Scopus).

72. N Razali, MTH Sultan, SNA Safri, S Basri, N Yidris, **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 564, 376-381, 2014 (ISI Scopus).

73. SNS Jamaludin, S Basri, A Hussain, DS Al-Othmany, **F Mustapha**, Three-Dimensional Finite Element Modeling of Thermomechanical Problems in Functionally Graded Hydroxyapatite/Titanium Plate, Mathematical Problems in Engineering 2014, (ISI Impact Factor =1.082)

74. MTH Sultan, S Basri, ASM Rafie, N Yidris, **F Mustapha**, R Zahari, MR Ajir, Impact Damage Analysis for Glass Reinforced Epoxy Laminated Plates Using Single Stage Gas Gun, Applied Mechanics and Materials 564, 382-387, 2014, (ISI Scopus).

75. KD Mohd Aris, **F Mustapha**, SM Sapuan, DL Majid, Experimental Validation on Time Base Analysis of Various Aircraft CFRP Panel Conditions for Structural Health Monitoring, Key Engineering Materials 594, 935-939, (2014) (ISI Scopus).

76. KDM Aris, **F Mustapha**, MS Salit, DLAA Majid, Condition Structural Index using Principal Component Analysis for undamaged, damage and repair conditions of carbon fiber–reinforced plastic laminate, Journal of Intelligent Material Systems and Structures 25 (5), 575-584, 2014 (ISI Impact Factor =2.172).

2015

77. MBM Salahuddin, M Norkhairunnisa, **F Mustapha**, A review on thermophysical evaluation of alkali-activated geopolymers Ceramics International 41 (3), 4273-4281, 2015 (ISI Impact Factor =1.789).

78. MN Abdullah, **F Mustapha**, MKH Muda, MKA Arrifin, ASM Rafie, Simulating bio-composite cycling helmet performance through FEA and CFD approaches, Movement, Health & Exercise 4 (1) (2015).

79. M Toozandehjani, KA Matori, F Ostovan, **F Mustapha**, NI Zahari, On the correlation between microstructural evolution and ultrasonic properties: a review, Journal of Materials Science 50 (7), 2643-2665, 2015, (ISI Impact Factor =0.789).

80. Nisreen N. Ali, **F. Mustapha**, S. M. Sapuan, R. S. M. Rashid, An Approach and Experimental Technique for Damage Detection of Composite Panels Using PZT Sensor, International Journal of Civil and Structural Engineering Research, Vol. 3(1), 29-38, 2015 (ISI Scopus).

81. Amin Khajeh, **Faizal Mustapha**, Mohamed Thariq Hameed Sultan, György Bánhegyi, Zsuzsanna Karácsony, and Viktor Baranyai, The Effect of Thermooxidative Aging on the Durability of Glass Fiber-Reinforced Epoxy, Advances in Materials Science and Engineering, Volume 2015, 2015, (ISI Impact Factor =0.744).

2016

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39. Mahdi Torabi Asr, Mohammad Mehdi Masoumi, **Faizal Mustapha**, Improved Vibrational Characteristics of H-Darrieus Wind Turbine: Introducing Prestressed Turbine Blades, International Conference on Computational Methods in Engineering and Health Sciences (ICCMEH-2015).

40. A.A.H.S. Shirazi, M.K.H. Muda, **F. Mustapha**, Damage Identification using Wireless Structural Health Monitoring System through Smart Sensor Application, 3rd International Postgraduate

41. A.M.M. Almotairi, M.K.H. Muda, **F. Mustapha**, Synergy of Savonius Type and Darrieus Type for Vertical Axis Wind Turbine, Conference on Engineering and Technology Research (IPCETR 2016).

42. S.Z.M.Daud**, F.Mustapha**, Z.Adzis, Structural Health Monitoring for Bio-composite Wind Turbine Blade due to Lightning Strike, Second International Conference on Advances in Structural Health Management and Composite Structures (ASHMCS2016), in Jeonju, Jeonbuk, South Korea.

43. Siti Zubaidah Mat Daud , **Faizal Mustapha** , Sang-Woo Kim, Detection of Lightning Strike induced Damage for Bio-composite Vertical Axis Wind Turbine Blades using Ultrasonic Wavefield Imaging Technique, KSAS 2020 Spring Conference, Seoul, South Korea.

Books

1. S.M. Sapuan, **F. Mustapha**, D.L. Majid, Z. Leman, A.H.M. Ariff, M.K.A. Ariffin, M.Y.M. Zuhri, M.R. Ishak and J. Sahari, Composite Science and Technology , 2011, Part 1 and 2 (ISBN 978-3-03785-059-6).
2. **F.Mustapha**, A.Hamdan, N.Ali Adani, K.D. Mohd Aris, Innovation in Smart Materials and Structural Health Monitoring for Composite Applications, Materials Research Foundations, Volume 13, 2017 (ISBN 978-1-945291-28-9).

Chapter in Books

1. **F. Mustapha**, S.M. Sapuan, K.Worden, and G.Manson, Damage Identification and Localization of Carbon Fiber-Reinforced Plastic Composite Plate Using Outlier Analysis and Multilayer Perceptron Neural Network: Composite Material Technology, Taylor and Francis , 2010 (79-113), (ISBN 978-1-4200-9322-2)
2. **F. Mustapha**, S.M. Sapuan, K.Worden, and G.Manson, Damage Localization of Carbon Fiber-Reinforced Plastic Composite and Perspex Plates Using Novelty Indices and the Cross-Validation Set Of Multilayer Perceptron Neural Network: Composite Material Technology, Taylor and Francis, 2010 (115- 133) (ISBN 978-1-4200-9322-2)

3. **F. Mustapha** and A.Shahrjerdi, Second Order Shear Deformation Theory (SSDT) for Free Vibration Analysis on a Functionally Graded Quadrangle Plates.In Tech Publisher Vibration Analysis, 2011 (ISBN 978-953-308-64-8).

4. K.D. Mohd Aris, **F. Mustapha**, S.M. Sapuan and D.L.A. Abdul Majid, A Structural Health Monitoring of a Pitch Catch Active Sensing of PZT Sensor on CFRP Panels; A Preliminary Approach In Tech Publisher Composites and Their Applications, 2012 (ISBN 978-953-51-0706-4)

5. MKH Muda, **F Mustapha**, Composite patch repair using natural fiber for aerospace applications, sustainable composites for aerospace applications, Sustainable Composites for Aerospace Applications, 171-209, 2018.

6. Hamdan, A., Sultan, M. T. H., & **Mustapha, F**. (2019). Structural health monitoring of biocomposites, fibre-reinforced composites, and hybrid composite. In *Structural Health Monitoring of Biocomposites, Fibre-Reinforced Composites and Hybrid Composites* (pp. 227-242). Woodhead Publishing

7. Hassim, M. I., **Mustapha, F.**, Anwar, M., Sultan, M. T. H., Yidris, N., & Hamdan, A. Preliminary Design of a Low-Resolution Thermography Camera System for Subsurface Defect Detection of a Thin Composite Plate; A Case Study for Composite Electric Bus Structure. In Structural Health Monitoring System for Synthetic, Hybrid and Natural Fiber Composites (pp. 157-176). Springer, Singapore (2021)

Research Grants

No	Project Title	Amount (RM)	Year	Source of Fund
1.	A Prototype Expert System for Fault Diagnosis on Turbo-prop Engine (Principal Investigator)	RM10,000	2001 - 2002	New Appointment Lecturer Research Scheme, UPM
2.	IJETSS: Intelligent Jet Engine Trouble Shooting System for Police Air Force Wing (Principal Investigator)	RM148,000	2001 - 2003	IRPA Geran (09-02-04-0543 EA001)
3.	A Robust Structural Health Monitoring (SHM) system for aircraft parts and structures using Smart Material. (Principal Investigator)	RM272,500	2008 - 2010	Sciencefund, MOSTI Project no. 03-01-04-SF0807
4.	A Fundamental Approach of Structural Health Monitoring Technique For Real Engineering Components Using Novelty Indices. (Principal Investigator)	RM96,000	2008 - 2009	Fundamental Research Grant Scheme, MOHE 07-10-07-398FR (5523398)
5.	Model Based Structural Health Monitoring (SHM) for Ageing Aircraft and Real Engineering Structural Components using Finite Element Analysis and Optimization Technique. (Principal Investigator)	RM44,000	2008 - 2009	RUGS 51197 (UPM)
6.	Establishing unsupervised governing equations for Structural Health Monitoring (SHM). (Principal Investigator)	RM46,400	2010 - 2012	Fundamental Research Grant. Scheme, MOHE 02-10-10-926FR (5524003)
7.	Establishment of energy prediction algorithm in energy harvesting management design and smart sensing network of a Structural Health Monitoring (SHM) solution. (Principal Investigator)	RM50,000	2012 - 2014	Exploratory Research Grants Scheme (ERGS)
8.	Biocomposite Vertical Axis Wind Turbine (VAWT) Blade Embedding Smart Structural Health Monitoring (SHM) Sensor. (Principal Investigator)	RM148,000	2012 - 2014	RUGS (UPM)
9.	Structural Health Monitoring (SHM) Approaches for Detecting Bio-Composite Patch Repair Conditions for Aerospace Applications Vertical Axis Wind Turbine (VAWT) Blade. (Principal Investigator)	RM15,000	2012 - 2014	RUGS (UPM)
10.	Oblique Impact and Aerodynamics Analysis of a Bio-Composite Sport Cycling Helmet. (Principal Investigator)	RM 170,000	2012-2014	MOHE Sport Research Grant
11.	Investigation on Embedded Technique of Macro Fibre Composite (MFC) in natural fibre plate for micro energy harvester. (Principal Investigator)	RM137,000	2014 - 2016	FRGS (MOE)
12.	Lightning Damages Investigation On A Bio-Composite Wind Turbine Blades (Principal Investigator).	RM20,000	2016-2018	GP-IPS (UPM)

13.	Composite Machining for Aerospace Applications Blades (Principal Investigator).	RM20,000	2017-2019	GP-IPS (UPM)
14	Bio Composite Self Healing and Structural Health Monitoring (Principal Investigator).	RM20,000	2018-2020	GP-IPS (UPM)
15	Fire Retardant Material for Sandwich Structures (Principal Investigator)	RM58,000	2017	Geran Industri Detik Kreatif Sdn Bhd
16	Fire Retardant Material (Principal Investigator).	RM 5,500	2018	Geran Promosi
17.	Wireless Structural Health Monitoring System. Evaluating Crack Analysis for Pipelines Oil and Gas Industries (Sub Project Leader)	RM360,000	2016-2018	PIPPT-Kuwait
18.	Optimization of tool geometry for free cutting steel (SUM24L/AISI12L14) in turning process (Co Researcher)	RM 167,663	2015-2017	AUN/SEED – NET and Industry
19.	Fundamental approach in synthesizing 3C silicon carbide using local amorphous silicon dioxide for photovoltaic application (Co Researcher)	RM 87,000	2015-2017	FRGS (MOE)
20.	Mechanical characterization, effect of hygrothermal conditioning and failure analysis research on carbon/flax fibre based epoxy Al metal laminate (FML) for future use in Aircrafts (Co Researcher)	RM 113,800	2015-2018	FRGS (MOE)
21.	Upstream Fundamental Research in Bamboo – Determining the Characterization of Different Species of Bamboo Found in Peninsular Malaysia as Reinforced Composite Material (Co Researcher)	RM 79,000	2014-2016	FRGS (MOE)
22.	A Lamb Wave Statistical Analysis for Aircraft Structural Health Monitoring (SHM) system by using Piezoelectric Sensor on Composite Structure of Primary Control Surface (Co Researcher)	RM180,000	2009-2011	Sciencefund, MOSTI. Project no. SF00006, (UniKL, MIAT)
23.	Hypervelocity Planar Plate Impact Experiments of Woven carbon-fibre reinforced matrix composite panels and/or composite laminates. (Co Researcher)	RM70,000	2007-2009	RUGS (UPM)
24.	Development of Combinatorial Optimisation for Cutting Tool Strategy. (Co Researcher)	RM70,000	2007-2009	RUGS (UPM)
25	Wake dynamics and instability model in near-boundary stratified flow for wind turbine array design optimization (Lead Researcher)	RM96,500	2018-2020	FRGS (MOE)
26	Establishment of Analytical Model based on the Fundamental Effect of Magnetic Field onto the Dynamic Response of Magnetorheological Elastomer for Active Vibration Control Application (Lead Researcher)	RM125,500	2020-2022	FRGS (MOE)
30	Reliability and maintenance checking model aimed at mechanical performance and corrosive behaviour of carbon fiber-reinforced polymer (CFRP) strengthened steel structures for composite repair system in oil and gas structural engineering application. (Lead Researcher)	RM120,000	2020-2022	FRGS (MOE)

31	Research Program under c-19, Mobile Platform (Principal Investigator)	JPY 262,491 (RM 12,000)	2022	AUN-SEED Net Japan
32	Augmented Reality for Tourism in Terengganu (Principal Investigator)	RM10,000	2022-2023	State of Terengganu and UMT
33.	Inspection of Composites Materials Using Portable Infrared Thermograph and Neural Network Algorithm (Project Leader & Principal Investigator for UPM receiving RM 37,600)	RM 128,000	2023-2025	Yayasan University of Petronas
34.	Fire Retardant Coating & Composition (GPP) (Principal Investigator)	RM 98,200	2023-2024	UPM
35.	Development of TBC for Reducing Carbon Footprint (Principal Investigator)	USD 5,000 (RM22,000)	2023-2024	SEARCA

Patent (Current)

No.	Title	IP No.	Type of Intellectual Property Rights	Year
1.	Compression Testing Rig for Composite Buckling Under Delamination at Sub-Laminate Layer	15-99 (10-01376-0101)	Industrial Design Protection	2010
2.	Grease Trap (Filtrap)	PI2012700892	Patent Granted	2012
3.	Post Conditioning Machine	PI 2015702194	Patent Granted	2015
4.	Bio Composite Helmet	PI2016700073	Patent Granted	2016
5.	Fire Retardant Coating Composition	PI 2016701334	Patent Granted	2016
6.	Biocomposite Coanda Aero Helmet	ID201600102	Industrial Design Protection	2016

Awards/Recognition (Current)

No.	Name of awards Title	Award Authority	Award Type	Year
1.	Excellence Service Award	Universiti Putra Malaysia	University	2002
2.	Visiting Scholar linked to Department of Mechanical Engineering at the University of Sheffield	University of Sheffield, UK	International	2006
3.	Strain Best Technical Note Prize	British Society for Strain Measurement	International	2007
4.	Excellence Service Award	Universiti Putra Malaysia	University	2007
5.	Silver Medal PRPI 08	Universiti Putra Malaysia	University	2008
6.	Best Paper 2008	British Society for Strain Measurement	International	2008
7.	Silver and Bronze Medals PRPI 10	Universiti Putra Malaysia	University	2010
8.	Visiting Research Scholar linked to Department of Structural Engineering at the University of California, San Diego, USA	University of California, San Diego, USA	International	2010

9.	Excellence Service Award	Universiti Putra Malaysia	University	2011
10.	Special Award	Anugerah Inovasi Selangor	National	2017
11.	Special Award	Anugerah Inovasi Selangor	National	2018
12.	SEARCA Professorial Chair	SEARCA	International	2023

Professional Services/Consultation

No	Year	Title	Authority/Role
1.	July 2012	Design Review for SAFAT Aviation on Light Aircraft (Lead Consultant for Structural Analysis)	Consultant to SAFAT Aviation, Sudan
2.	Sept 2009	Analysis of an Accelerated and Controlled Composting Pilot Plant, A Composter Unit	Consultant to Eco Builders
3.	July 2009	Assessing Resonance Frequency for a Stiffener to Strengthen The Gyro Rack in Cargo Compartment In Aircraft	Consultant to Eurocopter
4.	Apr 2009	Bird Impact Test And Fatigue Test on F5 Canopy	Consultant to Air Force Malaysia
5.	Oct 2008	Evaluating Stress Distribution on a Spherical Vessel	Consultant to Eco Builders
6.	Sept 2008	In-flight vibration testing on a MARITIME helicopter for a Spectro-link assembly panel	Consultant to Eurocopter
7.	Jun 2008	Assessing Resonance Frequency for a Flat Plate Panel Mounting System on a MARITIME helicopter using Modal Testing Technique	Consultant to Eurocopter
8.	Dec 2007	Finite Element Analysis for Bus Structure	Engineering Consultant
9.	Dec 2007	Wind Tunnel Testing For Street Lantern	Engineering Consultant
10.	Jan - July 2006	European Project (ARTIMA) Aircraft Reliability Through Intelligent Materials Applications	EU Grant
11.	Jan 2006	Research Collaborator UPM and Afyon Kocatepe University	Member
12.	2011	Majlis Industri Pertahanan (Aeroangkasa)/ Defense Industry Council (Aerospace)	Member
13.	2011	International Conference of Composite Technology 8 (ICCST 8' 2011).	Co-Chairman
14.	2013	Development of Curriculum and Innovation Module by MOHE	Panel Expert
15.	2012	Diploma degree at IKBN Temerloh	Panel Expert
16.	2014-2016	Bachelor of Aircraft Engineering Technology (Hons) in Mechanical Programme at UniKL	Program Assessors

17.	2009-current	Aerospace/ Mechanical Engineering Curriculum Division:- i) Diploma in Aircraft Maintenance (Composite), UniKL, MIAT ii) Diploma in Aircraft Maintenance (Avionics), UniKL, MIAT iii) Bachelor of Technology of Airpalne Engineering (Avionics), UniKL, MIAT iv) Diploma in Aviation Management, Kolej Professional dan Pengurusan ,KLIA v) Diploma in Aviation (Air Traffic Management), Akademik Latihan Penerbangan Asia Pasifik, Kota Bahru vi) Bachelor of Technology in Aeonautical (Air Traffic Controller), UTHM. vii) Bachelor of Technology in Aeonautical (Pilot Licensing) , UTHM viii) Diploma in Aviation Safety, Kolej Pengurusan Penerbangan. ix) Bachelor of Mechanical Engineering (KDU) x) Bachelor of Mechanical Engineering (UNISEL)	Accreditation Panel (MQA & EAC) (Lead , Head of Panel and Member)
18.	2015	Experimental & Computational Analysis of Composite Structure	Consultant to Aeronautical Research Center (ARC) Sudan
19.	2006-current	PhD and Master theses (UPM, UKM, UTM, UTHM, UMP, IIUM, UM).	External and Internal Examiners
20.	1999-current	International and National Journals and Conferences	Articles Reviewer
21	2015	Institute Engineer of Malaysia (IEM)	IEM Log Book Mentor
22	2015-current	Academic Advisor and IAP Panel	ADMAL College, UTM
22	2016	WFP- United Nation HRD, KL	DELSA Workshop Facilitator and UPM Representatives for UNHRD Partner's Meeting
23	2017-2022	International Advisory Panel	Kasalingam University (KLU), India
24	2020 - 2021	Technical Validator for Commercialisation	Consultant to Hasanatech
25	2021	Augmented Reality Tourism (Fun Map) for State of Terengganu	Consultant
26	2021	External Assessor, Aerospace Engineering Programme, USM	External Assessor

Student Supervision (PhD)			
No.	**Name**	**Title**	**Status**
1.	Ali Shahrjerdi	Functionally Graded Material for aerospace applications (**Main Supervisor**)	Graduated
2.	Ali Jahan	Material Selection using MCDM (**Main Supervisor**)	Graduated
3.	Siavash Talebi	Design,Testing and Optimisation of Composite Energy-Absorbing Structure For Ground and Aerial Transportation Vehicles (Co Supervisor)	Graduated
4.	Khairul Dahri	Structural Health Monitoring (SHM) for Composite Structure on Aircraft Components. (**Main Supervisor**)	Graduated
5.	Ahmad Hamdan	Structural Health Monitoring and Energy Harvesting for VAWT blade (**Main Supervisor**)	Graduated
6.	Nisreen N.Ali	Structural Health Monitoring of a Bio-Composite Structure Using Smart Sensory System (**Main Supervisor**)	Graduated
7.	Umran Abd Rahman	(DEng) Aircraft door defect analysis for MAS (**Main Supervisor**)	Graduated
8.	Mohd Salahuddin	Rice Husk Ash for Engineering Application (**Main Supervisor**)	Graduated
9.	Aidin Ghavamian	SHM for Pipeline System (**Main Supervisor**)	Graduated
10.	Mohammed Idris	Model Scale Updating for Structural Health Monitoring on Bridge Structure (**Main Supervisor**)	Graduated
11.	Saed Eslamian	Freeting fatigue (Co Supervisor)	On-Going
12.	Reza Shahjerdi	Optimisation technique (Co Supervisor)	Graduated
13.	Shamsul Azmi	Design for Ballistic Bio Composite Armour Helmet (**Main Supervisor**)	On-Going
14	Abdul Aziz Al Motairi	Hybrid VAWT for Middle East Continent (**Main Supervisor**)	Graduated
15.	Ahmad AHS Shirazi	Wireless SHM for monitoring pipeline in oil and gas industries (**Main Supervisor**).	Graduated
16.	Mohammad Haniff	Energy Harvesting and Harnessing for Hybrid Renewable Energy (**Main Supervisor**)	Submitted

Student Supervision (PhD)			
No.	**Name**	**Title**	**Status**
17.	Siti Zubaidah Mat Daud	Energy Harvesting and Lightning Protection Material for VAWT (**Main Supervisor**)	Graduated
18.	Mohd Khairul Hafiz	Fire Retardant Material for Engineering Applications **(Main Supervisor)**	On-Going
19.	Murniwati Ali	Thermal Camera Imaging for Composite Damage Detection **(Main Supervisor)**	On-Going
20.	Mohd Naim Abdullah	IoT application in Damage Detection (**Main Supervisor**)	Graduated
21	Mohd Saffuan Yaakob	Thermal Barrier Coating for Engineering Applications (**Main Supervisor**)	On-Going
22.	Alowaid A R O Alotaibi	Self Harvesting Horizontal Wind Turbine (**Main Supervisor**)	Graduated
23.	Mohammed M A S Aldhufairi	Planetary Gear Design on Self Harvesting Horizontal Wind Turbine (**Main Supervisor**)	Graduated
23.	Mohd Firdaus bin Jaafar	Active Vibration Control using MR devices (**Main Supervisor**)	On-Going
24	Mohamad Iswady bin Hassim	Thermography Technique for Damage Detection (**Main Supervisor**)	On-Going
25.	Alshaheeb Ali Mohammed Ali Abdulshaheed	Energy Harvesting thru Pipe-line design (**Main Supervisor**)	On-Going
26.	Ma Yumeng	Damage Detection on Rotating Blade using Deep Learning Algorithm (**Main Supervisor**)	On-Going
27	Mohd Afdhal bin Shamsudin	Bio-Thermsl Insulation Material for Extending Life Span of Mechanical Parts (**Main Supervisor**)	On-Going

MS with thesis (Main Supervisor and Co –Supervisor)

No.	Name	Title	Status
1.	Ng Wei Sim	Finite Element Analysis On Cohesive Element For Composite Fuselage Model (Main Supervisor)	Graduated
2.	Zuhir Ali Jassim	Vibration Analysis for Cantilever Beam (Main Supervisor)	Graduated
3.	Aznijar Ahmad Yazid	Solution of Aerodynamic Problems using Meshless Method (Co Supervisor)	Graduated
4.	Zulfaisal Mohammad	FEA on Pipeline for Oil and Gas Application (Co Supervisor)	Graduated
5.	Nurhaniza Mohamad	Optimisation Technique (Co Supervisor)	Graduated
6.	Hazem Al-Sultaney	Cutting Tool Stratergy (Co Supervisor)	Graduated
7.	Mohammadmehdi Shahzamania	FGM on brake disk. (Co Supervisor)	Graduated
8.	Meysam Toozandehjani	NDT for Aluminium Friction Stir Welding (Main Supervisor)	Graduated
9.	Ng Kian Theng	Novitect , SHM soft computing platform (Main Supervisor)	Graduated
10.	Abu Hanifah Mohd Kamal	MeMs technology for SHM applications (Main Supervisor)	Graduated
11.	Mahdi Torabsa	VAWT Structural Design (Main Supervisor)	Graduated
12.	Mohd Naim Abdullah	Bio-Composite Helmet Aerodynamics and Oblique Impact Analyses (Main Supervisor)	Graduated
13.	Mohd Khairul Hafiz	Smart Patching Repair using Kenaf Fibre (Main Supervisor)	Graduated
14.	Amen Khajeh	The effect of Thermo-Oxidative Aging on the Durability of Glass Fibre Reinforced Epoxy (Main Supervisor)	Graduated
15.	Ali Mohammad Ali	Pipeline Smart Monitoring System Using Vibration Analysis (Main Supervisor)	Graduated
16.	Mohd Saffuan Yaakob	Auxetic Cell Structure for Aero Helmet Interior Design (Main Supervisor)	Graduated
17.	Ormiila a/p Chandrasegaran	IoT using Thermal Imaging Technique	On-Going
18.	Mohd Suffian bin Ariffin	Renewable Energy Policy	On-Going

Supervision of MS in Innovation and Engineering Design (MSIED) (25 graduated till 2022)
Supervision of BEng in Aerospace Engineering (47 graduated till 2022)

Teaching Experience

No.	Level	Course / Subject
1.	Undergraduate	Engineering Propulsion, Engineering Statics, Aerospace System Design, Aircraft System Design, Design and Drawing Engineering, Vibration and Control Lab, Vibration, Aeroelasticity, Material and Structure Lab, Aerospace Material, Mechanics of Material, Engineering Statics and Dynamics, Engineers and Society
2.	Postgraduate	Experimental Stress Analysis, Engineering Innovation Studies II, Global Design I, Innovation in Structural Condition Monitoring, Facility Management

Short Course and Training Attended

No.	Duration	Title
1.	2-days	Course on 5 Disciplines of Innovation (DOI) by SRI International
2.	1 week	Training and Courses on MS ISO/IEC 17025 : 2005 (SIRIM/UPM)
3.	3-days	Course on Standard Requirement MS ISO/IEC 17025:2005
4.	3-days	Training on Documentation and Implementing Laboratory Quality Management System
5.	3-days	Training on Gap Analysis, System Planning and Development of Laboratory Documentation
6.	2-days	Course on Measurement Uncertainty Determination
7.	3-days	ISO/IEC 17025:2005 Quality Management System (QMS) Internal Auditing Training
8.	3-days	Ethical Code in Accreditation Process for Malaysia Quality Agency (MQA) Panel.
9.	2-days	FRGS Panel Seminar and Workshop by Ministry of Education (MOE)
10.	3-days	National Seminar for Malaysia Quality Agency (MQA) Panel of Assessors
11.	1-week	Outcome Based Education Series: Development of Items For Assessment in Public University.
12.	1-week	Course on Finite Element Modelling using ABAQUS
13	1-week	Course on Finite Element Modelling using FE Safe in ABAQUS
14	1-week	Fundamental Course on Genetic Algorithm by MathSoft
15	2-days	IEM course for Mentor Log Book ang Training Scheme

Keynote / Invited Speaker for Local / International Conference/ Seminar

No.	Role	Title
1.	Invited Speaker	Conference on Non-Destructive Testing For The Aviation Industry, Hong Kong, 2010
2.	Invited Speaker	EPS Montreal International Conference on Advanced Materials and Processing 2011, Montreal, Quebec
3.	Invited Speaker	Annual World Congress of Smart Material 2016
4.	Invited Speaker	Centre of Business and Maritime Management, Universiti Malaysia Terengganu, 2016
5.	Keynote Speaker	1st International Symposium on Nanotechnology 2016, Islamic Azad University of Najafabad, Isfahan, Iran
6.	Keynote Speaker	AECE 2016, The International Conference on Architectural Engineering and Civil Engineering, Shanghai, China
7.	Keynote Speaker	ICMCT 2016, The International Conference on Mechanics, Civil Engineering and Transportation, Gullin, China
8.	Keynote Speaker	International Conference on Automotive Systems, Agricultural Equipment and Manufacturing (ICAAM-17), KLU, India
9.	IEM Invited Speaker	Engineering Education Technical Division, IEM, Engineers Australia Malaysia Chapter, EAMC on "Structural Health Monitoring (SHM) System; A Statistical Pattern Recognition Approach on Structures Anomalies to Micro Energy Harvesting"