



## 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

**Email:** hazizan@eng.usm.my

**Tel:** +604 599 6161

**Fax :** +604 594 1011

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

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

**Google Scholar ID:** Hazizan Md Akil

**h-Index:** 21\*, 18\*\*

**Total Citation:** 1828\*, 1338\*\* (Updated: 8/04/2015)

\*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)

### 2015

1. **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.**
2. **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

3. **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**
4. **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 Compatibilizer on Organo-modified Layered Silicate Polypropylene 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**, Nurhidayatulaili 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. Kiratisaevae, 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: Kl, 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
1. 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)
1. Position: International Editorial Board Member  
Name of the Journal: Materials and Design (ISI IF: 2.9 updated 2013)  
Duration: Since 2009.  
Publisher: Elsevier BV
5. Position: Regional Editor  
Name of the Journal: Asian Journal of Materials Science  
Duration: Since 2011  
Publisher: SCIENCE ALERT (New York, USA)
6. Position: Technical Editor  
Name of Journal: Trends in Applied Science Research  
Duration: Since 2009.  
Publisher: SCIENCE ALERT (New York, USA)
7. Position: Deputy Editor-In-Chief  
Name of the Journal: Malaysian Polymer Journal  
Duration: Since 2009  
Publisher: PRIM (Kuala Lumpur, Malaysia)
8. 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

1. Professor Hazizan Md Akil (Leader), "Polymer Composites with Hybrid Filler for High Performance Thermal Interface Material", Intel research Grant, RM 53,500.00, 1 year (17 August 2011-16 August 2012)
2. Professor Hazizan Md Akil (Leader), Prof. Zainal Ariffin Mohamad Ishak, Dr. Azhar Abu Bakar "Development of kenaf and Glass Fibres Hybrid Pultruded Composites for Grating and Railing Products", MOSTI/RAN/DANA/TCF(S) 1-2 Jld 5(9), Technofund, RM 2,600,000.00, 2 years.
3. Professor Hazizan Md Akil(Leader), Dr Zulkifli Ahmad, Prof Nguyen Huu Nieu, Prof Hiroo Iwata, Assoc. Prof. Dr Suong Hyu Hyon, "Production And Properties Of PCL/PLA Blend For Tissue Engineering And Scaffold Material Applications", AUNSEED/NET, USD 3,784.00, 1 Year.
4. Professor Hazizan Md Akil (Leader), Dr Kamarshah Ariffin, "Assessment Of Various Mineral And Oxide Fillers For Epoxy Substrate In Order To Improve Rigidity And Reduce Cte Mismatch", Intel, Rm 30,000.00, 1 Year.
5. Professor Hazizan Md Akil (Leader), Dr Zulkifli Ahmad, "Molecular Modification Of Chitosan Powder From Natural Resources", FRGS, Rm 80,000.00, 3 Years.
6. Professor Hazizan Md Akil (Co-researcher), "Polymer Composites For Thermal Interface Material", Intel Under CORT (Center Of Research And Teaching), Rm 63,000.00, 2 Years.
7. Professor Mariatti Jaafar (Leader), Prof. Madya Dr Nasir Tamin (Utm), Professor Hazizan Md Akil (Co-researcher), "Low Cte Substrate To Improve Warp And Solder Joint Reliability", IntelRM 90,000.00, 2 Years.
8. Dr. Mariatti Jaafar (Leader), Prof. Madya Dr Nasir Tamin (UTM), Professor Hazizan Md Akil (Co-researcher), "Low CTE Substrate To Improve Warp And Solder Joint Reliability", Intel (Extended), Rm 48,000.00, 1 Year.
9. Prof. Radzali Othman (Leader), Prof. Zainal Arifin Ahmad, Prof. Madya Dr Fauzi Mohd Noor, Prof. Madya Dr Luay Bakir Hussain, Professor Hazizan Md Akil (Co-Researcher), En Ahmad Badri Ismail, "Development Of Bone-Graft Substitutes Based On Calcium Phosphate Bio-Ceramics", Ministry Of Science, Technology And Innovation (Irpa Top Down), Rm 1,900,000.00, 5 Years.
10. Dr Amran Alias (Leader-Utm), Dr Yeob Samad Ismail (Utm), Professor Hazizan Md Akil (Co-researcher), "Development And Performance Of Polymeric Foam As Core Of Sandwich Structure In Automotive And Marine Industries", Ministry Of Science, Technology And Innovation (IRPA EA), Rm 140,000.00, 3 Years.
11. Prof. Zainal Arifin Ahmad (Leader), Professor Hazizan Md Akil (Co-researcher), "Ceramic Foam-Core Sandwich Structure For Structural Applications", Construction Industry Development Board Of Malaysia, Rm 452,000.00, 2 Years.
12. Professor Hazizan Md Akil(Co-Reseacher), Dr Zulkifli Ahmad, "Synthesis Of Novel Polimide With Low Dielectric Resonators", FRGS, Rm 39,900.00, 3 Years.

13. Professor Hazizan Md Akil (Leader), “Green Composites: Inspiring Sustainable Alternative for Cost Effective Materials, USM – RU 2011 , RM 1,118,000.00, 5 years (1 5 Jun2011- 14 Jun2016)(On Going).
14. Professor Dr Hazizan Md Akil (Leader ) , “Green Composites: Inspiring sustainable alternative for cost Effective Materials”, USM – RU 2011, RM744,850 .00, 5 years (1 5 Jun2011- 14 Jun2016)(On Going)
15. Professor Hazizan Md Akil (Co-Researcher), “Effect of Synthesis Parameter on Preparation of CNT-Alumina Hybrid Powder”, USM – Short Term 2011, RM 39,720.00, 2 years (15 Mei 2011- 14 Mei 2013)(On Going)
16. Professor Hazizan Md Akil (Leader), “Preparation, characterization and properties of muscovite-based layered silicate nanocomposite”, USM – Short Term 2011, RM 37,561.00, 2 years (1 april 2011- 31 mac 2013)(On Going)
17. Professor Hazizan Md Akil (Leader), Dr. Mohd Roslee Othman, Amy Ling, “Development and properties of active porous carbonaceous materials derived from kenaf fibre for fluid purification application”, USM – Short Term, RM 15,868.00, 2 years (Mac 2007 to Mac 2009).
18. Professor Hazizan Md Akil (Leader), Prof. Zainal Arifin Ahmad, Dr Azhar Abu Bakar, Dr Ramanan Venkatesh “Properties of foam-based sandwich structure with alumina fibre-reinforced epoxy skin”, USM – Short Term, RM 19,571.00, 2 years (December 2002 to December 2004).
19. Prof. Madya Hamidi Abd Aziz (Ketua), Prof. Abu Hassan Ahmad, Prof Madya Faridah A.H. Asaari, Prof. Madya Mohd Nordin Adlan, En Norazam Bakar, Dr Nor Habsah Md. Sabiani, Prof. Madya Mohd Zubir Mat Jafri, Professor Hazizan Md Akil ‘Kertas kerja kajian masalah bau an lalat di Kampus Kejuruteraan”, USM – Kampus Sejahtera, RM 25,000.00, 2 years.

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

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

#### International Journal

#### 2015

1. 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.
2. N Nosbi, **HM Akil** , 2015, Controlling the number of walls in multi walled carbon nanotubes/alumina hybrid compound via ball milling of precipitate catalyst Applied Surface Science Volume 340, 15 June 2015, Pages 78–88.

3. BP Chang, **HM Akil**, RB Nasir, A Khan, 2015, Optimization on wear performance of UHMWPE composites using response surface methodology Tribology International In Press, Accepted Manuscript, Available online 28 March 2015.
4. F Ullah, A Khan, **HM Akil**, M Siddiq, 2015, Effect of Hydrophilic/Hydrophobic Block Ratio and Temperature on the Surface and Associative Properties of Oxyethylene and Oxybutylene Diblock Copolymers in Aqueous Media, Journal of Dispersion Science and Technology.
5. A Khan, MBH Othman, BP Chang, **HM Akil**, 2015 Preparation, physicochemical and stability studies of chitosan-PNIPAM based responsive microgels under various pH and temperature conditions, Iranian Polymer Journal.
6. MF Omar, H Jaya, **HM Akil**, ZA Ahmad, MFA Rasyid, NZ Noriman, Effect of Organic Modification on Dynamic Compression Properties of Polypropylene/Muscovite Layered Silicate Composites, Materials Science Forum 803, 2015, pg. 282-287.
7. MF Omar, A Wahab, N Suhaili, **HM Akil**, ZA Ahmad, MFA Rasyid,, Effect of Surface Modification on Strain Rate Sensitivity of Polypropylene/Muscovite Layered Silicate Composites, Materials Science Forum 803, 2015, pg. 343-347.
8. MK Sofiah, OH Lin, **HM Akil**, ZAM Ishak, Effect of Polypropylene-Methyl Polyhedral Oligomeric Silsesquioxane Compatibilizer in Polypropylene/Silica Nanocomposites: Mechanical, Morphological and Thermal Studies, Materials Science Forum 803, 2015, pg. 265-268.
9. M Omar, M Salem, OH Lin, **HM Akil**, N Azza, NA Nik, MM Safwan,, Thermal Properties of Polypropylene/Palm Kernel Shell Biocomposites: Effects of Amino Silane (APTES), Materials Science Forum 803, pg. 250-254.
10. MK Anis Sofiah, OH Lin, **HM Akil**, AR Villagrancia, Effect of compatibiliser on the accelerated weathering performance of polypropylene–silica nanocomposites, Materials Research Innovations 18 (S6), S6-433-S6-438, 2015.

## 2014

11. Muhammad Razlan Zakaria, **Hazizan Md. Akil**, Muhammad Helmi Abdul Kudus, Siti Shuhadah Md. Saleh, Enhancement of tensile and thermal properties of epoxy nanocomposites through chemical hybridization of carbon nanotubes and alumina, (2014), Composites Part A: Applied Science and Manufacturing, Volume 66, November 2014, Pages 109-116, ISSN 1359-835X, <http://dx.doi.org/10.1016/j.compositesa.2014.07.008>.
12. BP Chang, **HM Akil**, MG Affendy, A Khan, RBM Nasir, Comparative study of wear performance of particulate and fiber-reinforced nano-ZnO/Ultra-high molecular weight polyethylene hybrid composites using response surface methodology, (2014), Materials & Design, DOI: 10.1016/j.matdes.2014.06.031.
13. Chang, B.P., **Akil, H.M.**, Nasir, R.B.M., Bandara, I.M.C.C.D., Rajapakse, S., (2014), The effect of ZnO nanoparticles on the mechanical, tribological and antibacterial properties of ultrahigh molecular weight polyethylene.(2014) Journal of Reinforced Plastics and Composites, 33 (7), pp. 674-686.

14. **HM Akil**, C Santulli, F Sarasini, J Tirillò, T Valente, Environmental effects on the mechanical behaviour of pultruded jute/glassfibre-reinforced polyester hybrid composites, *Composites Science and Technology*, 94, pp. 62-70, 2014.
15. MF Omar, **HM Akil**, ZA Ahmad, MFA Rasyid, NZ Noriman, Effect of ion exchange treatment on dynamic compression properties of polypropylene/muscovite-layered silicate composites, 2014, *Journal of Thermoplastic Composite Materials*, 0892705714535796.
16. MF Omar, **HM Akil**, MFA Rasyid, JM Sharif, Thermal properties of polypropylene/muscovite layered silicate composites: effects of organic modifications and compatibilisers, 2014, *Journal of Composite Materials*, 0021998314531311.
17. MH Zamri, **H Md Akil**, ZA Mohd Ishak, A Abu Bakar, Effect of different fiber loadings and sizes on pultruded kenaf fiber reinforced unsaturated polyester composites, 2014, *Polymer Composites*.
18. **HM Akil**, C Santulli, F Sarasini, J Tirillò, T Valente, Environmental effects on the mechanical behaviour of pultruded jute/glassfibre-reinforced polyester hybrid composites, 2014, *Composites Science and Technology*, 94, pp. 62-70.
19. E Mohammadpour, M Awang, S Kakooei, **HM Akil**, Modeling the tensile stress–strain response of carbon nanotube/polypropylene nanocomposites using nonlinear representative volume element, 2014, *Materials & Design*, 58, pp. 36-42.
20. SO Alsharif, **HM Akil**, NAA El-Aziz, ZA Ahmad, Effect of alumina particles loading on the mechanical properties of light-cured dental resin composites, 2014, *Materials & Design*, 54, pp. 430-435.
21. AA Sinar, SN Samsudin, F Zainuddin, NA Azizan, **HM Akil**, S Ahmad, Effect of Carbon Nanotubes on the Compression Test and Energy Absorption of Aluminium/Polyurethane-Carbon Nanotubes Foam Sandwich, 2014, *Key Engineering Materials*, 594, pp. 686-690.
22. M Saleh, S Shuhadah, **HM Akil**, R Md Nasir, MR Zakaria, A Kudus, M Helmi, Effect of Catalyst Calcination Temperature on the Synthesis of MWCNTs-Talc Hybrid Compound Using CVD Method, 2014, *Key Engineering Materials*, 594, pp. 63-67.
23. MH Zamri, **HM Akil**, ZAM Ishak, Effect of Different Tex Number and Surfacing Veil Application on the Pultruded Kenaf Reinforced Composites (PKRC) under Natural Weathering Exposure, 2014, *Key Engineering Materials*, 594, pp. 828-831.
24. N Norlin, **HM Akil**, Fabrication and Characterization of Multiwalled Carbon Nanotubes-Alumina Hybrid Compound: Comparison of Various Supported Catalyst, 2014, *Key Engineering Materials*, 594, pp. 378-381.
25. Z Firuz, **HM Akil**, S Ahmad, R Rasid, SA Fadzli, Drop Weight Impact Analysis of Laminated Polyurethane Foam/Cloisite 30B Clay, 2014, *Key Engineering Materials*, 594, pp. 1089-1093.
26. MR Osman, AAM Mazuki, **HM Akil**, ZAM Ishak, AA Bakar, Effect of Chemical Treatment on the Mechanical Properties of Pultruded Kenaf Fibre Reinforced Polyester Composites, 2014, *Key Engineering Materials*, 594, pp. 691-695.

**2013**



27. M Saleh, S Shuhadah, **MA Hazizan**, R Md Nasir, H Hasmi. Thermal and Tribological Properties of Phenolic/CNT-Alumina hybrid Composites, 2013, *Advanced Materials Research*, 812, pp. 226-230.
28. HPS Khalil, M Jawaid, P Firoozian, U Rashid, A Islam, **HM Akil**, Activated Carbon from Various Agricultural Wastes by Chemical Activation with KOH: Preparation and Characterization, 2013, *Journal of Biobased Materials and Bioenergy*, 7 (6), pp. 708-714.
29. FA Amir, AR Othman, **HM Akil**, Damage Characterization of Polypropylene Honeycomb Sandwich Panels Subjected to Low-Velocity Impact, 2013, *Advances in Materials Science and Engineering*, 2013.
30. BP Chang, **HM Akil**, RBM Nasir, I Bandara, S Rajakpase, The effect of ZnO nanoparticles on the mechanical, tribological and antibacterial properties of ultra-high molecular weight polyethylene, 2013, *Journal of Reinforced Plastics and Composites*, 0731684413509426.
31. A Khan, MBH Othman, KA Razak, **HM Akil**, Synthesis and physicochemical investigation of chitosan-PMAA-based dual-responsive hydrogels, 2013, *Journal of Polymer Research*, 20 (10), pp. 1-8.
32. MR Osman, **HM Akil**, ZA Mohd Ishak, Effect of hybridization on the water absorption behaviour of pultruded kenaf fibre-reinforced polyester composites, 2013, *Composite Interfaces*, 20 (7), pp. 517-528.
33. **HM Akil**, BH Abu Bakar, MM Al-Tayeb, H Ismail, Impact Energy for the First Crack of Reinforced Concrete with Partial Replacements of Sand by Fine Crumb Rubber, 2013, *Advanced Materials Research*, 701, pp. 286-290.
34. MH Affzan, **HM Akil**, ZAM Ishak, AA Bakar, The effects of natural weathering exposure on the properties of pultruded natural fibre reinforced unsaturated polyester composites, *Materials Characterisation VI: Computational Methods and Experiments*, 77, pp. 333.
35. MF Omar, **HM Akil**, ZA Ahmad, S Mahmud, Static and dynamic compressive properties of polypropylene/zinc oxide nanocomposites, 2013, *Polymer Engineering & Science*.
36. MM Al-Tayeb, BH Abu Bakar, H Ismail, **HM Akil**, Effect of Partial Replacement of Sand by Recycled Fine Crumb Rubber on the Performance of Hybrid Rubberized-Normal Concrete under Impact Load: Experiment and Simulation, 2013, *Journal of Cleaner Production*, 59, pp. 284–289.
37. BP Chang, **HM Akil**, RM Nasir, S Nurdijati, Abrasive wear performance and antibacterial assessment of untreated and treated ZnO reinforced polymer composite, *Polymer Composites*, 34 (7), pp. 1020–1032.
38. N Salim, R Hashim, O Sulaiman, NA Nordin, M Ibrahim, **HM Akil**, M Sato, T Sugimoto, S Hiziroglu, Effect of Steaming on Some Properties of Compressed Oil Palm Trunk Lumber, 2013, *BioResources*, 8 (2).
39. MM Al-Tayeb, BHA Bakar, **HM Akil**, H Ismail, Performance of Rubberized and Hybrid Rubberized Concrete Structures under Static and Impact Load Conditions, 2013, *Experimental Mechanics*, pp. 1-8.
40. Omar, M.F., **Akil, H.M.**, Ahmad, Z.A., Particle size - Dependent on the static and dynamic compression properties of polypropylene/silica composites, 2013. *Materials and Design* 45 , pp. 539-547.

41. Al-Tayeb, M.M., Abu Bakar, B.H., **Akil, H.M.**, Ismail, H. Effect of partial replacements of sand by waste rubber on the low impact resistance of concrete, 2013, *Advanced Materials Research* 626 , pp. 696-700.
42. Nosbi, N., **Akil, H.M.**, Effect of ball-milling parameter on the synthesis of Mwcnt/alumina hybrid compound, 2013 *Advanced Materials Research* , 620 , pp. 309-313.
43. Kudus, M.H.A., **Akil, H.M.**, Saleh, S.S.M., Hybrid multiwalled carbon nanotubes/minerals as potential fillers for polymer composites, 2013, *Advanced Materials Research* 620 , pp. 236-240.
44. Saleh, S.S.M.D., **Akil, H.M.**, Kudus, M.H.A., Synthesis and characterization of MWCNT/dolomite hybrid compound as potential composite fillers, 2013, *Advanced Materials Research* 620 , pp. 400-404.
45. Alsharif, S.O., **Akil, H.B.M.**, El-Aziz, N.A.A., Ahmad, Z.A. Influence of silica and zirconia particles as filler loading on the radiopacity of dental resin composites, 2013, *Advanced Materials Research* 620 , pp. 345-348.
46. Chang, B.-P., **Md. Akil, H.**, Bt. Md. Nasir, R., Comparative study of micro- and nano-ZnO reinforced UHMWPE composites under dry sliding wear, 2013, *Wear* 297 (1-2) , pp. 1120-1127.
47. Chang, B. P., **Akil, H. M.**, Nasir, R. M. & Nurdijati, S., Abrasive wear performance and antibacterial assessment of untreated and treated ZnO-reinforced polymer composite, 2013, *Polymer Composites*.
48. Al-Tayeb, M. M., Abu Bakar, B. H., **Md. Akil, H.** & Ismail, H. Experimental and numerical investigations of the influence of reducing cement by adding waste powder rubber on the impact behavior of concrete. 2013, *Computers and Concrete*, 11, pp. 63-73.
49. MH Affzan, **HM Akil**, ZAM Ishak, & Bakar, A. The effects of natural weathering exposure on the properties of pultruded natural fibre reinforced unsaturated polyester composites. 2013. *Materials Characterisation VI: Computational Methods and Experiments* 77, pp. 333.
50. MS Mohaiyiddin, LH Ong, & **HM Akil**. Preparation and Characterization of Palm Kernel Shell/Polypropylene Biocomposites and their Hybrid Composites with Nanosilica. 2013 *BioResources*, 8(2), pp. 1539-1550.
51. NM Julkapli, HM Akil, & Ahmad, Z. Evaluation of Cross Linked Chitosan as Filler for Thermal Properties of Chitosan Based Bio-Composites. 2013. *Polymer-Plastics Technology and Engineering*.

## 2012

52. Al-Tayeb, M.M., Abu Bakar, B.H., Ismail, H., **Md Akil, H.** Effect of partial replacement of sand by fine crumb rubber on impact load behavior of concrete beam: experiment and nonlinear dynamic analysis 2012. *Materials and Structures/Materiaux et Constructions* , pp. 1-9 Article in Press
53. Abdul Khalil, H.P.S., Firoozian, P., Jawaid, M., **Akil, H.M.**, Hassan, A. Preparation of activated carbon filled epoxy nanocomposites - Morphological and thermal properties 2012. *Journal of Thermal Analysis and Calorimetry* , pp. 1-9 Article in Press

54. Kudus, M.H.A., **Akil, H.M.**, Rasyid, M.F.A., Muscovite-MWCNT hybrid as a potential filler for layered silicate nanocomposite, *Materials Letters*, 79, pp. 92-95.
55. Tuan Noraihan Azila Tuan Rahima, Dasmawati Mohamad, **Hazizan Md Akil**, Ismail Ab Rahman "Water sorption characteristics of restorative dental composites immersed in acidic drinks", *Dental Materials* 28 (6), pp. e63-e70
56. Al-Tayeb, M.M., Abu Bakar, B.H., **Akil, H.M.**, Ismail, H., Performance of Rubberized and Hybrid Rubberized Concrete Structures under Static and Impact Load Conditions, *Experimental Mechanics*, pp. 1-8. Article in Press.
57. Rahim, T.N.A.T., Mohamad, D., **Md Akil, H.**, Ab Rahman, I. Water sorption characteristics of restorative dental composites immersed in acidic drinks, *Dental Materials*, 28 (6), pp. e63-e70.
58. S Kakooei, **HM Akil**, A Dolati, J Rouhi, The corrosion investigation of rebar embedded in the fibers reinforced concrete, *Construction and Building Materials* 35, 564-570
59. Tan, C.Y., **Akil, H.M.** Impact response of fiber metal laminate sandwich composite structure with polypropylene honeycomb core, *Composites Part B: Engineering*, 43 (3), pp. 1433-1438.
60. Al-Tayeb, M.M., Abu Bakar, B.H., **Akil, H.M.**, Ismail, H., Effect of Partial Replacements of Sand and Cement by Waste Rubber on the Fracture Characteristics of Concrete, *Polymer - Plastics Technology and Engineering*, 51 (6), pp. 583-589.
61. Omar, M.F., **Akil, H.M.**, Ahmad, Z.A., Effect of molecular structures on dynamic compression properties of polyethylene, *Materials Science and Engineering A*, 538, pp. 125-134.
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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.

#### Books Publication / Chapter of the book

1. Akil, H. M. Performance of Natural Fibre Composites Under Dynamic Loading. In A. Hodzid & R. Shanks (Eds.), Natural Fibre Composites: Woodhead Publishing Ltd, 2014.
2. Akil, H. M., Mazuki, A. A., Sustainable Biocomposites Based for Construction Applications, In Srikanth Pilla (Editor), Handbook of Bioplastic and Biocomposites Engineering Applications: Wiley

#### Conference Presentation (oral and poster)

2009

1. **Hazizan Md Akil**, Azhar Abu Bakar , Zainal Arifin Ishak, Adlan Akram Mazuki, Sahnizam Safiee Properties Of Pultruded Jute And Kenaf Fiber Reinforced Unsaturated Polyester Composites, NATO Workshop”Textile Composites” May18-21,2009 In Kiev, Ukraine – Invited Oral Presentation
2. 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 –Poster Presentation
3. 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 -Poster Presentation
4. 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- Poster Presentation
5. **Hazizan Md Akil**, Zainal Arifin Ahmad, Mohd Firdaus Omar, Ong Hui Lin (U. Sains Malaysia), David Hui (U. New Orleans) 345 Mesurement 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 –Oral Presentation
6. 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- Oral Presentation

**2007**

7. Nurhidayatullaili Muhd Julkapli And **Hazizan Md Akil**, “XRD Study On Kenaf Dust Filled Chitosan Biocomposites”, Proceedings International Conference On Neutron And X-Ray Scattering 2007 (ICNX2007), Bandung, Indonesia (29-31 July 2007)
8. Erfan Suryani Abdul Rashid, **Hazizan Md Akil**, Kamarshah Ariffin, Chee Choong Kooi, “Mechanical And Thermal Properties Of Polymer Composites For Electronic Application”, The International Conference On Structural Analysis Of Advanced Materials 2007 (ICSAM2007), Patras, Greece (2-6 September 2007)
9. Azreena Mastor, **Hazizan Md Akil** And Ismail Zainol, “ 3rd International Symposium on Engineering Plastics 2007 (Ep2007), Urumqi, China (19-24 August 2007)
10. Nurhidayatullaili Muhd Julkapli, Zulkifli Ahmad And **Hazizan Md Akil**, “Modification Of Chitosan”, 12th Asian Chemical Congress 2007 (12acc 2007), PWTC Kuala Lumpur (23-25 August 2007)
11. Nurhidayatullaili Muhd Julkapli, Zulkifli Ahmad And **Hazizan Md Akil**, “Degradability Of Kenaf Dust Filled Chitosan Biocomposites”, International Conference On Natural Polymers, Bio-Polymers, Bio-Materials, Their Composites, Blends, Ipn, And Gels: Macro To Nano Scales (ICNP – 2007): November 19-21, 2007, Kottayam; Kerala, India – Invited For Oral Presentation

**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 Partas 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.

### **ACADEMIC AWARDS**

1. Diplome Invention Geneva Award 2011,Salon International Des Invention,Geneva
2. Gold Madel Award at MTE, 2010, Malaysian Association of Research Scientists (MARS), Malaysia
3. Best Awards at (MTE) ,2010, Malaysian Association of Research Scientists (MARS), Malaysia
4. 10 Sanggar Sanjung Award 2010, Publication Category, Universiti Sains Malaysia.
5. Sanjungan Award 2010, Publication Category, Universiti Sains Malaysia.
6. Bronze Madel award at PECIPTA 2009,International Exposition of Research and Invention of Instututions of Higher Learning 2009 (PECIPTA), Malaysia.
7. 2 Sanggar Sanjung Awards 2009, Publication Category, Universiti Sains Malaysia.
8. Bronze Madel award at ITEX 2008,MINDSI, Malaysia
9. 3 Sanggar Sanjung Awards 2008, Publication Category, Universiti Sains Malaysia.



10. Sanjungan Award 2008, Reserch product Category, Universiti Sains Malaysia.
11. Sanjungan Award 2007, Publication Category, Universiti Sains Malaysia.
12. 3 Sanjungan Awards 2006, Publication Category, Universiti Sains Malaysia.
13. Silver Medal Award at ITEX, 2005, MINDSI, Malaysia
14. Bronze Medal Award at MOSTI Exhibition 2004, MOSTI, Malaysia
15. Sanggar Sanjung Award 2004, Publication Category, Universiti Sains Malaysia
16. Poster Competition Award (3<sup>rd</sup>Place), 2003,EMSM Conference 2003,Malaysia

#### **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**

2. 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
3. Editor: Prof. Sergei Nazarenko, Title: Glycolysis of the rigid PUR-PIR foam modified with starch, Journal/Publisher: Journal of Applied Polymer Science
4. 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
5. Editor: S. Ajueshi, Title: Stress-Strain Modelling of Reinforced Concrete Membrane Structures, Journal/Publisher: International Journal of Physical Sciences
6. 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
7. 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
8. 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
9. 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
10. Editor: Professor Nobuo Takeda, Title: Correlation of mechanical performance and the morphological structures of epoxy , micro/nanoparticulate composites, Journal/Publisher:Composites Part A
11. Editor: David Hui, Title: Hybridization a Way of Improving Mechanical Properties of Polymer Composite Materials: A Review, Journal/Publisher: Composites Part B
12. 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)

13. 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
14. 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
15. Editor: Chun Gon Kim, Title: Studies of Chemical and Thermal Properties of Rice Husk Polypropylene (RHPP) Composites, Journal/Publisher: Advanced Composite Materials
16. Editor: K.L. Edwards, Title: Environmental impact minimisation in an automotive component using alternative materials and manufacturing processes, Journal/Publisher: Materials and Design
17. Editor: H.Mirzadeh, Title: Polyisobutylene-based Modifiers for Glass Fiber Reinforced Unsaturated Polyesters , Journal/Publisher: Iranian Polymer Journal
18. 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
19. 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
20. 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
21. Editor: Prof Zainal Ariffin Hj. Ahmad, Title: The Optimum Prosessing Parameter of Carbon Nanotubes and Thermoplastic Natural Rubber (NR/LNR/LLDPE) Composite Based on Tensile Properties., Journal/Publisher: Trans Tech Publication
22. 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
23. Editor: Prof Zainal Ariffin Hj. Ahmad, Title: Synthesis and Characterization of silicotungstic Acid nanoparticle Via Sol gel technique as an Acid catalyst in Ensterification reaction, Journal/Publisher: Trans Tech Publication
24. Editor: Dr navin Chand, Title: Environmental impact Minimisation in an Automotive Component using Alternative Materials and manufacturing Processes, Journal/Publisher: Serials Publication.
25. Editor: VinodhSekar, Title: Environmental impact Minimisation in an Automotive Component using Alternative Materials and manufacturing Processes, Journal/Publisher: Materials & Design (Elsevier)
26. Editor: Yun Peng Jiang, Title: Ultrasonic Dispersion of SiO<sub>2</sub> Particles in Glassy Epoxy Resin, Journal/Publisher: Materials & Design (Elsevier)
27. Editor: Abdel-Hamid I. Mourad, Title: Degradation Assessment of LDPE Multilaye Film Used as a Greenhouse Cover: Correlation between Natural and Artificial Ageing Impacts. Journal/Publisher: Materials & Design (Elsevier)
28. Editor: Chun Gon Kim, Title: Studies of Chemical and Thermal Properties of Rice HuskPolypropylene (RHPP) Composites.Journal/Publisher: Advanced Composite Materials
29. Editor:N. Takeda, Title: Correlation of Mechanical Performance and the Morphological Structures of Epoxy Micro/nanoparticulate Composites.Journal/Publisher: Composites Part A
30. 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
31. Editor:Prof. Sergei Nazarenko, Title: Glycolysis of the rigid PUR-PIR Foam Modified with Starch, Journal/Publisher: Journal of Applied Polymer Science
32. Editor:Masahiro Ohshima, Title: Glycolysis Morphology evolution of Polyurethane Foam infused by TiO<sub>2</sub> Nanoparticles, Journal/Publisher: International Polymer Processing
33. Editor:MSEA, Title: Microstructural Evaluation and Flexural Mechanical Behavior of Pultruded Glass Fiber Composites, Journal/Publisher: Materials Science & Engineering A
34. 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

35. 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)
36. 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 .
37. Editor: Lim Jae Kyoo, Ph.D, Title: Effects of diammonium phosphate on the flammability and mechanical properties of bio-composites.
38. Editor: Abbas Niknejad, Ph.D Title: Theoretical and experimental studies of the instantaneous folding force of the polyurethane foam-filled square honeycombs, Journal/Publisher: Materials & Design Elsevier
39. Editor: Aidy Ali, PhD, Title: Development Of Anti Ballistic Board From Ramie Fibre, Journal/Publisher: Materials & Design Elsevier
40. 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
41. Editor: Prof Azman Hassan
42. Title: Preparation And Properties Of Bio-Based Nanocomposites From Epoxidized Soy Bean Oil And Layered Silicate, Journal/Publisher: Malaysian Polymer Journal
43. Editor: Martin A. Hubbe, Title: Anhydride Modification Of Cultivated Kenaf Bast Fibers: Morphological, Spectroscopic And Thermal Studies, Journal/Publisher: Bioresources
44. 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

45. Editor: Prof K.L. Edwards, Title: Numerical Simulation Of Drop Weight Impact Behavior Of Closed Cell Aluminium Foam, Journal/Publisher: Materials and Design / Elsevier,
46. Editor: Prof K.L. Edwards, Title: Research on Thermal Properties Of Nomex/Viscose FR Fiber Blended Fabric, Journal/Publisher: Materials and Design / Elsevier.
47. Editor: Prof K.L. Edwards, Title: Optimal Design Of Metallic Square Honeycombs For The In-Plane Crushing, Journal/Publisher: Materials and Design / Elsevier
48. 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
49. 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
50. Editor: Prof K.L. Edwards, Title: Experimental Study Of Mechanical And Electrical Properties Of Carbon Nanofiber/Epoxy Composites, Journal/Publisher: Materials and Design / Elsevier
51. 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
52. Editor: Schubert, Mark, Title: Biophysical Studies on Bone Cement Composites Based On Polyester Fumarate, Journal/Publisher: Journal of Applied Polymer Science / Wiley
53. 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
54. Editor: Schubert, Mark, Title: Biophysical Studies on Bone Cement Composites Based On Polyester Fumarate [revised], Journal/Publisher: Journal of Applied Polymer Science / Wiley

55. 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
56. 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
57. 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
58. Editor: Dr Srimala Srikantan, Title: The Factors Affetcting The Swelling of W-Bronze Composite System at Different Sintering Temperature, Journal/Publisher: USM
59. Editor: Dr Srimala Srikantan, Title: The Energy Bandgap Studies For Irradiated HDPE as Plastic Base Semiconductor Materials, Journal/Publisher: USM
60. Editor: Dr Srimala Srikantan, Title: Evaluation of Impact properties of Toughen Phenolic/Aramid Composite Prepared Using Hot-Press Molding, Journal/Publisher: USM
61. 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
62. Editor: Professor Dr Hanafi Ismail, Title: The influences of Forming agent on the Properties of Aluminium Foam, Journal/Publisher: Malaysian Journal of Microscopy
63. Editor: Professor Dr Zainal Ariffin Ahmad, Title: Surface Analysis on Natural Fiber: Before and After Treatment, Journal/Publisher: Journal of Nuclear and Related Technologies
64. 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)
65. Editor: Prof K.L. Edwards, Title: Cascade Approach on Recycling Marble and Granit Product Design, Journal/Publisher: Materials and Design / Elsevier
66. Editor: Prof K.L. Edwards, Title: Materials Selection for Competitive Advantages, Journal/Publisher: Materials and Design / Elsevier
67. 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
68. 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
69. 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
70. Editor: Prof K.L. Edwards, Title: Enhancement Of Mechanical Peoperties Of Hollow-Strut Foams: Analysis, Journal/Publisher: Materials and Design / Elsevier
71. 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
72. 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
73. Editor: Nazarenko, Sergei, Title: Structural and Mechanical Properties Of YBCO-Polystyrene Composites, Journal/Publisher: Journal of Applied Polymer Science / Wiley

74. Editor: Prof. Dr. Azman Hassan, Title: Barrier properties of PP/PET blends, Journal/Publisher: : Malaysian Polymer Journal
75. 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.
76. 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.
77. Editor: Professor R.J. Young, Title: Influences Of Monosilanolisobutyl-POSS On Thermal Stability Of Polymethylsiloxane, Journal/Publisher: Journal of Materials Science / Wiley Interscience
78. Editor: Dr. Dasmawati mohamad, Title: Post-Polymerisation of Dental Resins Composite Evaluated with Nanoindentation and Micro-Raman Spectroscopy, Journal/Publisher: Archives of Orofacial Science, School of Dental Science.
79. Editor: Schiraldi, David, Title: Reinforcing Effect Of Organo-Modified Layered Silicates In Polypropylene, Journal/Publisher: Journal of Applied Polymer Science / Wiley
80. Editor: Schiraldi, David, Title: Synthesis And Characterization Of Poly(Fluorinated Acrylate) / Silica Hybrid Nanocomposites, Journal/Publisher: Journal of Applied Polymer Science / Wiley.
81. Editor: Hiltner, Anne, Title: Properties Of Ligno-Cellulose Fabric Sterculia Urens, Journal/Publisher: Journal of Applied Polymer Science / Wiley.

#### 2006

82. Editor: Prof. Dr. Azman Hassan, Title: Rubberwood-polymer Composites: Effect of Chemical Impregnation on the Mechanical and Physical Properties, Journal/Publisher: Malaysian Polymer Journal.
83. Editor: Prof. Dr. Azman Hassan, Title: Performance of Natural Rubber Coated Fabrics Under Ballistic Impact, Journal/Publisher: : Malaysian Polymer Journal.
84. 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.
85. 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.
86. Editor: Engr. Johan Alimin Abdul Samad, Title: Improved Luminescence of Dense and Spherical Yttrium Oxide Prepared by Spray Pyrolysis, Journal/Publisher: Proceedings 11th APPCChE Congress/Asian Pacific Confederation of Chemical Engineering
87. 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.
88. 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),
89. 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).
90. 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

91. 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.
92. 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.
93. 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.
94. 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

#### STUDENTS POSTGRADUATE (NAME, YEAR OF GRADUATION, THESIS TITLE)

##### Ph.D

1. Norhidayatullaili Muhd Julkapl, **2012**, "Preparation and characterization of cross linked chitosan filled chitosan composites", Main Supervisor.
2. Ong Hui Lin, **2010**, "Nanosilica Filled Polymer Based Composites For Automotive Application", Main Supervisor.
3. Parisha Firoozian, **2012**" Nano carbon black and activated carbon from agricultural waste filled epoxy composites", Co- Supervisor
4. Mohamad Awang, **2009**, "Preparation, Characterization and Properties of Polypropylene/waste tire dust (PP/WTD) blends", Co-Supervisor.
5. Shah Rizal Kassim, **2008**, "Kajian Pengoptimuman Parameter Pengsintisan Hydroksiapatit Dengan Kaedah Pemendakan Tumpat Dan Fabrikasi Jasad Hydroksiapatit Tumpat Melalui Kaedah Tuangan Gel", Co-Supervisor.
6. TehPei Ling, **2008**, "Low Cte Substrate To Improve Warp And Solder Joint Reliability", Co-Supervisor.
7. 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.
8. Halimatuddahlia, **2005**, "The Properties Of Pp/Epdm/Nr Ternary Blend", (Co-Supervisor).
9. Mohd Firdaus bin Omar, **Started 2009 (On-Going)**, "Investigation on Strain Rate Sensitivity and Dynamic Mechanical Properties of Polymer Composites using Hopkinson Pressure Bar Apparatus (SHPBA)", Main Supervisor.
10. Musammir-Khan, **Started 2009 (On-Going)**, "Molecular Modifications of chitosan powder from natural resources & preparation of its biocomposites", Main Supervisor.
11. Siti Shuhadah binti Md Saleh, **Started 2011 (On-Going)**, "Triological properties of alumina/cnt hybrid filled polymer composites", Main supervisor.
12. 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
13. Chang Boon Peng, **Started 2011 (On-Going)**, "Impact, friction and wear assessment of UHMWPE for Implant application" 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

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

1. 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.
2. Mohd Fadli bin Ahmad rasyid, **2012**, “Preparation ,characterization and properties of MICA hybrid nanocomposite”, Main supervisor.
3. Nurashikin binti Sawal, **2012**, “Low-velocity impact response of thermoplastic honeycomb core sandwich structure with aluminium face sheet”, Main supervisor.
4. Mohd Hafiz Zamri, **2012**, “Effect of fibre loading, tex and configuration on the properties of pultruded kenaf fibre reinforced”, Main supervisor.
5. Tuan Noraihan Azila Tuan Rahim, **2012** “Fabrication and characterization of nanocomposites for dental restorative material”, Main supervisor
6. Muhammad Bisyrul Hafi bin Othman, **2012**, “ Synthesis And Structure Properties Relationship (SPR): Polyimide Containing Silicone Segment for Optoelectronic Application” Co-supervisor
7. Muhammad helmi bin Abdul Kudus, **2013** “Preparation, characterization and properties of CNT-Alumina ceramic powder composites”, Main supervisor.
8. Azizan Abd Aziz, **2012**, “Preparation and properties of polymer composites with functionalized additive”, Main supervisor
9. Tan Cheng yong, **2012**, “ Impact response of composites sandwich structure with various cores and skin materials”, Main Supervisor
10. Adlan Akram bin Mohamad Mazuki, **2011**, “Fabrication, characterization and properties of Pultruded kenaf reinforced unsaturated polyester composite”Main supervisor.
11. Sahnizam Safie, **2011**, “Characterization and modeling of pultruded jute fibre reinforced unsaturated polyester composite”, Main supervisor
12. 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
13. Ku Marsila Binti Ku Ishak, **2010**, “Modification of chitosan powder using various monomers”, Main supervisor.
14. Norlin binti Nosbi, **2011**, “Properties of pultruded kenaf fiber reinforced polyester composites”, Main supervisor
15. Chang Boon Peng, **Started 2009 (Converted to Phd 2011)**, “Impact, friction and wear assessment of UHMWPE for Implant application”, Main supervisor.
16. 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.
17. Siti Hajjar binti Che Man, **2008**, “Preparation of methyl/styrene in deproteinised natural rubber latex”, Co-supervisor.
18. Azreena bt Mastor, **Started 2006 (On-Going)**, “Modification of chitosan using gamma-ray radiation for tissue engineering application”, Main supervisor.
19. Mohamad Ibrahim bin Ahmad, **started 2007 (On-Going)**, “The study on thermoplastic honeycomb core sandwich structures for engineering applications”, Main supervisor
20. Muhammad Razak b Osman, **Started 2011 (On-Going)**, “fabrication, characterization and properties of kenaf/glass fiber hybrid pultruded composite”. Main supervisor.
21. Anis Sofiah binti Mudzafar Kamil, **Started 2012 (On-Going)**, “ Durability on Modified Silica/Polypropylene Nanocomposites: Weathering Resistance, Fatigue and Creep Behavior”. Co-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. Norhidayatulaii bt Julkapli, **2006**, "Preparation and properties of Chitosan/kenaf packaging film", main supervisor
4. Firuz Bt 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. Herza Hasmi, 2012, "Thermal and Tribological properties of CNT/alumina Composites"
2. John Paul, 2007, "Dental Composites"
3. Siew Sok Fun, 2007, "Clay Chitosan"
4. Tang Ei Fei, 2007, "Treated Kenaf Chitosan"
5. Shamsol Azrolsani Aziz Nazri, 2007, " Katalis Terhadap Sifat Dekradasi Polipropilena"
6. Mohd Fairuz Ruslan, 2007, 'Degradability Of Polyethylene With Cat.10 Additive"
7. Faezahnoor Bt Mahmud, 2006, "Sifat Mekanikal Dan Morfologi Komposit Polikaprolakton (PCL) Dan Hidroksiapatit (HA)"
8. Mohd Redzuan Bin Mat Yaman, 2006, "Sifat-Sifat Komposit Matriks Polietilena Diperkuatkan Dengan Partikel Mika"
9. Mohana Pria A/P Rainoo Raj, 2006, "Penyediaan Dan Pencirian Komposit Nano-Chitosan Terisi Momtmorolonit"
10. Siti Fakhriah Bt Mustafha, 2006, "Penambahbaikan Sifat Termal Bagi Perekat Berasaskan Resin Epoksi Untuk Aplikasi Suhu Tinggi Menggunakan Pengisi Seramik"
11. Norfadzilah Bt Mohamad Arif, 2006, Struktur Sandwich Daripada Teras Bahan Kitar Semula Berisi Busa Poliuretana: Penyediaan Dan Sifat-Sifat Mekanikal"
12. Lee See Chin, 2006, "Persediaan Dan Pengajian Terhadap Sifat-Sifat Komposit Diperkukuh Dengan Gentian Kenaf"
13. Quah Ban Kheng, 2005, "Kajian Perbandingan Salutan Polimer Antara Laker UV, KK50 Dan Lilin Keatas Keluli"
14. Soo Siew Suan, 2005, "Kesan Sifat-Sifat Resin Keatas Prestasi Bahan Struktur Sandwich Dengan Teras Indung Madu Berasaskan Kertas"
15. Mustaffa Ali Azhar Bin Taib, 2005, "Sifat Komposit Polimer Diperkuatkan Dengan Partikel Lempung"
16. Lu Lian Soon, 2005, " Pencirian Struktur Busa: Pengajian Perbandingan Antara Busa Termoset, Termoplastik, Logam Dan Seramik"
17. Hamisah Bt Ismail, 2005, "Kajian Perbandingan Antara Komposit Polipropilena Diisikan Kalsium Karbonat Dan Diisikan Talcum"
18. Wai Tai Jau, 2005, "Penghasilan Silica Bersaiz Nano Melalui Kaedah Permendakan Menggunakan Sodium Silikat"
19. Mohd Zaidy Bin Arnan, 2005, "Kesan Sifat-Sifat Resin Dan Pengeras Ke Atas Kekuatan Rekatan Pada Kulit Dan Teras Dalam Komposit Struktur Sandwich"
20. Ng Lily, 2004, "The Effects Of Various Coupling Agents On The Properties Of Alumina-Filled PP Composites".
21. Jeefferie Abd. Razak, 2004, "The Effects Of Stearic Acid On Mechanical And Morphological Properties Of Alumina-Filled PP Composites"
22. Khairil Azhar Ayub, 2004, "The Effect Of Surface Treatment On The Properties Of Nanosilica-Filled PP Composites"



23. Hamidi Hashim, 2004, "The Effect Of Indentor Materials On The Contact Properties Of Foam And Sandwich Structures"
24. Zalina Zainuddin, 2004, "Failure Modes In Sandwich Structures"
25. Wong Sze Ling, 2004, "The Effects Of Cooling Rate On The Properties Of Polymers"
26. Norashikin Mohamad, 2004, "The Effects Of Strain Rate On The Properties Of Polymeric Materials"
27. Syahriza Ismail, 2004, ". The Properties Of Coconut-Husk Core Sandwich Structures"
28. Rosilawaty Mohamed Aris, "Recycled Foam-Core Sandwich Structures"
29. Mohd Ghazali Mohamad, 2004, "Kesan Penggunaan Pelbagai Jenis Agen Gandingan Dalam Komposit Polipropilena Berpengisi Silika Nano"

#### EXTERNAL AND INTERNAL EXAMINER FOR THESIS

1. Ph.D (**External**), 2013, Title: Preparation and characterization oil palm reinforces poly(caprolactone)/poly(lactic acid)blend composites, **Universiti Teknologi Malaysia**.
2. Ph.D (**Internal**), 2013, Title: Modelling and Characterization on Mechanical Response of Polyethylene Foam, **Universiti Sains Malaysia**
3. 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**
4. Ph.D (**External**), 2013, Title: Preparation and characterization oil palm reinforces poly(caprolactone)/poly(lactic acid)blend composites, **Universiti Teknologi Malaysia**.
5. Ph.D (**External**), 2013, Title: Nyaluronan mediated targeted drug delivery; synthesis characterization and lhi effect on apoptotic and cell survival biomark, **Universiti Teknologi Petronas**
6. Ph.D (**Internal**), 2013, Title: Synthesis and characterization oh high refractive index polysiloxane for high brightness led (HBLED), **Universiti Sains Malaysia**
7. Ph.D (**External**), 2013, Title: Preparation and characterization properties of epoxidized palm oil modified epoxy resin/ glass composite, **Universiti Teknologi Malaysia**
8. Ph.D (**External**), 2013, Title: The effect layer stacking sequence on response of 6 layer hybrid composite plates under compression after ballistic impact, **Universiti Putra Malaysia**
9. 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**
10. Ph.D (**Internal**), 2013, Title: Silanization of mwcnt as filler in the epoxy nanocomposite via free radical treatment, **Universiti Sains Malaysia**
11. 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**
12. Ph.D (**External**), 2013, Title: Desing of an effective vehicle frontal longitudinal for crashworthiness application, **UNITEN**
13. 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**
14. M.Sc (**External**), 2012, Title: Design of A Novel Lightweight Frontal Crash-box for Vehicle Crash-worthiness Application, **UNITEN**
15. 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**
16. M.Sc (**External**), 2012, Title: Bio Based Composite Made from Local Cellulosic Fibre Mixed with Kenaf, **Universiti Teknologi Mara**
17. M.Sc (**External**), 2012, Title: Properties of Kenaf Filled Unplasticized Polyvinyl Chloride Composites, **Universiti Putra Malaysia**

18. M.Sc (**External**), 2012, Title: Energy Absorption on Compression After Ballistic Impact In Hybrid Composite Materia, **Universiti Putra Malaysia**
19. M.Sc (**External**), 2012, Title: Development of polyetheretherketone/hydroxyapatite biocomposite for load bearing bone analogue, **Universiti Teknologi Malaysia**
20. Ph.D (**External**), 2012, Title: Characterization of light controlling properties of natural rubber photonic crystal, **Universiti Teknologi Mara**
21. Ph.D (**External**), 2012, Title: Finite element analysis of tensile strength and puncture resistance WOVWN fabrics, **Universiti Teknologi Mara**
22. 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**
23. M.Sc (**Internal**), 2012, Title: Synthesis of polyamine and its crude oil de-emulsification efficiency, **Universiti Sains Malaysia**
24. M.Sc (**Internal**), 2012, Title: Synthesis and characterization nanoparticle, **Universiti Sains Malaysia**
25. M.Sc (**Internal**), 2012, Title: Characterization of halogen free flame retardant filled high density polyethylene oand polydimethyl siloxane composite, **Universiti Sains Malaysia**
26. 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**
27. 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**
28. 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**.
29. Ph.D (**Internal**), 2011, Title: Utilization of Carbon Nanotubes towards the Improved Properties of Polyamide Nanocomposites, **Universiti Sains Malaysia**.
30. M.Sc Thesis Research mode (**External**), 2011, Title: Development of saraline based super light weight completion fluid in underbalance perforation, **Universiti Malaya**.
31. 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**
32. M.Sc Thesis Research mode (**Internal**),2011, Title: Preparation and Characterization of epoxy Particles-Filled Composites Material Nanocomposites, **Universiti Sains Malaysia**
33. M.Sc Thesis Research mode (**Internal**),2011, Title: Study on Modification of Interfacial Interactionby Surface Treatment in Kaolin /PP Composites, **Universiti Sains Malaysia**
34. 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**.
35. Ph. D (**External**), 2011, Title: Multiscale modeling for understanding the effect of nanoparticles on mechanical behavior of engineering structures, **Annamalai University, India**
36. M.Sc (**External**), 2011, Title: Development of saraline based super light weight completion fluid in underbalance perforation, **Universiti Malaya**
37. 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**
38. M.Sc (**External**), 2011, Title: Properties of kenaf filled unplasticized polynyl chloride composites, **Universiti Putra Malaysia**
39. M.Sc (**External**), 2011, Title: Preparation and Characterization of Hydroxyapatite-Polysaccharide nanocomposites, **Universiti Teknologi Mara**
40. M.Sc Thesis Research mode (**External**), 2010, Title: Penyediaan Dan Pencirian Komposit Poliester Tak Tepu/Getah Asli Cecair/Tanah Liat, **Universiti Kebangsaan Malaysia**

41. MSc Thesis (**External**), 2010, Title: Penyediaan dan pencirian sebatian teracu epoksi berpengisi silika dan terubahsuai dengan getah asli cecair tercampur poli metil Meta akrilat, **Universiti Kebangsaan Malaysia**.
42. 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**
43. MSc Thesis (**External**), 2010, Title: Development of nontraditional completion fluid to , minimize perforation induced formation damage through underbalance perforation, **Universiti Malaya**
44. Level: M.Sc Research mode (**Internal**), 2010, Title: Modification, characterization and utilization of Banana trunk fibers, **Universiti Sains Malaysia**.
45. M.Sc Research mode (**Internal**), 2010, : Evaluation on flow behaviour of polypropylene/kaolin composites at higher shear stress , **Universiti Sains Malaysia**
46. M.Sc Research mode (**Internal**), 2010, Title: Preparation and characterization of collagen grafted films, **Universiti Sains Malaysia**
47. 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**.
48. M.Sc Research mode (**Internal**), 2010, Title: Properties of one part system silver filled epoxy composites for electronic conductive applications, **Universiti Sains Malaysia**
49. 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**.
50. 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**.
51. Phd Research Mode (**Internal**), 2009, Title: Synthesis And Characterization Of Silica Nanoparticles And Their Application On Fillers In Silica-Bimaleimide Nanocomposites, **Universiti Sains Malaysia**
52. 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**.
53. Master's Mix-Mode thesis assessor (**internal**), 2007, Title: Effect of fibre surface modification on natural fibre thermoplastic composite properties, **Universiti Sains Malaysia**
54. Master's Mix-Mode thesis assessor (**internal**), 2007, Title: Palm ash/silica filled natural rubber hybrid composites, **University Sains Malaysia**
55. M.Sc Research mode (**Internal**), 2007, Title: Studies on the properties of Bagasse fiber reinforced polyester composites, **Universiti Sains Malaysia**
56. 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)**.
57. 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**.
58. M.Sc Research Mode (**External**), 2006, Title: Cotton Wastes for Composite Reinforcement, **Universiti Teknologi Mara**.
59. Master's Mix-Mode thesis assessor (**Internal**), 2006, Title: Properties of synthesis nanocomposite polyvinyl alcohol polymer with aluminium phosphate reinforcement, **Universiti Sains Malaysia**
60. 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**.
61. Master's Thesis Assessor (**External**), 2004, Title: Mechanical and Fracture Analysis of Kenaf Reinforced Thermoplastic Composites, **Universiti Teknologi Malaysia**.
62. 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 APPOINTMENT)/ 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 : Development 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 : Marriott Hotel, Putrajaya
2. Forum : Bridging the gap Between The Construction Industry Stakeholders And Researchers (University/Academia), Organizer: Constriction research Institute 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

