

BRIEF CV



Prof Ir Dr Mohd Sapuan Salit

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Manufacturing Engineering, Universiti
Putra Malaysia

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Areas of interest: Composite Materials;
Concurrent Engineering

Academic Qualification:

B.Eng. (Mechanical Engineering) University of Newcastle, NSW, Australia

MSc (Engineering Design) Loughborough University, Leics, UK

PhD (Materials Engineering), De Montfort University, Leicester, UK

Professional Qualification/ Membership/ Affiliation:

Professional Engineer (PEng) (Mechanical Engineering), Board of Engineers, Malaysia

Fellow, Malaysian Scientific Association (FMSA)

Fellow, Institute of Materials, Malaysia (FIMM)

Fellow, Plastics and Rubber Institute, Malaysia (FPRIM)

Life Fellow, International Biographical Association, UK (LFIBA)

Honorary Life Member, Asian Polymer Association (HonLMAPA)

Vice President, Asian Polymer Association

Member, Majlis Profesor Negara (National Professor Council)

Member, Society of Automotive Engineers, USA (MSAE)

Life Member, Institute of Energy Malaysia (LMInTeM)

Member, International Association of Engineers (IAENGMember)

Member, International Network of Engineering Education and Research, USA (Member iNEER)

Member, Alumni Association, Loughborough University, Leics, UK

Research Advisor and Research Associate, Laboratory of Bio-Composites Technology, INTROP, UPM

Research Associate, Materials Technology and Processing Laboratory, ITMA, UPM

Appointments:

Head, Composites Technology Research Program, UPM, 2013-now

Visiting Professor, Universiti Teknikal Malaysia Melaka, 2011-2013

Professor (B grade) (JUSA B) (VK6), UPM, 2011-now

Head, Engineering Composites Research Group, Faculty of Engineering, UPM, 2010-now

Head, Department of Mechanical and Manufacturing Engineering, UPM, 2008-2011

Professor (C grade) (JUSA C) (VK7), UPM, 2007-2011

Associate Professor, UPM, 2002-2007

Head, Advanced Materials Research Centre, UPM, 2001

Lecturer, UPM, 1998-2002

Tutor, UPM, 1994-1998

Executive, Proton Bhd, 1993

Tutor, Universiti Malaya, 1993

Research Assistant, Universiti Malaya, 1990-1993

Area of interests :

Polymer Composites

Concurrent Engineering

Materials Selection

Natural Fibre Composites

Research Topics (Project Leader);

1. Title: Numerical and Experimental Investigation of Fibre Reinforced Injection-Moulded Thermoplastic Composites (2001)
Source of fund: UPM short-term grant
Amount: RM 10,000 **(Project Leader)**
2. Title: Concurrent Engineering Manufacturing System of Polymeric-Based Composite Automotive Pedal Box (2001-2005)
Source of fund: Ministry of Science, Technology and Environment under Experimental Applied Research Program of IRPA.
Amount: RM 99,080 **(Project Leader)**
3. Title: Experimental and Finite Element Analysis of the Pressure Carrying Capacity for Reinforced Composite Material Tubes (2004-2006)
Source of fund: Ministry of Science, Technology and Innovations under Experimental Applied Research Program of IRPA
Amount: RM 99,000.00 **(Project Leader)**
4. Thermomechanical Properties of Pineapple Leaf Fibre Reinforced Polystyrene Composites (2007-2009)
Source of Fund: Fundamental Research Grant Scheme (FRGS), Ministry of Higher Education, Malaysia
Amount: RM 76,500 **(Project Leader)**
5. Materials selection of composite components using AHP (2007-2010)
Source of Fund: Research University Grant Scheme, UPM
Amount: RM 144,000 **(Project Leader)**
6. Thermomechanical properties of Sugarcane Bagasse Fibre Reinforced PVC Composites (2007-2010)
Source of Fund: Research University Grant Scheme, UPM
Amount: RM 84,000 **(Project leader)**
7. Characterization and Development of New "Green" Composite Material from Sugar Palm Fibre for Engineering Application (2010-2011)
Source of Fund: Ministry of Agriculture and Agro-Based Industry (ScienceFund) **(Project Leader)**
Amount: RM 141,660.
8. Mechanical and Environmental Properties of Kenaf Fibre Reinforced Thermoplastic Polyurethane Composites (2010-2012)
Source of fund: Fundamental Research Grant Scheme, Ministry of Higher Education, Malaysia (MOHE) **(Project Leader)**
Amount: RM 43,000
9. Studies on Biodegradable Mulch Film Derived from Cocoa Pod Husk (CPH) Filled Poly (Lactic Acid) Biocomposites (August 2011-August 2013)
Source of Fund: Research University Grant Scheme (RUGS) **(Project Leader)**
Amount: RM 120,000
10. Mechanical Properties of Pultruded Kenaf Reinforced Epoxy Vinyl Ester Composite (2012-2014)
Source of Fund: Research University Grant Scheme (RUGS) **(Project Leader)**
Amount: RM 13,000
11. Analytical of Residual Stresses Thin Walled Plastic Part Natural Fibre (Rice Husk or Wood) Reinforced Thermoplastic Composite (2012-2014)
Source of Fund: Research University Grant Scheme (RUGS) **(Project Leader)**
Amount: RM 13,000
12. Characterization and Development of Novel Biopolymer and its Biocomposites Derived from Sugar Palm Tree

Source of Fund: : Exploratory Research Grant Scheme (ERGS) , Ministry of Education and Higher Education, Malaysia (MOE & HE) (2013-2015) **(Project Leader)**
Amount: RM 96,000

Student Supervision

Post Doctoral Researcher Supervised

1. Dr Abdul Aziz Jaafar, Department of Aerospace Engineering, UPM (Sabbatical leave)
A Combined Experimental and Computational Investigation on a Film Cooling Technique in a Sudden Expansion Channel , July 2005 – April 2006.
2. Dr Nukman Yusoff, Department of Engineering Design and Manufacture, Universiti Malaya (Sabbatical leave)
Design and Manufacture of Automotive Components
December 2011 – September 2012.
3. Dr Pua Fei Ling (Under Research University Grant Scheme (RUGS), UPM)
Preparation and Properties of Biodegradable Mulch Film Derived from Cocoa Pod Husk (CPH) Filled Poly(Lactic Acid) – Green Composite
February 2012 – January 2013
4. Dr Yousuf Ali Gumaan El-Shekeil (Under Research University Grant Scheme (RUGS), UPM)
Properties of Cocoa Pod Husk (CPH) Reinforced Thermoplastic Polyurethane Composites
April 2013-Feb 2014

PhD candidates

Completed

Main supervisor

1. Dr Addin Osman Mohamed Addin (Sudanese) **(2007)**
Bayesian Network Classifiers for Damage Detection in Engineering Materials
(Currently Deputy Dean of Computer Science, University of Najran, Saudi Arabia)
2. Associate Professor Dr Edi Syams Zainudin (Malaysian) **(2009)**
Effects of Banana Pseudostem Filler and Acrylic Impact Modifier on Thermo-Mechanical Properties of Unplasticized Polyvinyl chloride Composites
3. Associate Professor Dr Zulkiflle Leman (Malaysian) **(2010)**
Mechanical Properties of Sugar Palm Fibre-Reinforced Epoxy Composites
(Currently Principal, 10th College, UPM)
4. Eng. Dr Hambali Ariff (Malaysian) **(2010)**
Selection of Conceptual Design using Analytical Hierarchy Process for Automotive Bumper Beam Under Concurrent Engineering Environment
(Currently Head of Department of Manufacturing Design, UTeM, Melaka).
5. Dr Al Mabruk S. Mohamed (Libyan) **(2011)**
Development of Technology Transfer Model with Enabling Performance Factors for the Libyan Petroleum Industry.
(Currently Lecturer at Benghazi University, Libya)
6. Dr Abdalla A. Ab. Rashdi (Libyan) **(2011)**
Moisture Absorption Capacity of Kenaf Fibre-Reinforced Unsaturated Polyester Composites and Its Effect on Their Mechanical Properties
7. Dr Mohamed Abd. Rahman (Malaysian) **(2011)**

Physical, Mechanical and Thermal Properties of Pineapple Leaf Fibre and Pineapple Leaf Fibre Reinforced Vinyl Ester Composites
(Currently Deputy Director, Advanced Engineering and Innovation Centre, IIUM, Malaysia).

8. Dr Januar Parlaungan Siregar (Indonesian) **(2011)**
Effect of Treatment on Properties of Pineapple Leaf Fibre Reinforced High Impact Polystyrene Composites
(Currently Senior Lecturer at Universiti Malaysia Pahang)
9. Dr Riza Wirawan (Indonesian) **(2011)**
Thermo-mechanical Properties of Sugar Cane Bagasse-Filled Poly Vinyl Chloride Composites
(Currently Lecturer at Universitas Negeri Jakarta)
10. Dr Agung Efriyo Hadi (Indonesian) **(2011)**
Characterization and Optimization of Mechanical, Physical and Thermal Properties of Short Abaca (Musa Textilis Nee) Fibre Reinforced High Impact Polystyrene Composites
(Currently Rector, Universitas Abulyatama, Aceh, Indonesia).
11. Dr Karmegam Karuppiah (Malaysian) **(2012)**
Design and Fabrication of an Ergonomic Back-Leaning Postures Support for Motorbike Riders
(Currently Senior Lecturer at Faculty of Medicine, UPM)
12. Dr Majid Davoodi Makinejad (Iranian) **(2012)**
Development of Polybutylene Terephthalate Toughened Hybrid Kenaf-Glass Fibre Reinforced Epoxy Composites for Automotive Bumper Beam
(currently Postdoc. at Universiti Malaya)
13. Dr Dandi Bachtiar (Indonesian) **(2012)**
Characterization, Mechanical and Thermal Properties of Sugar Palm Fibre Reinforced High Impact Polystyrene (HIPS) Composites
(Currently Senior Lecturer at Universiti Malaysia Pahang)
14. Dr Yousuf Ali Gumaan El--Shekeil (Yameni) **(2012)**
Preparation and Characterization of Kenaf Fibre Reinforced Thermoplastic Polyurethane Composites
(Currently Postdoc. at UPM)
15. Ahmad Baharuddin Abdullah (Malaysian) **(2013)**
Geometric and Dimensional Defect Assessment of Complex Cold Forged Part
(Currently Senior Lecturer at USM)
16. Sahari Japar (Malaysian) (submitted)
Characterization and Development of Novel Biopolymer and its Biocomposite Derived from Arenga Pinnata

Co-supervisor

1. Assistant Professor Dr Mahmoud Hassan Onsa (Sudanese) **(2001)**
Elastohydrodynamic Analysis of Rolling Line Contact Using Boundary Element Method
(Currently Assistant Professor at University of Khourtoom, Sudan and Editor-in-Chief, Sudan Engineering Society Journal)
2. Professor Dr Md. Syed Ali Molla (Bangladeshi) **(2003)**
Intake Valve Modelling of a Four-Stroke I.C. Engine at Idling Speed.
(Currently Professor in Khulna University of Engineering and Technology, Bangladesh)
3. Dr Lee Wah Peng (Malaysian) **(2005)**
Labour Productivity Measurement Model for Malaysian Housing Industry
(Currently Lecturer at UTAR)
4. Dr Harimi Mohamed (Algerian) **(2006)** (Deceased)

Theoretical Combustion Analysis in optimizing of Fibre/Shell Ratio for the Oil Mill Boiler

5. Dr Kassim Ali Abbas Al Hadeethy (Iraqi) **(2005)** (Deceased)
A Heat and Mass Transfer Study of Fresh Water Pangasius Sutchi in Cold Storage
6. Dr Muthu Suresh Devanesan Jacob (Indian) **(2006)**
Fretting fatigue characterization of 7075-T6, Ti-6-Al-4v and Bs-L65 Aerospace Aluminium Alloys and Its Components and Its Application in Aerospace Industry
(Currently Senior Lecturer at Witswatersrand University, South Africa)
7. Dr Saad A. Mutasher (Iraqi) **(2006)**
Mechanical Performance of a Hybrid Aluminium/Composite Drive Shaft.
(Currently Lecturer at Swinburne University, Kuching, Sarawak)
8. Dr Mohd Khairun Anwar Uyup (Malaysian) **(2008)**
Modification of Bamboo with Phenolic-Resin for the Production of Dimensionally Stable Plybamboo
(Currently at Forest Research Institute Malaysia)
9. Dr Abdalla F. Hamed (Libyan) **(2009)**
Experimental and Finite Element Analysis of the Pressure Carrying Capacity of Reinforced Composite Thick-Walled Material Tubes
(Currently Head of Aeronautical Engineering, Engineering Academy Tajoura, Tripoli, Libya)
10. Dr Mohamad Zaihirain Mohamed Rasin (Malaysian) **(2010)**
Development of Manufacturing Cost Estimation Models For Early Order Stage
(Currently at TPM Engineering)
11. Dr Ali Jahan (Iranian) **(2011)**
Development of a New Methodology for Materials Selection According to Multi-Criteria Decision Making Methods
(Currently Lecturer at Islamic Azad University, Iran)
12. Dr Ali Shahrjerdi (Iranian) **(2011)**
Functionally graded materials and static/dynamic relations
13. Dr Isuwa Sulaiman Aji (Nigerian) **(2011)**
Mechanical and Thermal Characterization of Hybridized Short Kenaf-Pineapple Leaf Fibre Reinforced High Density Polyethylene Composites
14. Dr Asghar Pishgahi (Iranian) **(2012)**
Flow and Thermal Characteristics of Tangential Air Jet in a Sudden Expansion Channel
15. Dr Mohamad Ridzwan Ishak (Malaysian) **(2012)**
Enhancement of the Properties of Sugar Palm (Arenga Pinnata) Fibre Reinforced Unsaturated Polyester Composites Via Impregnation of Phenol Formaldehyde
(Currently Senior Lecturer at Department of Aerospace Engineering, UPM)
16. Suriani Mat Jusoh (Malaysian) **(2012)**
Modeling of Fatigue Life of Kenaf/Epoxy Composites by using Thermal Imaging Technique
17. Mehran Masoudi (Iranian) **(2012)**
Synthesis and Characterization of Ni-Al₂O₃-Cr, Ni-Al₂O₃-SiC and Ni-SiC-Cr Nano Hybrid Composites
18. Nanang Fatchurrohman (Indonesia) (to submit)
An Optimum Selection of Conceptual Design of Metal Matrix Composite (MMC) Automotive Disc Brake Under Concurrent Engineering Environment

Ongoing

Main supervisor

1. Basher Ahmed Ali Ahmed (Indian) (Passed Comprehensive exam. In 2012).
Material Selection Using Analytical Hierarchy Process for Polymer Composites in Manufacturing Engineering
2. Yusriah Lazim (Malaysian) (Passed Comprehensive exam. In 2012).
Characterizations and Development of Biodegradable Agro-Waste Fiber Filled Poly(Vinyl Alcohol) Composite Films
3. Muhd Ridzuan Mansor (Malaysia)
Development of Hybrid Short Kenaf/Glass Fibre Reinforced Polypropylene Composite for Automotive Parking Brake Lever
4. Mohd Azaman Md Deros (Malaysian)
Analytical Residual Stresses on Spherical Shallow Thin Walled Plastic Shell Using Natural Fiber (Kenaf) Reinforced Thermoplastic
5. Mohd Fairuz Abdul Manab (Malaysian) (Passed Comprehensive examination in 2013)
Mechanical Properties of Pultruded Kenaf Reinforced Vinyl Ester Composite
6. Sairizal Misri (Malaysian) (Passed Comprehensive examination in 2013)
Mechanical Properties of Kenaf Fibre Reinforced Composites using Filament Winding Method
7. Faris Mohammad Khair Faris Al-Oqla (Jordanian)
Advisor
8. Munir Faraj AlMabruk (Libyan)
Advisor
9. Ridwan Yahaya (Malaysian)
Advisor
10. Lee Ching Hao (Malaysian) (Jointly awarded PhD Degree with University of Sheffield, UK)
Advisor
11. Mohd Shukri Ibrahim (Malaysian)
Advisor

Co-supervisor

1. Hassan Zareei (Iranian) (Passed Comprehensive Examination in 2010)
Development of a Usability Index Model of New Product for Elderly
2. Yadollah Gharayebi (Iranian) (Passed Comprehensive Examination 2011)
Preparation and Characterization of Novel Polyimide Nanocomposites with MMT nanolayers and SiO Nanoparticles
3. Ali Mohamed Wahhad (Libyan) (Passed Comprehensive Examination in 2011)
Effect of Selected Laminating on Temperature Distribution in an Office with Validation using CFD FLUENT (3D).
4. Khairul Dahri Mat Aris (Malaysian) (Passed Comprehensive Examination in 2011)
A Structural Health Monitoring of a Pitch Catch Active Sensing of PZT Sensor on Normal, damage and Repair of Aircraft Spoiler
5. Khairul Azhar Mohammad (Malaysian) (Passed Comprehensive Examination in 2013)
Modelling of Creep-Fatigue Life Prediction of a Stainless Steel for Application in Heavy Industries

6. Wan Mohamad Haniffah Wan Hussin (Malaysian)
Effect of Fibre Heat Treatment on Mechanical and Hygroscopic Properties of Kenaf Polypropylene Composite

MS. Candidates

Completed

Main supervisor

1. Edi Syams Zainudin (Malaysian) (2002)
Fibre Orientation of Short Fibre Reinforced Injection-Moulded Thermoplastic Composites.
2. Muthu Suresh Devanesan Jacob (Indian) (2002)
A Prototype Knowledge-Based System for Material Selection of Ceramic-Matrix-Composite for Automotive Engine Components.
3. Mohd Nizam Suddin (Malaysian) (2003)
Design of Polymer Based Composite Automotive Bumper Fascia.
4. Lee Ho Boon (Malaysian) (2003)
Comparison of Cost, Surface Roughness and Time using Stereo-lithography and 3D Printer for Design of Composite Pedal.
5. Mohd Noor Arib Md Rejab (Malaysian) (2004)
Mechanical Properties of Pineapple Fibre Reinforced Polypropylene Composites
6. Sharifah Imihezri Syed Shaharuddin (Malaysian) (2006)
Design, Analysis and Fabrication of Fiber Reinforced PA 6,6 Composite Automotive Clutch Pedal
7. Nik Mohd Zuki Nik Mohamed (Malaysian) (2006)
Strategic Method to Reduce Development Time for New Model in Automotive Industry
8. Amirruddin Abdul Kadir (Malaysian) (2007)
Design, Analysis and Fabrication of Aluminium and Composite Hovercraft Prototype Hull Base
9. Majid Davoodi Makinejad (Iranian) (2007)
Development of Fibre Reinforced Epoxy Composite Absorber for Automotive Bumper System
10. Dandi Bachtiar (Indonesian) (2008)
Mechanical Properties of Alkali-treated Sugar Palm (*Arenga Pinnata*) Fibre Reinforced Epoxy Composites
11. Khairul Azmi Md Rezali (Malaysian) (2009)
Mechanical Properties of Untreated and Alkaline Treated-kenaf and Ramie-Fabric Reinforced Epoxy Composites
12. Mohd Zuhri Muhamed Yusoff (Malaysian) (2009)
Mechanical Properties of Oil Palm Fibre-Thermoset Composites
13. Sahari Japar (Malaysian) (2011)
Physio-Chemical and Mechanical Properties of Different Morphological Parts of Sugar Palm Fibre Reinforced Polyester Composites
14. Mohd Fairuz Abd Manab (Malaysian) (2011)
Development of Expert System for Material Selection of Polymer Based Composites
15. Wan Mohamad Haniffah Wan Hussin (Malaysian) (2012)

Effect of Repeated Water and Domestic Bleach Immersion on Liquid Content and Tensile Properties of Kenaf Fibre Reinforced Polypropylene Composites

16. Mohd Sukri Ibrahim (Malaysian) (2012)
Thermomechanical Properties of Oil Palm Particle Ash Filled Polyester Composites.
17. Mohd Muslim Haron (Malaysian) (submitted)
Studies on Biodegradable Mulch Films Derived From Cocoa Pod Husk (CPH) Filled Poly (Lactic Acid) Biocomposites

Co-supervisor

1. Dr Harimi Mohamed (Algerian) (2000) (Deceased)
Development of Computer Program to Analyse Chemical Products Resulted from Incineration of Solid Fuels
2. Abdul Hafid M. Elfaghi (Libyan) (2000)
Simulation of Turbine Blade Heat Transfer using Different Turbulent Models
3. Dr Mohamad Awang (Malaysian) (2000)
Application of Quality Function Deployment (QFD) in a Locally Produced Knapsack Sprayer
4. Zulkifli Yaakob (Malaysian) (2001)
Improvements in Design of Local Fluorescent Electronic Ballasts in Compliant to Related Local and International Standards
5. Dr Mohamad Zaihirain Mohamed Rasin (Malaysian) (2002)
Development of a Prototype Scheduling and Sequencing Software for Jobshop Manufacturing in Sheet Metal Fabrication
6. Lim Jee Gin (Malaysian) (Completed September 2002)
Evaluation of Industrialized Building System
7. Amir Ihsan Abdul Salam (Malaysian) (Completed November 2002)
Techno-Economical Aspects of Thermal Energy Storage Integrated District Cooling System
8. Eris Elianddy Haji Supeni (Malaysian) (2004)
Heating Value Evaluation for Palm Oil Boiler Fuel
9. Munir Faraj M. Alkbir (Libyan) (2004)
Energy Absorption capability of composite hexagonal tubes
10. Sivakumar Dhar Malingam (Malaysian) (2004)
Application of Focus Improvement to Reduce Non Stick on Pad Problem in IC Packaging
11. Abdul Malek Ya'acob (Malaysian) (2004)
Effect of Fibre Orientation of Tensile Properties of Short Glass Fibre Reinforced Injection-Moulding Polypropylene Composites
12. Januar Parlaungan Siregar (Indonesian) (2005)
Tensile and Flexural Properties of *Arenga Pinnata* Filament Reinforced Epoxy Composites
13. Tariq Ramadan Abo-Alhol (Libyan) (2005)
Study of the Effectiveness of Quality Control Circles
14. Lai Chin Yung (Malaysian) (2004)
Mechanical Properties and Dielectric Constant of Coconut Coir-Filled Propylene
15. Mohammad Iqmal Mohd Ali (Malaysian) (2006)
Optimization of Drilling Process of Aircraft Composite Structure Using Design of Experiment

16. Saleem Na'mi (Germany) (2007)
Finite Element Analysis of Hydraulic Bulging for Metal Tubes.
17. Suriani Mat Jusoh (Malaysian) (2007)
A Case Study on Tensile Properties and Morphology of *Arenga Pinnata* Fiber Reinforced Epoxy Composites
18. Amir Azizi (Iranian) (2007)
Ranking of Total Quality Management's Critical Techniques in Automotive Industry
19. Cheong Yoon Kwan (Malaysian) (2008)
Numerical Simulation of NO and CO Abatement in Catalytic Converter of CNG Engine
20. Azali Awaluddin (Malaysian) (2008)
Design and Development of Oil Palm Fluidized Bed Gasifier
21. Norhisham Seyajah (Malaysian) (2008)
Composite with Saw Dust and Chip Wood in an Epoxy Matrix for Furniture Industry
22. Ali Mohamed Wahhad (Libyan) (2008)
Effect of Selected Laminating Materials on Temperature Distribution in an Office
23. Mohamad Ridzwan Ishak (Malaysian) (2009)
Mechanical Properties of Woven Sugar Palm Fibre Reinforced Unsaturated Polyester Composites
24. Zainb Shaker Radif (Iraqi) (2009)
Development of a Combat Armour from Ramie Fibre
25. Hafizal Abu Bakar (Malaysian) (2012)
Development of an External Balance Device of Calibration and Validation for Wind Tunnel Testing
26. Sairizal Misri (Malaysian) (2011)
Design and Fabrication of Small Boat by Using Sugar Palm Fibre Reinforced Epoxy Composites
27. Mohd Yusoff Salleh (Malaysian) (2012)
Mechanical Properties of Sandwich Hybrid Sugar Palm Fibre/Glass Fibre Reinforced Unsaturated Polyester Composites
28. Umar Abdul Hanan (Malaysian) (2012)
Accelerated Weathering of Kenaf High Density Polyethylene (HDPE) composite for Outdoor Application
29. Nor Hanifawati Inai (Malaysian) (2013)
Mechanical and Physical Properties of Hybrid Banana Pseudostem/Glass Fibre Reinforced Polyester Composites

External Co-supervisor

Submitted

1. Pang Jing Shen (Malaysian)
Machinability and Surface Morphology of Halloysite Nanotube (HNT)- Aluminium/Epoxy Composite Board for Rapid Tooling Applications, Masters Degree in Mechanical Engineering by Full Research, Universiti Tenaga Nasional (UNITEN), Kajang, Selangor.

In progress

Main supervisor

Ongoing

1. Norianti Mazani (Malaysian)
Design and Fabrication of Kenaf Fiber Reinforced Unsaturated Polyester Composite Shoe Rack

Co-supervisor

1. Norshida Idris (Malaysian)
Characterization of Mechanical, Morphological and Thermal Properties of Poly (Lactic Acid) Nanocomposite using Nano Alumina Particle as Filler
2. Abu Hatim Ibrahim (Malaysian)
Characterization of Interfacial Shear Strength of Sugar Palm Fibre Reinforced Polymer Composites by Single Fibre Pull-Out Tests
3. Hammajam A. Abba (Nigeria)
Studies on the Preparation of Agro-Waste Millet Husk (MH) Filled with Recycled High Density Polyethylene (RHDPE) Plastic Composites

Research Products/ patent:

1. R. Usubamatov, N. M.M.H.M.Ahmad, **S.M. Sapuan**, Turn bridge, *Malaysian patent*, patent pending, 2004, PI 20044302.
2. N. Ismail, R.Usubamatov, M.M.H.M. Ahmad and **S.M. Sapuan**, Wind power station, *Malaysian patent*, patent granted, 30 April 2009, MY-138117.
3. N. Ismail, R.Usubamatov, M.M.H.M. Ahmad and **S.M. Sapuan**, Machine tool for processing of bevel gears with spiral tooth, *Malaysian patent*, patent pending, 2005, PI 20053347.
4. **S.M. Sapuan**, Table, Industrial Design Registered with *Intellectual Property Corporation of Malaysia*, 5 March 2004 (Registration number MY 03-00378).
5. **S.M. Sapuan**, H. Ariff and N. Ismail, Material and concept selection, *Statutory Declaration, Copyright Act 1987*, 12 March 2010 (Commissioner for Oaths No: B 222).
6. **S.M. Sapuan**, M.Y.Ismail, N Ismail and K. Karmegam, Lumbar support system, *Malaysian Patent*, patent filed, 2012, PI2012700031.
7. K. Karmegam, **S.M. Sapuan**, S.B.M. Tamrin, M.Y. Ismail, N. Ismail, K.K.C. Mani and M. N. M. Ali, Motorcycle seat with built- in lumbar support, *Malaysian Patent*, patent filing, 2013.

Publications:

BOOK

1. **S.M. Sapuan**, *Reka Bentuk Kejuruteraan: Ke Arah Persepaduan Reka Bentuk dan Pembuatan* (In Malay) (*Engineering Design: Towards the Integration of Design and Manufacture*). December 1999, Era Ilmu Sdn. Bhd., Kuala Lumpur, Malaysia ISBN No. 983-2199-04-2, 144 pages, 80 illustrations.
2. **S.M. Sapuan**, *Bahan Komposit Berasaskan Polimer, Sifat-Sifat, Reka Bentuk, Pembuatan dan Penggunaan* (In Malay) (*Polymeric-Based Composite Materials: Properties, Design, Manufacture and Use*), January 2000, Universiti Putra Malaysia Press, Serdang, Selangor, Malaysia ISBN 983-9319-79-5, 128 pages, 109 illustrations.

3. **S.M. Sapuan**, M. A.H. Mollah and Y. Nukman, *Concurrent Engineering and Product Design and Development*, December 2000, Prentice Hall, Petaling Jaya, Selangor, Malaysia ISBN 983-9236-67-9, 73 pages, 32 illustrations.
4. **S.M. Sapuan**, Abu-Bakar, A.H., Z. Leman and Ali, M.A.H., *Pengurusan, Gelagat dan Keselamatan Pekerja dalam Industri*, (in Malay) (*Management, Behavior and Workers' Safety in Industry*) 2003, Utusan Publications and Distributions Sdn. Bhd. Kuala Lumpur, Malaysia, ISBN 967-61-1405-7, 97 pages, 15 illustrations.
5. **S.M. Sapuan**, A.R. Rahmat, Y.S. Ismail and M.Y. Hassan, *Glosari Bahan Komposit*, 2006, Pusat Penerbitan Universiti (UPENA) UiTM, Shah Alam, ISBN 983-62-9236-5, 190 pages, 0 illustrations.
6. **S.M. Sapuan**, *Concurrent Engineering for Composites*, 2010, UPM Press, Serdang, Selangor, Malaysia, ISBN 978-967-344-137-2, 145 pages, 63 illustrations.
7. A. O. M. Addin, **S.M. Sapuan** and M. Othman, *Classifying Damages in Engineering Material using Bayesian Networks: Naïve Bayes Classifiers*, Lambert Academic Publishing, Saarbrücken, Germany, 2010, ISBN -978-3-8433-68438, 121 pages, 35 illustrations.
8. **S.M. Sapuan** (ed), *Research on Natural Fibre Reinforced Polymer Composites*, UPM Press, Serdang, Selangor, Malaysia, 2009, ISBN 978-967-344-002-3 (342 pages).
9. **S.M. Sapuan** and I.M. Mujtaba (eds.), *Composite Materials Technology: Neural Network Applications*, CRC Press (an imprint of Taylor & Francis Group LLC), Boca Raton, Florida, USA, 2010, ISBN-10: 1420093320 ISBN-13: 978-1420093322 (354 pages).
10. A. Ali, **S.M. Sapuan** and T.I.M. Ghazi (eds.) *Simulation for Engineering Undergraduates*, UPM Press, Serdang, Selangor, Malaysia, 2009, ISBN 978-967-344-074-0 (81 pages).
11. D. Bachtiar, **S.M. Sapuan** and M.M.H.M. Ahmad, *Mechanical Properties of Sugar Palm Fiber-Epoxy Composites*, Lambert Academic Publishing, Saarbrücken, Germany, 2012, ISBN -978-3-8473-4440-7, 79 pages, 45 illustrations.
12. J. Sahari, **S.M. Sapuan** and Z.N. Ismarrubie, *Sugar Palm Fibre Reinforced Unsaturated Polyester Composites*, Lambert Academic Publishing, Saarbrücken, Germany, 2013, ISBN -978-3-659-33164-0, 100 pages, 45 illustrations.
13. M.A. Maleque and **S.M. Sapuan**, *Materials Selection and Design*, Springer, Germany, to be published.
14. **S.M. Sapuan** (Ed), *Engineering Composites: Properties and Applications*, to be published (Publisher: UPM Press).
15. **S.M. Sapuan**, *Tropical Natural Fibre Composites: Properties and Application*, Springer, Germany, to be published.

Journal Edited

1. **S.M. Sapuan**, Journal theme: "Recent Advances in Composite Material Technology", *American Journal of Applied Sciences*, **Guest Editor**, Special Issue, October 2005.
2. **S.M. Sapuan**, A. Ali and K.A.M. Ariffin, *Pertanika Journal of Science and Technology*, **Guest Editor**, Selected articles from the 9th National Symposium on Polymeric Materials 2009, vol.18, no. 2, 2010.
3. **S.M. Sapuan**, A. Ali and K.A.M. Ariffin, *Pertanika Journal of Science and Technology*, **Guest Editor**, Selected articles from the 9th National Symposium on Polymeric Materials 2009, vol.19, no. 1, 2011.
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26. K.A. Mohammad, E.S. Zainudin, **S.M. Sapuan**, N.I. Zahari and A. Ali, Experimental determination of the fatigue behavior of austenitic 316l stainless steel under fatigue and creep-fatigue tests at high temperature, *Archives of Civil and Mechanical Engineering*.
27. K.A. Mohammad, E.S. Zainudin, **S.M. Sapuan**, N.I. Zahari and A. Ali, An investigation of fatigue life prediction for austenitic 316L type stainless steel pipe, *Suranaree Journal of Science and Technology*.
28. Pang Jing Shen, M.N.M.Ansari, Omar S.Zaroog, Moaz H.Ali, and **S.M. Sapuan**, Tool wear study in machining different loading formulation of halloysite nanotubes with aluminium reinforced epoxy (HNT/Al/Ep) composites, *Wear*.
29. M.U. Rosli, M.K.A. Ariffin, **S.M., Sapuan** and S. Sulaiman, Integrated AHP-TRIZ innovation method for automotive door panel design, *International Journal of Production Research*.
30. Faris M. AL- Oqla, and **S. M. Sapuan**, Natural fiber reinforced polymer composites in industrial applications: Feasibility of date palm fibers for sustainable automotive industry, *Journal of Cleaner Production*.

31. M.D. Azaman, **S.M. Sapuan**, S. Sulaiman, E.S. Zainudin and A. Khalina, Shrinkages and warpage in the processability of wood-filled polypropylene composite thin-walled parts formed by injection molding, *Materials & Design*.
32. Faris M. AL- Oqla, and **S. M. Sapuan**, A decision making supportive model for selecting the best natural fiber type for automotive industry using the analytical hierarchy process: date palm fibers as a reasonable alternative, *Industrial Crops & Products*.
33. A. M. Wahhad, N. M. Adam, **S.M. Sapuan** and A.A. Jaafar, CFD Simulation and experimental study of typical office using shading device of windows in warm-humid climate, *Energy and Buildings*.
34. A. M. Wahhad, N. M. Adam, **S.M. Sapuan** and A.A. Jaafar, Computational fluid dynamics (CFD) simulation and experimental study of a new design office building in desert country, *Energy and Buildings*.

SPECIAL INVITATION IN INTERNATIONAL CONFERENCE/AWARD CEREMONY

1. Invited Guest to receive ISESCO Science Prize 2008 in Technology, *Fourth Islamic Conference of Ministers of Higher Education and Scientific Research*, Baku, Republic of Azerbaijan, 6th – 8th October 2008.
2. Invited Guest to receive PRIM Fellowship Award, *PRIM Golden Jubilee International Polymer Conference*, Kuala Lumpur, Malaysia, 16th -17th March 2010.
3. Invited Guest to receive *Rotary Research Awards*, Istana Hotel, Kuala Lumpur, 13th April 2012.
5. Invited Guest to receive *Alumni Awards*, Newcastle City Hall, Newcastle, Australia, 17th october 2012.
6. Invited Guest to receive *Khwarizmi International Award*, IROST, Tehran, Iran, 5th -7th February 2013.

INAUGURAL AND PUBLIC LECTURES

1. **S.M. Sapuan**, Concurrent Engineering for Composites, *Inaugural Lecture Series*, 30th July 2010, UPM, Serdang, Selangor, Malaysia.
2. **S.M. Sapuan**, Writing and publishing technical papers, *Public Lecture*, 11th December 2012, Universitas Malahayati, Bandar Lampung, Indonesia.

KEYNOTE AND PLENARY LECTURES IN CONFERENCES

1. **S.M. Sapuan**, Concurrent engineering manufacturing system for polymeric based composite automotive pedal box system (**KEYNOTE ADDRESS**), *Proceedings of Symposium on Concurrent Engineering Manufacturing System for Polymeric Based Composite Automotive Components*, 25th July 2003, Serdang, Malaysia, pp. 1-8, Published by Docuprint Enterprise, Kuala Lumpur, ISBN 983-2919-00-2.
2. **S.M. Sapuan**, Polymer composites in automotive industry (**KEYNOTE ADDRESS**), *Proceedings of the International Conference on Composite Materials and Nano-structures*, 25 – 29 April 2006, Shah Alam, Malaysia, pp. 19, ISBN 967-960-206-0.
3. **S.M. Sapuan**, Writing and publishing scientific journal papers (**KEYNOTE ADDRESS**), *Proceedings of the Postgraduate Seminar on Natural Fibre Composites*, 10th June 2008, Serdang, Malaysia, pp. 7-18, Published by UPM Press, Serdang, ISBN 978-983-43995-0-4.
4. **S.M. Sapuan** and J.P. Siregar, The effect of compatibilizing agents on tensile and flexural properties of pineapple leaf fibre reinforced high impact polystyrene composites (**KEYNOTE ADDRESS**), *the Second Annual International Conference on Green Technology and Engineering*, 15 – 17 April 2009, Bandar Lampung, Lampung, Indonesia.

5. **S.M. Sapuan**, Concurrent engineering for polymer composite, (**KEYNOTE ADDRESS**), the 9th National Symposium on Polymeric Materials, 14-16 December 2009, UNITEN, Putrajaya, Malaysia (Abstract published in Book of Abstract) (ISBN 978-967-960-255-5).
6. **S.M. Sapuan**, Natural fibres: alternative fibres for polymer composites (**KEYNOTE ADDRESS**), Proceedings of the UPM-UniKL Symposium on Polymeric Materials, 2nd February 2012, Alor Gajah, Melaka, Malaysia, pp. 1-10 (ISBN 978-983-2408-06-2)
7. **S. M. Sapuan** and Y. A. El-Shekeil, Properties of kenaf fiber-reinforced thermoplastic polyurethane composites, (**KEYNOTE ADDRESS**) (as the recipient of Khwarizmi International Award) presented to Vice President I of Republic of Iran and other dignitaries and visitors), 26th Khwarizmi International Award, Tehran, Iran, 5th February 2013.
8. **S.M. Sapuan**, F.L. Pua and Y.A. El-Shekeil, An overview on the potential of Biodegradable composite in Malaysia, (**KEYNOTE ADDRESS**), Proceedings of the 2ND. UPM-UniKL Symposium on Polymeric Materials 2013, 28th February 2013, Kuala Lumpur, Malaysia, pp. 1-8, Kuala Lumpur, (ISBN 978-983-2408-09-3).
9. **S.M. Sapuan** and Y. A. El-Shekeil, Recent advances in natural fibre composites, International Conference on Mechanical, Industrial and Material Engineering (ICMIME 2013), (**KEYNOTE ADDRESS**), 1-3 November 2013, Rajshahi, Bangladesh.

INVITED LECTURES IN CONFERENCES/WORKSHOPS/SEMINARS

1. **S.M. Sapuan**, Input-process-output: Malaysian Engineering Education Model, Presented at a One Day Colloquium on Malaysian Engineering Education Model 2000: Educating Future Industry Leader, 3 February 2000, Putra Jaya, Selangor, Malaysia, Publication of Faculty of Engineering, Universiti Putra Malaysia.
2. **S.M. Sapuan**, Some notes on publication, Presented at Mountainous Terrain Development Research Centre Seminar (MTD-RC), Universiti Putra Malaysia, Serdang, Selangor, Malaysia, 28 November 2000.
3. **S.M. Sapuan**, Polymer composites in automotive application, Presented at Society of Automotive Engineers (SAE) International, Malaysia Group 3rd Technical Seminar, Wisma FMM, Bandar Sri Damansara, Kuala Lumpur, Malaysia, 26 July 2001.

The following four invited lectures were presented at Workshop on Journal Paper Writing Series 1 organized by IDRC, UiTM, Shah Alam, Malaysia:

4. **S.M. Sapuan**, Publication in journals: overview, Presented at Bengkel Penulisan Jurnal UiTM Siri 1, Shah Alam, Selangor, Malaysia, 14 May 2002.
5. **S.M. Sapuan**, Publication in journals: some observation, Presented at Bengkel Penulisan Jurnal UiTM Siri 1, Shah Alam, Selangor, Malaysia, 14 May 2002.
6. **S.M. Sapuan**, Publication in journals: comments from referees, Presented at Bengkel Penulisan Jurnal UiTM Siri 1, Shah Alam, Selangor, Malaysia, 14 May 2002.
7. **S.M. Sapuan**, Publication in journals: hand-on training, Presented at Bengkel Penulisan Jurnal UiTM Siri 1, Shah Alam, Selangor, Malaysia, 14 May 2002.

The following three invited lectures were presented at Workshop on Journal Paper Writing Series 2 organized by IDRC, UiTM, Shah Alam, Malaysia:

8. **S.M. Sapuan**, An approach to publication in journals: part 1, Presented at Bengkel Penulisan Jurnal UiTM Siri 2, Shah Alam, Selangor, Malaysia, 24 October 2002.
9. **S.M. Sapuan**, An approach to publication in journals: part 2, Presented at Bengkel Penulisan Jurnal UiTM Siri 2, Shah Alam, Selangor, Malaysia, 24 October 2002.

10. **S.M. Sapuan**, An approach to publication in journals: part 3, Presented at Bengkel Penulisan Jurnal UiTM Siri 2, Shah Alam, Selangor, Malaysia, 24 October 2002.

The following three invited lectures were presented at Workshop on Journal Paper Writing organized by INTEC, UiTM, Shah Alam, Malaysia:

11. **S.M. Sapuan**, A motivation on publication in journal, Presented at Bengkel Penulisan Jurnal untuk Pensyarah INTEC (International Education Center), UiTM Seksyen 17, Shah Alam, Shah Alam, Selangor, Malaysia, 29 March 2003.
12. **S.M. Sapuan**, Guidelines to write paper in journal, Presented at Bengkel Penulisan Jurnal untuk Pensyarah INTEC (International Education Center), UiTM Seksyen 17, Shah Alam, Shah Alam, Selangor, Malaysia, 29 March 2003.
13. **S.M. Sapuan**, Issues related to publication in journal, Presented at Bengkel Penulisan Jurnal untuk Pensyarah INTEC (International Education Center), UiTM Seksyen 17, Shah Alam, Shah Alam, Selangor, Malaysia, 29 March 2003.
14. **S.M. Sapuan**, Concurrent engineering: the way forward in automotive composite design, Proceedings of Malaysia Design Conference 2003, 8-9th October 2003, Kuala Lumpur.
15. **S.M. Sapuan**, Concurrent engineering for polymeric based composites, International Islamic University Malaysia (IIUM) Postgraduate Seminar, 12 July 2004, Gombak, Kuala Lumpur, Malaysia.

The following three invited lectures were presented at Seminar on Academic Writing organized by UiTM Perlis, Arau, Perlis, Malaysia:

16. **S.M. Sapuan**, A motivation on publication in journal, Presented at Seminar in Academic Writing, UiTM Perlis, Kampus Arau, Perlis, Malaysia, 9 April 2005.
17. **S.M. Sapuan**, Guidelines to write paper in journal, Presented at Seminar in Academic Writing, UiTM Perlis, Kampus Arau, Perlis, Malaysia, 9 April 2005.
18. **S.M. Sapuan**, Issues related to publication in journal, Presented at Seminar in Academic Writing, UiTM Perlis, Kampus Arau, Perlis, Malaysia, 9 April 2005.
19. **S.M. Sapuan**, Concurrent engineering: a way forward in automotive composite design, Research Seminar presented at Faculty of Engineering, International Islamic University, Jalan Gombak, Kuala Lumpur, Malaysia, 3 March 2006.

The following three invited lectures were presented at Seminar on Writing Journal Papers and Proceedings organized by Universiti Kuala Lumpur (BMI), Gombak, Malaysia:

20. **S.M. Sapuan**, A motivation on publication in journal and proceedings, Presented at Seminar on Writing Journal Papers and Proceedings, Universiti Kuala Lumpur, British Malaysian Institute, Gombak, Selangor, Malaysia, 8 March 2006.
21. **S.M. Sapuan**, Guidelines to write paper in journal and proceedings, Presented at Seminar on Writing Journal Papers and Proceedings, Universiti Kuala Lumpur, British Malaysian Institute, Gombak, Selangor, Malaysia, 8 March 2006.
22. **S.M. Sapuan**, Issues related to publication in journal and proceedings, Presented at Seminar on Writing Journal Papers and Proceedings, Universiti Kuala Lumpur, British Malaysian Institute, Gombak, Selangor, Malaysia, 8 March 2006.
23. **S.M. Sapuan**, Perkara-perkara yang merosakkan hubungan/kesatuan, Kem Bina Semangat/Team Building of Faculty of Engineering, UPM, 20-22 January 2006, Bentong, Pahang, Malaysia.

The following two invited lectures were presented at Workshop on Journal Paper Writing organized by ITMA, UPM, Malaysia:

24. **S.M. Sapuan**, Publishing paper in scientific journal, Workshop on Journal Paper Writing to Science Officers, Institute of Advanced Technology (ITMA), Universiti Putra Malaysia, 21 February 2007, Serdang, Malaysia.
25. **S.M. Sapuan**, Motivation to journal publication, Workshop on Journal Paper Writing to Science Officers, Institute of Advanced Technology (ITMA), Universiti Putra Malaysia, 21 February 2007, Serdang, Malaysia.
26. **S.M. Sapuan**, Format and physical requirement of the report, Bengkel Penulisan Projek Tahun Akhir Bachelor Kejuruteraan (Mekanikal) dan Program Master Tanpa Tesis Sistem Pembuatan dan Pengurusan Kejuruteraan, Serdang, Malaysia, 6 March 2007.
27. **S.M. Sapuan**, Writing and publishing paper in scientific journal, Seminar presented to Malay Postgraduate Students of University of Bradford, Bradford, UK, November 2007.
28. **S.M. Sapuan**, Composite materials research at UPM, Seminar, School of Engineering, Design and Technology, University of Bradford, UK, 22 November 2007.
29. **S.M. Sapuan**, Publication in journal from student's thesis, Scientific Writing Workshop, Invited lecture presented to Academic Staff of Faculty of Computer Science and Information Technology, Universiti Putra Malaysia, Serdang, Selangor, Malaysia, 6th May 2008.
30. **S.M. Sapuan**, New life in university, Motivational Seminar, presented to First Year KMP Students during orientation week (Minggu Perkasa Putra Sesi 2008/2009), Faculty of Engineering, UPM, Malaysia, 2 July 2008.
31. **S.M. Sapuan**, Research on composite materials selection, the 4th National Conference on Carbon Fibre and Composites (NCCFC 08), 18-20 August 2008, Permatang Pauh, Penang, Malaysia (Book of abstract).
32. **S.M. Sapuan**, Concurrent engineering for composite research, Seminar, Universiti Teknikal Kebangsaan Malaysia (UTeM), Melaka, 16 December 2008.
33. **S.M. Sapuan**, Effective journal writing: do's and don't's in writing and publishing journal papers, Bengkel Penulisan Akademik, ITMA, UPM, Melaka, 23 December 2008.
34. **S.M. Sapuan**, Journal paper publication, Bengkel Penulisan INTROP, Port Dickson, 19th March 2009.
35. **S.M. Sapuan**, Sharing effective habits for successful publication – a strategy, Technical Talk, Faculty of Engineering, UPM, 14 August 2009.
36. **S.M. Sapuan**, R. Wirawan, R. Yunus and K. Abdan, Heat treatment and recyclability of sugarcane bagasse fibre reinforced PVC composites, Proceedings of Asian Workshop on Polymer Processing (AWPP2009), Penang, Malaysia, 1-4 December 2009, (CD ROM Proceedings, also published in Book of Abstract page 33) (Organized Universiti Sains Malaysia and Japan Society of Polymer Processing, (JPSS)).
37. **S.M. Sapuan**, R. Wirawan, R. Yunus and K. Abdan, Flexural properties of sugarcane rind fibre reinforced PVC composites, International Congress (Polymer Science & Technology: Vision & Scenario) (APA-2009), 17-20 December 2009, New Delhi, India (Book of abstract).
38. **S.M. Sapuan**, Design and manufacture using conventional and green composites, Seminar during External External Visit to Department of Manufacturing Design, UTeM, Melaka, Malaysia, 23rd December 2009.

39. **S.M. Sapuan**, M.R. Ishak and R. Wirawan, Overview of natural fibre reinforced polymer composites in Malaysia, 2010 SAMPE (Society for the Advancement of Material and Process Engineering) Asia Conference, 19th – 20th January 2010, Kuala Lumpur, Malaysia.
40. M.R.Ishak, **S.M. Sapuan**, Z. Leman, M.S.Ibrahim and J. Sahari, Research and development of sugar palm (Arenga pinnata) industry as a new Tropical agriculture in UPM, Seminar presented at Institute of Tropical Agriculture, Universiti Putra Malaysia, 25th March 2010.
41. **S.M. Sapuan**, Journal paper publication, Workshop on Research Publication, Department of Mechanical Engineering, Universiti Pertahanan Nasional Malaysia, Kuala Lumpur, 7 June 2010.
42. **S.M. Sapuan**, Nurturing research icon, Speech during Competency Level Assessment Course (PTK 6), for Professional and Management Group (Academic), Series 1/2010, Universiti Putra Malaysia, Serdang, 22nd June 2010.
43. **S.M. Sapuan**, D. Bachtiar and M.R. Ishak, Advances in sugar palm fibre reinforced polymer composites research, Proceedings of Conference on Aerospace and Mechanical Engineering (CAME), World Engineering Congress 2010, 2nd -5th August 2010, Kuching, Sarawak, Malaysia, pp. 529-536 (CD rom proceedings).
44. **S.M. Sapuan**, The use of concurrent engineering in composite materials , Kulliyah's Seminar for the Programme of Manufacturing and Materials Engineering, Kulliyah of Engineering, International Islamic University Malaysia, 20 August 2010.
45. **S.M. Sapuan**, N. Asimi and M.H.H.Razali, Possibility on postgraduate study and hands on development of equipment demonstration, presented at Workshop on Agriculture Mechanization for dioscorea hispida, Kuala Terengganu, 3rd July 2011.
46. **S.M. Sapuan**, Effective study method, Motivational Talk and Dialogue, Sekolah Menengah Teknik, Ipoh, Perak, 8 July 2011 (Invited as Distinguished Guest to officiate School Curriculum Excellent Award Ceremony).
47. **S.M. Sapuan**, and D. Bachtiar, Tensile properties of untreated sugar palm fibre reinforced high impact polystyrene composites, Presented at International conference on Innovation of Polymer Science and Technology 2011 (IPST-2011), 28th Nov – 1st Dec. 2011, Bali, Indonesia, p, 69 (Program and Abstract Book).
48. **S.M. Sapuan**, Design for manufacture for composites, Seminar, Universiti Teknikal Malaysia Melaka, Melaka, Malaysia, 14th December 2011.
49. **S.M. Sapuan**, Recent advances in concurrent engineering, design for Manufacture, design for assembly, design for sustainability and rapid prototyping, Seminar, Universiti Teknikal Malaysia Melaka, Melaka, Malaysia, 15th December 2011 (During Visiting Professorship visit).
50. **S.M. Sapuan**, Publish and flourish, Presented during Briefing for New Postgraduate Students Second Session 2011/2012, Serdang, Malaysia, 16 March 2012.
51. R.Wirawan and **S.M. Sapuan**, Sugarcane bagasse-filled polyvinyl chloride composite: an alternative use of sugarcane bagasse, 1st May 2012, SugarAsia 2012 Conference, Bangkok, Thailand.
52. **S.M. Sapuan**, Publish and flourish, SURERG/REFRAG/HIREF Journal Publication Workshop, Energy Research Alliance, Universiti Teknologi Malaysia, Johor Bahru, Johor, Malaysia, 8-9 October 2012.
53. **S.M. Sapuan**, Research on natural fibre composites at Universiti Putra Malaysia, Presented at Universiti Putra Malaysia (UPM) – The Society of Materials Science, Japan (JSMS) Colloquium on Composite Materials 2012, 9th November 2012, Serdang, Selangor, Malaysia.
54. **S.M. Sapuan**, Knowledge sharing: techniques in preparing final examination questions, Bengkel Penyelarasan Komponen OBE, Fakulti Kejuruteraan Mekanikal, Universiti Teknikal Malaysia Melaka (UTeM), Melaka, Malaysia, 23-24 November 2012.

55. **S.M. Sapuan**, Knowledge sharing in writing technical papers, Workshop on Journal Paper Writing, Universitas Malahayati, Bandar Lampung, Indonesia, 11 December 2012.
56. **S.M. Sapuan**, Sharing research experiences in advanced materials, Presented to staff of Advanced Materials and Renewable Energies Department, Iranian Research Organization for Science and Technology (IROST), Ministry of Science, Research and Technology, Iran, 26th Khwarizmi International Award, Tehran, Iran, 5th February 2013.
57. **S.M. Sapuan** and Y. A. El-Shekeil, Properties of kenaf fiber-reinforced thermoplastic polyurethane composites, presented to government officers, Iran, 26th Khwarizmi International Award, Tehran, Iran, 6th February 2013.
58. **S.M. Sapuan**, Penulisan tesis tahun akhir, presented at Bengkel Penulisan Tesis Projek Tahun Akhir, Universiti Teknikal Malaysia Melaka, 27 March 2013.
59. **S.M. Sapuan**, Knowledge sharing in writing journal papers, Seminar presented during Visiting Professorship Visit, Universiti Teknikal Malaysia Melaka, 28 March 2013.
60. S.M. Sapuan, How to publish in high impact journals, presented at Bengkel Penulisan Kumpulan Penyelidikan 2013, Pusat Pengajian Teknologi Maklumat, Fakulti Teknologi dan Sains Maklumat, Universiti Kebangsaan Malaysia, Bangi, 22 April 2013.
61. R.Yunus, A. H. Shaari, **S.M. Sapuan** and T.Y. Abdullah, Materials research at UPM, Presented at Workshop to Explore Scientific Exchange and Collaboration with KTH Royal Institute of Technology, Sweden, Istana Hotel, Kuala Lumpur, 23-24 April 2013.

The following three invited lectures were presented at Bengkel Penulisan dan Penilaian Jurnal Berimpak, UTM KL, Port Dickson, Negeri Sembilan, Malaysia:

62. **S.M. Sapuan**, "Publish or flourish", "publish or perish"! no more now "be found and perish", Presented at Bengkel Penulisan dan Penilaian Jurnal Berimpak, Port Dickson, Malaysia, 4-5 June 2013.
63. **S.M. Sapuan**, Sharing experience in research and journal publication, Presented at Bengkel Penulisan dan Penilaian Jurnal Berimpak, Port Dickson, Negeri Sembilan, Malaysia, 4-5 June 2013.
64. **S.M. Sapuan**, Hands-on tutorials on journal paper publication, Presented at Bengkel Penulisan dan Penilaian Jurnal Berimpak, Port Dickson, Negeri Sembilan, Malaysia, 4-5 June 2013.
65. **S.M. Sapuan** and Y.A. El-Shekeil, Engineering Composites Research Group, presented at Materials Science and Technology Seminar 2013, Serdang, Selangor, Malaysia, 24th June 2013.

CONFERENCE PAPERS AND SEMINAR PRESENTED

1. **S.M. Sapuan** and N. Saaidin, A preliminary study of temperature profile measurement of the sterilization process, Paper presented at the Steering Committee Meeting on the Automation of the Palm Oil Mill, 1 April 1991, Kuala Lumpur, Malaysia, Paper 1.
2. H. Masjuki, A.M. Zaki and **S.M. Sapuan**, Methyl ester of palm oil as an alternative diesel fuel, Proceedings of Second IMechE Seminar on Fuels for Automotive and Industrial Diesel Engines, 6-7 April 1993, London, UK, pp. 129-137, Published by Mechanical Engineering Publication Limited (MEP), UK for IMechE, ISBN 0 85298 848 6.
3. H. Masjuki and **S.M. Sapuan**, Performance and wear analysis of small diesel engine fuelled by palm oil blends, Proceedings of the Fourth International Conference on Small Engines and their Fuels, 21-24 September 1993, Chiang Mai, Thailand, pp. 7-13, Published by University of Chiang Mai, Thailand, ISBN 07049 08332.

4. H. Masjuki and **S.M. Sapuan**, Vegetable oils as future renewable fuels for diesel engines, *Proceedings of the National Conference on Energy and Environment towards 2020*, 26-27 October 1993, Johor Bahru, Malaysia, pp. 216-229, Published by Universiti Teknologi Malaysia.
5. **S.M. Sapuan**, H.S. Abdalla and R.J. Nash, Proposed design and manufacturing techniques of polymeric based composite pedal box system, *Proceedings of the Eleventh National Conference on Manufacturing Research*, 12-14 September 1995, Leicester, UK, pp. 77-81, Published by Taylor & Francis Ltd, London, ISBN 0 7484 0400 7.
6. **S.M. Sapuan**, An expert system for materials selection of polymeric based composite pedal box system, *Seminar*, Department of Mechanical and Manufacturing Engineering, De Montfort University, UK, 10 July 1997.
7. **S.M. Sapuan** and H.S. Abdalla, A concurrent engineering polymeric-based composite system for automotive components, *Proceedings of the First Symposium on Knowledge Exchange – Manufacturing, Logistics and Management*, 24 July 1997, Loughborough, UK, pp. 33-42, Published by Mechanical Engineering Publication Limited (MEP), UK.
8. **S.M. Sapuan**, H.S. Abdalla and R.J. Nash, An expert system for material selection of polymeric composite pedal box system, *Proceedings of the Fifth International Conference on Automated Composites*, 4-5 September 1997, Glasgow, UK, pp. 373-380, Published by the Institute of Materials, London, ISBN 1-86125-003-7.
9. **S.M. Sapuan**, An expert system for design to cost of polymeric based composite pedal box system, *Seminar*, Department of Mechanical and Manufacturing Engineering, De Montfort University, UK, 10 November 1997.
10. **S.M. Sapuan**, A concurrent engineering approach to the design of fibre reinforced plastics for automotive pedal system, *Proceedings of the Fourth International Conference on Advances in Materials and Processing Technologies, Volume II*, 24-28 August 1998, Kuala Lumpur, Malaysia, pp. 1083-1090, Published by SIRIM Press, Malaysia, ISBN 967-924-003-7.
11. **S.M. Sapuan**, A review of the British engineering education model, *Proceedings of a Review of Engineering Curricula Workshop*, 4-6 June 1999, Malacca, Malaysia, pp. 61-77. Published by Universiti Putra Malaysia (UPM) Press, ISBN 967-960-097-1.
12. Y. Nukman, J. Wang and **S.M. Sapuan**, A study on time optimized control of pneumatic cylinder actuators, *Proceedings of the World Engineering Congress, Mechanical and Manufacturing Engineering Conference*, 19-22 July 1999, Kuala Lumpur, Malaysia, pp. 95-100, Published by Universiti Putra Malaysia (UPM) Press, ISBN 967-960-091-2.
13. D.M. Nuruzzaman, **S.M. Sapuan**, S. Basri and M. A. W. Usmani, Comparative study between finite element method and analytical method of a high speed cylindrical bore journal bearing behaviour, *Proceedings of the World Engineering Congress, Mechanical and Manufacturing Engineering Conference*, 19-22 July 1999, Kuala Lumpur, Malaysia, pp. 101-106, Published by Universiti Putra Malaysia (UPM) Press, ISBN 967-960-091-2.
14. D.M. Nuruzzaman, **S.M. Sapuan** and S. Basri, Finite element modelling of high speed journal bearing behaviour, *Proceedings of the World Engineering Congress, Mechanical and Manufacturing Engineering Conference*, 19-22 July 1999, Kuala Lumpur, Malaysia, pp. 125-130, Published by Universiti Putra Malaysia (UPM) Press, ISBN 967-960-091-2.
15. M. Awang, M.R. Osman, **S.M. Sapuan** and N. Ismail, Application of QFD to motorcycle and knapsack sprayer, *Proceedings of the World Engineering Congress, Mechanical and Manufacturing Engineering Conference*, 19-22 July 1999, Kuala Lumpur, Malaysia, pp. 273-278, Published by Universiti Putra Malaysia (UPM) Press, ISBN 967-960-091-2.
16. N. Ismail, N. Abu-Bakar, M.R. Osman and **S.M. Sapuan**, Feature recognition approach for computer aided manufacturing, *Proceedings of the World Engineering Congress, Mechanical and*

Manufacturing Engineering Conference, 19-22 July 1999, Kuala Lumpur, Malaysia, pp. 317-324, Published by Universiti Putra Malaysia (UPM) Press, ISBN 967-960-091-2.

17. A. Gayretli, **S.M. Sapuan**, L.C. Hooi and M.R Osman, A concurrent engineering design system for polymeric-based composite automotive air intake manifold, Proceedings of the World Engineering Congress, Mechanical and Manufacturing Engineering Conference, 19-22 July 1999, Kuala Lumpur, Malaysia, pp. 375-380, Published by Universiti Putra Malaysia (UPM) Press, ISBN 967-960-091-2.
18. M.A.H. Mollah, **S.M. Sapuan** and S. Sulaiman, Design aspect of a composite material country boat, Proceedings of the World Engineering Congress, Mechanical and Manufacturing Engineering Conference, 19-22 July 1999, Kuala Lumpur, Malaysia, pp. 429-434, Published by Universiti Putra Malaysia (UPM) Press, ISBN 967-960-091-2.
19. M. H. Onsa, S. Basri, **S.M. Sapuan**, M.M. H. Megat-Ahmad and S.E. Sadique, Solution of coupled Reynolds and elasticity equation using boundary element method, Proceedings of the World Engineering Congress, Aerospace Engineering Conference, 19-22 July 1999, Kuala Lumpur, Malaysia, pp. 97-102, Published by Universiti Putra Malaysia (UPM) Press, ISBN 967-960-084-x.
20. Y. Nukman, J. Wang and **S.M. Sapuan**, A study on energy optimized control of pneumatic cylinder actuators, Proceedings of the World Engineering Congress, Automation and Robotics Conference, 19-22 July 1999, Kuala Lumpur, Malaysia, pp. 65-70, Published by Universiti Putra Malaysia (UPM) Press, ISBN 967-960-093-9.
21. **S.M. Sapuan** and N. Mariun, The engineering education system in UK universities: a survey, presented at A One Day Colloquium on the Malaysian Engineering Education Model for the Next Millennium, 24 August 1999, Putrajaya, Selangor, Malaysia, Paper 3.
22. M.A.H. Mollah, **S.M. Sapuan** and M.M. Hamdan, Fuel efficiency and power matching of traditional fishing boats: a case study, Proceedings of the Malaysian Science and Technology Congress 99 (MSTC 99), Symposium A, Volume II, 25-27 Oct. 1999, Kuala Lumpur, Malaysia, pp 25-32, Published by Confederation of Scientific and Technological Associations in Malaysia (COSTAM).
23. **S.M. Sapuan**, M.R. Osman, M.M.N., Megat Johari, N. Ismail, Omar, H. and D. Ahmad, Malaysian engineering education model – the formation process, Paper presented at the Workshop on Development of Malaysian Engineering Education Model, 19-21 November 1999, Malacca, Malaysia, Paper 3.
24. S.M.A. Molla, M.M. Hamdan, M.A.H. Mollah, and **S.M. Sapuan**, Emission reduction potential of natural gas fuelled engine to comply with emission standards, Proceedings of the Second International Seminar on Renewable Energy for Poverty Alleviation (ISREPA-99), 26-27 November 1999, Dhaka, Bangladesh, pp. 500-509, Published by The Institution of Engineers, Bangladesh, ISBN 984-31-0683-0.
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350. P.J. Shen, M.N.M. Ansari, O.S. Zaroog, M.H. Ali and **S.M. Sapuan**, Optimization of machining parameters on the end milling process of HNT/Al/epoxy hybrid composite, *Proceedings of International Conference on*

Advancements in Polymeric Materials (APM 2013), 1-3 March 2013, Lucknow, India, p. 331, ISBN 978-1-8424-823-4.

351. M.R.Mansor, **S.M. Sapuan**, E.S. Zainudin, A.A. Nuraini A. Hambali and M.D. Azaman, Material selection of thermoplastic matrix for hybrid natural fiber/glass fiber polymer composites using analytic hierarchy process method, the 12th International Symposium on the Analytical Hierarchy Process (ISAHP 2013), Kuala Lumpur, 23-26 June 2013.
352. M. U. Rosli, M. K. A. Ariffin, **S. M. Sapuan** and S. Sulaiman, AHP as prioritization tool for TRIZ methodology: Case study on car's dashboard improvement design concepts, 7th International Conference of Arab Society for Computer Aided Architectural Design (ASCAAD 2013), Jeddah, Saudi Arabia, 16-18 December 2013.
353. M. U. Rosli, M. K. A. Ariffin, **S. M. Sapuan** and S. Sulaiman M. U. Rosli, M. K. A. Ariffin, **S. M. Sapuan** and S. Sulaiman, Car's dashboard improvement design concepts through integration of AHP and TRIZ, the 12th International Symposium on the Analytical Hierarchy Process (ISAHP 2013), Kuala Lumpur, 23-26 June 2013.
354. K.D., Mohd Aris, F. Mustapha, **S.M. Sapuan** and D. Majid, Experimental validation on time base analysis of various aircraft crp panels conditions for structural health monitoring, 2013 2nd International Conference on Advances in Mechanics Engineering (ICAME 2013), Jakarta, Indonesia. July13-14, 2013.

Research Bulletin

1. **S.M. Sapuan**, H. Masjuki and A. Azlan, Energy outlook in the Malaysian cement Industry, Jurutera, Bulletin of the Institution of Engineers, Malaysia, no. 7, pp.13-15, 1995.
2. **S.M. Sapuan**, Design of a stacking system for straw bales in a biomass power generating plant, Jurutera, Bulletin of the Institution of Engineers, Malaysia, no. 7, pp.50-64, 1997.
3. A. Gayretli and **S.M. Sapuan**, Conceptual design of a weapon trolley, Jurutera, Bulletin of the Institution of Engineers, Malaysia, no. 8, pp.46-51, 1998.
4. **S.M. Sapuan**, Design of a wind tunnel for the study of turbulent flow in a circular pipe, Jurutera, Bulletin of the Institution of Engineers, Malaysia, no. 1, pp. 33-40, 1999.
5. **S.M. Sapuan**, M.A.H. Mollah and M.Y. Hassan, A review of marine and shipping applications of polymer-based composites, Jurutera, Bulletin of the Institution of Engineers Malaysia, no. 7, pp.51-55, 1999.
6. **S.M. Sapuan**, Advanced Materials Research Center, Advanced Technology (Bulletin of ITMA, UPM), 1, no. 1., pp. 3, 2001, Published by UPM Press.
7. **S.M. Sapuan**, Concurrent engineering: the way forward in design practice, MRM Bulletin, no. 3, pp. 4-5, 2003.
8. O. Addin, **S.M. Sapuan**, E. Mahdi and M. Osman, f-FFE: f: folds feature extraction for structural health monitoring systems, Frontier science and Advanced Technology Research Bulletin, 4, Dec., p. 37, 2006.
9. **S.M. Sapuan**, Composite-its endless journey, Synthesis, no. 25, June 2009.
10. J. Sahari and **S.M. Sapuan**, Utilization of sugar palm tree as sustainable biofibre, biopolymer and biocomposites, PRIM Bulletin, Special Edition, pp. 5-9, 2011.
11. **S.M. Sapuan**, Concurrent decision making at the conceptual design stage using analytical hierarchy, Synthesis, Issue 36, March 2012, p. 14, issn 0127-9394.
12. F.L. Pua, **S.M. Sapuan** and A. Kumaran, Study of cocoa pod husk / polyvinyl alcohol (PVA) as a new biodegradable composite film, Materials Mind, December 2012, pp. 14-16.

Published Research Directory

1. E.S. Zainuddin and **S.M. Sapuan**, Fibre orientation of short fibre reinforced injection moulded thermoplastic composites, Research and Development at Universiti Putra Malaysia Part 1: Creating New Frontiers of Innovative Research, First Edition, 2003, Research Management Centre, UPM, p. 158-159, ISSN 1675-2236.

2. **S.M. Sapuan**, Woven banana fibre/epoxy composite telephone stand, *Research and Development at Universiti Putra Malaysia: Creating New Frontiers of Innovative Research*, First Edition, 2004, Research Management Centre, UPM, p. 400, ISSN 1675-1248.
3. **S.M. Sapuan**, Table, *Faculty of Engineering, UPM Research Product Volume 1*, 2007, Faculty of Engineering, UPM, p. 53, ISSN 1823-9854.
4. **S.M. Sapuan**, R. Usubamatov, A. Yahya, N. Ismail, M. Hamdan, R.M. Yusuf and N.M. Adam, Turn bridge, *Faculty of Engineering, UPM Research Product Volume 1*, 2007, Faculty of Engineering, UPM, p. 54, ISSN 1823-9854.
5. M. Hamdan, N. Ismail, R. Usubamatov and **S.M. Sapuan**, Apparatus for machining spiral tooth of a spiral bevel gear, *Faculty of Engineering, UPM Research Product Volume 1*, 2007, Faculty of Engineering, UPM, p. 49, ISSN 1823-9854.
6. N. Ismail, R. Usubamatov, M. Hamdan and **S.M. Sapuan**, Wind power station, *Faculty of Engineering, UPM Research Product Volume 1*, 2007, Faculty of Engineering, UPM, p. 55, ISSN 1823-9854.
7. A.S. Mokhtar, F. Mustapha, N. Ismail and **S.M. Sapuan**, A knowledge-based approach for troubleshooting on aircraft engine and parts for air wing unit (Unit Udara Polis, PDRM), *Faculty of Engineering Research Directory Volume 1*, 2007, Faculty of Engineering, UPM, p. 1, ISSN 1823-9846.
8. A.S. Mokhtar, F. Mustapha, N. Ismail and **S.M. Sapuan**, A knowledge-based approach for troubleshooting on aircraft engine and parts for air wing unit (Unit Udara Polis, PDRM), *Faculty of Engineering Research Directory Volume 1*, 2007, Faculty of Engineering, UPM, p. 1, ISSN 1823-9846.
9. **S.M. Sapuan**, M. Hamdan, Y.A. Khalid and T. S. Younis, Experimental and finite analysis of the pressure carrying capacity for reinforced composite materials, *Faculty of Engineering Research Directory Volume 1*, 2007, Faculty of Engineering, UPM, p. 126, ISSN 1823-9846.
10. **S.M. Sapuan** and A. Hambali, Concurrent decision making at the conceptual design stage using analytical hierarchy process, *Malaysia Technology Expo (MTE) 2010, Directory of Research Products*, 4-6 February 2010, Kuala Lumpur, p. 9.
11. **S.M. Sapuan**, Preparation and characterization of kenaf reinforced thermoplastic composites, *The Laureates of the 26th Khwarizmi International Award (KIA)*, 5 February 2013, Tehran, Iran, p. 82.

Magazine & Newsletter

1. **S.M. Sapuan**, Bahan komposit bertetulang gentian semula jadi (Natural fibre reinforced composite), *Dewan Kosmik*, April 2002, pp. 45-47.
2. **S.M. Sapuan**, Bahan komposit dalam industri aero angkasa (Composite materials in aerospace industry), *Dewan Kosmik*, May 2002, pp. 22-23.
3. **S.M. Sapuan**, Bumper kereta daripada bahan komposit (Car bumper from composite), *Dewan Kosmik*, Julai 2002, pp. 20-21.
4. **S.M. Sapuan** and A. N. Azmah, Ujian dan piawai komposit (Testing and Standards for composites), *Dewan Kosmik*, November 2002, pp. 24-25.
5. **S.M. Sapuan**, Penggunaan bahan komposit dalam keretapi (The use of composite materials in train), *Dewan Kosmik*, December 2002, p. 31.
6. **S.M. Sapuan**, Sistem pakar dalam reka bentuk, pembuatan dan pemilihan bahan komposit (Expert system in design, manufacture and material selection for composite materials), *Dewan Kosmik*, September 2002, pp. 48-49.

7. **S.M. Sapuan**, Pedal atau injak kereta daripada bahan komposit (Car pedals from composite materials), *Dewan Kosmik*, August 2002, pp. 22-23.
8. **S.M. Sapuan**, Teknologi nano (Nanotechnology), *Dewan Kosmik*, September 2001, pp. 52-53.
9. **S.M. Sapuan**, Kejuruteraan setemu: ke arah persepaduan reka bentuk dan pembuatan (Concurrent engineering: towards integration of design and manufacture), *Dewan Kosmik*, March 2002, pp. 18-19.
10. **S.M. Sapuan**, Composite automotive pedal box, *Symbiosis*, October 2003 – January 2004, pp. 40.
11. **S.M. Sapuan**, Agri-based fibre composites, *Symbiosis*, 52, June – September 2004, pp. 52.
13. **S.M. Sapuan**, Meja pengarang, *Perintis*, 2, no. 4, pp. 1, 2006.
14. **S.M. Sapuan**, Effective oral presentation, *the Suburb*, (Bradford, UK), no. 8, p. 38, April 2008.
15. **S.M. Sapuan**, Engineering research at UPM, *Prospect Malaysia*, no. 5, p. 51, February 2008.

Newspaper article

1. **S.M. Sapuan**, Kolokium Model Pendidikan Kejuruteraan Malaysia, *Tribun Putra*, 15 April 2000, pp. 10 (in Malay).
2. **S.M. Sapuan**, Kereta daripada komposit, *Utusan Malaysia*, 31 October 1995 (in Malay), pp.19.

Thesis /Graduate Project Report

1. **S.M. Sapuan**, Study of Turbulent Flow in a Circular Pipe, B.Eng. Final Year Project Report, Department of Mechanical Engineering, University of Newcastle, NSW, Australia, 1989.
2. **S.M. Sapuan**, Design of Weather Protection System for Straw Bales, MSc Minor Project Report, Engineering Design Institute, Loughborough University of Technology, Leics, UK, 1993.
3. **S.M. Sapuan**, Design of Stacking System for Straw Bales, MSc Major Project Report, Engineering Design Institute, Loughborough University of Technology, Leics, UK, 1994.
4. **S.M. Sapuan**, A Concurrent Engineering Design System for Polymeric-Based Composite Automotive Components, Ph.D. Thesis, De Montfort University, UK, 1998.

Awards & Recognitions:

National and International

1. Visiting Lecturer, Department of Engineering Design and Manufacture, Universiti Malaya, 2001-2002.
2. 21st. Century Award for Achievement, International Biographical Centre, Cambridge CB2 3QP England, June 2002.
3. Most proactive participant award, National Symposium on Polymeric Materials 2002 held organized by Plastics and Rubber Institute of Malaysia (Co-author of paper)
4. The Who's Who Award for Achievement, International Biographical Centre, Cambridge CB2 3QP England, 2002.
4. Life Fellow, International Biographical Association (LFIBA), Cambridge, UK, 2003.
5. Fellow, Institute of Materials Malaysia (FIMM), 2004.
6. Certificate of Recognition as Active Member for 5 years, Society of Automotive Engineers, USA, 2004.

8. Excellence Award, Science Publications, New York, USA, December 2005.
9. Consolation Prize, Essay Writing Competition on 'Good Agricultural Practice', Ministry of Agriculture and Agro-Based Industry', December 2005 (RM 400).
10. Best Publication Award, Malaysian Palm Oil Board, 2005 (RM 500) Co-author.
11. Silver Medal, Polymer Composite Automotive Components, Malaysia Technology Expo 2006.
12. Visiting Academic, School of Engineering, Design and Technology, University of Bradford, UK, 2007.
13. Honorary Life Member, Asian Polymer Association, 2008.
14. Vice President, Asian Polymer Association, 2008-now.
15. Finalist for The Muslim News Award for Excellence: Fazlur Rahman Khan Award for Excellence in Engineering, Science and Technology, UK, 2008 (3 finalists).
16. Member Service Award (10 year Recipient), Society of Automotive Engineers, International, USA, 2008.
17. Short listed for Malaysian Toray Science Foundation (MTSF) Science and Technology Award, 2008.
18. Award of ISESCO Science Prize in Technology – 2008 (a gold medal, certificate and US \$ 5,000).
19. Co-author Best Oral Presentation Award, Potential use of sugarcane bagasse fibre as reinforcing component in poly (vinyl chloride) matrix composites, the VIIIth National Symposium on Polymeric Materials, 26-27 November 2008, Naza Hotel, Penang, Malaysia. (As co-author).
20. First Runner-up, UTM-Educational Innovation of Motorsport & Automotive Race '09 (EIMA RACE '09), Litar Dato' Sagor, Kampung Teluk, Kampong Gajah, Perak, 24-25 July 2009 (RM 2,000) (Advisor).
21. Bronze Medal, Concurrent Decision Making at the Conceptual Design Stage Using Analytical Hierarchy, Malaysia Technology Expo 2010 (MTE 2010), 2010.
22. PRIM Fellowship Award, Plastic and Rubber Institute, Malaysia, 16th March 2010.
23. First Prize, Forest Research Institute of Malaysia (FRIM) Publication Award (Category: Semi/Non Technical Publication), 2010.
24. First Runner-up, UTM-Educational Innovation of Motorsport & Automotive Race '10 (EIMA RACE '10), Litar Dato' Sagor, Kampung Teluk, Kampong Gajah, Perak, July 2010 (RM 2,000) (Advisor/Head of Department).
25. Best Poster Award, 8th International Conference on Composite Science and Technology, Kuala Lumpur, March 2011.
26. Visiting Professor, Faculty of Mechanical Engineering, UTeM, Melaka, Malaysia, 2011-2013.
27. The Best Student Poster Presenter Award, International Conference on Innovation in Polymer Science and Technology 2011 (IPST2011), Bali, Indonesia, 28th November – 1st December 2011. Development of high performance of sugar palm (*Arenga pinnata*) fibre composite via resin impregnation, M.R. Ishak, Z. Leman, S.M. Sapuan, M.Z. A. Rahman, U.M.K. Anwar, J.C. Chua and J.K. Chin.
28. The Rotary Club of Kuala Lumpur DiRaja Research Gold Medal, Rotary Research Awards, 13 April 2012 presented by DYMM Sultan of Selangor.
29. Fellow, Malaysian Scientific Association (FMSA), 2011 (Certificate of Fellowship was presented by Deputy Minister of Science, Technology and Innovation Malaysia on the 29 November 2012 at Royal Selangor Club during Majlis Anugerah Kecemerlangan Sains dan Teknologi, MSA).

30. Silver Medal, Innovative Hand Tool Harvester for Dioscorea Hispida, International Ibn Al-Haytham's Al-Manazir Innovation and Invention Exhibition InEx 2011, Kuantan, Pahang, Malaysia, 6-7 December 2011,
31. The Best Scientific Paper and Oral Presenter, The UPM-UniKL Symposium on Polymeric Materials and The Third Postgraduate Seminar on Natural Fibre Composites 2012, Melaka, 2nd February 2012. Development of woven fabric reinforcement from betal nut husk fiber: physical properties of BNH fiber, L. Yusriah, S.M. Sapuan, E.S. Zainudin, M. Mariatti and J. Sahari.
32. Second Prize Winner for Poster Presentation, in SAMPE Asia 2012 Conference and Exhibition, Kuala Lumpur, Malaysia, 21st – 23rd February 2012. Y.A. El-Shekeil, S.M. Sapuan, A. Khalina and E.S. Zainudin, Isocyanate chemical treatment on tensile properties of kenaf bast fibre reinforced thermoplastic polyurethane composite.
33. The Alumni Medal for Profesional Excellence Finalist, 2012 Alumni Awards, University of Newcastle, Australia, 2012.
34. Short listed for Malaysian Toray Science Foundation (MTSF) Science and Technology Award, 2012 (6 candidates shortlisted).
35. Bronze, Karmegam Karuppiah, Mohd Sapuan Salit, Shamsul Bahri Hj Mohd Tamrin, Mohd Yusof Ismail and Napsiah Ismail, Prototype of a Lumbar Support for Motorcyclist, BioMalaysia'12 Exhibition, 5th-7th November 2012.
36. KIA Laureate of the Khwarizmi International Award, 26th Khwarizmi International Award, 2013.

Listed in:

37. Who's Who in the 21st. Century – Second Edition, International Biographical Center, Cambridge CB2 3QP England, 2002.
38. Marquis Who's Who in the World in 2003, New Providence, N.J., USA.
39. ISESCO Science Laureates, 2008.
40. Who's Who in Engineering Higher Education (WWEHE), AcademicKeys, LLC, Storrs, USA, 2010.
41. Khwarizmi International Award (KIA) Laureate, 2013.

Institutional

1. Excellence Service Award, Faculty of Engineering, UPM, 1998
2. Quality Service Award, Faculty of Engineering, UPM, 1999
3. Research Associate, Advanced Materials Laboratory, ITMA, UPM, 2001-2006.
4. Excellence Service Award, Universiti Putra Malaysia, 2001.
5. Anugerah Karyawan Putra Cemerlang (Excellence Putra Publication Award), Universiti Putra Malaysia, 2002 (RM 10,000).
6. Bronze Medal, Invention and Research Exhibition, Universiti Putra Malaysia, 30 August 2002.
7. Bronze Medal, Research and Development (R&D) Exhibition, Faculty of Engineering, UPM, 30 July – 1st August 2002.
8. Excellence Service Award, Universiti Putra Malaysia, 2002.
9. Best paper award, Symposium on Concurrent Engineering Manufacturing System for Polymeric Based Composite in 2003 (Co-author).

10. Excellence Service Award, Universiti Putra Malaysia, 2003.
11. Excellence Service Award, Universiti Putra Malaysia, 2004 (RM 1000).
12. Bronze Medal, Natural fibre composites: properties, design and fabrication, Exhibition of Invention, Research and Innovation UPM, 9 March 2005.
13. Bronze Medal, Analysis and fabrication of injection moulded glass fibre reinforced polyamide composite automotive clutch pedal, Exhibition of Invention, Research and Innovation UPM, 9 March 2005.
14. Silver Medal, Design and fabrication of filament winding machine, Exhibition of Invention, Research and Innovation UPM, 9 March 2005.
15. Bronze Medal, Fretting fatigue test rig, Exhibition of Invention, Research and Innovation UPM, 9 March 2005.
16. Excellence Researcher Award UPM 2005 (The Best Publication Award; the highest number of journal papers published in citation indexed journals in Science and Technology).
17. UPM Excellence Service Award 2005.
18. Bronze Medal, Design and Development of Fluidized Bed Gasifier Using Oil Palm Biomass for Energy Generation, Exhibition of Invention, Research and Innovation UPM, 22-24 August 2006.
19. UPM Certificate of Excellent Service 2006.
20. Certificate of Excellence in Teaching 2007, Faculty of Engineering, UPM.
21. Excellence Researcher Award 2007, Publication Incentive Award, UPM (The highest Incentive for the Category of Professor, RM 16,176).
22. Vice Chancellor Fellowship Prize 2008 (Excellence in Research), UPM, (RM 10,000).
23. Best Laboratory (Publication), Quality Day, ITMA, UPM, 2008 (As Member of Laboratory)
24. Best Laboratory (Research Grant), Quality Day, ITMA, UPM, 2008. (As Member of Laboratory)
25. Faculty of Engineering, UPM Excellent Award in Research 2008 (Parking Space for one year).
26. Excellent Department Special Award, Faculty of Engineering, UPM, 2008 (as Head of Department).
27. Certificate of Excellence in Teaching 2008, Faculty of Engineering, UPM.
28. Excellence Researcher Award 2008, UPM (Special International Award)
29. Excellence Researcher Award 2008, Publication Incentive Award, UPM (The highest Incentive for the Category of Professor, RM 13,300).
30. Silver Medal, Concurrent Decision Making at the Conceptual Design Stage Using Analytical Hierarchy Process, Exhibition of Invention, Research and Innovation UPM (PRPI 2009) , 28 July 2009.
31. Bronze Medal, Design and Fabrication of a Student Competition based Racing Car Exhibition of Invention, Research and Innovation UPM (PRPI 2009), 28 July 2009.
32. Best Department Award, Faculty of Engineering, UPM, 2009 (as Head of Department) (5 star rating).
33. Excellence Service Award, UPM, 2008.
34. Excellence in Teaching Award, Faculty of Engineering, UPM, 2009.

35. Excellence Service Award, UPM, 2009 (RM 1000).
36. Excellence Service Award, UPM, 2010.
37. Silver Medal, Development of Ijuk (Arenga Pinnata) Fiber Biocomposite for Small Boat Application, Exhibition of Invention, Research and Innovation UPM (PRPI 2010), 20th – 22nd July 2010.
38. Silver Medal, Design and Prototype of an Ergonomic Back-leaning Posture Support for Motorbike Riders, Exhibition of Invention, Research and Innovation UPM (PRPI 2010), 20th – 22nd July 2010.
39. Bronze Medal, Fabrication of Functionally Graded Material by Pressureless Method Exhibition of Invention, Research and Innovation UPM (PRPI 2010), 20th – 22nd July 2010.
40. Excellence Researcher Award, Faculty of Engineering, UPM, 31 December 2010 (One year parking space).
41. Excellent Department Award, Faculty of Engineering, UPM, 2010 (as Head of Department).
42. Silver Medal, E.S. Zainudin, A. Khalina, I.S. Aji and S.M. Sapuan, Potential of hybrid biocomposite as a substitute to carbon Fibre, Exhibition of Invention, Research and Innovation UPM (PRPI 2011), 19th – 21st July 2011.
43. Bronze Medal, E.S. Zainudin, A. Khalina, I.S. Aji and S.M. Sapuan, Reducing water uptake of natural-fibre composite through hybridization, Exhibition of Invention, Research and Innovation UPM (PRPI 2011), 19th – 21st July 2011.
44. Silver Medal, A. Khalina, Haniffah W.H., E.S. Zainudin and S.M. Sapuan, High Moisture Durability of Moulded Biocomposite. Exhibition of Invention, Research and Innovation (PRPI 2011), 19-21 July 2011.
45. Ranked 34th in UPM's Top 100 Researchers, 2011.
46. Excellence Researcher Award, Faculty of Engineering, UPM, 16th December 2011 (One year parking space).
47. Excellence Award in Teaching 2011, Faculty of Engineering, UPM, 16th December 2011.
48. Sijil Penghargaan Perkhidmatan Cemerlang 2011, UPM (Excellent Service Appreciation Certificate 2011, UPM), signed by Vice Chancellor, UPM, 26 June 2012).
49. Anugerah Kecemerlangan Dalam Pengajaran Tahun 2012, (Excellence Award in Teaching 2012), Faculty of Engineering, UPM, 2012.
50. Kumaran Anbananthen, Mechanical Properties of Cocoa Pod Filled Poly Lactic Acid Mulch Film Composites, Majlis Pembentangan dan Pameran Projek Pelajar Tahun Akhir, Fakulti Kejuruteraan, UPM (Won the Best Poster Award), (As supervisor).

Professional Training Attended

1. JPA-ITM English Course for Further Study in Australia, ITM, Shah Alam, 1983.
2. Training for New Staff, Proton Bhd, 1993.
3. Kursus Induksi SSB Kumpulan Pengurusan dan Profesional 3/2000, 3-35 October 2000, UPM
4. Kappa PC Training, UPM, 2001.
5. Kursus Penilaian Tahap Kecekapan Kumpulan Pengurusan dan Profesional (Akademik), 27 Oct. – 7 Nov. 2003, UPM.
6. Rapid Prototyping (FDM) Training, ITMA, 2004.

5. OBE Training, UPM, 2006.
6. Expert Choice software training, UPM, 2008.
7. TRIZ Level 1, UPM, 2012.