

Personal Information



Faris Tarlochan, PhD.
PEng, CEng (UK), MIEM, FIMechE, MASME

Education

Purdue University, West Lafayette, Indiana, USA

- Bachelor of Science in Mechanical Engineering (December 1998)
 - C.G.P.A = 3.69
 - Dean's List for several semesters
 - Academic Honors for being one of the finest students (University Honors Convocation 1999)
- Master of Science in Biomedical Engineering (May 2001)
 - C.G.P.A = 3.32
 - Dissertation by Full Research with course work
 - Dissertation Title: "Lower Limb Biomechanical Analysis: Development of Load Profile Database"

University Putra Malaysia

- PhD in Mechanical Engineering (2007)
 - Thesis Title: "Design, Fabrication and Evaluation of Composite Sandwich Structures for Crashworthiness"
 - External Examiner of Thesis: Professor S.A. Meguid, University of Toronto, Canada

Professional Experience

2018 – Present	: Director, Qatar Transportation and Traffic Safety Center
2015 – Present	: Professor, Qatar University
2014 – 2018	: Mechanical Engineering Program Coordinator, Qatar University
2013 – 2015	: Associate Professor, Qatar University
2012 – 2013	: Head, Center for Innovation and Design, University Tenaga Nasional
2011 – 2012	: Head, Center for Advance Computational Engineering, University Tenaga Nasional
2007 – 2010	: Head of Design and Manufacturing Academic Unit, University Tenaga Nasional
2009 – 2013	: Associate Professor, Mechanical Engineering, Universiti Tenaga Nasional
2007 – 2009	: Senior Lecturer, Mechanical Engineering, Universiti Tenaga Nasional
2001 – 2007	: Lecturer, Mechanical Engineering, Universiti Tenaga Nasional
1999 – 2000	: Research Assistant, Biomechanics Laboratory Purdue University

1998	: FORD Undergraduate Laboratory Assistantship at Purdue University
1997 – 1998	: Grader for undergraduate courses at Purdue University
Summer 1997	: Summer Undergraduate Internship (SURI) at Purdue University.

Academic and Research Interest

- Design for Crashworthiness, Impact and Blast Mitigation (Impact Mechanics)
- Material Science and Mechanics of Material
- Additive Manufacturing applications
- Applied and Experimental Mechanics
- Computational Mechanics
- Mechanical Design and Product Development
 - Additive Manufacturing in design applications
- Biomedical Engineering: Implants and Medical equipment design, medical diagnostic kits

Awards and Honors

- Research Poster Award, Qatar University, May 2018
- Excellence Award for Academics and Research, College of Engineering, Qatar University, June 2017
- Fellow, Institution of Mechanical Engineers United Kingdom (1st September 2015)
- Chartered Engineer (C. Eng) with the Engineering Council United Kingdom (UK)
- Professional Engineer (P.Eng.) with the Board of Engineers Malaysia
- Gold medal at 17th Industrial Design and Technology Exhibition (ITEX) 2006, Malaysia
- Outstanding Teaching Award in the College of Engineering 2010
- Scholarship by Denmark Technical University (DTU) to attend workshop on Topology Optimization in Denmark, May 2005.
- Academic Recognition by Malaysian Ambassador to USA for achieving a CGP of 4.00 for Spring 1997
- Dean's List : Spring'95, Fall' 95, Spring'96, Fall' 96, Spring'97, Fall' 97, Spring'98, Fall' 98.
- Semester Honors' : Recognition as one of the finest students in Purdue University

Visiting Professor/Scientist Appointments

- Visiting Scholar to Proton Vehicle Engineering Division (Malaysia) – attached to Crash Analysis Team (2008)
 - a. Responsible on providing knowledge on impact mechanics
 - b. Sharing information on cellular materials for energy absorption
 - c. To assist in design for crashworthiness
- Visiting Scholar to In-Situ Maintenance Sdn. Bhd. (2010 – 2013)
 - a. Responsible in evaluating in house mathematical models in designing clamps to arrest leaks
 - b. Verifies clamp designs before put to use.
- Visiting Scholar to GS Express (2012 – 2013)
 - a. Responsible in evaluating in house mathematical models in designing structures for heavy haulage applications.

Editorialship

- Editorial Board Member, Journal of Research on Engineering Structures & Materials, 2018 - present
- Editorial Board Member, International Journal of Mechanical and Materials Engineering, 2018 - present
- Technical Editor Board Member, *Asian Journal of Applied Sciences*, 2012 – 2015
- Technical Editor Board Member, *Asian Journal of Industrial Engineering*, 2012 – 2015
- Technical Editor Board Member, *Asian Journal of Material Science*, 2012 – 2015
- Technical Editor Board Member, *Research Journal of Nanoscience and Nanotechnology*, 2012 – 2015
- Editorial Board Member, *Journal of Applied Mechanical Engineering*, 2011 – 2015
- Editorial Board Member, *Institution Of Engineers Malaysia Journal*, 2011 – 2013
- Editorial Board Member, *Journal Institute of Materials Malaysia*, 2005 – 2008
- Editorial Board Member, *Journal of Energy and Environment*, 2012 – 2013

Teaching

- Teaching Experience : **18 years (since 2001)**
- Courses taught:
 - Undergraduate Level
 - Failure Analysis (2013) – Course Coordinator
 - Statics and Dynamics (2013) – Course Coordinator
 - Capstone Design (2011 – 2013) – Course Coordinator
 - Mechanical Design Process (2007 – 2013) – Course Coordinator
 - Machine Design / Mechanical Design (2007 – ongoing) – Course Coordinator
 - Theory of Machine (2005 – 2007) – Course Coordinator
 - Mechanics of Material (2003 – 2006)
 - Engineering Mechanics (2001 – 2003) - Statics and Dynamics
 - Finite Element Method – elective courses
 - Failure Analysis and Design – elective courses
 - TRIZ – theory of Inventive problem Solving – elective course (2015)
 - Postgraduate Level
 - Mechanics of Composite Material (2010 – 2013)
 - Robust and Reliability in Engineering Design (2012 – 2013)
 - Product Design (2014, 2017)
 - Failure Analysis and Prevention (2018)
- Mechanical Engineering courses designed and developed for Mechanical Engineering Program at:
 - UNITEN
 - Mechanical Design Process – focusing on product design and development
 - Theory of Machines – focusing on linkage synthesis and dynamic analysis of mechanisms
 - Capstone Design – team based open ended problem solving projects for senior students
 - Developed assessment rubrics for individual final year projects
 - Qatar University (for submission to university to be implemented for Fall 2018)
 - Senior Design I
 - Senior Design II
 - Machine Design
 - Engineering Design and Entrepreneurship

- Short Courses Delivered:
 - Finite Element Analysis at Institution of Engineers Malaysia (January 2012)
 - Outcome Based Education and Bloom Taxonomy in preparing exam questions:
 - for National Defense University of Malaysia (December 2011)
 - for Institution of Engineers Malaysia (June 2012)
 - for Taylors University (July 2012)
 - for Asia Pacific University College of Technology and Innovation (July 2012)
 - for Universiti Pahang Malaysia (October 2012)
 - for Universiti Sains Malaysia (November 2012)

Supervision

- Undergraduate Final Year Project / Senior Project:
 - Have supervised **200 over** students (undergraduate)
- Post Graduate Supervision:

Summary				
	As Supervisor		As Co - Supervisor	
	PhD	MSc.	PhD	MSc.
Completed	4	21	1	8
Ongoing	1	0	0	0

Details are given below.

- **As Supervisor** (completed)
 - **PhD:**
 - Anchu Ashok (2019). Development Of Bifunctional Oxygen Electro catalysts Using Solution Combustion Synthesis For Fuel Cell Applications
 - Hamad Mohammad Hasan. *Area of mechanics of Functionally Graded Material* (passed VIVA August 2013)
 - Samer F. Qadir. *Area of Impact and Crashworthiness*. (passed VIVA August 2013)
 - Karam S. Khalid. *Numerical Simulation of car crash for better design of frontal longitudinal members*. (2012)
 - **Masters:**
 - Shehadeh, Al-Sendibad (2019) Evaluation of 316L stainless steel part fabrication using additive and subtractive manufacturing: a guideline for process selection
 - Nouman Nabeel Moh'd. N. Alqwasm (2019). Numerical Analysis Of A Sacrificial Cladding Panel Subjected To Localized Near-Field Impulsive Load
 - Tarek Shaban (2019). Novel Process For Designing Topology Optimized Femoral Stems Printable By Metal Additive Manufacturing
 - Ismail Shehadi (2019): Heat Transfer Enhancement By Novel Aluminum Porous Heat Sinks
 - Sami Emad Al Khatib. *Collapse behavior and energy absorption of corrugated tapered tubes*. (2017)
 - Hon Lai Hoong. Design of Aluminium Tanker for Oil Transportation. (2013)
 - Pooria Khalili. *Parametric study and numerical analysis of thin wall structures under impact loading*. (2013)
 - Mohd. Zaki Ali. *Modeling and parametric study of functionally graded material as coating material subjected to transverse loading*. (2012)

- Jeffrey Kueh. *Static and fatigue characteristics of composite leaf spring*. (2012)
 - Ahmed Ghazi. *Development of composite structure for potential blast mitigation*. (2012)
 - Ali Tailb Shomran. *Numerical study on the impact response of different box corner shapes*. (2012)
 - Alawi Hussain. *Design and analysis of elastic stress due to internal pressure in elbow pipe using finite element method*. (2012)
 - Siti Aishah. *Analysis of an optimized energy absorber subjected to oblique impact*. (2012)
 - Surin Vinoo Perumal. *Design of a novel lightweight frontal crashbox for vehicle crashworthiness application*. (2012)
 - Cheow Ming Luen. *A novel method for developing biocomposite fiber reinforced plastics*. (2012)
 - Zeid Fadel Abdulla. *Investigation on energy absorption of natural and hybrid composite tubes*. (2011)
 - Alogaiel Waleed Nasser S. *Statistical analysis of surface roughness and temperature for aisi 1018 using response surface methodology in dry-turning*. (2011)
 - Zuhair H. Obeid. *Machining parameters of electrical discharge machine for steel 45 din 1652*. (2010)
 - Ahmed Hamood. *Visual Basic Application for AutoCAD*. (2009)
 - Christopher Sen. *Development of economical prediction software for high tension transmission conductor sag to variation of load and atmospheric conditions*. (2008)
 - Shamsuriana S. *Designing a polymer composite sandwich beam for energy absorption: Application to Crashworthiness*. (2007)
- **As Co – Supervisor** (completed)
 - **Masters:**
 - Adeline Khoo. *Development of Bumper system to enhance pedestrian safety* (2014)
 - Hashem Hassan. *An innovative concept to compensate induced voltage drop in axial flux permanent magnet wind turbine generator*. (2012)
 - Kirubaharan Sambasivam. *Optimization of anode usage in electroplating process by using response surface methodology*. (2011).
 - Azri Zainol Rashid. *Thermal fatigue analysis on cracked plenum barrier plate of open cycle gas turbine frame*. (2010)
 - Azlan Abdul Rahim. *Development of dynamic thermal current rating system for overhead transmission line using weather monitoring and line clearance measurement method*. (2010)
 - Noor Fairuz. *Study on the mechanical strength of the bulk Bi-2212 superconductors and the dip coated superconductor tapes with nanosize MgO addition*. (2010)
 - Aws Abid Ali. *Evaluation of stress intensity factors of semi-elliptical surface cracks in compound tubes*. (2009)
 - Sany Shahrman. *An experimental analysis of powder metal under compressive loading*. (2007)
 - **As Co - Supervisor**
 - **PhD:**
 - Hatam Mahmood. *Area of Impact and Crashworthiness* (2011-2015)

Research and Consultancy (As Principal Investigator: LPI)

1. Research and Training Collaboration Activities with TechnoLab
 - a. Sponsor: Technolab
 - b. PIC: **Prof. Dr. Faris Tarlochan** (coordinator)
 - c. Grant Amount: QAR 250,000
 - d. Duration: 2 years (2019-2020)

2. Prototype Development of Locking Mechanism in Syringes to Enhance Safety
 - a. Sponsor: Qatar German Medical Devices
 - b. Lead Researcher: **Prof. Dr. Faris Tarlochan (LPI)**
 - c. Grant Amount: QAR 156, 000
 - d. Researcher: Prof. Dr. Faris Tarlochan
 - e. Duration: 2018 – 2019 (ongoing)

3. Direct Metal Laser Sintering Technology for the Manufacture of Fully Porous Functionally Graded Titanium Alloy Femoral Stems
 - a. Sponsor: NPRP8-876-2-375 (QNRF)
 - b. Lead Researcher: **Prof. Dr. Faris Tarlochan (LPI)**
 - c. Grant Amount: \$ 713,000
 - d. Researcher: Dr. Kang (Rutgers), Dr. Kumaran(Malaysia), Dr. Mohammed (Qatar)
 - e. Duration: 2016 – 2019 (ongoing)

4. Design and Fabrication of Novel Metal Cellular Material from Additive Manufacturing
 - a. Sponsor: UREP 17-151-2-044 (QNRF)
 - b. Lead Researcher: **Prof. Dr. Faris Tarlochan (LPI)**
 - c. Grant Amount: \$ 28,800
 - d. Researcher: Undergraduate students
 - e. Duration: 2015 – 2016 (completed)

5. Blindness In Eastern Arabia: An Engineering Solution
 - a. Sponsor: NPRP 5-457-2-181 (QNRF)
 - b. Lead Researcher: **Assoc. Prof. Ir. Dr. Faris Tarlochan (Co-LPI)**
 - c. Grant Amount: \$1,039,176
 - d. Researcher: Dr. John Troy (LPI)
 - e. Duration: 2013 - 2016 (completed)

6. Study on Pedestrian Safety Enhancement in Qatar
 - a. Sponsor: UREP 16 - 075 - 2 - 020 (QNRF)
 - b. Lead Researcher: **Prof. Dr. Faris Tarlochan (LPI)**
 - c. Grant Amount: \$ 42,000
 - d. Researcher: Undergraduate students
 - e. Duration: 2014 - 2015 (completed)

7. A Novel Frontal Car Design Concept To Mitigate Pedestrian Casualties And To Improve Crashworthiness
 - a. Sponsor: Ministry of Science, Technology and Innovation (MOSTI) – EScience
 - b. Lead Researcher: **Assoc. Prof. Ir. Dr. Faris Tarlochan**
 - c. Grant Amount: RM 219,000
 - d. Researcher: Prof. Dr. Hazizan (USM)
 - e. Duration: 2 years (completed)

8. An exploratory Study on Multi Function Heterogeneous Composite Material with Application to Thermal and Load bearing
 - a. Sponsor: Ministry of Higher Education (MOHE) – ERGS
 - b. Lead Researcher: **Assoc. Prof. Ir. Dr. Faris Tarlochan**
 - c. Grant Amount: RM 50,000
 - d. Researcher: Dr. Mujibur Rahman
 - e. Duration: 2 years (completed)

9. Nonlocal Continuum Mechanics Mathematical Model for Functionally Graded Material Nanostructures
 - a. Sponsor: Ministry of Higher Education (MOHE) – FRGS
 - b. Lead Researcher: **Assoc. Prof. Ir. Dr. Faris Tarlochan**
 - c. Grant Amount: RM 41,000
 - d. Researcher: Dr. Mujibur Rahman
 - e. Duration: 2 years (completed)

10. Energy Absorption in Polymer Composite Materials for Crashworthiness Application: FEM and Experimental Verification.
 - a. Sponsor: Ministry of Science, Technology and Innovation (MOSTI) – IRPA RM8
 - b. Lead Researcher: **Assoc. Prof. Ir. Dr. Faris Tarlochan**
 - c. Grant Amount: RM 199,000
 - d. Researcher: Fazril Ideris, Assoc. Prof Dr. Mujibur
 - e. Duration: 2 years (completed)

11. Enhancement of Car Crashworthiness Subject to an Impact with a Heavy Vehicle
 - a. Sponsor: Ministry of Science, Technology and Innovation (MOSTI) – EScience RM9
 - b. Lead Researcher: **Assoc. Prof. Ir. Dr. Faris Tarlochan**
 - c. Grant Amount: RM 252,000
 - d. Researcher: Dr. Shahida Begum, Assoc. Prof Dr. Mujibur
 - e. Duration: 2 years (completed)

12. Lab Scale Development of Green Composites From Plant Based Oil and Natural Fibers
 - a. Sponsor: Ministry of Higher Education (MOHE) – FRGS RM9
 - b. Lead Researcher: **Assoc. Prof. Ir. Dr. Faris Tarlochan**
 - c. Grant Amount: RM 24,000
 - d. Researcher: Dr. Saifuddin Normanbay
 - e. Duration: 2 years (completed)

13. The Application of Dynamic Thermal Rating Technology in TNB Transmission Lines (*consultancy*)
 - a. Client: Tenaga Nasional Berhad Research
 - b. Lead Consultant: **Dr. Faris Tarlochan**
 - c. Grant Amount: **RM 50,000**
 - d. Researcher: Assoc. Prof Dr. Mujibur, Sivadass
 - e. Duration: 12 months (completed)

14. Literature Review for Selected Technologies in the Power Engineering Industry (*consultancy*)
 - a. Client: Tenaga Nasional Berhad Research
 - b. Lead Consultant: **Dr. Faris Tarlochan**
 - c. Grant Amount: **RM 99,700**
 - d. Researcher: Dr. Hariffin Boosroh, Dr. Miszaina
 - e. Duration: 3 months (completed)

15. IEEE Standard for Calculating Current Temperature Algorithm Development for Local Environment (*consultancy*)
 - a. Client: Tenaga Nasional Berhad Research
 - b. Lead Consultant: **Dr. Faris Tarlochan**
 - c. Grant Amount: **RM 112,000**
 - d. Researcher: NIL
 - e. Duration: 10 months (completed)

16. FEA of Stress Distribution on Bogie with Two Different Load Wheel Strength (*consultancy*)
 - a. Client: KL Monorail Sdn. Bhd
 - b. Lead Consultant: **Dr. Faris Tarlochan**
 - c. Grant Amount: **RM 28,000**
 - d. Researcher: Assoc. Prof Dr. Mujibur, Dr. Hanim
 - e. Duration: 3 months (completed)

17. Mathematical, Finite Element Verification of Leak Sealing Clamp Design and Development of Leak Clamp Design Software (*consultancy*)

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|----|------------------|------------------------------|
| a. | Client: | In Situ Maintenance Sdn. Bhd |
| b. | Lead Consultant: | Dr. Faris Tarlochan |
| c. | Grant Amount: | <u>RM 25,000</u> |
| d. | Researcher: | NIL |
| e. | Duration: | 6 months (completed) |
18. Analysis of heat transfer in bend pipe (*consultancy*)
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|----|------------------|----------------------------|
| a. | Client: | Bredero Shaw Bhd. |
| b. | Lead Consultant: | Dr. Faris Tarlochan |
| c. | Grant Amount: | <u>RM 12,000</u> |
| d. | Researcher: | NIL |
| e. | Duration: | 1 month (completed) |
19. Analysis of beam structure for heavy haulage applications (*consultancy*)
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|----|------------------|----------------------------|
| a. | Client: | GS Express Sdn. Bhd. |
| b. | Lead Consultant: | Dr. Faris Tarlochan |
| c. | Grant Amount: | <u>RM 12,000</u> |
| d. | Researcher: | NIL |
| e. | Duration: | 1 month (completed) |

Student Grants, Research and Consultancy (As Co Investigator)

1. Senior projects student grants

a.	Sponsor:	BOEING
b.	Amount:	USD 100,000
c.	Duration:	2017-2018
d.	Project Leader:	Prof. Ir. Dr. Faris Tarlochan

2. Computationally Optimized Fuel Efficient Concept Car (subtitle: Robust Design Of Automotive Component Using Optimization Analysis In Nonlinear Domain)

a.	Sponsor:	Ministry of Science, Technology and Innovation (MOSTI) – Technofund
b.	Lead Researcher:	Prof. Ir. Dr. Shahrir Abdullah
c.	Grant Amount:	<u>RM 5 million</u>
d.	Researcher:	Prof. Ir. Dr. Faris Tarlochan with many other local researchers
e.	Duration:	1 month 2 years (completed)

3. Modeling and Simulation of Resin Transfer Molding Process

a.	Sponsor:	Ministry of Science, Technology and Innovation (MOSTI) – EScience RM9
b.	Lead Researcher:	Dr. Ahmad Kamal
c.	Grant Amount:	RM 80,000
d.	Researcher:	Dr. Faris Tarlochan
e.	Duration:	2 years (completed)

4. Experimental and Numerical Analysis of Porous Materials under Loading

a.	Sponsor:	Ministry of Science, Technology and Innovation (MOSTI) – IRPA RM8
b.	Lead Researcher:	Assoc. Prof. Dr. Md Mujibur Rahman
c.	Grant Amount:	RM 166,900
d.	Researcher:	Dr. Faris Tarlochan
e.	Duration:	2 years (completed)

5. Microwave Processing of Hydroxyapatite Ceramic for Load- Bearing Medical Implant

a.	Sponsor:	Ministry of Science, Technology and Innovation (MOSTI) – IRPA RM8
b.	Lead Researcher:	Assoc. Prof. Dr. Ramesh Singh
c.	Grant Amount:	RM 350,000
d.	Researcher:	Dr. Faris Tarlochan
e.	Duration:	2 years (completed)

Publications (Journals / Conferences / Books)

A. Refereed Journals:

1. S.B.Dhuban, S.Ramesh, C.Y.Tan, Y.H.Wong, U.Johnson, Alengaram, S.Ramesh, W.D.Teng, **F.Tarlochan**, U.Sutharsin. Sintering behaviour and properties of manganese-doped alumina. *Ceramics International* (article in press) (2019). (*ISI Indexed, IF =3.057*)
2. AA Dastjerdi, H Shahsavari, A Eyvazian, **F Tarlochan**. Crushing analysis and multi-objective optimization of different length bi-thin walled cylindrical structures under axial impact loading. *Engineering Optimization*, 2019 (published online) (*ISI Indexed, IF =1.622*)
3. A Ashok, A Kumar, RR Bhosale, F Almomani, MAHS Saad, S Suslov, **F. Tarlochan**. Influence of fuel ratio on the performance of combustion synthesized bifunctional cobalt oxide catalysts for fuel cell application. *International Journal of Hydrogen Energy* 44(1),436-445 (2019) (*ISI Indexed, IF=4.229*)
4. S.T.Auwal, S. Ramesh, Zequn Zhang, Jing Liu, Cai Wang Tan, S.M.Manladan, F.Yusof, F.Tarlochan. Influence of electrodeposited Cu-Ni layer on interfacial reaction and mechanical properties of laser welded-brazed Mg/Ti lap joints. *Journal of Manufacturing Processes* 37, 251-265 (2019) (*ISI Indexed, IF = 2.809*)
5. S Ramesh, KY Sara Lee, CY Tan, YH Wong, U Johnson Alengaram, **F Tarlochan**, WD Teng, U Sutharsini, Ahmed AD Sarhan. Effect of microwave sintering on the properties of copper oxide doped Y-TZP ceramics. *Ceramics International* 44 (16), 19639-19645 (2018) (*ISI Indexed, IF =3.057*)
6. **F Tarlochan**, H Mehboob, A Mehboob, SH Chang. Biomechanical design of a composite femoral prosthesis to investigate the effects of stiffness, coating length, and interference press fit. *Composite Structures*. Volume 204, 15 November 2018, Pages 803-813. (*ISI Indexed, IF =4.101*) – *Senior Author*
7. Anchu Ashok, Anand Kumar, **Faris Tarlochan**. Surface Alloying in Silver-Cobalt through a Second Wave Solution Combustion Synthesis Technique. *Nanomaterials* (8), 8, pg 604 (2018) (*ISI Indexed, IF = 3.504*)
8. Sadok Sassi, Abdelmonaam Sassi, Khaled Cherif, **Faris Tarlochan**. Magnetorheological damper with external excitation for more efficient control of vehicles' dynamics. *Journal of Intelligent Material Systems and Structures* 29(14),2919-2932 (2018) (*ISI Indexed, IF = 2.211*)
9. H Mehboob, **F Tarlochan**, A Mehboob, SH Chang. Finite element modelling and characterization of 3D cellular microstructures for the design of a cementless biomimetic porous hip stem. *Materials & Design*, Volume 149, 101-112 (2018) (*ISI Indexed, IF = 4.525*) – *Senior Author*
10. K.Kadirgama, W.S.W. Harun, **F.Tarlochan**. Samykano D. Ramasamy, Mohd Zaidi Azir, H.Mehboob. Statistical and optimize of lattice structures with selective laser melting (SLM) of Ti6AL4V material. *International Journal of Advanced Manufacturing Technology*, 97 (1–4), 495–510 (2018). (*ISI Indexed, IF = 2.601*)
11. S Ramesh, ZZ Loo, CY Tan, WJK Chew, YC Ching, **F Tarlochan**. Characterization of biogenic hydroxyapatite derived from animal bones for biomedical applications. *Ceramics International*, *Ceramics International* 44 (9), 10525-10530 (2018) (*ISI Indexed, IF = 3.057*)
12. S Ramesh, N Zulkifli, CY Tan, YH Wong, **F Tarlochan**, WD Teng, I Sopyan. Comparison between microwave and conventional sintering on the properties and microstructural evolution of tetragonal zirconia. *Ceramics International* 44(8), 8922-8927 (2018) (*ISI Indexed, IF = 3.057*)

13. SE Alkhatib, **F Tarlochan**, A Hashem, S Sassi. Collapse behavior of thin-walled corrugated tapered tubes under oblique impact. *Thin-Walled Structures* 122, 510-528 (2018) (*ISI Indexed, IF = 2.881*) – **Senior Author**
14. M Asnida, S Hisham, NW Awang, AK Amiruddin, MM Noor, K Kadirgama, **Faris Tarlochan**. Copper (II) oxide nanoparticles as additive in engine oil to increase the durability of piston-liner contact. *Fuel* 212, 656-667 (2018) (*ISI Indexed, IF = 4.601*)
15. A Ashok, A Kumar, RR Bhosale, F Almomani, SS Malik, S Suslov, **Faris Tarlochan**. Combustion synthesis of bifunctional LaMO₃ (M= Cr, Mn, Fe, Co, Ni) perovskites for oxygen reduction and oxygen evolution reaction in alkaline media. *Journal of Electroanalytical Chemistry*. 809, 22-30 (2018) (*ISI Indexed, IF = 3.012*)
16. **Faris Tarlochan**, Hassan Mehboob, Ali Mehboob, Seung-Hwan Chang. Influence of functionally graded pores on bone ingrowth in cementless hip prosthesis: a finite element study using mechano-regulatory algorithm. *Biomechanics and Modeling in Mechanobiology* 17 (3), 701-716 (2018) (*ISI Indexed, IF = 3.323*)- **Senior Author**
17. Arameh Eyvazian, Hozhabr Mozafari, **Faris Tarlochan**, Abdel Magid S Hamouda. Numerical and Experimental Investigation on Corrugation Geometry for Metallic Tubes under Lateral Loading. *Materials Science Forum*, 916, 226-231 (2018)
18. A Ashok, A Kumar, MA Matin, **F Tarlochan**. Synthesis of Highly Efficient Bifunctional Ag/Co₃O₄ Catalyst for Oxygen Reduction and Oxygen Evolution Reactions in Alkaline Medium. *ACS Omega*, 3 (7), 7745-7756 (2018)
19. Sami E. Alkhatib, **Faris Tarlochan**. Collapse behavior of thin-walled corrugated tapered tubes. *Engineering Structures* 150 (1), 674–692, (2017) (*ISI Indexed, IF = 2.021*)- **Senior Author**
20. K. Ramachandran, K. Kadirgama, D. Ramasamy, W.H. Azmi, **F. Tarlochan**. Investigation on effective thermal conductivity and relative viscosity of cellulose nanocrystal as a nanofluidic thermal transport through a combined experimental – Statistical approach by using Response Surface Methodology. *Applied Thermal Engineering*, 122(25), 473-483 (2017) (*ISI Indexed, IF = 3.444*)
21. Ali Mehboob, Hassan Mehboob, Jinha Kim, Seung-Hwan Chang, **Faris Tarlochan**. Influence of initial biomechanical environment provided by fibrous composite intramedullary nails on bone fracture healing. *Composite Structures*, 175(1), 123-134 (2017) (*ISI Indexed, IF = 4.101*)
22. K. Ramachandran, A.M. Hussein, K. Kadirgama, D. Ramasamy, W.H. Azmi, **F. Tarlochan**, G. Kadirgama. Thermophysical properties measurement of nano cellulose in ethylene glycol/water. *Applied Thermal Engineering*, 123, 1158-1165 (2017) (*ISI Indexed, IF = 3.444*)
23. A Ashok, A Kumar, R Bhosale, MAS Saad, F AlMomani, **F Tarlochan**. Study of ethanol dehydrogenation reaction mechanism for hydrogen production on combustion synthesized cobalt catalyst. *International Journal of Hydrogen Energy*, 42 (37), 23464-23473 (2017) (*ISI Indexed, IF = 4.229*)
24. RIM Asri, WSW Harun, M Samykano, NAC Lah, SAC Ghani, **F Tarlochan**. Corrosion and surface modification on biocompatible metals: A review. *Materials Science and Engineering: C*, 77(1), 1261-1274 (2017) (*ISI Indexed, IF = 5.08*)
25. A Mehboob, H Mehboob, SH Chang, **F Tarlochan**. Effect of composite intramedullary nails (IM) on healing of long bone fractures by means of reamed and unreamed methods. *Composite Structures* 167, 76-87 (*ISI Indexed, IF = 4.101*)
26. Anchu Ashok, Anand Kumar, Rahul R Bhosale, Mohd Ali H Saleh, Ujjal Kumar Ghosh, Mohammed Al-Marri, Fares A Almomani, Mahmoud M Khader, **Faris Tarlochan**. Cobalt oxide nanopowder synthesis using cellulose assisted combustion technique. *Ceramics International*. 42 (11), 12771-12777, 2016. (*ISI Indexed, IF = 3.057*)

27. Hieu Nguyen, Siva Tangutooru, Corey Rountree, Andrew Kantzos, **Faris Tarlochan**, Jong Yoon, John Troy. Thalamic visual prosthesis. *IEEE Trans Biomed Eng.* 63(8):1573-80, 2016. (*ISI Indexed, IF = 4.288*)
28. Hatam Samaka, Abreeza Manap, **Faris Tarlochan**, Raja Feninferina Raja Azman, Nabilah Ibrahim. Finite Element Modelling of Car Hood Panel for Pedestrian Protection during Impact. *International Journal of Integrated Engineering.* 8 (1), 2016.
29. Anand Kumar, Anchu AshokRahul R. BhosaleMohd Ali H. SalehFares A. Almomani, Mohammed Al-Marri Mahmoud M. Khader, **Faris Tarlochan**. In situ DRIFTS Studies on Cu, Ni and CuNi catalysts for Ethanol Decomposition Reaction. *Catalysis Letters*, 146(4), 2016. (*ISI Indexed, IF = 2.799*)
30. AMS Hamouda, **F Tarlochan**. A learning factory: Enhancing societal needs awareness and innovation through manufacturing class. *Engineering Education Letters*, 7, 2015.
31. AMS Hamouda, **F Tarlochan**. Engaging Engineering Students in Active Learning and Critical Thinking through Class Debates. *Procedia-Social and Behavioral Sciences* 191, 990-995, 2015.
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B. Conference/ Proceeding Papers:

1. **Faris Tarlochan**, Hassan Mehboob. 2019 IEEE 10th International Conference on Mechanical and Intelligent Manufacturing Technologies (ICMIMT 2019) Cape Town, South Africa, 15-17 February 2019.
2. Hassan Mehboob, **Faris Tarlochan**, Ali Mehboob, Seung Hwan Chang. Finite Element Analysis of Pores Design and Tissue Differentiation in Cementless Hip Prosthesis. 6th European Conference on Computational Mechanics (ECCM 6).11 – 15 June 2018, Glasgow, UK
3. Anchu Ashok, Anand Kumar, Rahul Bhosale, Fares Almomani, **Faris Tarlochan**. Shape controlled three dimensional flower shaped copper nanostructure and its catalytic activity. 11th International conference on Advanced Nanomaterials 2018, University of Aveiro, Portugal.

4. Anchu Ashok, Anand Kumar, Rahul Bhosale, Fares Almomani, **Faris Tarlochan**. Single step solution combustion synthesis of NiCo₂O₄ catalyst for ethanol decomposition. 11th International conference on Advanced Nanomaterials 2018, University of Aveiro, Portugal.
5. Anchu Ashok, Anand Kumar, Rahul Bhosale, Fares Almomani, **Faris Tarlochan**. Highly active and stable bifunctional NiCo₂O₄ catalyst for Oxygen reduction and Oxygen evolution reaction in alkaline medium. 11th International conference on Advanced Nanomaterials 2018, University of Aveiro, Portugal.
6. **Faris Tarlochan**, Hassan Mehboob. A Need For Functionally Graded Stiffness Femoral Stem For Reduction In Stress Shielding And Promoting Bone Growth: Computational Analysis. Proceedings of the ASME 2017 International Mechanical Engineering Congress and Exposition, IMECE2017, November 3-9, 2017, Tampa, Florida, USA
7. A Toudehdeghan, MM Rahman, **F Tarlochan**. Mechanical and Thermal Analysis of Classical Functionally Graded Coated Beam, E3S Web of Conferences 34, 01033 (2018)
8. **Faris Tarlochan**, Sami Al-Khatib. Energy Absorption Capabilities of Complex Thin Walled Structures, International Conference on Mechanical Engineering Research 1- 2 August 2017, Malaysia
9. Anchu Ashok, Anand Kumar, **Faris Tarlochan**. Synthesis and Characterization of Copper-Cobalt Oxide for Ethanol Decomposition. 8th International Conference on Advanced Nanomaterials 2016, University of Surrey, UK.
10. "In situ FTIR study of ethanol decomposition over cobalt oxide nanoparticle for the hydrogen generation." Anand Kumar, Anchu Ashok, **Faris Tarlochan**, 16th AIChE Annual meeting 2016, USA.
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14. "Synthesis of cobalt catalysts using combustion synthesis for hydrogen production". Anchu Ashok, Anand Kumar, **Faris Tarlochan**. QARC, 2016, Qatar University, Qatar.
15. "Hydrogen production via ethanol decomposition over Cu-Co based catalyst." Anchu Ashok, Anand Kumar, Rahul Bhosale, Fares Almomani, **Faris Tarlochan**. QUARF, 2016, Qatar University, Qatar.
16. Ali Hassan Ali Abd Elaal, **Faris Tarlochan**. Numerical Simulation of a Novel Expanded Metal Tubular Structure for Crashworthiness Application. International Conference in Mechanical Engineering Research (ICMER 2015), 18-19 August 2015, Malaysia. (Best Paper Award)
17. **Faris Tarlochan**, Siva Mahesh Tangutooru. Review On Finite Element Material Modelling Of Brain Tissue For Surgical Simulation. International Conference in Mechanical Engineering Research (ICMER 2015), 18-19 August 2015, Malaysia.
18. A. Hamouda, **F. Tarlochan**. A New Teaching Pedagogy to Enhance Societal Needs, Sustainability, Innovation and Entrepreneurial Skills. EESD'15: The Seventh International Conference on Engineering Education for Sustainable Development, Vancouver, Jun 9-12, 2015.

19. Balamuralithara Balakrishnan, **Faris Tarlochan**. Engineering Students' Attitude towards Engineering Ethics Education. 2015 IEEE Global Engineering Education Conference (EDUCON), 18-20 March 2015, Tallinn University of Technology, Tallinn, Estonia
20. Faris Tarlochan, A.M.S. Hamouda. Design of Laboratories for Inquiry Learning in Engineering Education. 7th International Conferences on University Learning and Teaching, December 2 -3 2014 Malaysia.
21. Pooria Khalili, **Faris Tarlochan**, A.M.S. Hamouda , Khalifa Al – Khalifa. Energy Absorption Capability of Thin-Walled Aluminum Tubes under Crash Loading for Crashworthiness Application. International Conference on Automotive Innovation and Green Energy Vehicle (AiGEV 2014), 26 – 27 August, 2014, Malaysia.
22. Abdel Magid Hamouda, **Faris Tarlochan**. Engaging Engineering Students in Active Learning and Critical Thinking through Class Debates. World Conference on Educational Sciences 04 – 06 Feb 2014, Malta.
23. **Faris Tarlochan**, S.V. Perumal, Khalifa Al-Khalifa, Abdel Magid Hamouda., A novel design of lightweight aluminium tubular crash-box for crashworthiness application. International Conference on Advances in Mechanical and Robotics Engineering, March 2014, Malaysia.
24. Siti Aishah Rusdana, **Faris Tarlochan**, Mohamad Rusydi Mohamad Yasina. Modeling and optimization of tapered rectangular thin-walled columns subjected to oblique loading for impact energy absorption. Proceedings of Malaysian Technical Universities Conference on Engineering & Technology (MUCET) 3-4 December 2013 , Malaysia.
25. Khalid, K.S., **Tarlochan, F.**, Al-Qrimli, H.F. Concept selection of a new longitudinal member design with developed Bi-metallic model. AES-ATEMA International Conference Series - Advances and Trends in Engineering Materials and their Applications, Canada 2012 pp. 125-134. **SCOPUS Indexed**
26. Wan Mansor Wan Muhamad, Endra Sujatmika, Hisham Hamid, and **Faris Tarlochan**. "Modeling, Simulation and Optimization Analysis on Steering Knuckle Component For Purpose of Weight Reduction", International Conference on Modeling, Simulation and Visualization Methods (MSV'11: July 18-21, 2011, USA).
27. M.M. Rahman, S. S. M. Nor, **F. Tarlochan**, H. Y Rahman "Investigation on the Effect of Lubrication to the Mechanical Properties of Green Compacts Formed through Warm Compaction Route", 3rd World Engineering Congress 2010, Kuching Malaysia, August 2010.
28. M.M. Rahman, **F. Tarlochan**, S. Ramesh, A.K. Ariffin, S. S. M. Nor, "Numerical Simulation and Experimentation of Warm Metal Powder Compaction Process", 8th International Conference on Fracture and Strength of Solids (FEOFS 2010), Malaysia, June 2010.
29. M.M. Rahman, **F. Tarlochan**, S. Ramesh, A.K. Ariffin, S. S. M. Nor "A Model for the Simulation of Powder Compaction Process at Elevated Temperature" IV European Conference on Computational Mechanics, May 2010, Paris, France
30. N.A. Hamid*, N.F. Shamsudin, K.M. Chin and **F. Tarlochan**, "Mechanical Behavior and Superconducting Properties of Nanosize MgO Added Dip-Coated Bi2Sr2CaCu208 Superconducting Tape", Regional Conference on Solid State Science and Technology 2009 (RCSST2009).
31. A.A. Rahim, M. Izham, **F. Tarlochan**, "Thermal Rating Monitoring of the TNB Overhead Transmission Line using Line Ground Clearance Measurement and Weather Monitoring Technique", The 4th International Power Engineering and Optimization Conference (PEOCO2010), 2010 Kuala Lumpur.
32. **F. Tarlochan**, "Design Optimization Of Bi-Tubular Thin Walled Columns For Crashworthiness Application", 8th International on Fracture and Strength of Solids (FEOFS 2010), June 2010 Kuala Lumpur

33. **F. Tarlochan**, "Understanding the Failure Mechanism of Composite Sandwich Structure for Crashworthiness Application", IV European Conference on Computational Mechanics, May 2010, Paris, France
34. S.S.M. Nor, M.M Rahman, **F. Tarlochan**, A.K Ariffin, "The Effect Of Lubricant In Reducing Net Friction In Warm Powder Compaction Process", SCORED 2005, Universiti Tenaga Nasional.Malaysia.
35. **F. Tarlochan**, M.Hafiz. "Product Design Methodology 101: Educating Undergraduate Engineers", International Engineering Education Conference IEEEC2009, Madinah, Saudi Arabia 2009.
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39. **F. Tarlochan**, A. F. Dzulkarnain. "Sustainability Design: Reduction of Vehicle Mass without Compromising Crashworthiness". International Conference on Energy and Environment, December 2009, Malacca, Malaysia.
40. **F. Tarlochan**, A.M.S Hamouda, B.B. Sahari, E. Mahdi, "Development of a Composite Sandwich Structure for High Specific Energy Absorption Applications. 2nd International Engineering Convention, Jeddah, Saudi Arabia, March 2007.
41. **F. Tarlochan**. "Integration of Open ended projects in Mechanical Engineering Curriculum." 3rd Engineering World Congress (WEC 2007), Penang, August 2007.
42. **F. Tarlochan**, A.M.S Hamouda, B.B. Sahari, E. Mahdi, " Practices For Numerical Modeling Of Composite Material For Impact And Crash", *International Conference On Composite Material And Nano Structures* (Ic2ms'06), April 2006
43. **F. Tarlochan** , A.M.S Hamouda, B.B. Sahari, E. Mahdi, "A Novel Design Of A Composite Structure For Crashworthiness Application", *International Conference On Composite Material And Nano Structures* (Ic2ms'06), April 2006
44. **F. Tarlochan**, Shamsurianna R., Haniff B., "Designing Composite Sandwich Beams For Energy Absorption Due To Collision Impact: Computational Analysis", *International Material Technology Conference & Exhibition 2006*, July 2006
45. **F. Tarlochan**, A.M.S Hamouda, B.B. Sahari, E. Mahdi "Compression of Composite Sandwich Panels: The Effect of Cross Section Geometries", *International Material Technology Conference & Exhibition 2006*, July 2006.
46. M.M. Rahman, **F. Tarlochan**, S. Ramesh, A.K. Ariffin, S.S.M. Nor, M.R. Jamli, "Production Of Near – Net Shape Metal Powder Compact Through Warm Compaction Route – An Experimental Investigation", *Proceedings Of The International Conference On Recent Advances In Mechanical And Materials Engineering* (Icramme 05), 30 – 31 May 2005, Kuala Lumpur.

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48. **F. Tarlochan**, A.M.S. Hamouda, E. Mahdi, B.S. Sahari, "On the Compression Behavior of Thin Walled Polymer Composite Sandwich Panels", *3rd International Conference on Structural Stability and Dynamics*, June 19 –22 2005, Florida, USA.
49. **F. Tarlochan**, L. Sidek, Z. Hussein, W.H. Way, " A Comprehensive Outcome Assessment Based Final Year Projects For Undergraduate Engineering Programs At Univerisiti Tenaga Nasional", *Proceedings Of The 2005 Regional Conference On Engineering Education*, December 2005, Malaysia.
50. M.M Rahman, **F. Tarlochan**, A.K Ariffin, S.S.M. Nor, "Establishment of Metal Powder Properties through Warm Compaction Experiment", National Seminar on Computational and Experimental Mechanics (CEM) 2005, KL.
51. M.M Rahman, **F. Tarlochan**, A.K Ariffin, S.S.M. Nor, "A Phenomenological Model of Warm Metal Powder Compaction", National Seminar on Computational and Experimental Mechanics (CEM) 2005, KL.
52. **F. Tarlochan**, A.M.S Hamouda, B.B. Sahari, E. Mahdi, " Edgewise Compression Of Composite Sandwich Panels: Effect Of Core Hybridization" *International Advanced Technology Congress 2005*, December 2005, Malaysia
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54. M.M Rahman, **F. Tarlochan**, A.K Ariffin, S.S.M. Nor, "A Phenomenological Model Of Warm Metal Powder Compaction", National Seminar On Computational And Experimental Mechanics (CEM) 2005, KL.
55. **Faris Tarlochan**, Wan Mazlina " Stiffness Behavior Of Composite Laminate Using Two Different Hand Lay Up Method: A Qualitative Study", *4th International Materials Technology Conference & Exhibition*, 23 – 25 March 2004, Kuala Lumpur
56. **Faris Tarlochan**, "A Heat Transfer Model for Cold Water Survival", *International Conference Of Biomedical Engineering*, 2 – 4 September 2004, Kuala Lumpur.
57. **Faris Tarlochan**, " The Effect Of Temperature On The Tensile Strength Of Composite Laminates After Low Velocity Impact", National Postgraduate Colloquium 2004 (NAPCOL 2004), 8 – 9 December 2004
58. S.S.M. Nor, M.M Rahman, **F. Tarlochan**, A.K Ariffin, "Near – Net Component Manufacturing Through Warm Compaction Route – An Experimental Investigation", Techpost 2004, Universiti Malays, December 2004.
59. **F. Tarlochan**, W. Mazlina, J. Rasidi, "Tensile Strength Behavior of Composite Laminate Using Two Different Hand Lay Up Method", Malaysia Science and Technology Congress 2003 (MSTC 2003), KL 2003
60. **Faris Tarlochan**, Wan Mazlina " Tensile Strength Behavior Of Composite Laminate Using Two Different Hand Lay Up Method", Malaysian Science And Technology Congress 2003, 23 – 25 September 2003, Kuala Lumpur
61. **F. Tarlochan**, B.M. Hillberry, " Biomechanical Analysis Of The Ankle Joint", *International Conference On Biomedical Engineering Biomed2002*, Kuala Lumpur, June 6 – 8 2002
62. **F. Tarlochan**, B.M Hillberry, "Three Cylinder Robot Application To Biomechanics: Application To The Hip Joint", *2nd World Engineering Congress*, Kuching 22 – 25 July 2002.

63. M.M El Awad, M.J.N. Boyce, **F. Tarlochan**, "Gauss Quadrature Vs. Analytical Integration For Finite Element CFD Codes" *International Conference On Scientific And Engineering Computation*, Singapore, 3-5 December 2002.

C. Books/ Modules/Chapters

1. **Strength of Materials** for Open University Malaysia, 2006 (long distance and adult learners)
2. **Dynamics** for Open University Malaysia, 2007 (long distance and adult learners)
3. **Material Science** for Open University Malaysia, 2008 (long distance and adult learners)
4. **Engineering Science** for Open University Malaysia, 2009 (long distance and adult learners)
5. **Mechanical Design Process** for Universiti Tenaga Nasional, 2012 (in house usage for Capstone and Junior Design class)
6. **Faris Tarlochan**, Abdel Magid Hamouda. A Framework for Developing Innovative Problem-Solving and Creativity Skills for Engineering Undergraduates. *Advances in Engineering Education in the Middle East and North Africa* pp 161-186

Professional Bodies Affiliation

- Member of Institution of Mechanical Engineers UK (IMechE)
- Institution of Mechanical Engineers UK (Malaysia Branch)
 - a. Chairman (2012 – 2013)
- Member of American Society of Mechanical Engineers (ASME)
- Member of Institution of Engineers Malaysia (IEM)
 - a. Chairman, Engineering Education Technical Division (2012 – 2013)
 - b. Committee member on IEM Membership Approval Board (2010- 2013)
 - c. Comm. Member Engineering Education Technical Division (since 2004 - 2009)
 - d. Hon. Secretary / Treasurer Engineering Education Technical Division (2009 – 2010)
 - e. Deputy Chairman Engineering Education Technical Division (2010 - 2012)
 - f. Comm. Member Engineering Students Career and Recruitment Technical Division (2004/2005)
 - g. Committee Member for Sub. Committee for Journal Publication (2010 – 2013)
- The International Association of Science and Technology for Development (IASTED)
 - a. Technical Committee Member (2003 - 2006)
- Institute of Materials Malaysia (IMM) – Ordinary Member

Professional Recognition

- Chairman Scientific Committee for International Traffic Safety Conference, Qatar 2018
- International Committee: 3rd International Conference on Mechanical, System and Control Engineering (ICMSC 2019) St. Petersburg, Russia June 21st-23rd, 2019.
- Organizing Committee: 8th Global Conference on Global Warming (April 22 – 25, 2019, Doha, Qatar)
- International Scientific Committee: Mechanical Engineering Multi-Conference 2019 Malaysia (August 21 -22, 2009)
- Review Committee: 6th Asia Conference on Mechanical and Materials Engineering (ACMME 2018) Seoul, South Korea during June 15-18, 2018.

- Referee for Professor Hiring University Technology Brunei (2018)
- Engineering Program Assessor/Examiner:
 - a. External Examiner to the Bachelors in Mechanical Engineering Programme at National Defense University of Malaysia.
 - i. To review and comment on Programme Goal, Programme Outcomes
 - ii. To review and comment on the implementation of Outcome Based Education (OBE)
 - iii. To review the breadth and depth of the programme
 - iv. To review and comment the assessment and delivery methods
 - v. To review and comment on the Quality Management System
 - b. External Examiner to the Bachelors in Mechanical Engineering Programme at INTI International Laureate University, Malaysia
 - i. To review and comment on Programme Goal, Programme Outcomes
 - ii. To review and comment on the implementation of Outcome Based Education (OBE)
 - iii. To review the breadth and depth of the programme
 - iv. To review and comment the assessment and delivery methods
 - v. To review and comment on the Quality Management System
 - c. Deputy Head of Delegation, Accreditation Panel Assessors for Bachelors of Mechanical, Manufacturing and Civil Engineering Programmes for Universiti Kebangsaan Malaysia (UKM), Malaysia (*PEV for Engineering Accreditation Council, Malaysia*)
 - d. Accreditation Panel Assessor for Bachelors of Mechanical Engineering in Mechanical Engineering for TwinTech University, Malaysia. (*PEV for Engineering Accreditation Council, Malaysia*)
 - e. Accreditation Panel Assessor for Bachelors of Manufacturing Design in Mechanical Engineering for Universiti Teknikal Malaysia (UTem) (*PEV for Engineering Accreditation Council, Malaysia*)
 - f. Accreditation Panel Assessor for Bachelors of Manufacturing Engineering in Mechanical Engineering for Universiti Malaysia Pahang (UMP) (*PEV for Engineering Accreditation Council, Malaysia*)
 - g. Accreditation Panel Assessor for Bachelors of Product Design Engineering in Mechanical Engineering for Universiti Malaysia Perlis (UNIMAP) (*PEV for Engineering Accreditation Council, Malaysia*)
 - h. Accreditation Panel Assessor for Bachelors of Mechanical Engineering in Mechanical Engineering for Multi Media University Malaysia (MMU) (*PEV for Engineering Accreditation Council, Malaysia*)
 - i. Accreditation Panel Assessor for Bachelors of Mechanical Engineering in Mechanical Engineering for Universiti Tun Hussein Onn (UTHM), Malaysia. (*PEV for Engineering Accreditation Council, Malaysia*)
 - j. Accreditation Panel Assessor for Bachelors of Mechanical Engineering in Mechanical Engineering for University Kebangsaan Malaysia (UKM). (*PEV for Engineering Accreditation Council, Malaysia*)
 - k. Appointed moderator of Self Assessment Report for the Biomedical Engineering programme at Universiti Malaya.

- Professional Opinion/ Advisor
 - a. Invited by Patrick Mirandah Co to assist them by giving my professional opinion on an Intellectual property infringement issue, 2010.
 - b. National Science and Mathematics Education Workshop for Stake Holders 2010
- Certified TRIZ Instructor
- Postgraduate Thesis Examiner:
 - a. PhD Thesis External Examiner - 4 thesis
 - i. PhD candidate: Haidar Qrimli
 - PhD Thesis Title: Numerical and experimental analysis on a straight bevel gear made from composites using complex proportional assessment method
 - University: Nottingham University (Malaysia Branch)
 - Year: 2012
 - ii. PhD candidate: Mahdi Amiriyani
 - PhD Thesis Title: Development of Zirconia ceramics having enhanced LTD resistance for electrical discharge machining
 - University: Universiti Tenaga Nasional
 - Year: 2013
 - iii. PhD candidate: Ting Chen Hunt
 - PhD Thesis Title: Sintering Effects And Hydrothermal Ageing Behavior Of Yttria-Stabilised Zirconia
 - University: Universiti Malaya
 - Year: 2017
 - iv. PhD candidate: Sunusi Marwana Manladan
 - PhD Thesis Title: Microstructural Evolution And Mechanical Properties Of Magnesium Alloy/Austenitic Stainless Steel Joints Produced By Resistance Spot Welding Techniques
 - University: Universiti Malaya
 - Year: 2017
 - v. PhD candidate: Katherine Anne A/P Francis
 - PhD Thesis Title: Experimental And Statistical Studies On Biodegradable And Nonbiodegradable Materials In Electrochemical Industry
 - University: Universiti Malaya
 - Year: 2018
 - vi. PhD candidate: Mohammadkazem Ramezani
 - PhD Thesis Title: Closed-Form Solution For Stress Intensity Factors Of Semi-Elliptical Surface Cracks With Different Inclinations In A Cylinder Bar Under Pure Tension And Pure Torsion
 - University: Universiti Malaya
 - Year: 2018
 - b. Master's Thesis Examiner – 10 thesis
- Appointment as Subject Matter Expert to Open University Malaysia (OUM) for the following courses:
 - a. Strength of Materials (2006 – 2013)

- b. Mechanics of Machines (2008 – 2013)
- c. Material Science (2008 – 2013)
- d. Dynamics (2007 – 2013)

- Invited Speaker
 - a. Talk on “Product Design 101: Steps for creating Marketable Products”
 - At Institution of Engineers Malaysia, 20 February 2009
 - b. Two days workshop on practical approach towards finite element and computational fluid analysis.
 - At Institution of Engineers Malaysia, 16 – 17 January 2012
 - c. OBE awareness and Designing Examination Questions
 - At Universiti Sains Malaysia, Nov 2012
 - d. Talk on “Advance computational engineering is the way forward for reducing cost and time to market: A myth or Reality”
 - At Institution of Engineers Malaysia, 9th August 2010
 - e. Program Accreditation Exercise Facilitator
 - At Universiti Tun Hussein Onn, October 2011
 - f. OBE awareness and Designing Examination Questions
 - At Universiti Malaysia Pahang, October 2012
 - g. OBE awareness and Designing Examination Questions
 - At Asia Pacific University College of Technology and Innovation , July 2012
 - h. OBE awareness and Designing Examination Questions
 - At Taylors University , July 2012
 - i. Talk on “ Fiber Reinforced Polymer Composite Material: The Material for the Future”
 - At Institution of Engineers Malaysia, 22 February 2008.
 - j. Talk on “ Next Generation Engineers”
 - At Institution of Engineers Malaysia, 12 July 2008.

- Invited Judge for Design Competitions
 - a. Invention, Innovation and Design 2012 organized by Universiti Mara Malaysia
 - b. Research Invention and innovation Exhibition 2013 organized by International Islamic University Malaysia
 - c. Research Invention and innovation Exhibition 2012 organized by International Islamic University Malaysia
 - d. Invention, Innovation and Design 2011 organized by Universiti Mara Malaysia
 - e. Research Invention and innovation Exhibition 2011 organized by International Islamic University Malaysia
 - f. International Exposition of Research and Inventions of Institutions of Higher Learning 2009, Malaysia.

- Committee Member of National Technical Committee on Vehicle Passive Safety (2011 – 2013)

- Journal/Technical papers reviewed as a referee:
 - a. Materials and Design
 - b. Composite Part B
 - c. Thin-Walled Structures
 - d. International Journal of Mechanical Sciences
 - e. Engineering Fracture Mechanics

- f. Journal of Zhejiang University-SCIENCE A
- g. Journal of Engineering Manufacture
- h. Journal of Composite Materials
- i. International Journal of Physical Sciences
- j. Journal of Mechanical Engineering Research
- k. Journal of Applied Mechanical Engineering
- l. Journal of Engineering and Technology Research
- m. Advances In Structural Engineering
- n. International Journal of Engineering Science and Technology
- o. International Journal of Energy engineering
- p. International Journal of Automotive and Mechanical Engineering
- q. Journal Institution of Engineers Malaysia
- r. African Journal of Agricultural Research
- s. Journal of the American Ceramic Society
- t. PENERBIT Journal, UTM
- u. International Association of Science and Technology for Development Conferences
- v. IEEE International Conference on Engineering Education 2009
- w. IEEE International Conference on Engineering Education 2010
- x. 8th International Conference on Fracture and Strength of Solids (FEOFS 2010)
- y. International Conference on Advances in Manufacturing and Materials Engineering (ICAMME 2012)

Academic Administrative Duties

- Director of Qatar Transportation and Traffic Safety Center (2018 – present)
- Mechanical Engineering Program Coordinator, Qatar University (2014 – 2018)
- Senior Project Coordinator, Qatar University (2013 – 2014)
- College Curriculum Committee, Qatar University (2013 – present)
- University Curriculum Enhancement Committee, Qatar University (2015 – 2016)
- College Promotion Committee, Qatar University (2015 – 2016)
- Mechanical Engineering Department Curriculum Committee, Qatar University (2013 – 2018)
- University Senate Member, 2007 – 2009, 2013
- Head, Center for Innovation and Design, 2012 - 2013
- Head, Center for Advance Computational Engineering, 2011
- Head, Design and Manufacturing Unit, 2007 – 2010
- Technical Advisor to UNITEN's Human Resource Department on Issues pertaining to Academic Staff promotion Exercise (2007 – 2012)
- Mechanical Engineering Department Academic Advising Coordinator (2002 – 2003)
- Member of College level committee for future developments and progress of College of Engineering (Halatuju - Teaching) - 2003
- Chairman, College Final Year Project Committee (2004 -2006)
- Member of Dept. Quality Assurance Committee (2003 -2004)
- Mechanical Engineering Department Final Year Project Committee Member (2004 -2006)

- TNB's President's Quality Award Report Preparation Chairperson (2009)
- Technical Advisor to UNITEN Human Resources on Promotion Related Activities (2009 – 2013)

General Services Rendered to University

- Department Promotion Committee, Department of Mechanical and Industrial Engineering, Qatar University (2018 – 2019)
- College Hiring and Contract Renewal Committee, College of Engineering Qatar University (2018 – 2019)
- College Review Committee, College of Engineering Qatar University (2018 – 2019)
- Chairmen, Department ABET Committee, Qatar University (2014 – 2018)
- Chairman, Transition Dimension, First Year Excellent Committee, Qatar University (2013 – 2014)
- Chairman of Disciplinary Action Committee for Executives, UNITEN 2012 - 2013
- Student Hockey Club Advisor (2003 – 2013)
- IMechE Student Chapter Advisor (2012 – 2013)
- Vice Chancellor's Procurement Tender Committee Member (2011 – 2013)
- Academic Promotion Peer and Cluster committee member (2007 – 2013)
- Academic Audit Committee for UNITEN (2011 – present)
- First and the youngest president for UNITEN's Staff Association (2007 – 2008)
- Editorial Team Journal of Energy and Environment, UNITEN (2007 – 2009)
- Invited Speaker by Yayasan Tenaga Nasional , July 2005.
- Invited Forum Panelist by Persatuan Pengajian Islam UNITEN, July 2004 and May 2005
- Invited Speaker by Persatuan Pengajian Islam UNITEN, June 2003
- Invited Speaker by Yayasan Tenaga Nasional, August 2002
- Facilitator for UNITEN's Academic Excellence Program, 2002

Computer Skills

- Programming Language:
 - Fortran, Matlab and Visual Basics
- Computational Aided Engineering:
 - ABAQUS
- File processing:
 - Microsoft Word, Excel, Power Point, Prezi
- Statistical Analysis
 - Minitab

Workshops/ Short Courses Attended

- Topology Optimization by Prof Ole Sigmund, Denmark Technical University, May 2005
- Workshop on Outcome Based Education by Prof Richard Felder, Malaysia, December 2005
- Workshop on Design and Optimization of Laminated Composite Materials, 2007
- Crash and Safety Simulation Training by Altair – Carhs, July 2009

- Workshop on Finite Element Method by Prof J.N. Reddy, Malaysia February 2010
- Workshop on Design of Experiment at Universiti Sains Malaysia, April 2010
- Workshop on Taguchi Methods by Prof Apte (IIT Mumbai), July 2010
- Workshop on being a TRIZ practitioner Level 1(December 2011) and 2 (July 2012)
- Workshop of being a TRIZ certified trainer level 1 (December 2012)
- Attended Webinar March 2015: Designing Rubrics
- Attended Webinar March 2015: Helping at Risks students succeed
- Attended Webinar March 2015: Interactive lectures
- Attended Webinar March 2015: Learning Outcomes
- Attended Webinar March 2015: Socratic Teaching