



Dr. Dandi Bachtiar

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**Universiti
Malaysia
PAHANG**
Engineering • Technology • Creativity

Google Scholar:

<https://scholar.google.com/citations?user=E1DoEdYAAAAJ&hl=en>

Academic Qualification

PhD (Mechanical Engineering), Universiti Putra Malaysia, 2012
M.Sc (Mechanical Engineering), Universiti Putra Malaysia, 2008
B.Eng / Ir. (Mechanical Engineering), University of Syiah Kuala, Aceh, Indonesia, 1992

Brief Profile

Dr. Dandi Bachtiar is a researcher and senior lecturer in Faculty of Mechanical Engineering Universiti Malaysia Pahang since December 2012. He received his Bachelor in Mechanical Engineering from Department of Mechanical Engineering, University of Syiah Kuala, Banda Aceh, Indonesia. He received his Master and PhD degree in Mechanical Engineering from Department of Mechanical and Manufacturing Engineering, Universiti Putra Malaysia.

Working Experiences / Appointment

Dec. 2012-now
Senior Lecturer at Universiti Malaysia Pahang
Faculty of Mechanical Engineering

2008-2012
Research Assistant and PhD student at Universiti Putra Malaysia
Department of Mechanical and Manufacturing Engineering

2004-2007
MSc student at Universiti Putra Malaysia
Department of Mechanical and Manufacturing Engineering

1995-2003
Lecturer
University of Lampung, Sumatera, Indonesia
Department of Mechanical Engineering

1994-1995
Junior Management Staff at Pulp and Paper Industrial Company
PT Wirakarya Sakti, Jambi, Sumatera, Indonesia

1993-1994
Engineer Trainee at Cement Industrial Company
PT Semen Andalas Indonesia, LhokNga Bay, Aceh, Sumatera, Indonesia

Expert Area

Natural Fibre Composites, Polymer Composites, Mechanical Testing

Research Interest

Natural Fibre Reinforced Polymer Composites, Manufacturing of Composites, Mechanical Testing for Polymer Material, and exploring the natural fibres for reinforcing material.

Research Project / Grant

- 1 RDU1703320 (UMP Grant) 5 October 2017 – 4 October 2019
Fatigue Behaviour of Sugar Palm Fibre Reinforced Polylactic Acid Composites for Automotive Application
RM21,500.00
Leader
- 2 RDU1703322 (UMP Grant) 5 October 2017 – 4 October 2019
Graphene Dip Coating of Light Alloys For Automotive Application
RM30,000.00
Member
- 3 RDU1703321 (UMP Grant) 5 October 2017 – 4 October 2019
Graphene Nanoplatelets for Epoxy Composites in Automotive Applications
RM21,000.00
Member
- 4 RDU1703312 (UMP grant) 20 September 2017 – 19 September 2019
Development of New Patch Shape for Bonded Patch Repair Method
RM20,000.00
Member
- 5 RDU1603108 (UMP grant) 25 June 2016 – 24 June 2018
Development of Fiber Metal Laminate Materials for Automotive Application
RM33,800.00
Member
- 6 GRS1503124 (PGRS grant) 25 August 2015 – 24 August 2018
Development of Sugar Palm Fiber Reinforced Thermoplastic Polyurethane Composites
RM3,400.00
Leader
- 7 RDU151312 (RACE grant) 1 January 2016 – 31 December 2018)
Periodic Two-Dimensional Square Honeycomb Structure From Biodegradable Composite:
Finite Element Analysis and Experimental Investigation
RM50,000.00
Member
- 8 RDU1403112 (UMP grant) 25 October 2014 – 24 October 2016
ZrO₂ Sol-Gel Coating for the Corrosion Protection of Aluminum
RM30,000.00
Member
- 9 RDU1403109 (UMP grant) 25 October 2014 – 24 October 2016
Development of Periodic Two-Dimensional Honeycomb Structures for Sandwich Panels
RM37,000.00
Member
- 10 RDU140120 (FRGS grant) 1 July 2014 – 30 June 2016
Characterization of Biodegradable Composites based on Pineapple Leaf Fibre and Tapioca Bioplastic Resin
RM83,000.00
Member
- 11 RDU140110 (FRGS grant) 1 July 2014 – 30 June 2016
Pack Cementation Coating to Improve Corrosion Resistance of High Chromium Steels for Boiler Application
RM118,000.00
Member
- 12 RDU140116 (FRGS grant) 1 July 2014 – 30 June 2017
Multiaxial Modelling of Lightweight Sandwich Structures based on Corrugated-cores for Aerospace Applications
RM124,000.00
Member

- 13 RDU140307 (UMP grant) 5 March 2014 – 4 March 2016
Compatibilizing Effect of Maleic Anhydride on the Mechanical Properties of Mengkuang Leaves Fibre Reinforced
RM15,800.00
Member
- 14 RDU130138 (FRGS grant), 1 December 2013 – 31 May 2017
Study of Thermo-mechanical Properties of Sugar Palm Fibre Reinforced Polyurethane Thermoplastic Composites for Use as Exterior Material in Automotive Industry
RM 71,500.00
Project Leader
- 15 RDU130342 (UMP grant), 15 June 2013 – 14 June 2016
Development of Novel Green Hybrid Thermoplastic Composites
RM 22,800.00
Project Leader

Professional Qualification / Membership / Affiliation / Experience

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Teaching Experience

2013 - now Universiti Malaysia Pahang

Semester 2 2017/2018

BMM1533 Strength of Materials 1
BMM1543 Strength of Materials
BMM2521 Engineering Mechanics Laboratory 2

Semester 1 2017/2018

BMM1533 Strength of Materials 1
BMM2583 Strength of Materials 2
BMM2521 Engineering Mechanics Laboratory 2

Semester 2 2016/2017

BHA2123 Mechanics of Materials
BMM1511 Engineering Mechanics Laboratory 1
BMM2521 Engineering Mechanics Laboratory 2

Semester 1 2016/2017

BMM1533 Strength of Materials 1 (session 01)
BMM1533 Strength of Materials 1 (session 03)
BMM1543 Strength of Materials
BMM2521 Engineering Mechanics Laboratory 2

Semester 2 2015/2016

MME6144 Advanced Material
BMM1533 Strength of Materials 1
BMM1543 Strength of Materials
BMM2582 Strength of Materials 2
BMM2583 Strength of Materials 2
BMM2521 Engineering Mechanics Laboratory 2

Semester 1 2015/2016

MME6144 Advanced Material
BMM1533 Strength of Materials 1
BMM1543 Strength of Materials
BMM2582 Strength of Materials 2
BMM2583 Strength of Materials 2
BMM1511 Engineering Mechanics Laboratory 1

Semester 2 2014/2015

BMM1533 Strength of Materials 1 (session 01)
BMM2582 Strength of Materials 2 (session 03)
BMM1511 Engineering Mechanics Laboratory 1

Semester 1 2014/2015

BMM1533 Strength of Materials 1 (session 02)
BMM1533 Strength of Materials 1 (session 03)
BMM2582 Strength of Materials 2

Semester 2 2013/2014

MKM1223 Advanced Materials Processing
BMM2521 Engineering Mechanics Laboratory 2
BMM1533 Strength of Materials 1
BMM2582 Strength of Materials 2

Semester 1 2013/2014

BMM2521 Engineering Mechanics Laboratory 2
BMM1533 Strength of Materials 1
BMM2582 Strength of Materials 2

Semester 2 2012/2013

BMM1523 Engineering Materials
BMM1511 Engineering Mechanics Laboratory 1
BMM2521 Engineering Mechanics Laboratory 2

2010-2011 Universiti Putra Malaysia

Strength of Materials (lab and tutorial), Thermodynamics (tutorial), Fluid Mechanics (tutorial)

1995-2003 University of Lampung

Thermodynamics, Fluid Mechanics, Linear Algebra, Heat Transfer

Post Graduate Supervision

1. **Mohamed Ausama Abbas Al-Sarraf** (PhD student), Development of sugar palm fibre reinforced thermoplastic polyurethane composites (completed, September 2014 – September 2017)
2. **Nur Maiza binti Musannef @ Musneh** (Master by Course student), Thermal characterization of hybrid natural sugar palm kenaf fibre reinforced polypropylene composites (completed September 2015)
3. **Nor Faedah binti Hamzah** (Master student), Study on degradability of sugar palm fibre reinforced polyurethane composites (On-going, start from March 2016)

Degree / Final Year Supervision

1. Izuddin Mohamed (Degree student), Compression behavior of alkali treated sugar palm fibre reinforced unsaturated polyester composites (completed December 2013)
2. Nor Ishamudin bin Ismail (Degree student), Fatigue analysis on hybrid natural fibre polymer composites (completed June 2014)
3. Mohd Khairi bin Mohamad Samiudin (Degree student), Effect of alkali treatment on tensile properties of hybrid natural fibre polymer composites (completed June 2014)
4. Mohd Fakhrol Aiman bin Mat Saki (Degree student), Impact performance of hybrid natural fibre polymer composites (completed June 2014)
5. Muhammad Rajaei bin Rahmad (Degree student), Tensile properties of hybrid natural fibre polymer composites (completed June 2014)
6. Abdul Hadi bin Abubakar (Degree student), Flexural properties of hybrid natural fibre polymer composites (completed December 2014)
7. Neo Kei Win (Degree student), Effect of chemically treatment on flexural properties of hybrid natural fibre polypropylene composites (completed June 2015)
8. Wong Khang Man (Degree student), Impact and flexural properties of sugar palm fibre reinforced polyurethane composites (completed June 2015)
9. Muhammad Muhsin bin Ahmad Baker (Degree student), Fatigue analysis for sugar palm fibre reinforced polyurethane composites (completed June 2015)
10. Nurfaisha binti Ishak (Degree student), Effect of maleic anhydride on the impact strength of hybrid sugar palm/kenaf fibre reinforced polypropylene composites (completed June 2015)

11. Nor Azalia binti Zabidi (Degree student), Effect of maleic anhydride on tensile properties of hybrid natural fibre polypropylene composites (completed June 2015)
12. Sufia Syahirah binti Md Yusof (Degree student), Mechanical properties of sugar palm fibre reinforced polypropylene composites (completed June 2016)
13. Norhazwani binti Mali (Degree student), Tensile properties of alkali treated sugar palm fibre reinforced polypropylene composites (completed June 2016)
14. Siti Syahirah binti Irwan (Degree student), Flexural and impact properties of alkali treated sugar palm fibre reinforced polypropylene composites (completed June 2016)
15. Noor Syakira binti Mohd Najib (Degree student), Effect of MAPP compatibilizing agent on tensile properties of sugar palm fibre reinforced polypropylene composites (completed June 2016)
16. Nor Fatin Nabilah binti Rahmat (Degree student), Effect of MAPP compatibilizing agent on flexural and impact properties of sugar palm fibre reinforced polypropylene composites (completed June 2016)
17. Najah Syahirah binti Mansor (Degree student), Effect of surface fibre treatment on the compressive and impact strength of hybrid sugar palm – jute fibre reinforced epoxy composites (completed June 2017)
18. Laang Shian Hoong (Degree student), Effect of surface fibre treatment on the mechanical properties of hybrid sugar palm – jute fibre reinforced epoxy composites (completed June 2017)
19. Mok Boon Boo (Degree student), Study of the compressive and impact strength of hybrid sugar palm – jute fibre reinforced epoxy composites (completed June 2017)
20. Chong Chow Yeung (Degree student), Study of mechanical properties of hybrid sugar palm – jute fibre reinforced epoxy composites (completed June 2017)
21. Khor Chia Boon (Degree student), Weathering degradation of sugar palm fibre reinforced polylactic acid composites (On-going)
22. Lim Xin Yi (Degree student), Mechanical properties of sugar palm fibre reinforced polylactic acid (PLA) composites (On-going)
23. Syouzi Morishita (Degree student), Effect of alkaline treatment on mechanical properties of sugar palm fibre reinforced polylactic acid composites (On-going)

Diploma / Final Year Supervision

1. Mohamad Nazirul Mubin bin Merzuki (Diploma student), Tensile properties of alkali treated sugar palm fibres (completed June 2013)
2. Nur Suraya Irdina binti Abdullah (Diploma student), Mechanical performance of aligned sugar palm fibre reinforced epoxy composites (completed June 2013)
3. Tan Chun Yik (Diploma student), Flexural properties of sugar palm fibre reinforced polyester composites (completed June 2014)
4. Hafiz bin Hamzah (Diploma student), Design and fabrication automatic mechanism pet feeder (completed June 2016)

List of Publications

Journals

- 1 M. Quanjin, M.R.M. Rejab, M.S. Idris, **D. Bachtiar**, J.P. Siregar, M.N. Harith, Design and optimize of 3-axis filament winding machine, *IOP Conference Series: Materials Science and Engineering* 257 (1), (2017), 012039
- 2 Y.P. Asmara, Athirah, J.P. Siregar, T. Kurniawan, and **D. Bachtiar**, Application of response surface methodology method in designing corrosion inhibitor, *IOP Conference Series: Materials Science and Engineering*, 257(1), (2017), 012090
- 3 Y.P. Asmara, V. Suraj, J.P. Siregar, T. Kurniawan, **D. Bachtiar**, and N.M.Z.N. Mohamed, Development of green vapour corrosion inhibitor, *IOP Conference Series: Materials Science and Engineering*, 257(1), (2017), 012089
- 4 N.K. Romli, M.R.M. Rejab, **D. Bachtiar**, J.P. Siregar, M.R. Rani, W.S.W. Harun, S.M. Salleh, and M.N.M. Merzuki, The behavior of Aluminium Carbon/Epoxy fibre metal laminate under quasi-static loading, *IOP Conference Series: Materials Science and Engineering*, 257(1), (2017), 012046
- 5 M.H.M. Hamdan, J.P. Siregar, **D. Bachtiar**, M.R.M. Rejab, M. Samykan, E.H. Agung, C. Tezara and J. Jaafar, Effect of alkaline treatment on mechanical properties of woven ramie reinforced thermoset composite, *IOP Conference Series: Materials Science and Engineering*, 257(1), (2017), 012044
- 6 Z. Ansari, M.R.M. Rejab, **D. Bachtiar** and J.P. Siregar, Crushing response of green square honeycomb structure from sugar palm & PLA, *Material Science Forum*, 909, (2017), 122-126 (Scopus indexed)

- 7 D.B. Mathivanan, J.P. Siregar, M.R.M. Rejab, **D. Bachtiar**, Y.P. Asmara and T. Cionita, The mechanical properties of alkaline treated pineapple leaf fibre to reinforce tapioca based bioplastic resin composite, *Material Science Forum*, 882, (2017), 66-70 (Scopus indexed)
- 8 A.A. Mohammed, **D. Bachtiar**, M.R.M. Rejab and S.F. Hasany, Effect of potassium permanganate on tensile properties of sugar palm fibre reinforced thermoplastic polyurethane, *Indian Journal of Science & Technology*, 10(7), (2017), 111453 (Thomson-Reuters/Web of Science)
- 9 N.Z.M. Zaid, M.R.M. Rejab, A.F. Jusoh, **D. Bachtiar**, J.P. Siregar, and Z. Dian Ping, Fracture Behaviours in Compression-loaded Triangular Corrugated Core Sandwich Panels, *MATEC Web of Conferences*, 78, (2016), 01041
- 10 N.Z.M. Zaid, M.R.M. Rejab, A.F. Jusoh, **D. Bachtiar** and J.P. Siregar, Effect of varying geometrical parameters of trapezoidal corrugated-core sandwich structure, *MATEC Web of Conference*, 90, (2016), 01018 (Scopus indexed)
- 11 A.A. Mohammed, **D. Bachtiar**, J.P. Siregar, M.R.M. Rejab and S.F. Hasany, Physicochemical study of eco-friendly sugar palm fiber thermoplastic polyurethane composites, *BioResources*, 11(4)(2016), 9438-9454 (IF=1.334)
- 12 D. Mathivanan, H. Norfazilah, J.P. Siregar, M.R.M. Rejab, **D. Bachtiar** and T. Cionita, The study of mechanical properties of pineapple leaf fibre reinforced tapioca based bioplastic resin composite, *MATEC Web of Conference*, 74, (2016), 00016 (Scopus indexed)
- 13 A.F. Jusoh, M.R.M. Rejab, J.P. Siregar and **D. Bachtiar**, Natural fiber reinforced composites: a review on potential for corrugated core of sandwich structures, *MATEC Web of Conference*, 74, (2016), 00033 (Scopus indexed)
- 14 A.A. Mohammed, **D. Bachtiar**, J.P. Siregar and M.R.M. Rejab, Effect of sodium hydroxide on the tensile properties of sugar palm fibre reinforced thermoplastic polyurethane composites, *Journal of Mechanical Engineering and Sciences*, 10(1), (2016), 1765-1777 (Scopus indexed)
- 15 Y.P. Asmara, Agus Geter, N. M. Zuki, J. Jamaludin, S. Januar, **B. Dandi**, T. Kurniawan and M.C. Ismail, Corrosion inhibition of carbon steel in oil and gas environments, *International Journal of Advanced and Applied Sciences*, 3(5) (2016), 88-91 (ISI indexed)
- 16 M.R.M. Rejab, N.Z.M. Zaid, J.P. Siregar and **D. Bachtiar**, Scaling effects for compression loaded of corrugated-core sandwich panels, *Advanced Materials Research*, 1133(2016), 241-245. (Scopus indexed)
- 17 D. Mathivanan, J.P. Siregar, **D. Bachtiar**, M.R.M. Rejab and T. Cionita, Effect of fibre loading on the flexural properties of natural fibre reinforced polymer composites, *Applied Mechanics and Materials*, 695(2015), 85-88. (Scopus indexed)
- 18 **D. Bachtiar**, J.P. Siregar, A.S. Sulaiman and M.R.M. Rejab, Tensile properties of hybrid sugar palm/kenaf fibre reinforced polypropylene composites, *Applied Mechanics and Materials*, 695(2015), 155-158. (Scopus indexed)
- 19 J.P. Siregar, T. Cionita, **D. Bachtiar** and M.R.M. Rejab, Tensile properties of pineapple leaf fibre reinforced unsaturated polyester composites, *Applied Mechanics and Materials*, 695(2015), 159-162. (Scopus indexed)
- 20 M.R.M. Rejab, W.A.W. Hassan, J.P. Siregar and **D. Bachtiar**, Specific properties of novel two-dimensional square honeycomb composites structures, *Applied Mechanics and Materials*, 695(2015), 694-698, (Scopus indexed).
- 21 A.N. Oumer and **D. Bachtiar**, Modeling and experimental validation of tensile properties of sugar palm fiber reinforced high impact polystyrene composites, *Fibers and Polymers*, 15(2)(2014), 334-339. (IF=1.118)
- 22 **D. Bachtiar**, S.M. Sapuan, E.S. Zainudin, A. Khalina and K.Z.H.M. Dahlan, Thermal properties of alkali treated sugar palm fibre reinforced high impact polystyrene composites, *Pertanika Journal of Science and Technology*, 21(1)(2013), 149-158. (Scopus indexed)

- 23 **D. Bachtiar**, S.M. Sapuan, E.S. Zainudin, A. Khalina and K.Z.H.M. Dahlan, The flexural and impact properties of chemically treatment sugar palm fiber reinforced high impact polystyrene composites, *Fibers and Polymers*, 13(7)(2012), 894-898. (IF=1.118)
- 24 S.M. Sapuan and **D. Bachtiar**, Mechanical properties of sugar palm fibre reinforced high impact polystyrene composites, *Procedia Chemistry*, 4 (2012), 101-106. (Elsevier publisher)
- 25 **D. Bachtiar**, S.M. Sapuan, E.S. Zainudin, A. Khalina and K.Z.H.M. Dahlan, The flexural, impact and thermal properties of untreated short sugar palm fibre reinforced high impact polystyrene composites, *Polymers and Polymer Composites*. 20(5)(2012), 493-502. (IF=0.309)
- 26 **D. Bachtiar**, S.M. Sapuan, E.S. Zainudin, A. Khalina and K.Z.H.M. Dahlan, The effect of alkali treatment and compatibilizing agent on tensile properties of short sugar palm fibre reinforced high impact polystyrene composites, *Bioresources*, 6(4)(2011), 4815-4823. (IF=1.309)
- 27 **D. Bachtiar**, S.M. Sapuan, E.S. Zainudin, A. Khalina and K.Z.H.M. Dahlan, The tensile properties of single sugar palm (*Arenga pinnata*) fibre. *IOP Conference Series: Materials Science and Engineering* 11(1)(2010): 012012.
- 28 **D. Bachtiar**, S.M. Sapuan and M.M. Hamdan, Flexural properties of alkaline treated sugar palm fibre Reinforced epoxy composites, *International Journal of Automotive and Mechanical Engineering (IJAME)*, 1(1) (2010), 79-90 (Scopus indexed).
- 29 **D. Bachtiar**, S.M. Sapuan and M.M. Hamdan, The influence of alkaline surface treatment on the impact properties of sugar palm fibre reinforced epoxy composites, *Polymer-Plastics of Technology and Engineering*, 48(4) (2009), 379-383. (IF=1.481)
- 30 **D. Bachtiar**, S.M. Sapuan and M.M. Hamdan, The effect of alkaline treatment on tensile properties of sugar palm fibre reinforced epoxy composites, *Materials and Design*, 29 (2008), 1285-1290. (IF=2.913)
- 31 **D. Bachtiar**, S.M. Sapuan, M.M. Hamdan and H.Y. Sastra, Chemical composition of ijuk (*Arenga pinnata*) fiber as reinforcement for polymer matrix composites, *Journal of Applied Technology*, 4(1)(2006). 1-7.

Proceedings of Conferences

1. M.R.M. Rejab, **D. Bachtiar**, J.P. Siregar, P. Paruka, S.H.S.M. Fadzullah, B. Zhang and W.J. Cantwell, The Mechanical Behavior of Foam-filled Corrugated Core Sandwich Panels in Lateral Compression, Proceedings of the American Society for Composites 2016, *Thirty-First Technical Conference on Composite Material*, Williamsburg, Virginia, US, September 19-22.
2. A.A. Mohammed, **D. Bachtiar**, J.P. Siregar and M.R.M. Rejab, Effect of sodium hydroxide on the tensile properties of sugar palm fibre reinforced thermoplastic polyurethane composites, presented in International Conference on Mechanical Engineering Research 2015 (ICMER2015), Zenith Hotel, Kuantan, Pahang, Malaysia, 18th – 19th August.
3. **D. Bachtiar**, S.M. Sapuan, E.S. Zainudin, A.Khalina and K.Z.H.M. Dahlan, The effect of irradiation beam on the tensile properties of sugar palm fibre reinforced high impact polystyrene composites, Proceedings of UPM-UniKL Symposium 2012, Melaka, Malaysia, 5th Feb, pp. 30-35.
4. S.M. Sapuan and **D. Bachtiar**, Mechanical Properties of Short Sugar Palm Fibre Reinforced High Impact Polystyrene Composites, presented in HPI-APA International Conference on Innovation in Polymer Science and Technology (IPST) 2011, Denpasar Bali, 28th Nov – 1st Dec.
5. **D. Bachtiar**, S.M. Sapuan, E.S. Zainudin, A Khalina and K.Z.H.M. Dahlan, Characterization of sugar palm fibre reinforced high impact polystyrene composites using thermogravimetric analysis, Proceedings of UPM-Malaysian Nuclear Agency Symposium 2011, 11st July, Bangi, Selangor, Malaysia, pp. 66-71.
6. S.M. Sapuan, **D. Bachtiar** and M.R. Ishak, Advanced in Sugar Palm (*Arenga pinnata*) Fibre Reinforced Polymer Composites Research, Proceedings of Conference on Engineering and Technology Education, World Engineering Congress 2010, Kuching, Sarawak, Malaysia, 2nd -5th August.

7. **D. Bachtiar** and S.M. Sapuan, The opportunity of sugar palm fibres in the reinforcing field of polymer composites. Proceedings of Aceh Development International Conference (ADIC 2010), 26th – 28th March, Serdang, Selangor, Malaysia, pp. 847-852.
8. **D. Bachtiar**, S.M. Sapuan, A. Khalina, E.S. Zainudin and H.M.D.K. Zaman, Characterization and performance of sugar palm fibre reinforced high impact polystyrene composites. Proceedings of the Second Postgraduate Seminar on Natural Fibre Composites 2010. Serdang, Selangor, Malaysia, 18th -19th February, pp. 39-46.
9. **D. Bachtiar**, S.M. Sapuan, E.S. Zainudin, A. Khalina and K.Z.H.M. Dahlan, The dynamic mechanical analysis of short sugar palm fibre reinforced high impact polystyrene (HIPS) composites. Presented at SAMPE Asia Conference 2010, Kuala Lumpur. 18th -20th January.
10. **D. Bachtiar**, S.M. Sapuan, E.S. Zainudin, A. Khalina and K.Z.H.M. Dahlan, The tensile behaviour of single sugar palm (*Arenga pinnata*) fibre. Proceedings of the 9th National Symposium on Polymeric Materials 2009, Putrajaya, Selangor, Malaysia, 14th -16th December.
11. **D. Bachtiar**, S.M. Sapuan, E.S. Zainudin, A. Khalina and K.Z.H.M. Dahlan, The dynamic mechanical analysis of short sugar palm fibre reinforced high impact polystyrene composites, Proceedings of the 9th National Symposium on Polymeric Materials 2009, Putrajaya, Selangor, Malaysia, 14th -16th December.
12. **D. Bachtiar**, S.M. Sapuan, A. Khalina and K.Z.H.M. Dahlan, The impact behaviour of sugar palm fibre reinforced high impact polystyrene (HIPS) composites. Proceedings of the International Advanced Technology Congress (ATCi2009), Conference on Advanced Materials and Nanotechnology (CAMAN 2009), Kuala Lumpur, Malaysia, 3rd – 5th November 2009 (CD ROM Proceedings).
13. **D. Bachtiar**, S.M. Sapuan and M.M. Hamdan, The effect of surface alkali treatment on impact behaviour of sugar palm fiber reinforced epoxy composite. Proceedings of the Postgraduate Seminar on Natural Fibre Composites 2008, Serdang, Malaysia, 10th June, pp. 33-42.
14. **D. Bachtiar**, S.M. Sapuan and M.M. Hamdan, Mechanical properties of sugar palm fibre reinforced epoxy composites, International Conference on Advance in Polymer Science and Technology 2008, New Delhi, India, 28th -31st January (Abstract).

List of Books

1. **Dandi Bachtiar**, Mohd. Sapuan Salit and Megat Mohamad Hamdan Megat Ahmad, *Mechanical properties of sugar palm fibre-epoxy composites: study on effect of the alkaline treatment*, Lambert Academic Publishing, Germany, 2012. (inprint publication)

Chapter in Book

S. Norhisham, N. Ismail and S.M. Sapuan, **D. Bachtiar** and M.Z.M. Yusoff, Chapter 12: Mechanical properties of sawdust and chip wood fibre reinforced epoxy composites, in *Research on Natural Fibre Reinforced Polymer Composites*, (Editor: S.M. Sapuan), UPM Press, Serdang, Selangor, Malaysia, 2009, pp. 223-231, ISBN 978-967-344-002-3.

List of Research / Project

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Awards / Research / Achievements

- Cendekia Bitara 2014, Hadiah Saguhati (journal)
- CiTREX 2016, Bronze medal, Hybrid biocomposites material
- CiTREX 2017, Bronze medal, Sugar palm fibre reinforced thermoplastic polyurethane composites

Patents

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List of Course / Conference Attended

1. Bengkel Penulisan dan Penyediaan Jurnal Berimpak Tinggi, Siri 1 FKM, The Zenith Hotel, Kuantan, 16-17 July 2014.
2. Kolokium Pengajaran dan Pembelajaran 2014, Astaka UMP, UMP Gambang, 9 April 2014.
3. Workshop on Paper Writing for Publication in High Impact Journals, MS Garden Hotel, Kuantan, Pahang, 20-21 August, 2013
4. Workshop on Presentation and Evaluation of Research Papers, Dewan Tun Fatimah, Kompleks Pentadbiran Utama, UMP Gambang, 19– 20 July 2013.
5. Short Course on Fracture and Damage Mechanics of Materials (by Professor Mohd Nasir Tamin), Faculty of Mechanical Engineering, UMP Pekan, 3- 5 June 2013.
6. Seminar on Electron Microscope, Central Laboratory Universiti Malaysia Pahang, 15 May 2013.
7. Teaching and Learning Colloquium 2013, Centre for Academic Innovation & Competitiveness, Department of Academic & International Affairs, Universiti Malaysia Pahang, 14 February, UMP Gambang Campus.
8. Program Retreat FKM, The Legend Resort Cherating Kuantan Pahang, 31 January – 2 February 2013.