



## PERSONAL PARTICULARS

**Name:** Prof. Dr. Hazizan bin Md Akil  
B.Eng. (North London, UK), PhD (Liverpool, UK)  
Professor in Materials Engineering

**Gender:** Male

**Race:** Malay

**Date of Birth:** 01-07-1971

**Spoken Languages:** English and Malay

**Address:** School of Materials & Mineral Resources Engineering, Universiti Sains Malaysia, 14300, Nibong Tebal, Penang, Malaysia.

**Citizenship:** Malaysian

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**Personal homepage:** [www.lowvelocityimpact.com](http://www.lowvelocityimpact.com)

**Researcher ID:** C-3685-2008

**Google Scholar ID:** Hazizan Md Akil

**h-Index:** 25\*, 25\*\*

**Total Citation:** 2711\*, 2389\*\* (Updated: 25/07/2016)

\*Google scholar  
\*\*Scopus

## ACADEMIC QUALIFICATION

1993 Rubber and Plastics Technology (Diploma) UiTM, Malaysia

1993 Natural Rubber Proc.( Diploma) RRIM, Malaysia

1996 Bachelor of Engineering (Hons) in Polymer Engineering, North London, UK

2002 Doctor of Philosophy , Impact on Sandwich Structures, Liverpool, UK

## WORKING EXPERIENCE

1990 Temporary Teacher Temerloh, Pahang

1993 Production Trainee, Scientex Auto Industries Sdn Bhd

1996 Works Technical Superintendant, Dunlop (M) Ind Berhad, PJ

1998-2002 Academic Staff Training Scheme ,Universiti Sains Malaysia (USM)

2002-2005 Lecturer, Universiti Sains Malaysia (USM)

2005-2008 Senior Lecturer, Universiti Sains Malaysia (USM)

2008-2012 Associate Professor, Universiti Sains Malaysia (USM)

2012-Present Professor, Universiti Sains Malaysia (USM)

## AREA OF SPECIALIZATION

Polymer, Polymer Matrix Composites (PMCs), Impact Dynamics, Nanocomposites

## KEYNOTE / INVITED SPEAKER (CONFERENCE / SEMINAR / SYMPOSIUM AND OTHER SIMILAR ACADEMIC FORUMS)

### 2016

1. **Hazizan Md Akil, Razlan, Helmi** “Synthesis, characterization and properties of Hybrid Nanocomposites” Session Invited Speaker for **ICETAS 2016**, Venue: **Afyon Kocatepe University, Afyonkarahislar, Turkey**.
2. **Hazizan Md Akil** “My University (USM) and my Country (Malaysia)” Internationa ERASMUS+ Week, Venue: **Afyon Kocatepe University, Afyonkarahislar, Turkey**.
3. **Hazizan Md Akil** “Introduction to Advanced Materials and Composites” MEVLANA EXCHANGE PROGRAM 2016, Venue: **Afyon Kocatepe University, Afyonkarahislar, Turkey**.
4. **Hazizan Md Akil, Razlan, Helmi** “Synthesis, characterization and properties of Hybrid multiwalled carbon nanotubes filled epoxy nanocomposites” Invited Speaker for **2nd International Sciences, Technology and Engineering Conference (2<sup>nd</sup> ISTECC 2016) Advanced Materials, Chemistry and Physics**, Venue: **Equatorial Hotel Penang, Malaysia**

### 2015

5. **Hazizan Md Akil** “Synthesis, characterization and properties of Hybrid multiwalled carbon nanotubes-alumina filled epoxy nanocomposites” Session Invited Speaker for International Conference of Applied Science and Industrial Technology (ICASIT), Venue: **Port Dickson, Negeri Sembilan, Malaysia**.
6. **Hazizan Md Akil** “Effects of chemical treatment on the properties of kenaf yarn fiber and pultruded kenaf fibre reinforced composites” Session Invited Speaker for 7<sup>th</sup> Asia-Europe Symposium on Processing and Properties of Reinforced Polymers (AESP7), Venue: **Madrid, Spain**

### 2014

7. **Hazizan Md Akil**, “Pultruded natural fibre reinforced composites: preparation, properties and applications”, Session Keynote speaker for 13th International Symposium on Bioplastics, Biocomposites & Biorefining (ISBBB), Venue: **Guelph, Canada**
8. **Hazizan Md Akil**, “Properties of multiwalled carbon nanotubes-alumina (MWCNT-Al<sub>2</sub>O<sub>3</sub>) hybrid/polydimethylsiloxane (PDMS) nanocomposites” Invited Speaker for International Symposium on Advanced Polymeric Materials (ISAPM ), Venue: **Putra World Trade Centre, Kuala Lumpur, Malaysia**

### 2013

1. **Hazizan Md Akil**, Organiser: 1st International Conference on Natural Fibers – Sustainable Materials for Advanced Applications (ICNF2013), Venue: **Guimarães – Portugal**

2. **Hazizan Md Akil**, “Unidirectional Natural Fibre Reinforced Composite: Effect of Surfacing Veil Application on the Properties of Pultruded Composites”, Organiser Sixth Asia-Europe Symposium on Processing and Properties of Reinforced Polymers (AESP6 2013), Venue: **Wuhan, China**

#### 2012

1. **Hazizan Md Akil**, “Peer to Peer Sharing Experience on Journal Publication, Organiser: 12<sup>th</sup> National Symposium on Polymeric Material (NSPM 2012), Venue: **Penang, Malaysia.**
2. **Hazizan Md Akil**, “Getting Your Manuscript Publish: What Reviewers and Editors Want, Organiser: 12<sup>th</sup> National Symposium on Polymeric Material (NSPM 2012), Venue: **Penang, Malaysia.**
3. **Hazizan Md Akil, Organiser:** International Symposium on Advance Polymeric Materials (ISAPM 2012) Venue: **Selangor, Malaysia.**

#### 2011

1. **Hazizan Md Akil**, “Effect of Competibilizer on Organo-modified Layered Silicate Poplypropylene Nanocomposite, Organiser: IPST 2011, **Venue: Bali, Indonesia.**

#### 2010

2. **Hazizan Md Akil**, “Low Velocity impact response on thermoplastic honeycomb core sandwich structure with aluminium skin”. Organiser: Indian Institute of space science and technology (IIST), INDIA, Thiruvananthapuram, **Venue: Thiruvananthapuram India.**

#### 2009

3. **Hazizan Md Akil**, “Properties of Pultruded Jute and Kenaf Fiber Reinforced Unsaturated Polyester Composites”, Organiser: NATO Workshop”Textile Composites” May18-21, 2009, **Venue: Kiev, Ukraine.**
4. Mohd Al Amin Muhamad Nor, **Hazizan Md Akil**, Zainal Arifin Ahmad, “Microstructure and properties of Ceramic Foam Produced via Polymeric Foam Replication Method”, Organiser: Japanese Society of Microscopy, **Venue: Sendai, Japan**

#### 2008

5. **Hazizan Md Akil**, “Pultruded Natural Fiber Reinforced Polymer Composites”, Organiser: SIRIM Malaysia Permatang Pauh, **Venue: Permatang Pauh , Penang, Malaysia**
6. **Hazizan Md Akil**, “Chitosan based Bio-Composite”, Organiser: International Center for Chemical And Biological Sciences, **Venue: University of Karachi, Pakistan**

#### 2007

7. **Hazizan Md Akil**, Nurhidayatulaii Mohd Jukapli ,”The Fabrication And Properties Of Kenaf Filled Chitosan Biocomposites”, Organiser: International Conference On Natural Polymer, Bio-Polymers, Bio Materials, Their Composites, Blends, Inds And Gels, Macro To Nano Scales (ICNP 2007) Institute Of Macromolecular Science And Engineering, **Venue: Kerala, India**

8. **Hazizan Md Akil**, “Pultruded Natural Fiber Reinforced Composites”, Organiser: International Conference on Futuristic Trends in Textile( ICFT2007), **Venue: National Institut of Technology, Jalandha, India**

**2004**

9. **Hazizan Md Akil**, M.G. Ghazali, Zaahmad, “The Effect of Stearic Acid Addition on Properties of Alumina-Filled Pp”, Organiser: Coe, **Venue: Bangkok, Thailand.**
10. **Hazizan Md Akil**, H. Kiratisaevee, G. Reyes-Villanueva, W.J. Cantwell, "The Impact Response of an Aluminium Honeycomb and Aluminium Foam Sandwich Structure", Proceedings Imm 4th International Materials Technology Conference and Exhibition 2004, Kuala Lumpur, Organiser: 4th International Materials Technology Conference and Exhibition 2004, **Venue: Kuala Lumpur, Malaysia.**

**2003**

11. **Hazizan Md Akil**, W.J. Cantwell, “Low Velocity Impact Response of Foam-Core Sandwich Structure”, **Organiser: CoE, Venue: Hanoi, Vietnam.**

#### **Editorial Board Member for International/National Journals**

1. Position: International Editorial Board Member  
Name of the Journal: **Journal of Composites and Biodegradable Polymers.**  
Publisher: SAVVY SCIENCE PUBLISHER
2. Position: Editorial Board Member  
Name of the Journal: **Science International**  
Duration: 2013-2014  
Publisher: Science International Dubai, UAE
3. Position: Regional Editor  
Name of the Journal: **Asian Journal of Applied Science**  
Duration: Since 2011  
Publisher: SCIENCE ALERT (New York, USA)
4. Position: Editor–In-Chief  
Name of the Journal: **International Journal of Polymer and Technologies**  
Duration: Since 2011  
Publisher: Serials Publications (New Delhi, India)
5. Position: International Editorial Board Member  
Name of the Journal: **Materials and Design** (ISI IF: 3.997 updated 2016)  
Duration: Since 2009.  
Publisher: Elsevier BV
6. Position: Regional Editor  
Name of the Journal: **Asian Journal of Materials Science**

Duration: Since 2011  
Publisher: SCIENCE ALERT (New York, USA)

7. Position: Technical Editor  
Name of Journal: **Trends in Applied Science Research**  
Duration: Since 2009.  
Publisher: SCIENCE ALERT (New York, USA)
8. Position: Deputy Editor-In-Chief  
Name of the Journal: **Malaysian Polymer Journal**  
Duration: Since 2009  
Publisher: PRIM (Kuala Lumpur, Malaysia)
9. Position: Associate Editor  
Name of the Journal: **Journal of Applied Sciences**  
Duration: Since 2006.  
Publisher: SCIENCE ALERT (New York, USA)

## RESEARCH GRANTS

List of Research Grants Awarded

(as Principal Investigator)

1. Properties of Foam-Based Sandwich Structure with Alumina Fibre-Reinforced Epoxy Skin, USM JANGKA PENDEK, RM0.00, 1/1/2003-31/12/2004
2. Production of advanced polymer composite structures for waste water treatment plant using pultrusion method., lembaga pembangunan industri pembinaan malaysia (CIDB), RM179,250.00, 15/2/2005-30/6/2008
3. Assessment of Various Mineral and Oxide Filler for Epoxy Substrate in Order to Improve Rigidity and Reduce CTE Mismatch, INTEL TECHNOLOGY SDN. BHD., RM63,000.00, 17/1/2006-30/4/2008
4. Molecular modifications of chitosan powder from natural resources, FRGS, RM80,000.00, 1/11/2006-31/10/2009
5. Development and Properties of Active Porous Carbonaceous Materials Derived from Kenaf Fibre for Fluid Purification Application, USM JANGKA PENDEK, RM0.00, 15/3/2007-14/3/2009
6. Production of Advanced Kenaf Fibre And Hybrid Fibre Composites For Engineering Applications Using Pultrusion Method, USM (RU), RM674,000.00, 28/5/2008-27/8/2011
7. Study On Rate Sensitivity Of Polymers And Composites Using Split Hopkinson Pressure Bar Apparatus [SHPBA], USM (RU), RM80,600.00, 1/1/2009-31/12/2011

8. Fabrication, Characterization and Properties of Thermoplastic Honeycomb Core Sandwich Structure with Aluminium Skin for Impact Absorption Panel, USM (JANGKA PENDEK), RM37,800.00, 15/1/2010-14/1/2013
9. Development of Kenaf and Glass Fibers Hybrid Pultruded Composites for Gratings and Railing Products, TECHNOFUND - INNOVATIVE PULTRUSION SDN. BHD. (IPSB), RM40,000.00, 28/1/2011-27/1/2013
10. Preparation, Characterization and Properties of Muscovite-Based Layered Silicate Nanocomposite, USM (JANGKA PENDEK), RM37,561.00, 1/4/2011-31/3/2013
11. Processing, USM (RU), RM1,118,000.00, 15/6/2011-14/6/2017
12. Tribological Behaviour of Hybrid Compound as Filler in Polymer Matrix Composites (PMC), KEMENTERIAN PENGAJIAN TINGGI, RM116,600.00, 15/8/2011-14/8/2013
13. Polymer Composites with Hybrid Filler for High Performance Thermal Interface Material, INTEL TECHNOLOGY SDN. BHD., RM91,360.00, 19/12/2011-30/6/2014
14. Synthesis, Characterization and Properties of MWCNT/Mica Hybrid Filler for Production of Advanced Polymer Layered Silicate Nanocomposites, USM (RU), RM183,900.00, 1/3/2012-31/5/2015
15. Smart polymeric with temperature and PH responsive moieties containing inorganic nanomaterial via emulsion polymerization., KEMENTERIAN PENGAJIAN TINGGI, RM104,000.00, 1/5/2013-30/4/2016
16. Hybrid Dielectric Quadrant on Printed Circuit Board for Mobile Devices, CREST, RM161,200.00, 1/9/2013-31/8/2015
17. Chitosan-based Polymeric Microgel with Temperature and pH Responsive Moieties Containing Noble Metal Nanoparticles for Tumor Target Cell, KEMENTERIAN PENGAJIAN TINGGI, RM103,700.00, 2/11/2015-1/11/2018
18. Cellulose Dissolution from Biomass using Room Temperature IONIC Liquids RTLs for Nanocellulose Reinforced Composites and Cellulose Derivatives., KEMENTERIAN PENGAJIAN TINGGI, RM296,800.00, 3/1/2016-3/1/2018

**(as Co-Researcher)**

1. Low cte substrate to improve warpage and solder joint reliability, INTEL TECHNOLOGY SDN. BHD., RM115,000.00, Mariatti Binti Jaafar @ Mustapha , 1/1/2004
2. Synthesis Of Novel Polimide With Low Dielectric Resonators, FRGS, RM39,900.00, Zulkifli Bin Ahmad , 15/1/2007-14/1/2010

3. Impact Response Studies of Knee Implant For Performing High Flexion Activities, KEMENTERIAN SAINS, TEKNOLOGI DAN INOVASI, RM211,028.00, Mohamad Ikhwan Zaini Bin Ridzwan , 1/9/2007-30/11/2009
4. Studies on the Mechanism and Strength of Interfacial Interactions in Polymer Composites Containing Kaolin: Modification of Interactions by Surface Treatment, KEMENTERIAN PENGAJIAN TINGGI, RM50,000.00, Azlan Bin Ariffin , 15/10/2007-15/10/2009
5. Development of a High-Sensitivity 3-D Crack Monitoring System using Circular Grating Moiré Patterns and Image Processing, USM JANGKA PENDEK, RM29,600.00, Mani Maran A/I Ratnam , 1/4/2009-31/3/2011
6. Out-of-Autoclave, oven Cure Process Technology for Commercial Aircraft Application, USM (RU), RM233,940.00, Abdul Rahim Bin Othman , 15/3/2011-14/3/2014
7. Effect of Synthesis Parameters on the Preparation of CNT-Alumina Hybrid Powder, USM (JANGKA PENDEK), RM39,720.00, Hasmaliza Bt Mohamad , 15/5/2011-31/10/2013
8. Green Composite: Inspiring Sustainable Alternative for Cost Effective Materials, USM (RU), RM744,850.00, Zainal Arifin Bin Mohd Ishak , 15/6/2011-14/6/2017
9. Development Study of the Processing Technology of Out-Of-Autoclave Manufacturing for Aero-Composite Structures, KEMENTERIAN PENGAJIAN TINGGI, RM58,000.00, Abdul Rahim Bin Othman , 15/8/2011-14/11/2013
10. Kenaf : sustainability materials in automotive industry, KEMENTERIAN PENGAJIAN TINGGI, Zainal Arifin Bin Mohd Ishak , 1/8/2012-31/7/2017
11. Preparation and Characterization of Kenaf Fibre Based Bio-Composites, KEMENTERIAN PENGAJIAN TINGGI, RM2,426,460.00, Zainal Arifin Bin Mohd Ishak , 1/8/2012-31/7/2017
12. Biomodelling For Cranio-Maxillofacial Reconstruction: Patient Specific Aesthetic, Functional And Affordable Biomaterial Implant And Prostheses, USM (RU), RM999,089.00, Dasmawati Binti Mohamad , 1/2/2013-31/7/2017
13. Fabrication, Characterization and Properties of Palm Oil Polyol Based Shape Memory Polyurethane/Layered Silicate Composites, USM (JANGKA PENDEK), RM38,688.40, Syazana Binti Ahmad Zubir , 15/10/2015-14/10/2017
14. Reaction mechanism and microphase separation evaluation of segmented palm oil polyol based shape memory polyurethane, KEMENTERIAN PENGAJIAN TINGGI, RM112,000.00, Syazana Binti Ahmad Zubir , 2/11/2015-1/11/2018
15. Fundamental Study of Single Shot Drilling Mechanism and the Effects of Materials, Drill Bit Geometry and Drilling Parameters on Hole Quality in Carbon/Aluminium Stack Up, USM (RU), RM100,000.00, James Laeng @ Jamaluddin Abdullah , 1/3/2016-28/2/2019

16. Development of Protein Based Thermoplastics from Fish Waste, USM (JANGKA PENDEK), RM35,388.40, Ku Marsilla Binti Ku Ishak , 15/6/2016-14/6/2018

#### ACADEMIC AWARDS

1. MALAYSIA'S RISING STAR AWARD 2015
2. TOP Research Scientist of Malaysia (TRSM) 2014
3. Diplome Invention Geneva Award 2011, Salon International Des Invention, Geneva
4. Gold Madel Award at MTE, 2010, Malaysian Association of Research Scientists (MARS), Malaysia
5. Best Awards at (MTE) ,2010, Malaysian Association of Research Scientists (MARS), Malaysia
6. Sanggar Sanjung Award 2010, Publication Category, Universiti Sains Malaysia.
7. Sanjungan Award 2010, Publication Category, Universiti Sains Malaysia.
8. Bronze Madel award at PECIPTA 2009, International Exposition of Research and Invention of Institutions of Higher Learning 2009 (PECIPTA), Malaysia.
9. Sanggar Sanjung Awards 2009, Publication Category, Universiti Sains Malaysia.
10. Bronze Madel award at ITEX 2008, MINDSI, Malaysia
11. Sanggar Sanjung Awards 2008, Publication Category, Universiti Sains Malaysia.
12. Sanjungan Award 2008, Research product Category, Universiti Sains Malaysia.
13. Sanjungan Award 2007, Publication Category, Universiti Sains Malaysia.
14. Sanjungan Awards 2006, Publication Category, Universiti Sains Malaysia.
15. Silver Medal Award at ITEX, 2005, MINDSI, Malaysia
16. Bronze Medal Award at MOSTI Exhibition 2004, MOSTI, Malaysia
17. Sanggar Sanjung Award 2004, Publication Category, Universiti Sains Malaysia
18. Poster Competition Award (3<sup>rd</sup>Place), 2003, EMSM Conference 2003, Malaysia

#### LIST OF PUBLICATION ( 2002-2013 )

1. **HM Akil**, 2002, The Impact Response of Composite Sandwich Structure, University of Liverpool, 240 pages.
2. **HM Akil** and Akram Mohamad Mazuki, Sustainable Biocomposites Based for Construction Applications, chapter 10, Handbook of Bioplastics & Biocomposites Engineering Applications, Wiley & Scrivener Publishing, USA, 2011.

#### Books Publication / Chapter of the book

1. **HM Akil** and Akram Mohamad Mazuki, Sustainable Biocomposites Based for Construction Applications, chapter 10, Handbook of Bioplastics & Biocomposites Engineering Applications, Wiley & Scrivener Publishing, USA, 2011.
2. **HM Akil**. Performance of Natural Fibre Composites Under Dynamic Loading. In A. Hodzic & R. Shanks (Eds.), Natural Fibre Composites: Woodhead Publishing Ltd, 2014.
3. **HM Akil**, Mazuki, A. A., Sustainable Biocomposites Based for Construction Applications, In Srikanth Pilla (Editor), Handbook of Bioplastic and Biocomposites Engineering Applications: Wiley.



2016

1. AO Alhareb, **HM Akil**, Z A Ahmad. PMMA denture base composites reinforced by nitrile rubber and ceramic fillers. *Polymers & Polymer Composites*. 2016; 24(1):71.
2. A Sinar, Z Firuz, A Nur Hidayah, **HM Akil**, H Sahrim. Rigid polyurethane foam with ionic liquid modified multi walled carbon nanotubes composites. *Materials Science Forum*; 2016: Trans Tech Publications.
3. A Wahab, N Suhaili, MF Omar, **HM Akil**, ZA Ahmad, NN Zulkepli. Effect of surface modification on rice husk (RH)/linear low density polyethylene (LLDPE) composites under various loading rates. *Materials Science Forum*; 2016: Trans Tech Publications.
4. H Jaya, MF Omar, **HM Akil**, ZA Ahmad, NN Zulkepli. Effect of alkaline treatment on sawdust reinforced high density polyethylene composite under wide strain rate. *Materials Science Forum*; 2016: Trans Tech Publications.
5. AO Alhareb, **HM Akil**, ZA Ahmad. Modification of rubber particles and ceramic fillers on pmma denture base materials. *Materials Science Forum*; 2016: Trans Tech Publications.
6. MBH Othman, A Khan, Z Ahmad, MR Zakaria, F Ullah, **HM Akil**. Kinetic investigation and lifetime prediction of cs–nipam–mba-based thermo-responsive hydrogels. *Carbohydrate polymers*. 2016; 136:1182-93.
7. H Jaya, MF Omar, **HM Akil**, ZA Ahmad, NN Zulkepli, MMAB Abdullah. Compressive mechanical properties of sawdust/high density polyethylene composites under various strain rate loadings. *Journal of Vinyl and Additive Technology*. 2016.
8. NSAA. Bakhtiar, **HM Akil**, MR Zakaria, MHA Kudus, MBH Othman. New generation of hybrid filler for producing epoxy nanocomposites with improved mechanical properties. *Materials & Design*. 2016; 91:46-52.
9. WT Owi, OH Lin, ST Sam, CH Chia, S Zakaria, MS Mohaiyiddin, GN Santos, **HM Akil**. Comparative study of microcelluloses isolated from two different biomasses with commercial cellulose. *BioResources*. 2016; 11(2):3453-65.
10. F Ullah, MBH Othman, F Javed, Z Ahmad, **HM Akil**, S Z M Rasib. Functional properties of chitosan built nanohydrogel with enhanced glucose-sensitivity. *International journal of biological macromolecules*. 2016; 83:376-84.
11. N ADIK, OH Lin, **HM Akil**, AV Sandu, A VILLAGRACIA, GN Santos. Effects of stearic acid on tensile, morphological and thermal analysis of polypropylene (PP)/dolomite (DOL) composites. *MATERIALE PLASTICE*. 2016; 53(1):61-4.
12. H Jaya, MF Omar, **HM Akil**, ZA Ahmad, NN Zulkepli, MMAB Abdullah, IG Sandu, P Vizureanu. Effect of surface modification on sawdust reinforced high density polyethylene composites under a wide range of strain rates. *MATERIALE PLASTICE*. 2016; 53(1):85-90.
13. S Johnson, L Kang, **HM Akil**. Mechanical behavior of jute hybrid bio-composites. *Composites Part B: Engineering*. 2016; 91:83-93.

14. MR Zakaria, **HM Akil**, MHA Kudus, MBH Othman. Compressive properties and thermal stability of hybrid carbon nanotube-alumina filled epoxy nanocomposites. *Composites Part B: Engineering*. 2016; 91:235-42.
15. MS Mohaiyiddin, OH Lin, WT Owi, CH Chan, CH Chia, S Zakaria, **HM Akil**. Characterization of nanocellulose recovery from *elaeis guineensis* frond for sustainable development. *Clean Technologies and Environmental Policy*. 2016:1-10.
16. AO Alhareb, **HM Akil**, ZA Ahmad. Impact strength, fracture toughness and hardness improvement of pmma denture base through addition of nitrile rubber/ceramic fillers. *The Saudi Journal for Dental Research*. 2016.
17. M Zamri, M Osman, **HM Akil**. Shahidan, ZM Ishak. Development of green pultruded composites using kenaf fibre: Influence of linear mass density on weathering performance. *Journal of Cleaner Production*. 2016; 125:320-30.
18. H Mahmood, M Moniruzzaman, S Yusup, **HM Akil**. Pretreatment of oil palm biomass with ionic liquids: A new approach for fabrication of green composite board. *Journal of Cleaner Production*. 2016; 126:677-85.
19. AT Noaman, BA Bakar, **HM Akil**. Experimental investigation on compression toughness of rubberized steel fibre concrete. *Construction and Building Materials*. 2016; 115:163-70.
20. MH Zamri, **HM Akil**, ZAM Ishak. Pultruded kenaf fibre reinforced composites: Effect of different kenaf fibre yarn tex. *Procedia Chemistry*. 2016; 19:577-85.
21. S Rasib, **HM Akil**. Yahya. Effect of different composition on particle size chitosan-pmaa-pnipam hydrogel. *Procedia Chemistry*. 2016; 19:388-93.
22. MM Kandar, **HM Akil**. Application of design of experiment (DOE) for parameters optimization in compression moulding for flax reinforced biocomposites. *Procedia Chemistry*. 2016; 19:433-40.
23. MA Rasyid, M Salim, **HM Akil**, Z Ishak. Optimization of processing conditions via response surface methodology (RSM) of nonwoven flax fibre reinforced acrodur biocomposites. *Procedia Chemistry*. 2016; 19:469-76.
24. B Hilmi, ZA Hamid, **HM Akil**, B Yahaya. The characteristics of the smart polymeras temperature or ph-responsive hydrogel. *Procedia Chemistry*. 2016; 19:406-9.
25. SSM Saleh, **HM Akil**, MHA Kudus, KR Ahmad, NSAA Bakhtiar. Effect of different hybrid method on properties of carbon nanotubes/dolomite hybrid filled phenolic composites. *Procedia Chemistry*. 2016; 19:45-9.
26. NSAA Bakhtiar, YC Kuang, SSM Saleh, **HM Akil**. Preparation and characterization of treated mwcnt-muscovite filled epoxy nanocomposites. *Procedia Chemistry*. 2016; 19:283-9.
27. A Alhareb, **HM Akil**, Z Ahmad. Influence of al 2 o 3/y-tsz mixture as filler loading on the radiopacity of pmma denture base composites. *Procedia Chemistry*. 2016; 19:646-50.
28. NSA Wahab, MF Omar, **HM Akil**, NN Zulkepli, MM Al Bakri Abdullah, I Sandu. Static and dynamic mechanical properties of rice husk (RH)/linear low density polyethylene (LLDPE) composites under various loading rates. *Materiale Plastice*. 2016; 53(1):42-7.

## 2015

29. MBH Othman, Z Ahmad, H Osman, MF Omar, **HM Akil**, 2015, Thermal degradation behavior of a flame retardant melamine derivative hyperbranched polyimide with different terminal groups, *RSC Advances*, Volume 5, 22 October 2015, Pages 92664-92676
30. AA Sinar, N Azni, M Azizan, Z Firuz, **HM Akil**, S Shuhadah, HA Sahrim, 2015, Treatment Method for Dispersion of Carbon Nanotubes: A Review, *Materials Science Forum*, Volume 803, 5 January 2015, Pages 299-304
31. MH Zamri, MR Osman, **HM Akil**, ZAM Ishak, HA Shahidan, 2015, Properties of Pultruded Natural Fiber Reinforced Composites: Effect of Different Kenaf Fiber Yarn Tex, *Journal of Biobased Materials and Bioenergy*, Volume 9, 1 April 2015, Pages 128-135
32. MF Omar, A Wahab, N Suhaili, **HM Akil**, ZA Ahmad, NZ Noriman, 2015, Measurement on Strain Rate Sensitivity Properties Of Rice Husk (RH)/Linear Low Density Polyethylene (LLDPE) Composites Under Various Loading Rates, *Applied Mechanics and Materials* Volume 754, 28 May 2015, Pages 77-82
33. A Kudus, M Helmi, **HM Akil**, MR Zakaria, M Saleh, S Shuhadah, 2015, Synthesis and Characterization of Novel Hybrid MWCNT-Muscovite Composite Filler, *Applied Mechanics and Materials*, Volume 754, 28 May 2015, Pages 106-109
34. MBH Othman, **HM Akil**, H Osman, Z Ahmad, 2015, Effect of Curing Temperature on Degree Imidization of Melamine-BPADA Hyperbranched Polyimide Studied by FT-IR, *Applied Mechanics and Materials*, Volume 754, 28 May 2015, Pages 251-255
35. MR Zakaria, **HM Akil**, A Kudus, M Helmi, MZ Ahmad Thirmizir, 2015, Synthesis and Characterization of Hybrid MWCNT-Alumina Filled Epoxy Nanocomposites, *Applied Mechanics and Materials*, Volume 754, 28 May 2015, Pages 135-139
36. MF Omar, H Jaya, **HM Akil**, ZA Ahmad, NZ Noriman, 2015. Mechanical Properties of High Density Polyethylene (HDPE)/Sawdust Composites under Wide Range of Strain Rate, *Applied Mechanics and Materials*, Volume 754, 28 May 2015, Page 83-88
37. AA Sinar, Z Firuz, N Azni, **HM Akil**, HA Sahrim, 2015, Flexural Performance of Polyurethane/Multi Walled Carbon Nanotubes Foam Composites, *Applied Mechanics and Materials*, Volume 754, 28 May 201, Pages 8-12
38. BP Chang, **HM Akil**, RBM Nasir, 2015, Dry Sliding Wear Behaviour of Talc-Reinforced UHMWPE Composite for Implant Application, *Sains Malaysiana*, Volume 44, 1 June 2015, Pages 819-825
39. AA Sinar, Z Firuz, N Azni, AZ Nur Hidayah, **HM Akil**, HA Sahrim, 2015, Compression Test and Energy Absorption of Polyurethane/Multi Walled Carbon Nanotubes Foam Composites, *Materials Science Forum*, Volume 819, 10 June 2015, Pages 246-250
40. M Muhammad Safwan, HL Ong, **HM Akil**, 2015, Crystallinity and Morphological of Cellulose Extraction from *Elaeis guineensis* Jacquin Frond, *Materials Science Forum*, Volume 819, 10 June 2015, Pages 251-255
41. MBH Othman, **HM Akil**, SZM Rasib, A Khan, Z Ahmad , 2015 Thermal properties and kinetic investigation of chitosan-PMAA based dual-responsive hydrogels *Industrial Crops and Products*,. Volume 66, April 2015, Pages 178–187.

42. TNAT Rahim, AM Abdullah, **HM Akil**, D Mohamad, ZA Rajion, 2015, Preparation and characterization of a newly developed polyamide composite utilising an affordable 3D printer, *Journal of Reinforced Plastics and Composites*, 7 July 2015
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39. Sahnizam Safiee, **Hazizan Md. Akil**, Adlan Akram Mohammad Mazuki, Zainal Arifin Mohd Ishak, Azhar Abu Bakar, The Effect Of Volume Fraction On The Mechanical Properties Of Pultruded Jute Fibre Reinforced Unsaturated Polyester (Pjfr), Proceeding 4<sup>th</sup> World Engineering Congress (Wec 2010), 2-5 August 2010, Kuching, Sarawak
40. **Hazizan Md Akil**, Safiee Sahnizam, Mohd Ishak Zainal Arifin, Abu Bakar Azhar, Mohamad Mazuki Adlan Akram; Study on Dynamic Mechanical Properties of Pultruded Kenaf Fiber Reinforced Composites; The 7<sup>th</sup> Asian-Australasian Conference on Composite Materials (ACCM), Nov. 15-18 2010, Taipei, Taiwan

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41. **Hazizan Md Akil**, Akram Mazuki, Sahnizam Safiee, Properties Of Pultruded Jute And Kenaf Fiber Reinforced Unsaturated Polyester Composites, Nato Workshop "Textile Composites" May 18-21, 2009 In Kiev, Ukraine

42. Adlan Akram Mohamad Mazuki, Sahnizam Safiee, **Hazizan Md Akil**, Azhar Abu Bakar, Zainal Arifin Mohd Ishak. Study Of Water Absorption Behavior On Pultruded Jute Fiber Reinforced Polyester Composites Using Dynamic Mechanical Analysis, Proceeding 4th International Conference Of Recent Advance In Materials, Minerals& Environment And 2nd Asia Symposium On Material And Processing, June 1-3 June 2009, Bayview Beach Resort, Batu Ferringhi, Penang
43. Sahnizam Safiee, Adlan Akram Mohamad Mazuki, **Hazizan Md Akil**, Azhar Abu Bakar, Zainal Arifin Mohd Ishak. Influence Of Water Absorption On Coefficient Of The Thermal Expansion (Cte) Of Pultruded Jute Fiber Reinforced Polyester Composite (Pjfrpc), Proceeding 4th International Conference Of Recent Advance In Materials, Minerals& Environment And 2nd Asia Symposium On Material And Processing, June 1-3 June 2009, Bayview Beach Resort, Batu Ferringhi, Penang
44. Norlin Nosbi, **Hazizan Md Akil**, A.A. Bakar And Z.A. Mohd Ishak Influence Of Water Absorption On Mechanical Properties Of Pultruded Kenaf Fiber Reinforced Polyester Composites Proceeding Proceeding 4th International Conference Of Recent Advance In Materials, Minerals& Environment And 2nd Asia Symposium On Material And Processing, June 1-3 June 2009, Bayview Beach Resort, Batu Ferringhi, Penang
45. **Hazizan Md Akil**, Zainal Arifin Ahmad, Mohd Firdaus Omar, Ong Hui Lin (U. Sains Malaysia), David Hui (U. New Orleans) 345 Measurement On The Dynamic Properties Of Nanosilica/Polypropylene Composite Using Split Hopkinson Pressure Bar Technique, Proceeding International Conference On Composites Or Nano Engineering .Composites And Reinforced Plastics (Icce 17), July 26-August 1, 2009 In Honolulu, Hawaii, Usa
46. Adlan Akram Mohamad Mazuki, **Hazizan Md Akil**, Azhar Abu Bakar, Zainal Arifin Mohd Ishak, Sahnizam Safiee (U. Sains Malaysia, Pinang) 661 Effect Of Water Absorption On The Dynamic Mechanical Properties Of Pultruded Jute Fibre Reinforced Polyester Composites, Proceeding International Conference On Composites Or Nano Engineering .Composites And Reinforced Plastics (Icce 17), July 26-August 1, 2009 In Honolulu, Hawaii, Usa
47. Sahnizam Safiee, **Hazizan Md Akil**, Adlan Akram Mohamad Mazuki, Azhar Abu Bakar, Zainal Arifin Mohd Ishak, Transverse And Longitudinal (A22 , A11) Measurements Of Pultruded Kenaf Fibre Reinforced Unsaturated Polyester And Their Impact On Interfacial Residual Stresses In Composites, Proceeding International Conference On Kenaf & Allied Fibres 2009 (Ickaf 2009), 1-3 December 2009, The Legend Hotel, Kuala Lumpur
48. **Hazizan M.A.**, Azhar A. B., Zainal Arifin M. I., Adlan Akram M. M., Sahnizam S., Study On Properties Of Pultruded Jute Fibre Reinforced Unsaturated Polyester Composites For Outdoor Application., Proceeding International Conference On Kenaf & Allied Fibres 2009 (Ickaf 2009), 1-3 December 2009, The Legend Hotel, Kuala Lumpur

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49. Mohd Al Amin Muhamad Nor, **Hazizan Md Akil**, Sharul Ami Zainal Abidin And Zainal Arifin Ahmad, "Response Of Ceramic Foam Core Sandwich Composites Under Flexural Loading", Research Achievement In The Construction Industry, Pp. 91-96, Presented At CIRAIC 2007, 13-15 March 2007, PWTC K.L.
50. S.C. Lee, M.A. Abdul Rahman, N.M. Julkapli, **Hazizan Md Akil**, Z.A. Mohd Ishak, And A. Abu Bakar, "Mechanical Properties Of Kenaf Fibre Reinforced Polyester Composites", Research Achievement In The Construction Industry, Pp. 91-96, And PRESENTED At CIRAIC 2007, 13-15 March 2007, PWTC K.L.
51. Nguyen Minh Luan, **Hazizan Md Akil**, Zulkifli Ahmad, Hiroo Iwata, Suong Hyu Hyon And Nguyen Huu Nieu, "Characterization Of Poly (L-Lactide Acid/Poly (E-Caprolactone)

Copolymer For Scaffold Application”, Proceedings 10th Asean University Network/South East Asia Engineering Education Development Network (AUN/SEED-Net) Field-Wise Seminar 2007, The Gurney Hotel, Penang, Malaysia (5-6th June 2007)

## 2006

52. M.R. Othman, **H.M. Akil**, C.S. Wen, “Oil Sorption Recovery Characterization of Kenaf”, International Conference on Environment 2006, Penang, Malaysia.
53. Erfan Suryani Abd Rashid, **Hazizan Md Akil**, Kamarshah Ariffin, Chee Choong Kooi, “The Mechanical And Thermal Properties Of Alumina Filled Epoxy”, Proceedings 31st International Conference On Electronics Manufacturing And Technology (IEMT 2006), Sunway Resort Hotel, Subang Jaya, Malaysia.
54. P.L. Teh, M. Mariatti, **H.M. Akil**, K.N. Seetharamu, A.N.R. Wagiman, K.S. Beh, “High Filled Epoxy Composites For Electronic Packaging Application”, Proceedings 31st International Conference On Electronics Manufacturing And Technology (IEMT 2006), Sunway Resort Hotel, Subang Jaya, Malaysia.
55. Mohd Al-Amin Muhamad Nor, Lee Chain Hong, **Hazizan M Akil**, Zainal Arifin Ahmad, “Effect Of Slurries Density On The Properties Of Ceramic Foam Produced Via Polymer Replication Method”, Proceeding International Conference On X-Ray And Related Techniques In Research And Industry (ICXRI 2006), Palm Graden Hotel, Putrajaya, Malaysia
56. Shah Rizal Kasim, **Hazizan M Akil**, Zainal Arifin Ahmad, “Influence Of Sintering Additive In Calcium Phosphate Ceramics”, Proceeding International Conference On X-Ray And Related Techniques In Research And Industry (ICXRI 2006), Palm Graden Hotel, Putrajaya, Malaysia
57. Huilin Ong, **Hazizan Md Akil**, Z.A. Mohd Ishak, “Coupling Effect On The Mechanical Properties Of Nanosilica Ffilled PP Composites, Proceedings 1st International Conference For Young Chemists (ICYC 2006), USM, Penang, Malaysia
58. M. Awang, H. Ismail, **M. A. Hazizan**, “Degradation Of Polypropylene/Waste Tire Dust (PP/WTD) Blends”, Proceedings 1st International Conference For Young Chemists (ICYC 2006), USM, Penang, Malaysia
59. M. Awang, H. Ismail, **M. A. Hazizan**, “Effect Of Trans-Polyoctene Rubber (TOR) And Dynamic Curing On Properties Of Polypropylene/Waste Tire Dust (PP/WTD) Blends”, Proceedings 1st International Conference For Young Chemists (ICYC 2006), USM, Penang, Malaysia

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60. P.L. Teh, M. Mariatti, S.M. Noor, **H.M. Akil**, A.N.R. Wagiman, K.S. Beh, “Thermal Properties Of Strain Properties Of Fused Silica And Glass Powder Filled Epoxy Resin”, Proceeding 3rd Workshop On Regional Network Enhancing Research And Education On Materials Engineering, Park Royal Hotel, Batu Ferringgi, Penang, Malaysia. 8th – 9th August 2005
61. Halimatuddahliana, H. Ismail, **H. Md. Akil**, "Thermal Properties Of PP/EPDM/NR Blends: The Effect Of HVA-2 Addition", Proceedings Regional Conference For Young Chemist 2004, Penang.13th – 14th April 2004 (In-CD)

62. Halimatuddahlia, H. Ismail, **H. Md. Akil**, "Properties of PP/EPDM/NR Blends: The Effect Of Dynamic Vulcanization", Proceedings Regional Conference For Young Chemist 2004, Penang. 13th – 14th April 2004 (In-CD)
63. P.L. Teh, M. Mariatti, S.M. Noor, **H.M. Akil**, A.N.R. Wagiman, K.S. Beh, “ Thermal Properties Of Strain Properties Of Fused Silica And Glass Powder Filled Epoxy Resin”, Proceedings 21st Century COE International Symposium On Global Renaissance By Green Energy Revolution, Penang. (8th – 9th August 2005)
64. Mohd Ruzaimi Mat Rejab, Amran Alias, **Hazizan Md Akil**, “Experimental Studies On Polymeric Structural Foam Properties”, International Advanced Technology Congress 2005 (Atci 2005), , IOI Mariott Hotel, Putrajaya. (6th - 8th December 2005)
65. M. Awang, H. Ismail, **M. A. Hazizan**, “Properties of Thermoplastic Elastomers Based On Polypropylene and Waste Tire Dust (PP/WTD) Blends”, Proceedings Brunei International Conference on Engineering and Technology 2005 (BICET 2005), Brunei. (15-18 August 2005)

#### 2004

66. **Md. Akil Hazizan**, H. Kiratisaevee, G. Reyes-Villanueva, W.J. Cantwell, "The Impact Response Of An Aluminium Honeycomb And Aluminium Foam Sandwich Structure", Proceedings 4th International Materials Technology Conference And Exhibition 2004 (IMTCE 2004), Kuala Lumpur (Invited Paper) 23rd – 25th March 2004 (In-CD)
67. **M.A. Hazizan**, Ng Lily, J. Abd Razak, A. Zainal Arifin, "Effect Of Various Coupling Agents On The Properties Of Alumina-Filled PP Composites", Proceedings 4th International Materials Technology Conference And Exhibition 2004 (IMTCE 2004), Kuala Lumpur . 23rd – 25th March 2004 (In-CD)
68. Halimatuddahlia, H. Ismail, **H. Md. Akil**, "Studies On The Effects Of Trans-Polyoctylene Rubber (TOR) Addition And Dynamic Vulcanization On The Properties Of PP/EPDM/NR Ternary Blends", Proceedings 4th International Materials Technology Conference And Exhibition 2004 (IMTCE 2004), Kuala Lumpur, 23rd – 25th March 2004 (In-CD)
69. **H. Md. Akil**, J.A. Razak, Z.A. Ahmad, "The Effect Of Stearic Acid Addition On The Properties Of Alumina-Filled Polypropylene", Proceedings 2nd Regional Meeting On Regional Network Formation For Enhancing Research And Education On Materials Engineering, Bangkok, Thailand. (Invited Paper) 10th – 11th August 2004.
70. K. Shah Rizal, **H. Md. Akil**, Z.A. Ahmad, "Preparation of Dense Hydroxyapatite via Gel Casting Method: A Preliminary Study", Proceedings International Conference on X-Ray Related Techniques in Research and Industry 2004 (ICXRI 2004), Penang. 15th – 16th September 2004
71. P.L. Teh, M. Jaafar, **H.M. Akil**, K.N. Seetharamu, A.N.R. Wagiman, K.S. Beh, “Thermal Properties Of Fused Silica And Glass Powder Filled Epoxy Resin” Proceeding 6th International Conference On Electronic Materials And Packaging 2004 (EMAP 2004), Penang, Malaysia. (5-7 December 2004)

#### 2003

72. Amran Alias, **Hazizan Md Akil** And Ruzaimi M Rejab, "Polymeric Foam As The Core For Side Door Impact Beams", Proceedings 3rd International Conference On Advances In



Strategic Technologies 2003 (ICAST 2003), UKM, Malaysia, Pp 387-394. 12th – 14th August 2003.

73. **Hazizan Md. Akil**, Zainal Arifin Ahmad, Banjuraizah Johar, Amran Alias, Azhar Abu Bakar, "Preliminary Study On The Mechanical Properties Of Alumina-Filled PP", Proceedings 3rd International Conference On Recent Advances In Materials, Minerals And Environment 2003 (RAMM 2003), Pp 279-284. 20th – 22nd October 2003

## National Proceedings

### 2010

1. Mohd Firdaus Omar, Hazizan Md Akil, ZZainal Ariffin Ahmad, Dynamic Compressive Properties of Mica/Polypropylene composite; 10<sup>th</sup> National Symposium on Polymeric Materials 8-10 November 2010
2. Mohd fadli Ahmad Rashid, Hazizan Md Akil, Jamaliah Syarif; Effect of Ion Exchange Treatment on the Properties of Muscovite/epoxy Layered Silicate Nanocomposites; 10<sup>th</sup> National Symposium on Polymeric Materials 8-10 November 2010
3. Tan Chin Yeong, Hazizan Md Akil; Low Velocity Impact Study on Polypropylene Honeycomb Sandwich Using Simple Fiber Metal Laminate Skin; 10<sup>th</sup> National Symposium on Polymeric Materials 8-10 November 2010

### 2007

4. Azreena Mastor, **Hazizan Md Akil** And Ismail Zainol, "Effect Of  $\gamma$ -Radiation To Chitosan Properties For Soft Tissue Engineering Application", Proceedings 3rd Colloquium On Postgraduate Research, National Postgraduate Colloquium On Materials, Minerals And Polymers 2007 (MAMIP 2007), Vistana Hotel, Penang (10-11th April 2007)
5. Siti Hajjar Che Man, Azanam S. Hashim And **Hazizan Md Akil**, "Styrene-Methacrylate Grafted DPNR Latex At Different Monomer Concentration: Effects On Grafting Efficiency And Thermal Properties", Proceedings 3rd Colloquium On Postgraduate Research, National Postgraduate Colloquium On Materials, Minerals And Polymers 2007 (MAMIP 2007), Vistana Hotel, Penang (10-11th April 2007)
6. P. Firoozian And **Hazizan Md Akil**, "Modeling The Tensile Properties Of Mica Filled Epoxy Composites", Proceedings 3rd Colloquium On Postgraduate Research, National Postgraduate Colloquium On Materials, Minerals And Polymers 2007 (MAMIP 2007), Vistana Hotel, Penang (10-11th April 2007)
7. Erfan Suryani Abdul Rashid, **Hazizan Md Akil**, Kamarshah Ariffin And Chee Choong Kooi, "Study On Flexural And Thermal Properties Of Mica Filled Epoxy Composites", Proceedings 3rd Colloquium On Postgraduate Research, National Postgraduate Colloquium On Materials, Minerals And Polymers 2007 (MAMIP 2007), Vistana Hotel, Penang (10-11th April 2007)
8. Nurhidayatullaili Muhd Julkapli And **Hazizan Md Akil**, "Degradability Of Kenaf Dust-Filled Chitosan Biocomposites", Proceedings 3rd Colloquium On Postgraduate Research, National Postgraduate Colloquium On Materials, Minerals And Polymers 2007 (MAMIP 2007), Vistana Hotel, Penang (10-11th April 2007)

9. Ong Hui Lin, **Hazizan Md Akil** And Z.A.M. Ishak, “Comparative Study On The Properties Of POSS And Nanosilica Filled Polypropylene Composites”, Proceedings 3rd Colloquium On Postgraduate Research, National Postgraduate Colloquium On Materials, Minerals And Polymers 2007 (MAMIP 2007), Vistana Hotel, Penang (10-11th April 2007)
10. Muhammed Asraff Abdul Rahman, Nurhidayatullaili Muhd Julkapli And **Hazizan Md Akil**, “Effect Of Acetylation Treatment On The Mechanical Properties Of Kenaf Fibres Filled Polyester Bio-Composites”, Proceedings 3rd Colloquium On Postgraduate Research National Postgraduate Colloquium On Materials, Minerals And Polymers 20 (MAMIP 2007), Vistana Hotel, Penang (10-11th April 2007)

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11. Siti Hajjar Che Man, Azanam S. Hashim And Hazizan Md. Akil, “Preparation And Characterization Of Styrene-Methyl Methacrylate In Deproteinised Natural Rubber Latex (SMMA-DPNR)”, Proceedings 6th National Symposium On Polymeric Materials 2006 (NSPM 2006), Holiday Villa, Subang Jaya, Malaysia. 13-14th December 2006
12. Ong Hui Lin, **Hazizan Md Akil** and Z.A.M. Ishak, “Compatibilisation Effect of PP-G-MAH and PP-POSS on SiO<sub>2</sub>/PP Nanocomposites: Mechanical and Morphological Properties”, Proceedings 6th National Symposium on Polymeric Materials 2006 (NSPM 2006), Holiday Villa, Subang Jaya, Malaysia. 13-14th December 2006
13. M. Awang, H. Ismail and **M.A. Hazizan**, “Polypropylene/Waste Tire Dust (PP/WTD) Blends With Trans-Polyontene Rubber”, Proceedings 6th National Symposium On Polymeric Materials 2006 (NSPM 2006), Holiday Villa, Subang Jaya, Malaysia. 13-14th December 2006
14. **Hazizan Md Akil**, Firuz Zainuddin, Sahrim Ahmad, “Deformation And Energy Absorption Characterization Of Polymeric Foam From Uniaxial Compression Test”, Proceedings 6th National Symposium On Polymeric Materials 2006 (NSPM 2006), Holiday Villa, Subang Jaya, Malaysia. 13-14th December 2006
15. Erfan Suryani Abdul Rashid, **Hazizan Md Akil**, Kamarshah Ariffin, Chee Choong Kooi “Thermal Properties Of Mica Filled Epoxy Composites”, Proceedings 6th National Symposium On Polymeric Materials 2006 (NSPM 2006), Holiday Villa, Subang Jaya, Malaysia. 13-14th December 2006
16. P.L. Teh, M. Mariatti, **H.M. Akil**, K.N. Seetharamu, A.N.R. Wagiman, “Improved Tg of Mineral Silica Filled Epoxy Composites”, Proceedings 6th National Symposium on Polymeric Materials 2006 (NSPM 2006), Holiday Villa, Subang Jaya, Malaysia. 13-14th December 2006
17. Ong Hui Lin, **Hazizan Md Akil** And Zainal Arifin Mohd Ishak, “Compatibilisation Of PP-G-MAH On Nanosilica Filled-Polypropylene Composites”, 3rd Postgraduate Research Papers 2005/2006, School Of Materials & Mineral Resources Engineering, USM (March 2006)
18. Teh Pei Leng, **Akil H.M.**, Seetharamu K.N., Wagiman A.N.R. And Beh K.S., “Particulate Fillers Filled Epoxy Composites – Flexural And Thermal Expansion Properties”, 3rd Postgraduate Research Papers 2005/2006, School Of Materials & Mineral Resources Engineering, USM (March 2006)

19. Awang M., Ismail H. And **Hazizan M.A.**, “Polypropylene/Waste Tire Dust (PP/WTD) Blends With Trans-Polyoctylene Rubber (TOR) And Dynamic Curing”, 3rd Postgraduate Research Papers 2005/2006, School Of Materials & Mineral Resources Engineering, USM (March 2006)
20. Shah Rizal Kasim, Tee Dee In, **Hazizan Md. Akil** And Zainal Arifin Ahmad, “Study On The Physical Properties And Microstructures Of Sintered Dense Hydroxyapatite Bodies”, 3rd Postgraduate Research Papers 2005/2006, School Of Materials & Mineral Resources Engineering, USM (March 2006)
21. **Hazizan Md. Akil**, Muhammed Asraff Abd. Rahman, Nurhidayatulaili Julkipli, Azhar Abu Bakar, Zainal Arifin Mohd Ishak “ Effect Of Various Chemical Modifications On Properties Of Kenaf Fibre Filled Epoxy Composites”, Proceedings 15th Scientific Conference On Electron Microscopy (EMSM 2006), Sutra Beach Resort, Kuala Terengganu, (4-6 December 2006).
22. Shah Rizal Kasim, **Haizan Md. Akil**, Zainal Arifin Ahmad, “Influence Of Sintering Additives And Sintering Temperature In Fabrication Dense Hydroxyapatite” Proceedings 15th Scientific Conference On Electron Microscopy (EMSM 2006), Sutra Beach Resort, Kuala Terengganu, (4-6 December 2006).

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23. Mohd Ruzaimi Mat Rejab, Amran Alias, **Hazizan Md Akil**, Yob Saed Ismail,, Kumaran Arjuman, “Testing And Evaluation Of Polymeric Foams”, National Seminar On Computational & Experimental Mechanics (CEM 2005), UKM, Malaysia. (17-18 May 2005)
24. P.L. Teh, M. Mariatti, **H.M. Akil**, K.N. Seetharamu, A.N.R Wagiman, K.S. Beh, “Thermal Expansion And Flexural Properties Of Particulate Fillers Filled Epoxy Composites”, Proceedings National Symposium On Polymeric Materials (NSPM 2005), UKM, Malaysia. 23rd -25th August 2005
25. M. Awang, H. Ismail, **M. A. Hazizan**, “Properties of Thermoplastic Elastomers Based On Polypropylene and Waste Tire Dust (PP/WTD) Blends”, Proceedings National Symposium on Polymeric Materials (NSPM 2005), UKM, Malaysia. 23rd -25th August 2005

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26. M.R. Mat Rejab, Y.S. Ismail, A. Alias, **H. Md. Akil**, "Polymer Composite Side-Door Impact Beam Using Filament Winding Method", Proceedings 2nd National Postgraduate Colloquium On Materials, Minerals And Polymers 2004, Penang.
27. Halimatuddahlia, H. Ismail, **H. Md. Akil**, "Thermal Analysis of PP/EPDM/NR Blends: The Effect of Dynamic Vulcanization and/or Trans-Polyoctenylene Rubber (TOR) Addition", Proceedings 2nd National Postgraduate Colloquium on Materials, Minerals and Polymers 2004, Penang.
28. K. Shah Rizal, **H. Md. Akil**, Z.A. Ahmad, "Synthesize Of Hydroxyapatite via Precipitation Method: Effect of Temperature Parameter", Proceedings 2nd National Postgraduate Colloquium on Materials, Minerals and Polymers 2004, Penang.
29. Halimatuddahlia, H. Ismail, **H. Md. Akil**, "Effect Of Peroxide Vulcanization And/Or N,N,-M- Phenylene Bismaleimide (HVA-2) On The Flow Behaviour PP/EPDM/NR Blends

By Torque Rheometer", Proceedings 2nd National Postgraduate Colloquium On Materials, Minerals And Polymers 2004, Penang.

30. Al-Amin Noor, Z. A. Ahmad, **H. Md. Akil**, "Effect Of Solid Loading On The Porous Ceramic Produced Via Polymer Foam Replication Process", Proceedings 14th Scientific Conference On Electron Microscopy 2004, Kuala Lumpur. (13th – 15th December 2004)
31. K. Shah Rizal, **H. Md. Akil**, Z.A. Ahmad, "Microstructure Study of Dense Hydroxyapatite Fabricated Via Gel Casting Method", Proceedings 14th Scientific Conference on Electron Microscopy 2004, Kuala Lumpur. (13th – 15th December 2004)
32. Halimatuddahlia, H. Ismail, **H. Md. Akil**, "Effects Of Dynamic Vulcanization And/OR N,N,-M- Phenylene Bismaleimide (HVA-2) Addition On Thermal Properties Of PP/EPDM/NR Blends", Proceedings 14th Scientific Conference On Electron Microscopy 2004, Kuala Lumpur. (13th – 15th December 2004)
33. M.G. Mohamad, **H.Md. Akil**, "Evaluation on the Effect of Various Silane Treatments on Nanosilica Filled PP Composites", Proceedings 14th Scientific Conference on Electron Microscopy 2004, Kuala Lumpur. (13th – 15th December 2004)
34. Halimatuddahlia, H. Ismail, **H. Md. Akil**, "Morphological Studies of PP/EPDM/NR Blend: The Effect of Dynamic Vulcanization and/or Trans-Polyoctenylene Rubber (TOR) Addition", Proceedings 14th Scientific Conference on Electron Microscopy 2004, Kuala Lumpur. (13th – 15th December 2004)
35. Halimatuddahlia, H. Ismail, **H. Md. Akil**, "Properties and Morphology of PP/EPDM/NR Ternary Blend: The Effect Of Peroxide Vulcanization", Proceedings National Postgraduate Colloquium 2004 (NAPCOL), Penang. (8th – 9th December 2004).
36. Halimatuddahlia, H. Ismail, **H. Md. Akil**, "Effects of Dynamic Vulcanization and Trans-Polyoctenylene Rubber (TOR) On the Rheological Properties Of PP/EPDM/NR Blend By Torque Rheometer", Proceedings National Postgraduate Colloquium 2004 (NAPCOL), Penang. (8th – 9th December 2004).
37. Amran Alias, Mohd Yunus Abdullah, **Hazizan Md Akil**, "Teaching Engineering Fundamentals: Enhancing the Old Fashioned Way", Proceedings Conference on Engineering Education 2004, Kuala Lumpur.

### 2003

38. **Hazizan Md. Akil**, Tuan Syarifah Nor S. Hussin, Banjuraizah Johar, Z.A. Ahmad, "The Mechanical Properties And Morphological Assessments Of Alumina-Filled Polypropylene", Proceedings 12th EM Conference 2003, Langkawi, Pp 187-195
39. Halimatuddahlia, H. Ismail, **H. Md. Akil**, "The Effect Of HVA-2 Addition On The Properties Of PP/EPDM/NR Ternary Blends", Proceedings 12th Electron Microscopic Conference 2003, Langkawi, Pp. 282-289.
40. Halimatuddahlia, H. Ismail, **H. Md. Akil**, "The Comparison between Properties of Thermoplastic Elastomer Based On PP/EPDM/ENR and PP/EPDM/NR Blends", Proceedings 12th Electron Microscopic Conference 2003, Langkawi, Pp. 755-760.

**COMMITTEE MEMBER (CONFERENCE / SEMINAR /WORKSHOP)**

**2009**

1. Post: Judge at Industrial Training Poster Presentation 2009, Association: School of Materials and mineral Resources Eng USM.
2. Post: Chairman for Asian Workshop on Polymer Processing (AWPP2009), Association: School of Materials and mineral Resources Eng USM/ Japan Society for Polymer Processing (JSPP).
3. Post: Organizing Committee Member for the Second International Conference on Bio-based Polymers (ICBP 2009), Association: School of Biological Sciences USM / University of Tokyo / Riken, Japan.
4. Post: International Scientific Committee member for The International Conference on structural Analysis of Advanced Materials (ICSAAM 2009), Tarbes France. Association: Ecole Nationale D'Ingenieurs De Tarbes Laboratoire De Genie De Production France / The University of Patras Greece / The University Politeh / Nica of Bucharest, Romania.

**2007**

5. Post: Chairman for 10th Field Wise Seminar, Association: School of Materials and mineral resources Eng/AUNSEED/Net/JICA

**2005**

6. Post: Committee member, Association: Electron Microscopy Society of Malaysia (EMSM).
7. Post: Committee member, Association: ICXRI 2006, Post: Secretary for Symposium D, Association: IMTCE 2004.
8. Post: Panel of assessor for industrial training presentation, Association: School of Materials and mineral resources Eng.

**2004**

9. Post: Graduate member (Membership no: 24774), Year: Since 2004, Association: Institute of Engineers, Malaysia
10. Post: Ordinary member (Membership no: 771), Year: Since 2004, Association: Institute of Materials, Malaysia.
11. Post: Committee member, Year: Since 2004, Association: International Conference on Recent Advances in Materials, Minerals and Environment 2003 (RAMM 2003).
12. Post: Committee member, Year: Since 2004, Association: FWS IV.
13. Post: Secretary, Year: 2004, Association: Fieldwise Seminar VI (Biomaterials) AUNSEED/NET.
14. Post: Secretary, Year: Since 2004, Association: Institute of Materials, Malaysia (Northern Region), Post: Committee member, Year: 2004, Association: Quality day, SMMRE.
15. Post: Committee member, Year: 2004, Association: Family day, SMMRE

16. Post: Panel of assessor for industrial training presentation, Year: 2004, Association: School of Materials and mineral resources Eng.
17. Post: Committee member (Treasurer) for short course on Cathodic Protection, Year: 2004, Association: School of Materials and mineral resources Eng.

### **2003**

18. Post: Committee member, Year: 2003, Association: First Fieldwise Seminar on X-Ray and its application (AUNSEED/NET).
19. Post: Member of Editor, Year: 2003 – 2005, Association: Engineering In-Focus
20. Post: Panel of assessor for industrial training presentation, Year: 2003, Association: School of Materials and mineral resources Eng.

### **University Committee**

21. Membership: Committee member, Committee: Bau dan Lalat, Duration/year: 2 years/2003
22. Membership: Committee member, Committee: Engineering in-Focus, Duration/year: 2/ 2005
23. Membership: Committee member, Committee: Engineering Innovation Platform, Duration/year: Since February 2004.
24. Membership: Committee member, Committee: Board of School of Aerospace Engineering, Duration/year: Since February 2007
25. Membership: Committee member, Committee: Engineering and Technology Research, Duration/year: 1 January – 31 December 2012
26. Membership: School Board Member, Committee: The School of Materials & Mineral Resources Engineering, USM, Duration/year: 2010.
27. Membership: Examination Board Member, Committee: The School of Materials & Mineral Resources Engineering, USM, Duration/year: 2010
28. Membership: Board member, Committee: School of Aerospace Engineering, USM, Duration/year: 2010
29. Membership: Committee Member, Committee: Postgraduate and Research Committee (JIT), School of Materials & Mineral Resources Engineering, USM, Duration/year: 2010, Membership: AJK Hal Ehwal Ibadah dan Majlis Ilmu sempena Ramadhan Al-Mubarak, Committee: Islamic Center, USM, Duration/year: 2010

### **School Committee**

30. Membership: Committee member, Committee: Healthy Campus, Duration/year: 2 years/2003
31. Membership: Committee member, Committee: School board, Duration/year: 2 years/1 January 2004 - 31 December 2006,

32. Membership: Committee member, Committee: Annual report, Duration/year: 1 year/2004
33. Membership: Committee member, Committee: AUNSEED/Net Steering Committee, Duration/year: 1 year/2004

#### **INVITED GUEST SPEAKER / PANELIST IN MASS MEDIA IN AREA OF EXPERTISE**

1. Ahmad, Z.A., Akil, M.D., Alsharif, S. O, "USM develops cheaper dental filling resin", Media: Berita Harian, Metro, Utusan Malaysia, The Sun, 2014
2. Mahmud, S., Akil, M.D., "USM cipta kit penapisan Nano Sinar UV" Media: Utusan Malaysia, Kosmo, Sin Chew daily, 2010.

#### **ASSESSOR OF WORKING PAPERS**

**2011**

1. Assessor for Research University Grant, Title: Development of Nanobiocomposites Based on Microfibrilled Cellulose Nanofibrils from Lignocellulosic Materials for Advanced Engineering Application

#### **REVIEWING ARTICLES IN ACADEMIC JOURNALS**

**2015**

1. Editor: Helen Zhang, Title: Investigation of Macro Fiber Composite (MFC) bonded technique via modal analysis in woven and unwoven kenaf fiber plate for vertical axis wind turbine application. Journal/Publisher: Journal of Zhejiang University -Science A
2. Editor: Dr Monica Carreira-Mendez, Title: New development for Nicolais-Narkis model in Polymer/Spherical nanoparticles nanocomposites assuming the interphase role. Journal/Publisher: Royal Society of Chemistry
3. Editor: Alan J. Lesser, Title: Modelling of the compression Behavior of Foam Cores Reinforced with Composite Rods. Journal/Publisher: Polymer Composites

**2013**

4. Editor: Professor K.L. Edwards, Title: Flexural and Tensile Moduli of Unidirectional Hybrid Epoxy Composites Reinforced by S-2 Glass and T700S Carbon Fibres. Journal/Publisher: Materials & Design
5. Editor: Professor K.L. Edwards, Title: Advanced joint design to improve failure resistance in composite wind turbine blade materials. Journal/Publisher: Materials & Design
6. Editor: Professor K.L. Edwards, Title: Enhancement of dimple formability in sheet metals by 2-step forming. Journal/Publisher: Materials & Design
7. Editor: Professor K.L. Edwards, Title: Impact damage response of natural stitched single lap-joint in composite structures. Journal/Publisher: Materials & Design
8. Editor: Professor K.L. Edwards, Title: effect of the addition of nanoclays on the water absorption and mechanical properties of glass fiber/up resin composites. Journal/Publisher: Materials & Design
9. Editor: Professor K.L. Edwards, Title: Experimental and Finite Element Analysis of Creep Behavior of Extruded Polystyrene Rigid Foam. Journal/Publisher: Materials & Design

10. Editor: Assoc Prof Dr Zainul Ahmad Rajoin, Title: Effect of incorporating of wollastonite and mine-silica by product to the hardness of glass ionomer cement (gic). Journal/Publisher: Archives of Orofacial Sicence
11. Editor: Luciano Feo, Title: Thermal and mechanical performance of mica filled polyamide 6 composited. Journal/Publisher: Composite Part B
12. Editor: Luciano Feo, Title: Preparation and properties of carnauba straw powder filled chitosan biocomposites. Journal/Publisher: Composite Part B
13. Editor: Luciano Feo, Title: Sandwich composite impact and indentation behavior study. Journal/Publisher: Composite Part B
14. Editor: Luciano Feo, Title: Influence of hygrothermal ageing on the damage mechanism of flax fibre reinforced epoxy composite. Journal/Publisher: Composite Part B

## 2012

15. Editor: Professor K.L. Edwards, Title: Study of the Polypropylene Degradation under recycling Effect. Journal/Publisher: Materials & Design
16. Editor: Professor K.L. Edwards, Title: Geometry and restraint effects on the bending behaviour of the glass fibre reinforced polymer sandwich slabs under point load. Journal/Publisher: Materials & Design
17. Editor: Professor K.L. Edwards, Title: Tribological performance of resin impregnated gunny (RIG) and resin reinforced honeycomb (RRH) material composites. Journal/Publisher: Materials & Design
18. Editor: Professor K.L. Edwards, Title: Geometry effect on the behaviour of single and glue-laminated glass fibre reinforced polymer composite sandwich beams loaded in four-point bending. Journal/Publisher: Materials & Design
19. Editor: EE: Schubert, Mark, Title: Preparation and Properties of Carnauba Straw Powder-filled Chitosan Biocomposites. Journal/Publisher: Journal of Applied Polymer Science
20. Editor: Knapp, Brian, Title: PLA/sepiolite and PLA/calcium carbonate nanocomposites: a comparison study. Journal/Publisher: Journal of Applied Polymer Science
21. Editor: Professor George Springer, Title: development of rubber toughened epoxy reinforced natural fibre hybrid composites: mechanical characterization. Journal/Publisher: Journal of Reinforced Polymers & Composites
22. Editor: Professor George Springer, Title: Temperature Dependence Mechanical and Thermal Properties of Naturally Woven Coconut Sheath/ MMT clay/Polyester Hybrid composites. Journal/Publisher: Journal of Reinforced Polymers & Composites
23. Editor: Professor George Springer, Title: Damage characterisation of glass-fibre reinforced epoxy (GRE) pipes under biaxial UEWS tests via acoustic emissions. Journal/Publisher: Journal of Reinforced Polymers & Composites

## 2011

24. Editor: Rigoberto Advincula, Title: Synthesis of novel bis(perfluorophenyl azides) coupling agents: Evaluation of their performance by crosslinking of poly(ethylene oxide). Journal/Publisher: Reactive and Functional Polymers
25. Editor: Prof. Sergei Nazarenko, Title: Glycolysis of the rigid PUR-PIR foam modified with starch, Journal/Publisher: Journal of Applied Polymer Science
26. Editor: Prof. Dr.-Ing. habil. hc. J. Karger-Kocsis, Title: Porous poly(urethane urea) based 3d scaffolds suitable for bone tissue engineering, Journal/Publisher: eXPRESS Polymer Letters
27. Editor: S. Ajueshi, Title: Stress-Strain Modelling of Reinforced Concrete Membrane Structures, Journal/Publisher: International Journal of Physical Sciences
28. Editor: K.L. Edwards, Title: Durability of shape memory polymer based syntactic foam under accelerated hydrolytic ageing Materials and Design, journal/Publisher: Materials and Design
29. Editor: John W. Gillespie, Jr., Title: Compatibilizing effect of maleated polypropylene and organoclay on the mechanical properties and morphology of polypropylene/polyamide 66 Nanocomposites, Journal/Publisher: Journal of Thermoplastic Composite Materials



30. Editor: K.L. Edwards, Title: Investigation the behaviour of two-way GFRP sandwich floor panel under static and dynamic loads, Journal/Publisher: Materials and Design
31. Editor: K.L. Edwards, Title: Effect Of Water Absorption On The Dynamic Mechanical Properties Of Composites Used For Windmill Blades, Journal/Publisher: Materials and Design
32. Editor: Professor Nobuo Takeda, Title: Correlation of mechanical performance and the morphological structures of epoxy , micro/nanoparticulate composites, Journal/Publisher: Composites Part A
33. Editor: David Hui, Title: Hybridization a Way of Improving Mechanical Properties of Polymer Composite Materials: A Review, Journal/Publisher: Composites Part B
34. Editor: Erhurhu Tessy, U., Title: Mild alkali treatment improving the mechanical properties of jute fibre with time variant: A statistical , interpretation using Weibull distribution model, Journal/Publisher: International Journal of Science and Technology Education Research (IJSTER)
35. Editor: Rolf D. Joerger, Title: Mild alkali treatment improving the mechanical properties of jute fibre with time variant: A statistical interpretation using Weibull distribution model, Journal/Publisher: Bioresource Technology
36. Editor: Prof. Jozsef Karger-Kocsis, Title: Effects of Titanate Coupling Agent on Mechanical and Thermal Properties of Red Mud/Polypropylen Composite, Journal/Publisher: Journal of Reinforced Plastics and Composites
37. Editor: Chun Gon Kim, Title: Studies of Chemical and Thermal Properties of Rice Husk Polypropylene (RHPP) Composites, Journal/Publisher: Advanced Composite Materials
38. Editor: K.L. Edwards, Title: Environmental impact minimisation in an automotive component using alternative materials and manufacturing processes, Journal/Publisher: Materials and Design
39. Editor: H. Mirzadeh, Title: Polyisobutylene-based Modifiers for Glass Fiber Reinforced Unsaturated Polyesters , Journal/Publisher: Iranian Polymer Journal
40. Editor: John W. Gillespie, Jr., Title: Effect Of Nanoclay On The Microstructure And Thermal Properties Of Thermoplastic Natural Rubber (Tpnr)., Journal/Publisher: Journal of Thermoplastic Composite Materials
41. Editor: Z.J. Pei, Title: Computer aided injection moulding process analysis of polyvinyl alcohol-starch green biodegradable polymer compound, Journal/Publisher: Journal of Manufacturing Processes
42. Editor: Dr. Brian Pengilly, Title: Effects of Vulcanization Degrees on the Surface Modification of Natural Rubber Latex Films via Photo-grafting of Methyl Methacrylate, Journal/Publisher: Journal of Applied Polymer Science
43. Editor: Prof Zainal Ariffin Hj. Ahmad, Title: The Optimum Processing Parameter of Carbon Nanotubes and Thermoplastic Natural Rubber (NR/LNR/LLDPE) Composite Based on Tensile Properties., Journal/Publisher: Trans Tech Publication
44. Editor: Prof Zainal Ariffin Hj. Ahmad, Title: Optical Properties and Surface Morphology of Nano-Composites PMMA/TiO<sub>2</sub> Thin Films, Journal/Publisher: Trans Tech Publication
45. Editor: Prof Zainal Ariffin Hj. Ahmad, Title: Synthesis and Characterization of silicotungstic Acid nanoparticle Via Sol gel technique as an Acid catalyst in Esterification reaction, Journal/Publisher: Trans Tech Publication
46. Editor: Dr Navin Chand, Title: Environmental impact Minimisation in an Automotive Component using Alternative Materials and manufacturing Processes, Journal/Publisher: Serials Publication.
47. Editor: Vinodh Sekar, Title: Environmental impact Minimisation in an Automotive Component using Alternative Materials and manufacturing Processes, Journal/Publisher: Materials & Design (Elsevier)
48. Editor: Yun Peng Jiang, Title: Ultrasonic Dispersion of SiO<sub>2</sub> Particles in Glassy Epoxy Resin, Journal/Publisher: Materials & Design (Elsevier)
49. Editor: Abdel-Hamid I. Mourad, Title: Degradation Assessment of LDPE Multilayer Film Used as a Greenhouse Cover: Correlation between Natural and Artificial Ageing Impacts. Journal/Publisher: Materials & Design (Elsevier)
50. Editor: Chun Gon Kim, Title: Studies of Chemical and Thermal Properties of Rice Husk Polypropylene (RHPP) Composites. Journal/Publisher: Advanced Composite Materials

51. Editor:N. Takeda, Title: Correlation of Mechanical Performance and the Morphological Structures of Epoxy Micro/nanoparticulate Composites.Journal/Publisher: Composites Part A
52. Editor: Z.J. Pei, Title: Computer Aided Injection Moulding Process Analysis of Polyvinyl Alcohol-starch Green Biodegradable Polymer Compound, Journal/Publisher: Journal of Manufacturing Processes
53. Editor:Prof. Sergei Nazarenko, Title: Glycolysis of the rigid PUR-PIR Foam Modified with Starch, Journal/Publisher: Journal of Applied Polymer Science
54. Editor:Masahiro Ohshima, Title: Glycolysis Morphology evolution of Polyurethane Foam infused by TiO<sub>2</sub> Nanoparticles, Journal/Publisher: International Polymer Processing
55. Editor:MSEA, Title: Microstructural Evaluation and Flexural Mechanical Behavior of Pultruded Glass Fiber Composites, Journal/Publisher: Materials Science & Engineering A
56. Editor:Penny B. O'Donnell, Title: Effect of Nanoclay on the Microstructure and Thermal Properties of Thermoplastic Natural Rubber( TPNR), Journal/Publisher: Journal of Thermoplastic Composite Materials

### 2010

57. Editor: Prof Ismail Ab Rahman, Title: PS-0210-Conductive Polymer Based On Polyaniline – Eggshells Powder Composites (PANI-ESP), Journal/Publisher: Journal of Physical Science (USM)
58. Editor: Abdel-Hamid I. Mourad, PhD, Title: Degradation Assessment of LDPE Multilayer Films Used As A Greenhouse Cover: Correlation Between Natural And Artificial Ageing Impacts, Journal/Publisher: Materials & Design Elsevier.
59. Editor: Lim Jae Kyoo, Ph.D, Title: Effects of diammonium phosphate on the flammability and mechanical properties of bio-composites.
60. Editor: Abbas Niknejad, Ph.DTitle: Theoretical and experimental studies of the instantaneous folding force of the polyurethane foam-filled square honeycombs, Journal/Publisher: Materials & Design Elsevier
61. Editor: Aidy Ali, PhD, Title: Development Of Anti Ballastic Board From Ramie Fibre, Journal/Publisher: Materials & Design Elsevier
62. Editor: Zhihua Wang, Ph.D, Title: The structural response of dynamically loaded sandwich beams with open-cell metal foam cores, Journal/Publisher: Materials & Design Elsevier
63. Editor: Prof Azman Hassan
64. Title: Preparation And Properties Of Bio-Based Nanocomposites From Epoxidized Soy Bean Oil And Layered Silicate,Journal/Publisher:Malaysian Polymer Journal
65. Editor: Martin A. Hubbe, Title:Anhydride Modification Of Cultivated Kenaf Bast Fibers: Morphological, Spectroscopic And Thermal Studies, Journal/Publisher: Bioresources
66. Editor:John Wiley & Sons, Inc, Title: Mechanical, moisture absorption and photodegradation behaviours of bacterial cellulose nanofiber reinforced unsaturated polyester composites, Journal/Publisher:Advances In Polymer Technology

### 2009

67. Editor: Prof K.L. Edwards, Title: Numerical Simulation Of Drop Weight Impact Behavior Of Closed Cell Aluminium Foam, Journal/Publisher: Materials and Design / Elsevier,
68. Editor: Prof K.L. Edwards, Title: Research on Thermal Properties of Nomex/Viscose FR Fiber Blended Fabric, Journal/Publisher: Materials and Design / Elsevier.
69. Editor: Prof K.L. Edwards, Title: Optimal Design Of Metallic Square Honeycombs For The In-Plane Crushing, Journal/Publisher: Materials and Design / Elsevier
70. Editor: Prof K.L. Edwards, Title: Numerical Simulation Of Tensile Aial Impact Of Stainless Steel Tubes And Zircaloy Rod, Journal/Publisher: Materials and Design / Elsevier
71. Editor: Prof K.L. Edwards, Title: Numerical Simulation Of Tensile Aial Impact Of Stainless Steel Tubes And Zircaloy Rod [Revised], Journal/Publisher: Materials and Design / Elsevier

72. Editor: Prof K.L. Edwards, Title: Experimental Study Of Mechanical And Electrical Properties Of Carbon Nanofiber/Epoxy Composites, Journal/Publisher: Materials and Design / Elsevier
73. Editor: Prof K.L. Edwards, Title: Experimental Study Of Mechanical And Electrical Properties Of Carbon Nanofiber/ Epoxy Composites [Revised], Journal/Publisher: Materials and Design / Elsevier
74. Editor: Schubert, Mark, Title: Biophysical Studies on Bone Cement Composites Based On Polyester Fumarate, Journal/Publisher: Journal of Applied Polymer Science / Wiley
75. Editor: Nazarenko, Sergei, Title: Study on Creep of PP/CaCO<sub>3</sub> Made by Vibration Injection At Low Frequency and Pressure With High CaCO<sub>3</sub> Percentage, Journal/Publisher: Journal of Applied Polymer Science / Wiley
76. Editor: Schubert, Mark, Title: Biophysical Studies on Bone Cement Composites Based On Polyester Fumarate [revised], Journal/Publisher: Journal of Applied Polymer Science / Wiley
77. Editor: Prof. H. Thomas Hahn, Title: Preparation of Siloxane Modified Terta glycidyl Epoxy Clay Nanocomposites – It's Thermal and Mor[hological Properties, Journal/Publisher: Journal of Composite Materials / SAGE Journal
78. Editor: Professor Kadla, Title: Cell Wall Untrastructure, Anatomy, Lignin Distribution, And Chemical Composition of Malaysian Cultivated Kenaf Fiber, Journal/Publisher: Journal of Wood Chemistry and Technology / Taylor & Francis
79. Editor: Professor David C. Baker, Title: A Novel organic-inorganic hybrid compound 1,2-diaminobenzene – Phosphotungstic Acid: Synthesis and Catalysis, Journal/Publisher: Carbohydrate Research / Elsevier, Editor: Professor John W. Gillespie, Jr, Title: Synergistic Flame Retardant Effects Of Aluminium Oxide With Layered Double Hydroxide in EVA/LDH Composites, Journal/Publisher: Journal of Thermoplastic Composite Materials / SAGE Publisher
80. Editor: Dr Srimala Srikantan, Title: The Factors Affetcting The Swelling of W-Bronze Composite System at Different Sintering Temperature, Journal/Publisher: USM
81. Editor: Dr Srimala Srikantan, Title: The Energy Bandgap Studies For Irradiated HDPE as Plastic Base Semiconductor Materials, Journal/Publisher: USM
82. Editor: Dr Srimala Srikantan, Title: Evaluation of Impact properties of Toughen Phenolic/Aramid Composite Prepared Using Hot-Press Molding, Journal/Publisher: USM
83. Editor: Professor Dr Hanafi Ismail, Title: Investigation of Enzimatic Degradation Behaviour of irradiated Chitosan Scaffold For Wound Healing Treatment, Journal/Publisher: Malaysian Journal of Microscopy
84. Editor: Professor Dr Hanafi Ismail, Title: The influences of Forming agent on the Properties of Aluminium Foam, Journal/Publisher: Malaysian Journal of Microscopy
85. Editor: Professor Dr Zainal Ariffin Ahmad, Title: Surface Analysis on Natural Fiber: Before and After Treatment, Journal/Publisher: Journal of Nuclear and Related Technologies
86. Editor: Stephen. S. Ochigbo, Title: Tensile Behaviour Of Ultra Violet (Uv)-Irradiated Films Of Natural Rubber (NR)/Poly (Vinyl Acetate) (PVAC) Blends, Journal/Publisher: Journal of Physical Science (USM)
87. Editor: Prof K.L. Edwards, Title: Cascade Approach on Recycling Marble and Granit Product Design, Journal/Publisher: Materials and Design / Elsevier
88. Editor: Prof K.L. Edwards, Title: Materials Selection for Competitive Advantages, Journal/Publisher: Materials and Design / Elsevier
89. Editor: Prof K.L. Edwards, Title: Applications Of Linear Inverse Finite Element Method In Prediction Of The Optimum Blank In Sheet Metal Forming, Journal/Publisher: Materials and Design / Elsevier
90. Editor: Prof K.L. Edwards, Title: Selecting Material For The Exterior Panel Of A Private Car Back Door by adopting a total cost accounting approach, Journal/Publisher: Materials and Design / Elsevier
91. Editor: Prof K.L. Edwards, Title: Experimental Study Of Waterproof Membranes On Concrete Deck: Inteface Adhesion Under Influences Of Critical Factors, Journal/Publisher: Materials and Design / Elsevier

92. Editor: Prof K.L. Edwards, Title: Enhancement Of Mechanical Peoperties Of Hollow-Strut Foams: Analysis, Journal/Publisher: Materials and Design / Elsevier
93. Editor: Prof K.L. Edwards, Title: Effect Of Blowing Agent Contents Of The Morphology Of Aluminum Foams Produced By Powder Compact (PM Route), Journal/Publisher: Mateials and Design / Elsevier
94. Editor: Prof K.L. Edwards, Title: Investigation Of Properties Of Polyethylene/Clay Nanocomposites Prepared By New In-Situ Zeigler-Natta Catalyst, Journal/Publisher: Materials and Design / Elsevier
95. Editor: Nazarenko, Sergei, Title: Structural and Mechanical Properties Of YBCO-Polystyrene Composites, Journal/Publisher: Journal of Applied Polymer Science / Wiley

## 2007

96. Editor: Prof. Dr. Azman Hassan, Title: Barrier properties of PP/PET blends, Journal/Publisher: : Malaysian Polymer Journal
97. Editor: Dr Mark A. Schubert (Energizer Battery Company), Title: Reinforcing Effect of Silica on the Properties of Styrene Butadiene Rubber (SBR) – Reclaim Rubber (RR) Blend System, Journal/Publisher: Journal of Applied Polymer Science/Wiley Interscience.
98. Editor: Dr Mark A. Schubert (Energizer Battery Company), Title: Reinforcing Effect of Silica on the Properties of Styrene Butadiene Rubber (SBR) – Reclaim Rubber (RR) Blend System – R 1, Journal/Publisher: Journal of Applied Sciences.
99. Editor: Professor R.J. Young, Title: Influences Of Monosilanolisobutyl-POSS On Thermal Stability Of Polymethylsilxoane, Journal/Publisher: Journal of Materials Science / Wiley Interscience
100. Editor: Dr. Dasmawati mohamad, Title: Post-Polymerisation of Dental Resins Composite Evaluated with Nanoindentation and Micro-Raman Spectroscopy, Journal/Publisher: Archieves of Orofacial Science, School of Dental Science.
101. Editor: Schiraldi, David, Title: Reinforcing Effect Of Organo-Modified Layered Silicates In Polypropylene, Journal/Publisher: Journal of Applied Polymer Science / Wiley
102. Editor: Schiraldi, David, Title: Synthesis And Characterization Of Poly (Fluorinated Acrylate) / Silica Hybrid Nanocomposites, Journal/Publisher: Journal of Applied Polymer Science / Wiley.
103. Editor: Hiltner, Anne, Title: Properties Of Ligno-Cellulose Fabric Sterculia Urens, Journal/Publisher: Journal of Applied Polymer Science / Wiley.

## 2006

104. Editor: Prof. Dr. Azman Hassan, Title: Rubberwood-polymer Composites: Effect of Chemical Impregnation on the Mechanical and Physical Properties, Journal/Publisher: Malaysian Polymer Journal.
105. Editor: Prof. Dr. Azman Hassan, Title: Performance of Natural Rubber Coated Fabrics under Ballistic Impact, Journal/Publisher: Malaysian Polymer Journal.
106. Editor: Engr. Johan Alimin Abdul Samad, Title: Preparation of High-Refractive-Index Polyimide-Titania Hybrid Thin Film, Journal/Publisher: Proceedings 11th APPCChE Congress/Asian Pacific Confederation of Chemical Engineering.
107. Editor: Engr. Johan Alimin Abdul Samad, Title: Innovative Multi-Layer Coating Method for Preparation of Gradient Refractive Index Lens, Journal/Publisher: Proceedings 11th APPCChE Congress/Asian Pacific Confederation of Chemical Engineering.
108. Editor: Engr. Johan Alimin Abdul Samad, Title: Improved Luminescence of Dense and Spherical Yitrium Oxide Prepared by Spray Pyrolysis, Journal/Publisher: Proceedings 11th APPCChE Congress/Asian Pacific Confederation of Chemical Engineering
109. Editor: Engr. Johan Alimin Abdul Samad, Title: Influence of Stearic Acid Direct-Modified Carbon nanotubes on Tribological Properties of Ultra-High Molecular weight Polyethylene, Journal/Publisher: Proceedings 11th APPCChE Congress/Asian Pacific Confederation of Chemical Engineering.

110. Editor: Assoc. Prof. Dr. Mohamad Kamal Hj Harun. Title: Properties of recycled polyethylene terephthalate flake (PET)/unsaturated polyester matrix composite: Influence of particle sizes and filler loading, Journal/Publisher: The XXII Regional Conference on solid State Science & technology (RCSST'05),
111. Editor: Assoc. Prof. Dr. Mohamad Kamal Hj Harun, Title: Rubberwood Sawdust As Filler In The Manufacture Of Thermoplastic Composites, Journal/Publisher: The Xxii Regional Conference On Solid State Science & Technology (Rcsst'05).
112. Editor: Assoc. Prof. Dr. Mohamad Kamal Hj Harun, Title: The Mechanical And Physical Properties Of The Polymer Feather Fibre Board Composite., Journal/Publisher: The Xxii Regional Conference On Solid State Science & Technology (Rcsst'05)

## 2005

113. Editor: Professor Ann Hitlner (Case Western Reserve University, Cleveland), Title: Reinforcing effect of silica on the properties of styrene butadiene rubber (SBR)/reclaim rubber blend system, Journal/Publisher: Journal of Applied Polymer Science/Wiley Interscience.
114. Editor: Dr Mark A. Schubert (Energizer Battery Company), Title: Polybenzoxazine containing polysilsesquioxane: Preparation and thermal Properties, Journal/Publisher: Journal of Applied Polymer Science/Wiley Interscience.
115. Editor: Dr Robert A. Shick (PROMERUS LLC), Title: Structure and properties of organoclay/EPDM nanocomposite: Influence of ethylene content, Journal/Publisher: Journal of Applied Polymer Science/Wiley Interscience.
116. Editor: Prof. Dr. Alias Mohd Yusof, Title: Effect of ethylene propylene rubber as impact modifier on mechanical properties of talc filled polypropylene, Journal/Publisher: Buletin Kimia/ UTM

<b>STUDENTS POSTGRADUATE (NAME, YEAR OF GRADUATION, THESIS TITLE)</b>
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### Ph.D

#### Graduated

1. Halimatuallahiana, **2005**, "The Properties Of Pp/Epdm/Nr Ternary Blend", (Co-Supervisor).
2. Shah Rizal Kassim, **2008**, "Kajian Pengoptimuman Parameter Pengsintisan Hydroksiapatit Dengan Kaedah Pemendakan Tumpat Dan Fabrikasi Jasad Hydroksiapatit Tumpat Melalui Kaedah Tuangan Gel", Co-Supervisor.
3. TehPei Ling, **2008**, "Low Cte Substrate To Improve Warp And Solder Joint Reliability", Co-Supervisor.
4. Mohamad Awang, **2009**, "Preparation, Characterization and Properties of Polypropylene/waste tire dust (PP/WTD) blends", Co-Supervisor.
5. Ong Hui Lin, **2010**, "Nanosilica Filled Polymer Based Composites for Automotive Application", Main Supervisor.
6. Mohd Al Amin B. Mohamad Nor, **2011**, "Kajian Terhadap Sifat-Sifat Beserta Kaedah Pembuatan Komposit Sandwich Berteraskan Seramik Berliang Untuk Penghasilan Bahan Binaan Termaju", Co-Supervisor.
7. Norhidayatullaili Muhd Julkapl, **2012**, "Preparation and characterization of cross linked chitosan filled chitosan composites", Main Supervisor.
8. Parisha Firoozian, **2012**, "Nano carbon black and activated carbon from agricultural waste filled epoxy composites", Co-Supervisor
9. Mohd Firdaus bin Omar, **2013**, "Investigation on Strain Rate Sensitivity and Dynamic Mechanical Properties of Polymer Composites using Hopkinson Pressure Bar Apparatus (SHPBA)", Main Supervisor.

10. Chang Boon Peng, **2014**, “Impact, friction and wear assessment of UHMWPE for Implant application” Main supervisor.

### **On-Going**

11. Musammir-Khan, **Started 2009 (On-Going)**, “Molecular Modifications of chitosan powder from natural resources & preparation of its biocomposites”, Main Supervisor.
12. Siti Shuhadah binti Md Saleh, **Started 2011 (On-Going)**, “Triological properties of alumina/cnt hybrid filled polymer composites”, Main supervisor.
13. Norlin binti Nosbi, **Started 2011 (On-Going)**, “Synthesis, functionalization and characterization of carbon nanotubes(CNT)/Alumina(Al<sub>2</sub>O<sub>3</sub>) hybrid compound and its nanocomposites for engineering applications”, Main supervisor
14. Muhammad Bisyrul Hafi bin Othman, **Started 2012 (On-Going)**, “ Synthesis of hyper-branch polyimide with low dielectric constant and refractive index based on multi functional amine” Main supervisor
15. Nur Suraya Anis Binti Ahmad Bakhtiar, **Started 2013 (On-Going)**, Preparation and characterization of MWCNT-Muscovite/epoxy layered silicate nanocomposites in engineering applications. Main Supervisor.
16. Muhammad Helmi Bin Abdul Kudus, **Started 2013 (On-Going)**, Hybrid Dielectric Quadrant for Mobile Device. Main Supervisor.
17. Muhammad Hafiz Bin Zamri, **Started 2013 (On-Going)**, Development of kenaf fiber reinforced pultruded composite as green materials. Main Supervisor.
18. Siti Zalifah Binti Md Rasib, **Started 2013 (On-Going)**, Synthesis modification and characterization of chitosan based polymeric with multi-responsive behavior. Main Supervisor.
19. Nor Hafizah Binti Che Ismail, **Started 2014 (On-Going)**, “Synthesis and preparation of muscovite based polymer with enhanced mechanical properties”. Main Supervisor.
20. Tuan Noraihan azila Binti Tuan Rahim, **Started 2014 (On-Going)**, Preparation and characterization of polyamide composites-based biomaterial by using 3D printing technology for biomedical application. Main Supervisor.
21. Siti Nor Binti Din, **Started 2015 (On-Going)**, “Characterization and properties of PVC plastisol coating for advanced coating applications”. Main Supervisor.

### **Master Degree (Research)**

1. Siti Hajjar binti Che Man, **2008**, “Preparation of methyl/styrene in deproteinised natural rubber latex”, Co-Supervisor.
2. Erfan Suryani binti Abdul Rashid, **2009**, “Assessment of various mineral and oxide fillers for epoxy substrate in order to improve rigidity and reduce CTE mismatch”, Main Supervisor.
3. Chang Boon Peng, **Started 2009 (Converted to PhD 2011)**, “Impact, friction and wear assessment of UHMWPE for Implant application”, Main Supervisor.
4. Ku Marsila Binti Ku Ishak, **2010**, “Modification of chitosan powder using various monomers”, Main Supervisor.
5. Norlin binti Nosbi, **2011**, “Properties of pultruded kenaf fiber reinforced polyester composites”, Main Supervisor
6. Hoaida K. Salem Shawi, **2011**, “A study on the effect of  $\alpha$ -cordierite ceramic powder as a filler denture base poly(methyl methacrylate)”, Co-Supervisor
7. Sahnizam Safie, **2011**, “Characterization and modeling of pultruded jute fibre reinforced unsaturated polyester composite”, Main Supervisor
8. Adlan Akram bin Mohamad Mazuki, **2011**, “Fabrication, characterization and properties of Pultruded kenaf reinforced unsaturated polyester composite” Main Supervisor.
9. Tan Cheng yong, **2012**, “ Impact response of composites sandwich structure with various cores and skin materials”, Main Supervisor

10. Azizan Abd Aziz, **2012**, "Preparation and properties of polymer composites with functionalized additive", Main Supervisor
11. Muhammad Bisyrul Hafi bin Othman, **2012**, " Synthesis And Structure Properties Relationship (SPR): Polyimide Containing Silicone Segment for Optoelectronic Application" Co-Supervisor
12. Tuan Noraihan Azila Tuan Rahim, **2012** "Fabrication and characterization of nanocomposites for dental restorative material", Main Supervisor
13. Mohd Fadli bin Ahmad rasyid, **2012**, "Preparation, characterization and properties of MICA hybrid nanocomposite", Main Supervisor.
14. Mohd Hafiz Zamri, **2012**, "Effect of fibre loading, tex and configuration on the properties of pultruded kenaf fibre reinforced", Main Supervisor.
15. Nurashikin binti Sawal, **2012**, "Low-velocity impact response of thermoplastic honeycomb core sandwich structure with aluminium face sheet", Main Supervisor.
16. Mohd Helfy Affzan bin Shahidan, **2012**, "The effect of weathering and hygrothermal aging on the properties of pultruded kenaf fiber reinforced unsaturated polyester composites" Main Supervisor.
17. Azreena Mastor, **2013**, "Modification of chitosan using gamma-ray radiation for tissue engineering application", Main Supervisor.
18. Muhammad helmi bin Abdul Kudus, **2013** "Preparation, characterization and properties of CNT-Alumina ceramic powder composites", Main Supervisor.
19. Muhammad Razak Bin Osman, **2014**, "fabrication, characterization and properties of kenaf/glass fiber hybrid pultruded composite". Main Supervisor.
20. Anis Sofiah binti Mudzafar Kamil, **2015**, "Durability on Modified Silica/Polypropylene Nanocomposites: Weathering Resistance, Fatigue and Creep Behavior". Co-Supervisor.
21. Mohamad Ibrahim Bin Ahmad, **2015**, "The study on thermoplastic honeycomb core sandwich structures for engineering applications", Main Supervisor
22. Muhammad Razlan Bin Zakaria, **2015**, "Enhancement of mechanical, thermal and dielectric properties of hybrid carbon nanotubes and alumina via chemical vapour deposition". Main Supervisor.
23. Abdul Manaf Bin Abdullah, **2016**, "Preparation and characterization of polyamide 12 composites for craniofacial reconstruction utilizing additive manufacturing. Co-Supervisor.

#### **On Going**

24. Muhammad Irfan Bin Mat Kandar, **Started 2013 (On-Going)**, "Application of Design of Experiment (DoE) for Parameters Optimization in Compression Moulding for Flax Reinforced Biocomposites". Main supervisor.

#### **Master's Dissertation (Mixed Mode)**

1. Mohd Firdaus bin Omar, **2008**, "Study on static and dynamic mechanical properties of various nature fibre composites for structural application", Main supervisor.
2. Parisha Firoozian, **2007**, "Modelling the properties of Mica filled epoxy composites", main supervisor.
3. Norhidayatulaaili bt Julkapli, **2006**, "Preparation and properties of Chitosan/kenaf packaging film", main supervisor
4. Firuz Zainudin, **2005**, "Deformation and energy absorption characteristics of metallic and polymeric foams", Main supervisor.
5. Ahmad Yusaini @ Ahmad Nordin, **2005**, "Low CTE and high flexural properties of organic substrate for electronic packaging application", main supervisor
6. Peh Bee Leng, **2004**, "The properties of nanosilica-filled PP composites", supervisor
7. Yeoh Yoke Ling, **2004**, "The comparison between aluminium honeycomb core and foam core sandwich structures", Main supervisor.

8. Norbahiyah Bt Baba, **2004**, “The properties of paper-based honeycomb core sandwich structures”, Main supervisor.
9. Banjuraizah Bt Johar, **2003**, “The properties of alumina-filled PP composites, Main supervisor

### **Final Year**

1. Khoo Le han, 2016, “The influence of monomer constituent on thermal and chemical stability hyperbranched polyimide block polymer”
2. Mohd Asmirul Azuan Bin mat Salleh, 2016, “Synthesis, properties and characterization of modified muscovite and its components”
3. Wong Phui Jin, 2016, “Effect of chitosan concentration on the hydrodynamic diameter and charge density of the chitosan-based hydrogel for drug delivery application”
4. Muhammad Razlan Bin Zakaria , 2013, “Preparation, characterization and tensile properties of carbon nanotubes-talc hybrid filled epoxy nanocomposites”
5. Herza Hasmi, 2012, “Thermal and Tribological properties of CNT/alumina Composites”
6. John Paul, 2007, “Dental Composites”
7. Siew Sok Fun, 2007, “Clay Chitosan”
8. Tang Ei Fei, 2007, “Treated Kenaf Chitosan”
9. Shamsol Azrolsani Aziz Nazri, 2007, “ Katalis Terhadap Sifat Dekradasi Polipropilena”
10. Mohd Fairuz Ruslan, 2007, ‘Degradability Of Polyethylene With Cat.10 Additive”
11. Faezahnoor Bt Mahmud, 2006, “Sifat Mekanikal Dan Morfologi Komposit Polikaprolakton (PCL) Dan Hidroksiapatit (HA)”
12. Mohd Redzuan Bin Mat Yaman, 2006, “Sifat-Sifat Komposit Matriks Polietilena Diperkuatkan Dengan Partikel Mika”
13. Mohana Pria A/P Rainoo Raj, 2006, “Penyediaan Dan Pencirian Komposit Nano-Chitosan Terisi Momtmorolonit”
14. Siti Fakhriah Bt Mustafha, 2006, “Penambahbaikan Sifat Termal Bagi Perekat Berasaskan Resin Epoksi Untuk Aplikasi Suhu Tinggi Menggunakan Pengisi Seramik”
15. Norfadzilah Bt Mohamad Arif, 2006, Struktur Sandwich Daripada Teras Bahan Kitar Semula Berisi Busa Poliuretana: Penyediaan Dan Sifat-Sifat Mekanikal”
16. Lee See Chin, 2006, “Persediaan Dan Pengajian Terhadap Sifat-Sifat Komposit Diperkukuh Dengan Gentian Kenaf”
17. Quah Ban Kheng, 2005, “Kajian Perbandingan Salutan Polimer Antara Laker UV, KK50 Dan Lilin Keatas Keluli”
18. Soo Siew Suan, 2005, “Kesan Sifat-Sifat Resin Keatas Prestasi Bahan Struktur Sandwich Dengan Teras Indung Madu Berasaskan Kertas”
19. Mustaffa Ali Azhar Bin Taib, 2005, “Sifat Komposit Polimer Diperkuatkan Dengan Partikel Lempung”
20. Lu Lian Soon, 2005, “ Pencirian Struktur Busa: Pengajian Perbandingan Antara Busa Termoset, Termoplastik, Logam Dan Seramik”
21. Hamisah Bt Ismail, 2005, “Kajian Perbandingan Antara Komposit Polipropilena Diisikan Kalsium Karbonat Dan Diisikan Talcum”
22. Wai Tai Jau, 2005, “Penghasilan Silica Bersaiz Nano Melalui Kaedah Permendakan Menggunakan Sodium Silikat”
23. Mohd Zaidy Bin Arnan, 2005, “Kesan Sifat-Sifat Resin Dan Pengeras Ke Atas Kekuatan Rekatan Pada Kulit Dan Teras Dalam Komposit Struktur Sandwich”
24. Ng Lily, 2004, “The Effects Of Various Coupling Agents On The Properties Of Alumina-Filled PP Composites”.
25. Jeefferie Abd. Razak, 2004, “The Effects Of Stearic Acid On Mechanical And Morphological Properties Of Alumina-Filled PP Composites”
26. Khairil Azhar Ayub, 2004, “The Effect Of Surface Treatment On The Properties Of Nanosilica-Filled PP Composites”
27. Hamidi Hashim, 2004,” The Effect Of Indentor Materials On The Contact Properties Of Foam And Sandwich Structures”



28. Zalina Zainuddin, 2004, "Failure Modes In Sandwich Structures"
29. Wong Sze Ling, 2004, "The Effects Of Cooling Rate On The Properties Of Polymers"
30. Norashikin Mohamad, 2004, "The Effects Of Strain Rate On The Properties Of Polymeric Materials"
31. Syahriza Ismail, 2004, ". The Properties Of Coconut-Husk Core Sandwich Structures"
32. Rosilawaty Mohamed Aris, "Recycled Foam-Core Sandwich Structures"
33. Mohd Ghazali Mohamad, 2004, "Kesan Penggunaan Pelbagai Jenis Agen Gandingan Dalam Komposit Polipropilena Berpengisi Silika Nano"

<b>EXTERNAL AND INTERNAL EXAMINER FOR THESIS</b>
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1. Ph.D (**External**), 2015, Title: Synthesis of novel high performance polyurethane nanocomposites from castor oil as renewable polyol: study on mechanical, thermal and barrier, **Universiti Malaysia Pahang**.
2. Ph.D (**Internal**), 2015, Title: Oil Palm Empty Fruit Bunch (Opefb) Fiber reinforced polylactic acid composite: effect of fiber treatment and impact modified, **Universiti Sains Malaysia**
3. Ph.D (**Internal**), 2015, Title: Preperation, Characterization and potential application of chitosan/epoxide natural rubber biocomposites as slow-release matriced and for removal of emulsified organic solvent in aqueous media, **Universiti Sains Malaysia**
4. Ph.D (**External**), 2015, Title: Impregnation of urea onto biochar via slow pyrolysis for nitrogenous nutrient retention in soil, **Universiti Teknikal Malaysia Melaka**.
5. Ph.D (**External**), 2015, Title: Preparation and characterization of polycaprolactone (PCL)/montmorillonite (MMT)/hydrozapaptite (HA)/ Nano-composites for fused deposition modelling (FDM) process, **Universiti Tun Hussein Onn Malaysia**.
6. Ph.D (**Internal**), 2015, Title: Ballistic impact performance of wet lamination FML: Analytical and experimental, **Universiti Sains Malaysia**
7. Ph.D (**Internal**), 2015, Title: Low Velocity impact of textile laminated coir-aramids hybrid composite due to transverse penetration load, **Universiti Sains Malaysia**
8. Ph.D (**Internal**), 2015, Title: Utilization of carbon nanotube towards the improved properties of polyamide nanocomposites, **Universiti Sains Malaysia**
9. Ph.D (**Internal**), 2015, Title: Biodegradable polymeric flocculant based on cassava starch grafted polydiallylammmonium chloride, **Universiti Sains Malaysia**
10. Ph.D (**External**), 2015, Title: Synthesis optimization characterization of hybrid cryogenic distillation network for CO2 Removal, **Universiti Teknologi Petronas**
11. Ph.D (**External**), 2015, Title: Isolation, Characterization and Preparation of spent coffee Ground Tannin As Eco-Friendly Wood Adhesives, **Universiti Teknologi Petronas**
12. Ph.D (**Internal**), 2015, Title: Mechanical, Morphological, Thermal and Durability Properties of Kenaf Fiber Reinforced Unsaturated Polyester Fabricated by resin Transfer Molding, **Universiti Sains Malaysia**
13. M.Sc (**External**), 2015, Title: Preparation and characterization of natural hydroxyapatite from fish scales for potential biomedical application, **Universiti Teknologi Petronas**
14. Ph.D (**Internal**), 2015, Title: Fabrication of High Performance Foam Structure for Porous Medium Burner, **Universiti Sains Malaysia**
15. Ph.D (**External**), 2015, Title: Non-destructive modification of multi-walled carbon nanotube and their incorporation in unsaturated polyester to fabricate and reinforce nanocomposites, **Universiti Malaysia Pahang**.
16. Ph.D (**Internal**), 2014, Title: Properties Of Linear Low Density Polyethelyne/Silicone Rubber Nanocomposites For High Voltage Insulating Applications, **Universiti Sains Malaysia**
17. Ph.D (**External**), 2014, Title: Mechanical, Thermal, Electrical and Flammability Properties of Graphene Reinforced Polyethylene Terephthalate / Polypropylene Nanocomposites, **Universiti Teknologi Malaysia**.

18. Ph.D (**Internal**), 2014, Title: Mechanical, Physical, Thermal and Biodegradability studies of low density Polyethylene/Thermoplastic Sago Starch/Kenaf Core Flour Biocomposites, **Universiti Sains Malaysia**
19. Ph.D (**Internal**), 2014, Title: Low velocity Impact of Textile laminated Coir-Aramids Hybrid Composite due to Transverse Penetration Load, **Universiti Sains Malaysia**
20. Ph.D (**Internal**), 2014, Title: Palm Oil Fuel Ash-based Geopolymer mortar: Synthesis and Evaluation of Performance in Aggressive Environments, **Universiti Sains Malaysia**
21. Ph.D (**Internal**), 2014, Title: Partner Selection and Power Allocation technique in Cooperative wireless Communication using Game Theory, **Universiti Sains Malaysia**
22. Ph.D (**External**), 2014, Title: Structural Modification of Ceiba Pentendera and Bentonite Clay for residual Oil Removal, **Universiti Teknologi Petronas**.
23. Ph.D (**Internal**), 2014, Title: Effective Processes in Void Reduction for Oven Curing of Autoclave Preprag, **Universiti Sains Malaysia**
24. Ph.D (**External**), 2014, Title: Processing and Characterization of Kenaf fiber/ High density Polyethylene Composite, **Universiti Malaysia**
25. Ph.D (**External**), 2014, Title: Preparation and Properties of oil Palm Fruit Brunch OPEFB Grafted Polymer Hydrogels for slow Release Fertilizer Applications, **Universiti Teknologi Malaysia**
26. Ph.D (**External**), 2014, Title: Investigating Novel Biopolymeric Nanostructures for Drug Delivery, **Curtin University**
27. M.Sc (**External**), 2014, Title: The development of Biodegradable Hydrogel From Sago Starch, **International Islamic University Malaysia**
28. Ph.D (**External**), 2014, Title: Superhydrophobic Polymeric Hollow Fiber Membrane Contractors for CO<sub>2</sub> Absorption, **Universiti Teknologi Malaysia**
29. M.Sc (**External**), 2014, Title: In Situ Synthesis of Chitossan/Nano-Hydroxyapatite for potential Biomedical Applications, **Universiti Pendidikan Sultan Idris**
30. M.Sc (**External**), 2014, Title: Formulation of Lightweight Drilling using Biodegradable Natural Polymers For Underbalanced Drilling, **Universiti Malaysia**
31. Ph.D (**External**), 2013, Title: Preparation and characterization oil palm reinforces poly(caprolactone)/poly(lactic acid) blend composites, **Universiti Teknologi Malaysia**.
32. Ph.D (**Internal**), 2013, Title: Modelling and Characterization on Mechanical Response of Polyethylene Foam, **Universiti Sains Malaysia**
33. Ph.D (**Internal**), 2013, Title: The effect of coagulation method and PBO free radical functionalization method on the properties of MWCNT/PMMA nanocomposite, **Universiti Sains Malaysia**
34. Ph.D (**External**), 2013, Title: Preparation and characterization oil palm reinforces poly(caprolactone)/poly(lactic acid) blend composites, **Universiti Teknologi Malaysia**.
35. Ph.D (**External**), 2013, Title: Nyaluronan medialed targeted drug delivery; synthesis characterization and lhi effect on apoplolic and cell survival biomark, **Universiti Teknologi Petronas**
36. Ph.D (**Internal**), 2013, Title: Synthesis and characterizatio oh high refractive index polysiloxane for high brightness led (HBLED), **Universiti Sains Malaysia**
37. Ph.D (**External**), 2013, Title: Preparation and characterization properties of epoxided palm oil modified epoxy resin/ glass composite, **Universiti Teknologi Malaysia**
38. Ph.D (**External**), 2013, Title: The effect layer stacking sequence on response of 6 layer hybrid composite plates under compression after ballastic impact, **Universiti Putra Malaysia**
39. Ph.D (**Internal**), 2013, Title: development of out autoclave processing technique of complexed shaped composite structure using vacuum bagging only (vbo) oven cure, **Universiti Sains Malaysia**
40. Ph.D (**Internal**), 2013, Title: Silanization of mwcnt as filler in the epoxy nanocomposite via free radical treatment, **Universiti Sains Malaysia**
41. Ph.D (**Internal**), 2013, Title: Perincian komposit Serbuk kayu/perencat nyalaan aditif pelbagai komponen terisi polipropilena sifat mekanik penyerapan air dan pencuciaan semulajadi, **Universiti Sains Malaysia**

42. Ph.D (**External**), 2013, Title: Desing of an effective vehicle frontal longitudinal for crashworthiness application, **UNITEN**
43. Ph.D (**External**), 2013, Title: Thermoelastic analysis of functionally graded materials asymmetric rotating disks based on the higher order shear deformation theory by diffential quadrature method, **UNITEN**
44. M.Sc (**External**), 2012, Title: Design of A Novel Lightweight Frontal Crash-box for Vehicle Crash-worthiness Application, **UNITEN**
45. M.Sc (**External**), 2012, Title: Characterization of Acrylated Epoxidized Soil Oil-Tertacylate/triacylate (Aeso-TT/SR) Film for Coating and Exposure Effect on Performance, **Universiti Teknologi Mara**
46. M.Sc (**External**), 2012, Title: Bio Based Composite Made from Local Cellulosic Fibre Mixed with Kenaf, **Universiti Teknologi Mara**
47. M.Sc (**External**), 2012, Title: Properties of Kenaf Filled Unplasticized Polyvinyl Chloride Composites, **Universiti Putra Malaysia**
48. M.Sc (**External**), 2012, Title: Energy Absorption on Compression After Ballistic Impact In Hybrid Composite Materia, **Universiti Putra Malaysia**
49. M.Sc (**External**), 2012, Title: Development of polyetheretherketone/hydroxyapatite biocomposite for load bearing bone analogue, **Universiti Teknologi Malaysia**
50. Ph.D (**External**), 2012, Title: Characterization of light controlling properties of natural rubber photonic crystal, **Universiti Teknologi Mara**
51. Ph.D (**External**), 2012, Title: Finite element analysis of tensile strength and puncture resistance WOVN fabrics, **Universiti Teknologi Mara**
52. M.Sc (**Internal**), 2012, Title: Mechanical, processing and thermal properties of kenaf fibre reinforced epoxy composite produced by resin transfer molding (rtm), **Universiti Sains Malaysia**
53. M.Sc (**Internal**), 2012, Title: Synthesis of polyamine and its crude oil de-emulsification efficiency, **Universiti Sains Malaysia**
54. M.Sc (**Internal**), 2012, Title: Synthesis and characterization nanoparticle, **Universiti Sains Malaysia**
55. M.Sc (**Internal**), 2012, Title: Characterization of halogen free flame retardant filled high density polyethylene oand polydimethyl siloxane composite, **Universiti Sains Malaysia**
56. Ph. D (**Internal**), 2012, Title: The effect of coagulation method and BPO free radical functionalization method on the properties of MWCNT/ PMMA nanocomposite **Universiti Sains Malaysia**
57. Ph. D (**Internal**), 2012, Title: Preparation and characterization of chitosan enr-50 biocomposites and thier application as slow release biodegradable matrices for cu(II) and 2-naphthol in aqueous media, **Universiti Sains Malaysia**
58. M. Sc (**Internal**), 2011, Title: Effect of - Various Additives on the Properties of Poly(L-Lactic Acid)/Poly(Butylene Succinate'co'L'Lactate) Blend, **Universiti Sains Malaysia**.
59. Ph.D (**Internal**), 2011, Title: Utilization of Carbon Nanotubes towards the Improved Properties of Polyamide Nanocomposites, **Universiti Sains Malaysia**.
60. M.Sc Thesis Research mode (**External**), 2011, Title: Development of saraline based super light weight completion fluid in underbalance perforation, **Universiti Malaya**.
61. M.Sc Thesis Research mode (**External**), 2011, Title: Kenaf/Polypropylene Composites for Bathroom Application:Study of Repeated Immersion and Bleach Effect on Mechanical Properties, **Universiti Putra Malaysia**
62. M.Sc Thesis Research mode (**Internal**),2011, Title: Preparation and Characterization of epoxy Particles-Filled Composites Material Nanocomposites, **Universiti Sains Malaysia**
63. M.Sc Thesis Research mode (**Internal**),2011, Title: Study on Modification of Interfacial Interactionby Surface Treatment in Kaolin /PP Composites, **Universiti Sains Malaysia**
64. M.Sc Thesis Research mode (**Internal**), 2011, Title: Mechanical and physical Properties of Dental White Filling Base on Hydroxyapatite filled Bis-Glycidyl methacrylate, **Universiti Sains Malaysia**.

65. Ph. D (**External**), 2011, Title: Multiscale modeling for understanding the effect of nanoparticles on mechanical behavior of engineering structures, **Annamalai University, India**
66. M.Sc (**External**), 2011, Title: Development of saraline based super light weight completion fluid in underbalance perforation, **Universiti Malaya**
67. M.Sc (**Internal**), 2011, Title: Effects of Environmental Degradation and Reprocessing on Mechanical Thermal and Morphological Properties of Kenaf Fibre-Filled Poly(Butylene Succinate) Composites, **Universiti Sains Malaysia**
68. M.Sc (**External**), 2011, Title: Properties of kenaf filled unplasticized polyvinyl chloride composites, **Universiti Putra Malaysia**
69. M.Sc (**External**), 2011, Title: Preparation and Characterization of Hydroxyapatite-Polysaccharide nanocomposites, **Universiti Teknologi Mara**
70. M.Sc Thesis Research mode (**External**), 2010, Title: Penyediaan Dan Pencirian Komposit Poliester Tak Tepu/Getah Asli Cecair/Tanah Liat, **Universiti Kebangsaan Malaysia**
71. MSc Thesis (**External**), 2010, Title: Penyediaan dan pencirian sebatian teracu epoksi berpengisi silika dan terubahsuai dengan getah asli cecair terangkuk poli metil Meta akrilat, **Universiti Kebangsaan Malaysia**.
72. MSc Thesis (**External**), 2010, Title: Penyediaan dan pencirian komposit resin poliester tak tepu (UPR) getah asli cecair (LNR)/gentian kaca menggunakan UPR daripada hasil kitar semula PET , **Universiti Kebangsaan Malaysia**
73. MSc Thesis (**External**), 2010, Title: Development of nontraditional completion fluid to , minimize perforation induced formation damage through underbalance perforation, **Universiti Malaya**
74. Level: M.Sc Research mode (**Internal**), 2010, Title: Modification, characterization and utilization of Banana trunk fibers, **Universiti Sains Malaysia**.
75. M.Sc Research mode (**Internal**), 2010, : Evaluation on flow behaviour of polypropylene/kaolin composites at higher shear stress , **Universiti Sains Malaysia**
76. M.Sc Research mode (**Internal**), 2010, Title: Preparation and characterization of collagen grafted films, **Universiti Sains Malaysia**
77. M.Sc Research mode (**Internal**), 2010, Title: Fabrication and properties of transparent, conductive and flexible multi-wall carbon nanotubes (MWCNTs)/Epoxy composites film, **Universiti Sains Malaysia**.
78. M.Sc Research mode (**Internal**), 2010, Title: Properties of one part system silver filled epoxy composites for electronic conductive applications, **Universiti Sains Malaysia**
79. M.Sc Research mode (**Internal**), 2010, Title: Natural weathering and hygrothermal aging studies of jute/glass fibres reinforced unsaturated polyester hybrid composites, **Universiti Sains Malaysia**.
80. Phd Research Mode (**External**), 2009, Title: Title Of the Thesis: Synthesis and Studies on Electroactive Poly (N-Substituted Aniline) and Its Blends, **University Of Madras, India**.
81. Phd Research Mode (**Internal**), 2009, Title: Synthesis And Characterization Of Silica Nanoparticles And Their Application On Fillers In Silica-Bimaleimide Nanocomposites, **Universiti Sains Malaysia**
82. Phd Research Mode (**Internal**), 2009, Title: Synthesis and Modification of Silica, Nanoparticles and Their Applications in the Fabrication of Polypyrrole-Based Silica Nanocomposites, **Universiti Sains Malaysia**.
83. Master's Mix-Mode thesis assessor (**internal**), 2007, Title: Effect of fibre surface modification on natural fibre thermoplastic composite properties, **Universiti Sains Malaysia**
84. Master's Mix-Mode thesis assessor (**internal**), 2007, Title: Palm ash/silica filled natural rubber hybrid composites, **Universiti Sains Malaysia**
85. M.Sc Research mode (**Internal**), 2007, Title: Studies on the properties of Bagasse fiber reinforced polyester composites, **Universiti Sains Malaysia**
86. M.Sc Research Mode (**External**), 2006, Title: Experimental Determination of Mechanical Properties of Bonded Fibre Array By Ms. Shamala Sambasivam, Malaysia **University Of Science And Technology (MUST)**.

87. M.Sc Research Mode (**External**), 2006, Title: The Effects of Recycled Pet with Unsaturated Polyester Resin on Physical, Mechanical and Thermals Behaviours, **Universiti Teknologi Mara**.
88. M.Sc Research Mode (**External**), 2006, Title: Cotton Wastes for Composite Reinforcement, **Universiti Teknologi Mara**.
89. Master's Mix-Mode thesis assessor (**Internal**), 2006, Title: Properties of synthesis nanocomposite polyvinyl alcohol polymer with aluminium phosphate reinforcement, **Universiti Sains Malaysia**
90. Master's Mix-Mode thesis assessor (**Internal**), 2005, Title: The Effect of Honeycomb Skin Constituent on the Mechanical Properties of Honeycomb Composites, **UNiversiti sains Malaysia**.
91. Master's Thesis Assessor (**External**), 2004, Title: Mechanical and Fracture Analysis of Kenaf Reinforced Thermoplastic Composites, **Universiti Teknologi Malaysia**.
92. Master's Mix-Mode thesis assessor (**internal**),2003, Title: Notch strength and toughness of PP/Fiberglass/Epoxy laminate composite, **Universiti Sains Malaysia**

#### **TECHNICAL ASSESSOR (PER APPOINTMENT) / ASSESSOR FOR GRANT APPLICATION (PER APPOINMENT)/ PROMOTIONAL ASSESSOR (PROFESSORSHIP)**

1. Grant: Assessor for eScienceFund Proposal (Universiti Teknologi Malaysia) , Title : Mechanical, thermal and morphological properties of layered silicate montmorillonite filled regenerated cellulose nanocomposites using ionic liquids solvent (UTM0004018), 2010
2. Grant: Assessor for eScienceFund Proposal (Universiti Teknologi Malaysia), Title : Development of Multi-Production Techniques of Nano-Starch\_Clay Oxo-Degradable Polystyrene Materials,2010
3. Grant: Science Fund (MOSTI), Title : Developement of Seld-Bonding Boards from oil Palm, 2009

#### **MEMBER OF A PANEL DISCUSSION / FORUM**

1. Forum : Branstorming Pengkomersialan Kenaf: “Isu dancabaran”,Organizer: Lembaga Tembakau Negara, Venue : Mariott Hotel, Putrajaya
2. Forum : Bridging the gap Between The Construction Industry Stakeholders And Researchers (University/Academia), Organizer: Constriction research Instutute of Malaysia (CREAM), Venue : Pusat Konvensyen CIDB, Kuala Lumpur

#### **TEACHING**

Undergraduate, B. Eng. (Hons)

Lecture

EBB 154/3 :Material laboratory

EBB 325/3: Material laboratory

EBB 220/3:Engineering polymers

EBB 204: Makmal sifat-sifat bahan

EBB 317: Makmal Pemprosesan Bahan

EBB 405E/3:Failure investigation and non-destructive testing

EBB 224/3:Engineering materials design

EBB 220/3:Engineering polymers

EBB 154/3:Material laboratory

EBB 325/3:Material laboratory

EBP 103/3:Polymer Organic chemistry

EBB 113/3:Engineering materials  
EBB 324/3:Advanced Composite Materials  
EBP 402 :Mould and Die Design  
EBB 324: Advance Materials  
EBB 345:Characterisation of Engineering materials  
EBB 427:Engineering materials

(Postgraduate)

EBB 524/3: Advanced Composite Materials  
EBB 555: Postgraduate Research  
EBB 526: Electronic packaging

