

CURRICULUM VITAE



Assoc. Prof. Dr. Khalina Abdan
Department of Biological and Agricultural Engineering
Faculty of Engineering
Universiti Putra Malaysia (UPM)
43400 UPM Serdang, Selangor, MALAYSIA
T: 03-8946 6420

Education

1. PhD in Biocomposite Technonology, 2006, Universiti Putra Malaysia
2. Degree in Agricultural Engineering (Hons), 1996, Universiti Pertanian Malaysia.

Areas of Interest

1. Postharvest Engineering
2. Biocomposite Technology

Professional Qualification/ Membership/ Affiliation

1. Member, Malaysia Society of Agricultural Engineers (MASE)
2. Graduate Member, Institute of Engineers Malaysia (IEM)
3. Member, Board of Engineers Malaysia (BEM)
4. Member, Institute of Materials Malaysia

Appointments

Position	Duration
1. Deputy Dean, Research & Innovation Division, Faculty of Engineering, UPM	July 2017 to date
2. Coordinator Master Emergency Response Planning	January 2015- 2017
3. Scientific Officer Aerospace Malaysia Innovation Centre, Ministry of Industry, Trade & Internationalization	January 2013- 2014
4. Head, Department of Biological & Agricultural Engineering, Faculty of Engineering, UPM	August 2011- 2012
5. Head, Laboratory of Biocomposite Technology, INTROP, Higher Institution Centre of Excellence , (Tropical Wood and Fibre) Ministry of Education	Mac 2007- 2010

Publications

Journals (30 recent journals)

1. Onwude, Daniel I; Hashim, Norhashila; Abdan, Khalina; Janius, Rimfiel; Chen, Guangnan; The effectiveness of combined infrared and hot-air drying strategies for sweet potato (2019) Journal of Food Engineering 241 75-87
2. Hanafee, ZM; Khalina Abdan; Norkhairunnisa, M; Syams, Z Edi; Ern, Liew Kan; The effect of different linear robot travel speed on mass flowrate of pineapple leaf fibre (PALF) automated spray up composite (2019) Composites Part B: Engineering 156 220-228
3. Ibraheem S A
4. Asim, M; Jawaid, M; Abdan, K; Ishak, MR; The effect of silane treated fibre loading on mechanical properties of pineapple leaf/kenaf fibre filler phenolic composites (2018) Journal of Polymers and the Environment. 26 4 page1520-1527
5. Onwude, Daniel I; Hashim, Norhashila; Abdan, Khalina; Janius, Rimfiel; Chen, Guangnan; The potential of computer vision, optical backscattering parameters and artificial neural network modelling in monitoring the shrinkage of sweet potato (Ipomoea batatas L.) during drying (2018) Journal of the Science of Food and Agriculture 98 41310-1324

6. Hashim, Norhashila; Adebayo, Segun Emmanuel; Abdan, Khalina; Hanafi, Marsyita; Comparative study of transform-based image texture analysis for the evaluation of banana quality using an optical backscattering system (2018) *Postharvest Biology and Technology* 135 38-50
7. Asim, M; Jawaid, M; Abdan, K; Ishak, MR; Allothman, OY; Effect of Hybridization on the Mechanical Properties of Pineapple Leaf Fiber/Kenaf Phenolic Hybrid Composites (2018) *Journal of Renewable Materials* 6 1 38-46
8. Onwude, Daniel I; Hashim, Norhashila; Abdan, Khalina; Janius, Rimfiel; Chen, Guangnan; Kumar, Chandan; Modelling of coupled heat and mass transfer for combined infrared and hot-air drying of sweet potato (2018) *Journal of Food Engineering* 12-228
9. Onwude, Daniel I; Hashim, Norhashila; Abdan, Khalina; Janius, Rimfiel; Chen, Guangnan; Investigating the influence of novel drying methods on sweet potato (*Ipomoea batatas* L.): Kinetics, energy consumption, color, and microstructure (2018) *Journal of Food Process Engineering*
10. Onwude, Daniel I; Hashim, Norhashila; Abdan, Khalina; Janius, Rimfiel; Chen, Guangnan; Modelling the mid-infrared drying of sweet potato: kinetics, mass and heat transfer parameters, and energy consumption (2018) *Heat and Mass Transfer*
11. Nurazzi, N Mohd; Khalina, A; Sapuan, S Mohd; Rahmah, M; Development of sugar palm yarn/glass fibre reinforced unsaturated polyester hybrid composites (2018) *Materials Research Express* 5 4 45308
12. Onwude, Daniel I; Hashim, Norhashila; Abdan, Khalina; Janius, Rimfiel; Chen, Guangnan; Combination of computer vision and backscattering imaging for predicting the moisture content and colour changes of sweet potato (*Ipomoea batatas* L.) during drying *Computers and Electronics in Agriculture* (2018) 150 178-187
13. Norizan, M N; Abdan, K; Salit, M S; Mohamed, R; The Effect of Alkaline Treatment on the Mechanical Properties of Treated Sugar Palm Yarn Fibre Reinforced Unsaturated Polyester Composites Reinforced with Different Fibre Loadings of Sugar Palm Fibre (2018) *Sains Malaysiana* 47 4 699-705
14. Alias, Aisyah Humaira; Tahir, Paridah Md; Abdan, Khalina; Salit, Mohd Sapuan; Wahab, Md Saidin; Saiman, Mohd Pahmi; Evaluation of Kenaf Yarn Properties as Affected by Different Linear Densities for Woven Fabric Laminated Composite Production (2018) *Sains Malaysiana* 47 8 1853-1860
15. Onwude, Daniel I; Hashim, Norhashila; Abdan, Khalina; Janius, Rimfiel; Chen, Guangnan; Numerical modeling of radiative heat and mass transfer for sweet potato during drying (2018) *Journal of Food Processing and Preservation*
16. Saffian, Harmaen Ahmad; Abdan, Khalina; Hassan, Mohd Ali; Ibrahim, Nor Azowa; Lee, Seng Hua; Rahman, Mohd Faizal Abdul; Properties of Slow Release Fertilizer Composites Made from Electron Beam-irradiated Poly (Butylene Succinate) Compounded with Oil Palm Biomass and Fertilizer (2018) *BioResources* 13 4 8677-8689
17. Zin, MH; Abdan, K; Norizan, MN; Mazlan, N; The Effects of Alkali Treatment on the Mechanical and Chemical Properties of Banana Fibre and Adhesion to Epoxy Resin. *Pertanika Journal of Science & Technology* (2018) 26 1
18. Ahmad Saffian, Harmaen; Abdan, Khalina; Ali Hassan, Mohd; Ibrahim, Azowa; Characterization, morphology, and biodegradation of bioplastic fertilizer (B p F) composites made of poly (Butylene succinate) blended with oil palm biomass and fertilizer (2017) *Polymer Composites* 38 11 2577-2583
19. Saba, N; Paridah, MT; Abdan, K; Ibrahim, NA; Physical, structural and thermomechanical properties of oil palm nano filler/kenaf/epoxy hybrid nanocomposites *Materials Chemistry and Physics* (2016) 184 64-71
20. Janius, Rimfiel; Abdan, Khalina; Zulkaflli, Zairul Ain; Development of a disaster action plan for hospitals in Malaysia pertaining to critical engineering infrastructure risk analysis *International journal of disaster risk reduction* (2017) 21 168-175
21. Tee, Yee Bond; Talib, Rosnita A; Abdan, Khalina; Chin, Nyuk Ling; Basha, Roseliza Kadir; Yunos, Khairul Faezah Md; Effect of Aminosilane Concentrations on the Properties of Poly (Lactic Acid)/Kenaf-Derived Cellulose Composites. *Polymers & Polymer Composites* (2017) 25 1
22. Adebayo, Segun Emmanuel; Hashim, Norhashila; Hass, Roland; Reich, Oliver; Regen, Christian; Münzberg, Marvin; Abdan, Khalina; Hanafi, Marsyita; Zude-Sasse, Manuela; Using absorption and reduced scattering coefficients for non-destructive analyses of fruit flesh firmness and soluble solids content in pear (*Pyrus communis* 'Conference') An update when using diffusion theory *Postharvest Biology and Technology* (2017) 130 56-63
- 23.

24. Birnin-Yauri, Abubakar Umar; Ibrahim, Nor Azowa; Zainuddin, Norhazlin; Abdan, Khalina; Then, Yoon Yee; Chieng, Buong Woei; Effect of maleic anhydride-modified poly (lactic acid) on the properties of its hybrid fiber biocomposites *Polymers* (2017) 9 5 165
25. Asim, M; Jawaid, M; Abdan, K; Ishak, MR; Effect of pineapple leaf fibre and kenaf fibre treatment on mechanical performance of phenolic hybrid composites *Fibers and Polymers* (2017) 18 5 940-947
26. Onwude, Daniel I; Hashim, Norhashila; Janius, Rimfiel; Abdan, Khalina; Chen, Guangnan; Oladejo, Ayobami O; Non-thermal hybrid drying of fruits and vegetables: A review of current technologies *Innovative Food Science & Emerging Technologies* (2017) 42 223-238
27. Dashtizadeh, Zahra; Abdan, K; Jawaid, M; Khan, Mohd Asim; Behmanesh, Mohammad; Dashtizadeh, Masoud; Cardona, Francisco; Ishak, M; Mechanical and Thermal Properties of Natural Fibre Based Hybrid Composites: A Review *Pertanika Journal of Science And Technology* (2017)25 4 1103-1122
28. Saba, N; Paridah, MT; Abdan, K; Ibrahim, NA; A Review on Nano Fibre Technology in Polymer Composites.*Pertanika Journal of Science & Technology* (2017) 25 4
29. Norizan, Mohd Nurazzi; Abdan, Khalina; Salit, Mohd Sapuan; Mohamed, Rahmah; Physical, mechanical and thermal properties of sugar palm yarn fibre loading on reinforced unsaturated polyester composites *Journal of Physical Science* (2017)28 3 115-136
30. Adebayo, Segun E; Hashim, Norhashila; Abdan, Khalina; Hanafi, Marsyita; Zude-Sasse, Manuela; Banana Quality Attribute Prediction and Ripeness Classification Using Support Vector Machine *International Journal of Food Engineering* (2017) 3 1
31. E Birnin-Yauri, A. U., Ibrahim, N. A., Zainuddin, N., Abdan, K., Then, Y. Y., & Chieng, B. W. Enhancement of the mechanical properties and dimensional stability of oil palm empty fruit bunch-kenaf core and oil palm mesocarp-kenaf core hybrid fiber-reinforced poly(lactic acid) biocomposites by borax decahydrate modification of fibers (2016)

Chapter in Books

1. Ahmad Saffian, Harmaen; Abdan, Khalina; Ali Hassan, Mohd; Ibrahim, Azowa (2018) The Effect of Nitrogen release From bioplastic fertilizer (bpf) Composites: a slow release Fertilizer control application In: *Nutrients, Wastewater and Leachate* ISBN: 978-1-53613-949-5 Nova Science Publishing,
2. Norizan, M N; Abdan, K Kenaf Fibre-Reinforced Thermoplastic Composites (2018) DOI: 10.1201/9781351050944-4 In book: *Kenaf Fibers and Composites*, Chapter: 4, Publisher: CRC Press, Editors: S. M. Sapuan, M.R. Ishak, J. Sahari, Muhammed Lamin Sanyang, pp.8

Proceedings

1. Asim, M; Jawaid, M; Abdan, K; Nasir, M; Effect of Alkali treatments on physical and Mechanical strength of Pineapple leaf fibres *IOP Conference Series: Materials Science and Engineering* (2018) 290 1 12030
2. Sreenivasan, S; Sulaiman, S; Ariffin, M K Anuar Mohd; B, BT H Tuah; A Khalina; Physical Properties of Novel Kenaf Short Fiber Reinforced Bulk Molding Compounds (BMC) For Compression Moulding *Materials Today: Proceedings* (2018) 5 1 1226-1232
3. Zin, MH; Abdan, K; Mazlan, N; Zainudin, ES; Liew, KE; The effects of alkali treatment on the mechanical and chemical properties of pineapple leaf fibres (PALF) and adhesion to epoxy resin *IOP Conference Series: Materials Science and Engineering* (2018) 368 12035
4. Hussin, HW; Abdan, K; Salit, MS; Bakar, ES; Physical changes and FTIR analysis of kenaf core fiber heat treated in air *IOP Conference Series: (2018) Materials Science and Engineering* 368 1 12036
5. Ramli, N; Mazlan, N; Ando, Y; Leman, Z; Abdan, K; Aziz, AA; Sairy, NA; Natural fiber for green technology in automotive industry: A brief review (2018) *IOP Conference Series: Materials Science and Engineering* 368 1 12012-

Others publications- Standard Policy

1. Test methods for Natural Fibre Plastic Composite (NFPC) –Part 2: Decking Profiles And Tiles MTIB14TC3021R0
2. Emergency Response Competency Module for Front Liner Responder Ministry of Health Malaysia

Research Grants

No	Project Title	Amount (RM)	Year	Source of Fund
1.	Development of Aeronautic Composites utilizing bio based resin polymer	400,000	2017-2019	HiCOE, KPT
2.	Development of Bio-Sourced Hybrid Composites for Aerospace and Automotive Applications	149,000 (448,500)	2014-2018	UPM/AMIC
3.	Manufacturing of pre commercial prototypes anti-roll bar	81,200 (566,000)	2015-2017	IPB UPM
4.	Increased production Efficiency in Smallholder Kenaf Production Systems For Specific Industrial application.;Kenaf Bioretting and Mechanization	350,000 (8,951,056)	2009-2012	UNIDO

Awards/Recognition (Current)

Num	Name of awards	Title	Award Authority	Award Type	Year
1.	Gold Medal	Innovation of Sugar Palm Yarn for Structural Applications	Universiti Malaysia Terengganu (MPI2018)	National	2018
2.	Double gold Award & Best of Products Awards	Jatropha Biomatrix	International Engineering Invention and Innovation Exhibition (i-ENVEX).	International	2018
3.	Best Poster Awards	Bioplastic Fertilizer	Wood and Biofibre International Conference	International	2017

Professional Services/Consultation

No	Year	Title	Authority	Amount
1.	2018	Development of Standard for Natural Fiber-Test Methods, SIRIM, Kuala Lumpur	Malaysia Standard MTIB	15,000

Student Supervision

PhD (Main Supervisor)

No.	Name	Title	Status Graduated
1.	Saud Said Khalfan Ai-Anbari	Risk Assessment for safety and health algorithm for building construction in Oman	2015
2.	Rabar Fatah Sallih	Influence of Potassium, Boron and Zinc on growth yield and fiber quality of two kenaf (Hibiscus Cannabinus L) varieties	2016(GOT)
3.	Harmaen b. Ahmad Saffian	Development of slow release fertilizer from oil palm empty fruit bunch biopolymer composites.	2017
4.	Zahra Dashtizadeh	Development and characterization of recycle carbon and kenaf fiber filled phenolic cashew nut based cardanol hybrid biocomposite	2018
5.	Nurrazi bin Norizan		2018(GOT)

Student Supervision

PhD (Main Supervisor)			
No.	Name	Title	Status Graduated
		Fabrication and characterization of hybrid sugar palm yarn/woven glass fiber reinforced unsaturated polyester biocomposites.	
6.	Hanafee Mohd Zin	Investigation of optimized process parameters of vinyl ester hybrid biocomposites utilizing industrial robotic spray up technique.	On going
7.	Hafiezal Muhamad Radzi	Flammability Properties of Jatropha biomatrix in Carbon & Pineapple leaf fibre Hybrid biocomposite	On going
8.	Wan Mohamad Haniffah bin Wan Hussin	Effect of Fibre Heat Treatment On Mechanical And Hygroscopic Properties Of Kenaf Polypropylene Composite	On going
9.	Sameer A Ibrahim	Developing hybrid bio-composites from kenaf /coir natural fibres reinforced thermoset unsaturated polyester	On going
10.	Hidayah Ghazali	Development of flood awareness modeling in preparedness strategy	On going
11.	Nassrudin bin Mat	Risk assessment algorithm and Integrated Emergency Coordination of Communication Towers in Malaysia	On going
Master Main Supervisor			
1.	Bernard Maringgal (GS19299)	Preparation of unidirectional polypropylene reinforced kenaf composite using mechanical impregnation method	2011
2.	Abdullah Hakim Abdullah(GS19111)	Fatigue properties of kenaf reinforced epoxy composite	2011
3.	Siti Hasnah Kamaruddin (GS19191)	Development of Polymer/Nanoclay Laminate Hybrid Biocomposite	2011
4.	Nazreen Redzuan (GS20854),	Determination of Moisture content using Electrical frequency resonant	2014

