CURRICULUM VITAE

B.T. HANG TUAH BAHARUDIN
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Education

1. Ph.D. Manufacturing Engineering and Industrial Management, 2008, University of Liverpool, UK.
2. B.Eng (Hons Mechanical Engineering), 2000, UMIST (University of Manchester, Institute of Science and Technology).
3. Dip. Eng, Mechanical and Manufacturing Engineering 2010, Wigan and Leigh College.

Areas of Interest

High Speed Machining, Micro Machining, Rapid Prototyping, Reverse Engineering, Product Development, Mechanical Design and Surface Profiler

Professional Qualification/Membership/Affiliation

1. JOMWaqf.com, Board Member, Board member for NGO. Wafq projects in Malaysia Indonesia and Saudi,
2. Co-opbank Pertama, Chair and Representative, Chair and Head of Representative to Co-Opbank Pertama AGM (representing Putrajaya Branch)
3. American Society of Mechanical Engineers, Treasurer, Treasurer for the professional society encompassing engineers across Malaysia (Malaysia Branch)
4. University of Liverpool Malaysian Alumni Association, Secretary, Secretary for the alumni's association.
5. Associate Member of Institute of Mechanical Engineers, UK. (AMIMechE)
6. Member of Board of Engineers, Malaysia (BEM)
7. Member of Malaysian Society of Engineering and Technology (mSET)

Appointments

Position	Duration
Universiti Putra Malaysia	
Deputy Vice Chancelor (Industry and Community Relations	2021 to date
Kolej 10&11 UPM	
Pengetua Kolej Kediaman	2018 – 2020
Kolej 15 UPM	
Pengetua Kolej Kediaman	2016 – 2018
UPM, Associate Professor	
Mech.& Manufacturing Eng.	2013- to date
UPM, Senior Lecturer	2008 – 2013
Mech.& Manufacturing Eng.	
UPM, Tutor	2001- 2008
Mech.& Manufacturing Eng.	
Senior Aerospace BWT	2000- 2001
Production Technician	

Updated 24 Feb 2022

Administrative Works	
Position	**Date Appointed**
1. University for Society (U4S), Kementerian Pengajian Tinggi. (Induk)	Dec 2020
2. PERMATA STEM Talent Centre, Bahagian Permata, Jabatan Perdana	Mac 2018
3. Menteri Accreditation Council, Board of Engineers Malaysia (BEM)-	July 2017
4. EACHead Jabatan Pengangkutan Jalan (JPJ) and MIROS	Jan 17- Dec 2019
5. (SubjectMatter Expert) Jabatan Pembangunan Kemahiran, Kementerian	1 September 2016
6. Sumber Manusia Malaysia External Examiner- DRB- Hicom University	9 Dec 2016
7. *Accreditation Council, Board of Engineers Malaysia (BEM)*	Nov 2016- To date
8. Resource Person/Subject Matter Expert	Nov 2015- To date
9. *Technical Committee* – Automated Enforcement System, Road Transport	Feb 14- May 2015
10. Department, Ministry of Transport, Malaysia	Aug 12 – to date
11. *Taskforce Committee (Legal Metrology)* – User Acceptance Test, Automated Enforcement System, MIROS/Road Transport Department, Ministry of Transport.	July 12 – Aug 12
12. *Laboratory Coordinator,* Department of Mechanical Engineering, UPM	Sept 11 – Jan 16
13. *Coordinator and Head,* Mass Metrology Laboratory, Universiti Putra Malaysia	June 10 – to date
14. *Industrial Advisory Panel,* Bachelor of Technology in Applied Automotive, KLIUC	July 11-July 13
15. *Programme Assessor,* Engineering Programme, Polytechnic Division, Ministry of Higher Education	March 2010
16. *Associate Researcher,* Natural Composite Laboratory, Advanced Institute of Technology, UPM	2010-2011
17. *Coordinator,* Calibration Task Force, Faculty of Engineering, UPM	2009-2010
18. *Head, Working Group Committee, Revision of MS 1470,* Vehicle General Safety, SIRIM Industry Standard Committee	July 10 – Apr 12
19. *Technical Committee,* Vehicle General Safety, SIRIM Industry Standard Committee in Industrial Standardization for Road Vehicle	June 09 – to date
20. *Final Year Project Verifier,* Engineering Programme, German-Malaysian Institute	Jan 09 – to date
21. *Committee Member (Faculty's Representative), University Health and Safety Committee, UPM*	Jan 09- 2015
22. *Examiner and Programme Assessor,* Engineering Programme, Matriculation Division, Ministry of Education	Jan 2009

Publications

Journals

1. Rahamaddulla, S.R.B., Leman, Z., Baharudin, B.T.H.T.B., Ahmad, S.A. Conceptualizing smart manufacturing readiness-maturity model for small and medium enterprise (Sme) in Malaysia. 13(17), Article ID. 9793
2. Arunasalam, M., Leman, Z.B., Baharudin, B.T.H.T.B., Sulaiman, S.B., Anthony Das, C.S. Challenges in Minimizing Copper Dissolution for Lead Free Wave Soldering in Surface Mount Technology Going Towards Green Manufacturing
3. Nudri, N.A., Wan Abdul Karim Ghani, W.A., Thomas Bachmann, R., Baharudin, B.T.H.T., Ng, D.K.S., Md Said, M.S. Co-combustion of oil palm trunk biocoal/sub-bituminous coal fuel blends (10), Article ID. 100072
4. Nor N.A.M., Kamarulzaman N.F., Zakaria N.A.S., Awang N., Baharudin B.T.H.T., Ariffin M.K.A.M, Leman Z.Effect of Spindle Speed and Feed Per Tooth in Feed Rate Perspective on Inconel HX Cutting Force18(2), pp. 65–76
5. Nudri N.A.,Wan Abdul Karim Ghani W.A.,Thomas Bachmann R., Baharudin B.T.H.T., Ng D.K.S., Md Said M.S.Co-combustion of oil palm trunk biocoal/sub-bituminous coal fuel blends. Article number 100072
6. Omar, M.A., Baharudin, B.T.H.T., Sulaiman, S., Ismail, M.I.S., Omar, M.A, Characterisation of powder and microstructure, density and surface roughness for additively manufactured stent using medical grade ASTM F75 cobalt chromium (CoCrMo) by selective laser melting (SLM) technology
7. Omar, M.A., Baharudin, B.T.H.T., Sulaiman, S., Ismail, M.I.S., Omar, M.A, Evaluation of chemical composition, heat treatment, mechanical properties and electro chemical polishing for additively manufactured stent using ASTM F75 cobalt based superalloy (CoCrMo) by selective laser melting (SLM) technology.
8. Mohd Nor, N.A, Baharudin, B.T.H.T, Ghani, J.A, Leman, Z, Ariffin, M.K.A, Effect of chip load and spindle speed on cutting force of Hastelloy X
9. Omar, M.A., Baharudin, B.T.H.T., Sulaiman, S., Ismail, M.I.S., Omar, M.A, Characterisation of elemental analysis, carbon sulphur analysis and impact test of stent manufacturing using medical grade ASTM F75 cobalt chromium (CoCrMo) by selective laser melting (SLM) technology
10. Dehghan,S; Ismail, M.I.S.B; Mohd Ariffin, M.K.A.B; Baharudin, B.T.H.T.B, Friction drilling of difficult-to-machine materials: Workpiece microstructural alterations and tool wear.
11. Ranjan, M.Z., Tuah Baharudin, B.T.H., Mahadi, M.R., Baharudin, M.R.Developing a construction occupational safety and health risk assessment matrix (COSHRAM) with modifying risk factors
12. S.Dehghan, M.I.S. Ismail. M.K.A Ariffin, B.T.H.T. Baharudin,
    Measurement and analysis of thrust force and torque in friction drilling of difficult-to-machine materials.
13. Kassim, N., Leman, Z., Baharudin, B.T.H.T., Aziz, F.A. Finite element analysis of rib cushion positioning for expanded polystyrene packaging
14. Mohd Ariffin, M.K.A., Sukindar, N.A., Hang Tuah Bin Baharudin, B.T., Jaafar, C.N.A.B., Ismail, M.I.S.B. The effect of process parameters in extruding scaffold design using synthetic biomaterials
15. Dehghan, S., Ismail, M.I.S.B., Mohd Ariffin, M.K.A.B., Baharudin, B.T.H.T.B., Parnianifard, A. Experimental investigation on friction drilling of stainless steel AISI 304. Experimental investigation on friction drilling of stainless steel AISI 304
16. Wisam Ali Basher Baara, B. T. Hang Tuah b. Baharudin, Mohd Khairol Anuar, Mohd Idris Shah b. Ismail Effect of Elastic Module Degradation Measurement in Different Sizes of the Nonlinear Isotropic–Kinematic Yield Surface on Springback Prediction
17. Azpen, Q.M., Baharudin, B.T.H.T., Shamsuddin, S., Mustapha, F. Effect of process parameters on surface roughness of aluminium alloy AA 6061-T6 sheets in frictional stir incremental forming

18. Ghavamian, A., Mustapha, F., Baharudin, B.T.H.T, Yidris, N. Detection, localisation and assessment of defects in pipes using guided wave techniques: A review
19. S.Dehghan, M.I.S. Ismail. M.K.A Ariffin, B.T.H.T. Baharudin, Experimental investigation on friction drilling of titanium alloy
20. M. A. Azmah Hanim, B. T. H. Tuah Baharudin, Dermot Brabazon, Saleem Hashmi. Biodegradable Metal Heart Stent: Characteristics, Material Options and Preliminary Testing Method Reference Module in Materials Science and Materials Engineering.
21. Sukindar, N.A., Ariffin, M.K.A.M., Baharudin, B.T.H.T., Jaafar, C.N.A., Ismail, M.I.S., Effects of Nozzle Die Angle on Extruding Polymethylmethacrylate in Open-Source 3D Printing.
22. Subramaniasarma Sreenivasan, Shamsuddin Sulaiman, Mohd Khairol Anuar Mohd Ariffin, B.T. Hang Tuah Baharudin, Khalina Abdan. Physical Properties of Novel Kenaf Short Fiber Reinforced Bulk Molding Compounds (BMC) For Compression Moulding.
23. Azpen, Q.M., Baharudin, B.T.H.T., Shamsuddin, S., Mustapha, F.Reinforcement and hot workability of aluminium alloy 7075 particulate composites: A review
24. Sukindar, N.A., Ariffin, M.K.A.M., Baharudin, B.T.H.T., Jaafar, C.N.A., Ismail, M.I.S., Analysis of mechanical properties of polylactic acid using a new 3D printer nozzle
25. Alsanossi M. Aboghrara, M.A. Alghoul, B.T.H.T. Baharudin, A.M. Elbreki, A.A. Ammar, K. Sopian, A.A. Hairuddin. Parametric Study on the Thermal Performance and Optimal Design Elements of Solar Air Heater Enhanced with Jet Impingement on a Corrugated Absorber Plate
26. Khalil Ibraheem Imhan, B.T.H.T. Baharudin, Azmi Zakaria, Mohd Idris Shah B. Ismail, Nasseer Mahdi Hadi Alsabti and Ahmad Kamal Ahmad, Improve the material absorption of light and enhance the laser tube bending process utilizing laser softening heat treatment
27. Mehran Tamjidy, B. T. Hang Tuah Baharudin, Shahla Paslar, Khamirul Amin Matori, Shamsuddin Sulaiman and Firouz Fadaeifard, Multi-Objective Optimization of Friction Stir Welding Process Parameters of AA6061-T6 and AA7075-T6 Using a Biogeography Based Optimization Algorithm
28. Khalil Ibraheem Imhan, B.T.H.T. Baharudin, Azmi Zakaria, Mohd Idris Shah B. Ismail, Nasseer Mahdi Hadi Alsabti and Ahmad Kamal Ahmad, Investigation of material specifications changes during laser tube bending and its influence on the modification and optimization of analytical modelling
29. Alsanossi M. Aboghrara, B.T.H.T. Baharudin, M.A. Alghoul, Nor Mariah Adam, A.A. Hairuddin, Husam A. Hasan, Performance analysis of solar air heater with jet impingement on corrugated absorber plate
30. Baharudin, B.T.H.T., Azpen, Q.M., Sulaima, S., Mustapha, F., Experimental investigation of forming forces in frictional stir incremental forming of aluminum alloy AA6061-T
31. Ojo-Kupoluyi, O.J., Tahir, S.M., Baharudin, B.T.H.T, Azmah Hanim, M.A., Matori, K.A., Anuar, M.S., Role of carbon addition on the microstructure and mechanical properties of cemented tungsten carbide and steel bilayer
32. Dehghan, S. , Ismail, M.I.S., Ariffin, M.K.A., Baharudin, B.T.H.T., Sulaiman, S., Numerical simulation on friction drilling of aluminum alloy: Numerische Simulation des Reibbohrens von Aluminiumlegierunge
33. Ojo-Kupoluyi, O.J., Tahir, S.M., Baharudin, B.T.H.T, Azmah Hanim, M.A., Anuar, M.S., Mechanical properties of WC-based hardmetals bonded with iron alloys–a review
34. Golshan, A, Baharudin, B.T.H.T., Aoyama, H., Ariffin, M.K.A.M., Ismail, M.I.S., Ehsan, A.A., Ultraprecision Machining of Silicon Wafer by Micromilling Process
35. Ishak, M.A. , Sulaiman, S., Baharudin, B.T.H.T., Ismarubie, Z.N., Effect on the mechanical properties of ship propeller with vibration mold castings
36. Ishak, M.A. , Sulaiman, S., Baharudin, B.T.H.T., Syajaratunnur, Y.,Research on the ship propeller blade to determine changes in the mechanical properties based on the forces projection
37. Bin Sukindar, N.A., Bin Mohd Ariffin, M.K.A., Tuah Bin Baharudin, B.T.H., Binti Jaafar, C.N.A., Bin Ismail, M.I.S., Analysis on temperature setting for extruding polylactic acid using open-source 3D printer

38. M. Al-Falahi, F. Fadaeifard, M. D. A. Al-Falahi, B. T. H. T. Bin Baharudin, T. S. Hong, Surface damages and tool wear mode in end milling of hastelloy-C276 under dry and wet conditions
39. Thauri, S.H., Baharudin, B.T.H.T., Leman, Z., Tahir, S.M., The viability of microwave sintering process to produce a ceramic tool insert
40. Khalil Ibraheem Imhan, B.T.H.T Baharudin, Azmi Zakaria, Mohd Idris Shah Ismail, Nasser Mahdi Hadi Alsabti, Ahmad Kamal Ahmad, The Impact of Tube Diameter and Thickness on Laser Tube Bending Process
41. Muath Al-Falahi, B.T. Baharudin, Tang Sai Hong, Khamirul Amin Matori, Surface Defects in Groove Mliing of Hasteloy-C276 Under Fluid Coolant
42. Delgoshaei, A., Ariffin, M.K.M., Baharudin, B.T.H.T., Pre-emptive resource-constrained multimode project scheduling using genetic algorithm: A dynamic forward approach
43. Gholizadeh, S., Leman, Z., Baharudin, B.T.H.T., Inayatullah, O., Acoustic emission analysis for characterisation of damage mechanisms in glass fiber reinforced polyester composite
44. Muhammad Syafiq Rahim, Abang Annuar Ehsan, B.T. Hang Tuah Baharudin, Analysis of Micromilling Process Parameters for Silicon-based Flow Cytometer Microfluidics Device
45. Delgoshaei, A., Ariffin, M.K.M., Bin Baharudin, B.H.T., Leman, Z.A new method for decreasing cell-load variation in dynamic cellular manufacturing systems
46. Delgoshaei, A., Ariffin, M.K.A.M., Leman, Z., Baharudin, B.T.H.T.B., Gomes, C., Review of evolution of cellular manufacturing system's approaches: Material transferring models
47. Sukindar, N.A., Ariffin, M.K.A., Hang Tuah Baharudin, B.T., Jaafar, C.N.A., Ismail, M.I.S. Analyzing the effect of nozzle diameter in fused deposition modeling for extruding polylactic acid using open source 3D printing
48. Lim, B.Y., Shamsudin, R., Baharudin, B.T.H.T., Yunus, R., Performance evaluation and cfd multiphase modeling for Multistage Jatropha Fruit Shelling Machine
49. Lim, B.Y., Shamsudin, R., Baharudin, B.T.H.T., Yunus, R., Performance study of a Jatropha Curcas l. fruit shelling machine for kernel recovery in biodiesel production
50. Algburi, S.M., Faieza, A.A., Baharudin, B.T.H.T.,Review of green building index in Malaysia; existing work and challenges
51. M. Sayuti, S. Sulaiman, B.T.H.T. Baharudin, M.K.A. Arifin, Metal Matrix Composite Products by Vibration Casting Method
52. Al-Khaldi, M.S., Ariffin, M.K.A., Sulaiman, S., Baharudin, B.T.H.T., Abdul Aziz, N., Determination of optimum valve opening and height in the automotive engine
53. Gholizadeh, S., Leman, Z., Baharudin, B.T.H.T.,A review of the application of acoustic emission technique in engineering
54. Nanang Fatchurrohman, Shamsuddin Sulaiman, S.M. Sapuan, M.K.A. Ariffin, B.T.H.T. Baharuddin Analysis of a Metal Matrix Composite Automotive Component
55. Lim, B.Y., Shamsudin, R., Baharudin, B.T.H.T., Yunus, R., A review of processing and machinery for Jatropha curcas L. fruits and seeds in biodiesel production: Harvesting, shelling, pretreatment and storage
56. Nemati, J., Mazjoobi, G.H., Sulaiman, S., Baharudin, B.T.H.T., Azmah Hanim, M.A., Effect of equal channel angular extrusion on Al-6063 bending fatigue characteristics
57. Aidin Delgoshaei, Mohd Khairol Mohd Arifin, B.T. Hang Tuah bin Baharudin, Zulkiflle Leman, Minimizing Makespan of a resource-constrained scheduling problem: A hybrid greedy and genetic algorithms
58. Tamjidy, M., Paslar, S., Baharudin, B.T.H.T., Hong, T.S., Ariffin, M.K.A., Biogeography based optimization (BBO) algorithm to minimise non-productive time during hole-making process
59. S.Sulaiman, Z.Leman, B.T.H.T. Baharudin, M.K.A. Ariffin, Shamsudin Man Process parameters for cylindrical deep drawing components
60. Lim, B.Y., Shamsudin, R., Baharudin, B.T.H.T., Yunus, R., Performance study of a Jatropha Curcas l. fruit shelling machine for kernel recovery in biodiesel production
61. Lim, B.Y., Shamsudin, R., Baharudin, B.T.H.T., Yunus, R., The performance of a jatropha fruit shelling machine and the future improvement
62. Sayuti, M, Sulaiman, S, Baharudin, B.T.H.T., Arifin, M.K.A, The Influence of Mechanical Mold

Vibration on Temperature Distribution and Physical Properties of Al-11.8%Si Metal Matrix Composites

63. Subramaniasarma Sreenivasan, Sameer Adnan Ibraheem, S. Sulaiman, B.T. Hang Tuah Baharudin, Mohd K.A. Ariffin, K. Abdan, Evaluation of Combined Treatments of Natural Fibers: Kenaf, Abaca and Oil Palm Fibres Using Micromechanical and SEM Methods
64. A. Abdullah, S. Sulaiman, B.T.H.T. Baharudin, M.K.A Ariffin, Haliza, Mechanical Properties of Tin Tailing Sand-Clay Mixture from Batu Gajah, Perak, Malaysia, for Making Greensand Casting Mould.
65. M.F.C. Ibrahim, B.T.H.T. Baharudin, N. Shaari, Analysis on Tool Life and Surface Characteristic in Milling Stavax Supreme Material
66. Hani Mizhir Magid, S. Sulaiman, M.K.A. Ariffin, B.T.H.T. Baharudin, Modeling and Simulation of Forward Aluminium Extrusion Process Using FEM
67. J Nemati, GH Majzoobi, S Sulaiman, BTHT Baharudin and MA Azmah Hanim, Finite element and metallurgical study of properties of deformed pure copper by ECAE at various strain rates
68. J Nemati, GH Majzoobi, S Sulaiman, BTHT Baharudin and MA Azmah Hanim, Development of Microstructure and Fracture Toughness of Al-6063 Alloy Using Equal Channel Angular Extrusion
69. J Nemati, GH Majzoobi, S Sulaiman, BTHT Baharudin and MA Azmah Hanim,Finite Element study of Deformation Behaviour of Al-6063 Alloy Developed by Equal Channel Angular Extrusion
70. J Nemati, GH Majzoobi, S Sulaiman, BTHT Baharudin and MA Azmah Hanim, Experimental Study of Impact Strength of Al-6063 Alloy Processed by Equal Channel Angular Extrusion
71. J Nemati, GH Majzoobi, S Sulaiman, BTHT Baharudin and MA Azmah Hanim, Experimental Study of Impact Strength of Al-6063 Alloy Processed by Equal Channel Angular Extrusion
72. Jayaseelan Nadarajah, Faieza Abdul Aziz, B.T. Hang Tuah Baharudin, Amran Mohd Radzi, Improved Maintenance for Optimization in the Calcium Compound Processing Industry
73. Hani Mizhir Magid, S. Sulaiman, M.K.A. Ariffin, B.T.H.T. Baharudin, Stress Analysis of Forward Aluminium Extrusion Process Using Finite Element Method
74. Naain Shaari, B.T.H.T. Baharudin, N. Ngah, M.F.C. Ibrahim, Machining of Injection Mould Materials for Different Cutting Flute in Low-Speed End Milling
75. M. Moayedfar, Z. Leman, B.T.H.T. Baharudin, Incremental Sheet Forming (ISF) of AISI 316 Stainless Steel Sheet Using CNC Milling Machine
76. B.T.H.T. Baharudin, K.P. Ng, S. Sulaiman, R. Samin and M.S. Ismail, Temperature Distribution of Micro Milling Process Due to Uncut Chip Thickness.
77. M Syahir Ahmad, B.T.H.T. Baharudin, Z.Leman, N. Ismail, S. Sulaiman, Thermal Parameter Affects on the Part Build Using 3D Printer Projet SD3000
78. N. Norsilawati, B.T.H.T. Baharudin, S. Na'ain, M.A. Joraimee, R.M. Raja Manisa, Analysis of Coating Performance on Stainless Steel in High Speed Machining
79. M.S. Ismail, B.T.H.T. Baharudin, Z. Talib, S.A. Yahya, Improvement of Cylinder Buckling Knockdown Factor Through Imperfection Sensitivity
80. R. Serap, N.M. Adam, B.T.H.T. Baharudin and A.R. Ramli, Current Status Audit on Board Ferry Services Operating Between Labuan and Mainland (Sabah, Sarawak and Brunei)
81. N.I. Kasim, Z. Leman, M.A. Musa and B.T.H.T. Baharudin, Cab Transfer Improvement at an Automotive Manufacturing Facilities
82. N. Ismail, Y. Musa, B.T.H.T.Baharudin,Z.Leman,Overall Equipment Effectiveness Improvmeent through Total Productive Maintenance in Assembly Cell
83. S.Sreenivasan, S. Sulaiman, B.T.H.T. Baharudin, M.K.A. Ariffin, K. Abdan,Recent developments of kenaf fibre reinforced thermoset composites: review
84. Chung Yee Lok, M.K. Siti Mazlina, B.T. Hang Tuah,Development of an integrated grating and slicing machine for starchy vegetables
85. M.S. Ismail, B.T.H.T. Baharudin, S.A. Yahya, H.A. Kahar,Finite Element Analysis of Composite Cylinder with Centre Cutout under Axial Load and Internal Pressure
86. M. Moayedfar, Z. Leman, H. Mirabi and B.T.H.T. Baharudin, The Effect of Forming Parameters

on the Sheet Stretch in Incremental Sheet Forming (ISF) process on CNC Lathe Machine

87. Jamshid Nemati, S. Sulaiman, Gholam Hossein Mazjoobi, B.T.H.T Baharudin, Azma Hanim Mohamed Ariff, Effect Of Equal Channel Angular Extrusion On Fatigue Life Of Pure Copper.
88. Tang S. H, M. K. A. Ariffin, B.T. Hang Tuah, and R. Samin , Development and Tuning of Bacteria Foraging Optimization Algorithm on Cell Formation in Cellular Manufacturing System
89. H. Nouri , Tang S.H., B.T. Hang Tuah, M.K.A. Ariffin, R. Samin, Metaheuristic Techniques on Cell Formation in Cellular Manufacturing System
90. Ruzaidi Zamri, Napsiah Ismail, B.T. Hang Tuah Baharudin, Azmah Hanim Mohamed Ariff, Anton Satria Prabuwono , Vision Sensor Application for Intelligent Polishing Robotic Cell
91. Nanang Fatchurrohman, Shamsuddin Sulaiman, Silait Mohd Sapuan, Mohd Khairol Anuar Ariffin, B.T. Hang Tuah Baharudin New technique for conceptual selection of manufacturing process and material, case study: Metal matrix composite component
92. Mohd Shahrom Ismail, B.T. Hang Tuah Baharudin and K.K.B. Hon, Analytical Model Prediction: Micro-Cutting Tool Forces with the Effect of Friction on Machining Titanium Alloy (Ti-6Al-4V)
93. Abolfazl Golshan, Danial Ghodsiyeh, Soheil Gohari, Amran Ayob, B.T. Hang Tuah Baharudin , Computational Inteligence in Optimization of Machining Operation Parameters of ST-37 Steel
94. Abolfazl Golshan, Danial Ghodsiyeh, Soheil Gohari, Amran Bin Ayob, B.T. Hang Tuah Baharudin, Optimization of Machining Parameters during Drilling of 7075 Aluminium Alloy
95. B.T.H.T Baharudin, M.R. Ibrahim, N. Ismail, Z. Leman, M.K.A. Ariffin and D.L. Majid, Experimental Investigation of HSS Face Milling to AL6061 using Taguchi Method
96. Y. K. Ng, S. F. Shukor, and B. T. H. T. Baharudin,Modelling of 2D Cutting Tool Forces in Micro Tool Using FEA-ABAQUS
97. M. S. M. Mokhtar, B. T. H. T. Baharudin, N. Ismail, and Z. Leman, A Comparison Study on Different Toolpath Strategy in Pocket Milling of AISI 420 Stainless Steel
98. Ehsan Yadollahi, B.T. Hang Tuah Baharudin and Nuraini Abdul Aziz, Evaluation of Different factors in Implemention of JIT Production System by Applying Simulation and Entropy Weighing Method
99. D.L. Majid, E.J. Abdullah, N.F. Harun, G.Y. Lim, B.T.H.T. Baharudin, Effect of Fiber Orientation on the Structural Response of a Smart Composite Structure
100. Nanang Fatchurrohman, Shamsuddin Sulaiman, S.M. Sapuan, M.K.A. Ariffin, B.T.H.T. Baharuddin,Generic Framework for Conceptual Design Using Concurrent Engineering Strategy. A Case Study: Advanced Material Application Product Development of Metal Matrix Composite Component
101. Nanang Fatchurrohman, Shamsuddin Sulaiman, Silait Mohd Sapuan, Mohd Khairol Anuar Ariffin, B.T. Hang Tuah Baharudin , A New Concurrent Engineering – Multi Criteria Decision Making Technique for Conceptual Design Selection
102. N. Fatchurrohman, S. Sulaiman, M.K.A. Ariffin, B.T.H.T. Baharudin, A.A. Faieza, Solidification Characteristic of Titanium Carbide Particulate Reinforced Aluminium Alloy Matrix Composites
103. Lok Chung Yee, M.K. Siti Mazlina, B.T. Hang Tuah, Relationship between Selected Properties of Starchy Vegetables on Grating and Slicing Production Rate
104. M. Sayuti, S. Sulaiman, T. R. Vijayaram, B. T. H. T. Baharudin and M. K. A. Arifin, Manufacturing of TiC Particulate Reinforced Al-11.8 Si Matrix Composites by Mechanical Vibration Mould
105. Sayyah, A., Nikbakht, M., Sayyah, M., Baharudin, B.T.H.T., Ismail, N., Diesel engine maintenance system, using trend analysis of histroical data
106. A.S. Mohamed, S.M. Sapuan, M.M.H. Megat Ahmad, A.M.S. Hamouda and B.T. Hang Tuah Bin Baharudin, Modeling the technology transfer process in the petroleum industry: Evidence from Libya
107. M. Sayuti, S. Sulaiman, B. T. H. T. Baharudin, M. K. A. Arifin, T. R. Vijayaram and S. Suraya, Effect of mould vibration on mechanical properties of particulate reinforced aluminium alloy matrix composite
108. A. Abdullah, S. Sulaiman, B.T.H.T. Baharudin, M.K.A. Ariffin, T.R. Vijayaram and M. Sayuti,

Testing for Green Compression Strength and Permeability Properties on the Tailing Sand Samples Gathered From Ex Tin Mines in Perak State, Malaysia.

109. M. Sayuti, S. Sulaiman, T. R. Vijayaram, B. T. H. T. Baharudin and M. K. A. Arifin, Manufacturing of TiC Particulate Reinforced Al-11.8 Si Matrix Composites by Mechanical Vibration Mould
110. Hamid Ghaani Farashahi, B. T. H. T. Baharudin, Shahed Shojaeipour and Mohammad Jaberi, Efficient Genetic Algorithm for Flexible Job-Shop Scheduling Problem Using Minimise Makespan
111. S. Sulaiman*, Tang S Hong, S. Pawanchi, G. R. Esmaeilian, M.K.A. Ariffin, B.T.H.T. Baharudin, Improvement of Tops Spinning Manufacturing with CNC Lathe
112. Sulaiman, S., Ariffin, M.K.A., Esmaeilian, G.R., Faghihi, K., Baharudin, B.T.H.T., Customer Knowledge Management Application in Malaysian mobile service providers
113. A. Abdullah, S. Sulaiman, B.T.H.T. Baharudin, M.K.A. Ariffin and T.R. Vijayaram, Effect of the Moisture Content on the Permeability of Tailing Sand Samples Gathered From Ex Tin Mines in Perak State, Malaysia.
114. A. Abdullah, S. Sulaiman, B.T.H.T. Baharudin, M.K.A. Ariffin and T.R. Vijayaram, The Effect of Bentonite Clay on Green Compression Strength for Tailing Sands for Old Tin Mines in Perak State, Malaysia for Making Green Sand Casting Mould.
115. Sayuti, M., Sulaiman, S., Vijayaram, T.R., Baharudin, B.T.H.T., Arifin, M.K.A., The influence of mechanical vibration moulding process on thermal conductivity and diffusivity of Al-TiC particulate reinforced composites
116. M.K.A. Ariffin, S. Sulaiman, B.T.H.T. Baharuddin, Tang Sai Hong and S. Sreenivasan, Simulation of Thermoset Injection for Bulk Mouding Compounds (BMC)
117. N. Fatchurrohman, S. Sulaiman, M.K.A. Ariffin, A.A. Faieza and B.T.H.T. Baharudin, Metal Matrix Composite: Solidification Parameters of Aluminium -11.8% Silicon Alloy Reinforced with Titanium Carbide Particulates
118. Sayuti M., S. Sulaiman, B.T.H.T. Baharudin, M.K.A. Ariffin, T.R. Vijayaram and S. Suraya, Influence of Mechanical Vibration Moulding Process on the Tensile Properties of TiC Reinforced LM6 Alloy Composite Castings
119. M. Sayuti, S. Suraya, S. Sulaiman, T.R. Vijayaram, M.K.H. Ariffin and B.T.H.T. Baharudin, Thermal Investigation of Aluminium -11.8% Silicon (LM6) Reinforced SiO2 Particles.
120. Sayuti M, Sulaiman S, B.T.H.T. Baharudin, Ariffin M.K.A, Suraya S and Gholamreza Esmaeilian,Mechanical Vibration Technique for Enhancing Mechanical Properties of Particulate Reinforced Aluminium Alloy Matrix Composite.
121. Hazem K. Alsultaney, Mohd Khairol Anuar Mohd Ariffin, B.T. Hang Tuah Baharudin, Aidy Ali and Faizal Mustapha. An experimental validation and optimisation tool path strategy for thin walled structure.
122. M.Sayuti, S.Sulaiman, B.T.H.T. Baharudin, M.K.A M Arrifin, T.R. Vijayaram and S.Suraya, Effect of Quartz-silicon dioxide particulate on tensile properties of aluminium alloy cast composites.
123. R.S.Taufik, S. Shamsuddin, K.K.Mak, A.A.Tajul, M.A.M.Khairul Anuar, B.B.T Hang Tuah Design simulation of filling sequence and solidification time for cast metal matrix composite by low pressure die casting
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126. H.Nouri, S.H. Tang, B.T. Hang Tuah, M.K. Anuar BASE: A bacteria foraging algorithm for cell formation with sequence data
127. A.S.Mohamed, S.M. Sapuan, M.M.H. Megat Ahmad, A.M.S.Hamouda, B.T. Hang Tuah Bin Baharudin,Modeling technology transfer for petroleum industry in Libya: An Overview

128. **B.T.H.T. Baharudin, S. Sulaiman, M.K.A. Ariffin, A.A. Faieza and S.M. Sapuan, Coating Performance in High Speed Micro Machining of H13, Tool Steel**
129. **Faieza, A.A., Sapuan, S.M., Ariffin, M.K.A., Baharudin, B.T.H.T., Supeni, E.E. Design and fabrication of a student competition based racing car**
130. **A.S. Mohamed, S.M. Sapuan, M.M.H. Megat Ahmad, A.M.S. Hamouda, B.T. Hang Tuah Bin Baharudin The effect of Technology transfer factors on performance: An empirical study of Libyan Petroleum Industry**
131. **Sapuan S.M., Ham K.W., Ng K.M., Woo C.K., Ariffin M.K.A., Baharudin B.T.H.T., Faieza A.A., Supeni E.E., Jalil N.A.A.Design of composite racing car body for student based competition**
132. **K.K.B. Hon and B.T. Hang Tuah Baharudin (2006), The Impact of High Speed Machining in Computing and Automation**

Books/ Monographs

1. **Kajian Pembangunan Pelan Strategik Keselamatan Barang Pengguna Malaysia**
2. Calibration, Verification and Homologation for Automated Enforcement System
3. MS 1470: 2011 Specification for PVC Floor Mats for Motor Vehicle

Chapter in Books

1. Abdul Razak, T.A., Baharudin, B.T.H.T, Shafee, K.S. and Shamsuddin, K.A., Application of a Portable Coordinate Measuring Machine onto Automotive Door Panel for Quality Inspection Activity, 102, pp 25-36., ISSN: 18698433
2. M. Sayuti, S. Sulaiman, T.R. Vijayaram, B.T.H.T Baharudin and M.K.A. Arifin (2012). Chapter 18: Manufacturing and Properties of Quartz (SiO2) Particulate Reinforced Al-11.8%Si Matrix Composites, Composites and Their Properties, Ning Hu (Ed.), ISBN: 978-953-51-0706-4

Other Publications

1. Shamsuddin Sulaiman, B.T. Hang Tuah Baharudin, Mohd Khairol Anuar Mohd Ariffin, Mohd Jais Rozali, Plastic Made Gasing Top, Patent No. BN/N/2014/0073
2. M.K.A Ariffin, B.T.H.T. Baharudin, F. Mustapha, Dual Point Cutting Tool for Turning Operation, Patent Pending (PI 2016704770)
3. R. Yunus, R. Shamsudin, B.T.H.T Baharudin, B.Y. Lim, A Multistage Fruit Decorticator, Patent Pending (PI 2015701163)
4. B.T.H.T Baharudin, J.Jaafar, N.Ismail, Z.Leman. Portable Constant Load Tensile-Corrosion Test System, Patent Pending (PI 2013701936)
5. S. Sulaiman, B.T.H.T Baharudin, M.K.A Ariffin, M.J. Rozali, Plastic Made Gasing Top, Patent Pending (PI 2012000680)

Research Grants/Consultations (Project Leader)

No.	Title	Position	Year	Source of Fund
1.	Experimental Characterization and Integrated Simulation of Functionally Graded Additive Manufactured Materials for Medical and Non- Medical Applications.	Project Leader	2021-2024	GP-GPB (RM250,000)
2.	Characterization and analysis of multi-grade biocompatible metal-polymer/polymer-polymer composite Poly (lactic acid) (PLA based) for Fused Deposition Modelling (FDM) in Additive Manufacturing (3D Printing)	Project Leader	2019-2020	FRGS (RM81,000)

3.	Development of Self Generic Guideline for Green Building for Existing Residential in Malaysia	Project Leader	2017-2019	UMRG
4.	Stent Manufacturing Using Cobalt Chromium Molybdenum By Selective Laser Melting (SLM) Technology	Project Leader	2017-2019	HIR-KPT
5.	Effect of Chip Load and Spindle on The Cutting Force of an End Milling Process	Project Leader	2017-2019	BEM
6.	Industry Revolution 4.0: Reliability Management and Predictive Maintenance for Local SMEs	Project Leader	2018	Jabatan Standard Malaysia
7.	Incremental Forming process of metal matrix composite	Project Leader	2016-2018	UMRG
8.	Experimental Investigation on Micro-Milling of Silicon Wafers for Microfluidic Devices in Medical Industries	Project Leader	2016-2018	AUN/SEED-Net
9.	Modeling and Optimization of High Speed CNC Micro Machining Parameters of Titanium Alloy Using Computational Intelligence	Project Leader	2012-2015	RUGS (15,000)
10.	Viability of microwave sintering process to produce ceramic tool inserts	Project Leader	2012-2014	RUGS (RM15,000)
11.	3-D Modeling and Investigation of Fundamental Micromachining Process Via Finite Element Method	Project Leader	2012-2015	FRGS (RM78,660)
12.	Finite element analysis of high speed cnc micro machining process of titanium alloy 6-4: optimisation of machining parameters	Project Leader	2009-2011	RESEARCH UNIVERSITY GRANT (RM30,000)
13.	Proton exora value engineering programme	Project Leader	2009-2010	PROTON (RM64,564)
				RM 571,224.00

Research Grants/Consultations (Co- Researcher)

No.	Title	Position	Year	Source of Fund
1.	Determination of End-of-life Product's Recycling Decision through Recycling Prioritization for Manufacturing Sustainability	Co- Researcher	2019-2021	RACER (RM56,000)
2.	Precision Joining of Metal-Polymer Hybrid Structures By Laser Irradiation	Co- Researcher	2017-2020	GP-UPM (RM49,997)
3.	Experimental Investigation Of Cutting Force And Vibration Signals For Chatter Stability Monitoring In Turning Process Using I-KAZ 3D Chatter Method	Co- Researcher	2017-2019	GP-IPB UPM (RM50,000)

4.	Activated Carbon Monolith Supported Metal Oxide Catalyst In Simultaneous SOx and NOx removal	Co- Researcher	2017-2019	HIR-KPT
5.	Determining Inconel 718 & L7 Fasteners Performance In The Subsea Industry	Co- Researcher	2017-2019	BEM
6.	Activated Carbon Monolith Supported Metal Oxide Catalyst In Simultaneous SOx and NOx removal	Co- Researcher	2018	Jabatan Standard Malaysia
7.	Pembangunan Pelan Strategik Keselamatan Barang Pengguna	Co-Researcher	2016-2017	KPDNKK (RM99,936)
8.	Fabrication and Investigation Of Thermal and Mechanical Properties Of WC-Fe/Steel Bimaterial By Powder Metallurgy		2015-2017	GP-IPS UPM (RM20,000)
9.	Optimization of Tool Geometry Design for Free Cutting Steel (AISI12L14) in Turning Process		2015-2017	AUN/SEED-Net (RM190,000)
10.	Elucidating the interaction mechanisms between the E-glass-cellulosic Pennisetum purpureum fibre and matrix interface in hybrid polymer composites.		2015-2017	FRGS (RM86,000)
11.	Development and Analysis Of Extrusion Head Of Fused Deposition Modeling (Fdm) For Biomedical Material		2015-2017	FRGS (RM110,000)
12.	Characterization and Modeling of Friction Drilling on Hard-to-Machine Materials		2015-2017	FRGS (RM76,000)
13.	Development of automatic multi cutters v-grooving machine for efficient bamboo flattening use in laminated bamboo timber production		2014-2016	PRGS (RM175,000)
14.	Characterization and development of a natural fibre reinforced unsaturated polyester based injection moulding composite material for electrical insulation application		2013-2014	FRGS (RM149,000)
15.	Intelligent Surface Polishing Defect System for Robotics Cell		2012-2014	RUGS (RM57,400)
16.	Modal Analysis and Active Vibration Control of the Composite Structure Using Piezoelectric Sensors and Actuators		2012-2014	RUGS (RM56,000)

17.	Mechanical Properties of Metal Matrix Composite LM6 Reinforced Titanium Carbide Using Mechanical Vibration Mould Sand Casting	2011-2013	RUGS (RM134,500)
18.	Experimental Investigation of The Tailing Sand (Pasir Bekas Lombong) from Ex-Tin Mines in Peninsular Malaysia for Use in Making Green Sand Casting Mould	2011-2013	FRGS (RM52,000)
19.	Aluminium Alloy Properties Improvement in Extrusion Process	2010-2012	RUGS (RM150,000)
20.	Development of Combinatorial Optimization for Cutting Tool Strategy	2007-2009	RM70,000
21.	Cutting Tool Path Optimisation Using Evolutionary Algorithm	2007-2009	RM100,000
			RM 1,850,533.00

Awards and Recognitions

No.	Name of award	Title	Award Authority	Award type	Year
	Academic Awards	Best Final Year Project's Student Award	UPM	Best Project	2010
		Excellence Service Awards	UPM	Recognition	2012,2013,2014,2015,2018
		Excellence Teaching Awards	UPM	Recognition	2008, 2009, 2010, 2011, 2012, 2016, 2017, 2018,2019
	Non-Academic Awards	EIMARace Inter-University	UTM	2nd Prize	2009
		National Robot Competition, ROBOCON 2008	Kementerian Pengajian Tinggi Malaysia, Sirim dan Asia Broadcasting Union.	3rd Prize	2008
		Formula Varsity (Inter University Formula Car Race)	UTEM	4th Position	2008