

ZURAIDA BT. AHMAD



- KULLIYAH OF ENGINEERING
- IIUM Gombak Campus
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ACADEMIC QUALIFICATION

- Doctor of Philosophy
- Master of Science
- Bachelor of Engineering in Material Engineering

TEACHING RESPONSIBILITIES

ADVANCED MATERIALS CHARACTERIZATION	2007/2008 2012/2013
ADVANCED MATERIALS SCIENCE	2015/2016
CONTEMPORARY MATERIALS FOR ENGINEERING APPLICATIONS	2015/2016 2017/2018 2018/2019 2020/2021
ENGINEERING ETHICS FROM ISLAMIC PERSPECTIVE	2016/2017 2017/2018 2018/2019 2019/2020 2020/2021
ENGINEERING ETHICS SAFETY AND ENVIRONMENT	2015/2016 2016/2017 2017/2018 2018/2019 2019/2020 2020/2021
ENGINEERING MATERIALS	2005/2006 2006/2007 2007/2008 2008/2009 2012/2013
FAILURE ANALYSIS OF MATERIALS	2012/2013
FINAL YEAR PROJECT I	2018/2019 2019/2020
FINAL YEAR PROJECT II	2019/2020
FUNDAMENTALS OF MATERIALS ENGINEERING	2016/2017 2017/2018 2018/2019 2019/2020 2020/2021
INTEGRATED DESIGN PROJECT	2013/2014 2014/2015 2015/2016 2016/2017 2017/2018
ISLAMIZATION OF ENGINEERING STUDIES	2020/2021
Integrated Design Project	2018/2019 2019/2020
MATERIALS CHARACTERIZATION	2009/2010 2010/2011 2011/2012 2012/2013 2013/2014 2014/2015
MATERIALS LABORATORY	2006/2007 2007/2008
MATERIALS SCIENCE AND ENGINEERING	2012/2013

MECHANICS OF MATERIALS (LAB)	2004/2005
METALLIC MATERIALS	2007/2008 2008/2009 2009/2010 2010/2011 2011/2012
SEMINAR	2005/2006 2020/2021
SEMINAR I	2009/2010
WORKSHOP TECHNOLOGY	2004/2005 2005/2006 2006/2007

RESEARCH PROJECTS

In Progress

- 2018 - Present** - Development of self-healing nanocoating via polyelectrolyte assemblies for corrosion protection applications.
- 2018 - Present** - Investigation On the Effectiveness of Various 'Green' Batik Wax Blends Extruded via Fused Deposition Modeling (FDM).
- 2018 - Present** - Poly (3,4-ethylenedioxythiophene):poly(styrene sulfonate)(PEDOT:PSS) doped Silver Nano Particle (SNP)conductive polymer film for pressure ulcer prevention
- 2018 - Present** - Investigation On the Effectiveness of Various 'Green' Batik Wax Blends Extruded via Fused Deposition Modeling (FDM).
- 2017 - Present** - Study On The Effect Of Cloisite 30B On The Antimicrobial Activities And Tissue Regeneration Of Starch Based Wound Healing Materials
- 2017 - Present** - Tribological Properties of Hybrid Composites based on Woven Carbon Fiber/Fine Kenaf Fabric Reinforced Epoxy Matrix for Automative Applications
- 2016 - Present** - Incorporating Qur'anic Terminology into Physics Textbook: Developing Ulu-Albab Thinking Mode in the Learning of Science
- 2016 - Present** - Cradle-to-Cradle Food Packaging Prototype from Durian Skin Fibre Biocomposite
- 2016 - Present** - Novel Tactile Sensory Surface Mat with Electrical Stimulation (SMES)for the Prevention of Pressure Ulcers due to Immobility
- 2014 - Present** - Fundamental Mechanism and Activation of Nanoadd Zirconia Toughened Alumina (ZTA) Cutting Insert via the Addition of Carbon Nanotube (CNT) for Machining Super Alloy Inconel 718
- 2009 - Present** - Advanced Materials and Surface Engineering (AMSERU)

Completed

- 2017 - 2020** - Study On The Effect Of Cloisite 30B On The Antimicrobial Activities And Tissue Regeneration Of Starch Based Wound Healing Materials

- 2016 - 2020** The Study of Tropical Fruit Seeds as New Sources of Starch Based Biopolymers for Green Composites Applications
- 2016 - 2019** Novel Tactile Sensory Surface Mat with Electrical Stimulation (SMES) for the Prevention of Pressure Ulcers due to Immobility
- 2016 - 2019** Cradle-to-Cradle Food Packaging Prototype from Durian Skin Fibre Biocomposite
- 2016 - 2018** Incorporating Qur'anic Terminology into Physics Textbook: Developing Ulu-Albab Thinking Mode in the Learning of Science
- 2014 - 2018** Fundamental Mechanism and Activation of Nanoadd Zirconia Toughened Alumina (ZTA) Cutting Insert via the Addition of Carbon Nanotube (CNT) for Machining Super Alloy Inconel 718
- 2013 - 2016** Characterisation and Dissolution Study of Novel Biodegradable Phosphate Based Glass for Biomedical Application
- 2013 - 2016** Development of High Wear Resistant Nano Add ZTA Ceramic Cutting Insert for High Speed Machining Application
- 2012 - 2015** Prototype Development of Biodegradable Sago Based Sanitary Products
- 2012 - 2015** The Study of Biodegradable Metroxylon Rottb.(Sago)/Montmorillonite Nanoclay Superabsorbent Polymer (SAP)
- 2012 - 2014** Fabrication and Characterization of TiO₂ Thin Films Electrode for Energy Generation
- 2010 - 2013** Testing and evaluation of cassava starch as ceramic binder for investment casting
- 2010 - 2013** The study of PVC/alumina trihydrate nanocomposites for fire retardant-structural materials
- 2010 - 2012** The development of the thermoplastic starch for biodegradable fabrics
- 2009 - 2017** Value Engineering - Link Up with Universities Program: Parts Distribution and Handover
- 2009 - 2011** The Effect of Electron Beam Radiation on Mechanical properties of HDPE/EPDM- Organo Montmorillonite Nanocomposites
- 2009 - 2012** The Study of Superabsorbent Biodegradable Hydrogels Developed from Natural Polymer for Sanitary Products
- 2008 - 2011** Development of porous Tricalcium Phosphate (TCP) by Using Egg Yolk as pore Creating Agent
- 2007 - 2011** Development of In-House Ceramic Cutting Tools
- 2006 - 2009** Development of Environmental Friendly Super Bioadhesive For Structural Applications Using Egg Albumin As The Matrix Material
- 2006 - 2010** Formation of Surface Layer Coatings through Powder Preplacement and TIG Torch Melting Processes

PUBLICATIONS

Article

- 2020** [Islamisation of engineering education – a case at IIUM.](#) Universal Journal of Educational Research , 8 (2) pp.355-361
- 2019** [Effects of particle sizes on the properties of binderless boards made from rattan furniture waste.](#) Journal of Engineering Science , 15 pp.49-61
- 2018** [Morphological and thermal analysis of retted rattan waste fibers.](#) International Journal of Current Science, Engineering & Technology , 1 (Special Issue 1) pp.403-409
- 2018** [Effect of alkaline treatment on properties of rattan waste and fabricated binderless particleboard.](#) IIUM Engineering Journal , 19 (1) pp.185-196
- 2018** [Characterizations and biodegradability of solvent casting halloysite nanotubes/sago starch nanocomposite.](#) Journal of Engineering Science and Technology , 13 (Issue Special Issue on WRICET (2016)) pp.86-93
- 2018** [Non-acidic method for isolation of microcrystalline cellulose from oil palm empty fruit bunch fiber.](#) International Journal of Engineering & Technology , 7 (4014) pp.339-342
- 2017** [Effects of pressing temperature and pressing time onto the properties of binderless particleboard made from rattan furniture waste.](#) Journal of Built Environment, Technology And Engineering (JBETE) , 3 pp.11-18
- 2017** [Mechanical, physical and thermal properties of rattan fibre-based binderless board.](#) Journal of Tropical Forest Science , 29 (4) pp.485-492
- 2016** [Optimization of natural fiber composite parameter using Taguchi approach .](#) Advanced Materials Research , 1133 pp.185-188
- 2016** [Development of integrated science textbooks by applying the enrich tool.](#) Journal of Education and Social Sciences (JESOC) pp.6-13
- 2016** [A review of natural fibers and processing operations for the production of binderless boards.](#) BioResources , 11 (2) pp.5600-5617
- 2016** [Students perceptions on infusion of Islamic perspectives in the teaching of engineering subjects: IIUM case study.](#) Journal of Education and Vocational Research (JESOC) , 4 pp.1-7
- 2016** [Development of integrated curriculum and teaching materials for science/engineering courses.](#) Journal of Education and Social Sciences , 4 pp.18-25
- 2015** [Mechanical properties of kenaf core sandwich panel toughened with modified epoxy.](#) Advanced Materials Research , 1115 pp.275-278
- 2015** [Characterization and preparation of sago starch \(SS\) based reinforced with silver nanoparticle \(SNP\) .](#) Advanced Materials Research , 1115 pp.369-372
- 2015** [Characterization of rattan waste for binderless particleboard \(BPB\) production.](#) Advanced Materials Research , 1115 pp.317-320

- 2015** [Study of mechanical and flammability properties of polypropylene/microcrystalline cellulose composites filled with nano-sized aluminium hydroxide \(ATH\) particles.](#) Advanced Materials Research , 1115 pp.402-405
- 2015** [Swelling properties of gamma irradiated starch based hydrogel dressing.](#) International Journal of Innovative Science, Engineering & Technology , 2 (8) pp.933-936
- 2015** [The effect of black liquor on rattan waste binderless board \(BPB\) produced via digestion-hot pressing \(DHP\) process .](#) ARPN Journal of Engineering and Applied Sciences , 10 (21) pp.9753-9758
- 2015** [Optimization of hardness behaviour of TIG modified ceramic coating using the taguchi approach .](#) Advanced Materials Research , 1115 pp.238-242
- 2015** [Gamma irradiated starch based hydrogel impregnated with silver nanoparticle.](#) Advanced Materials Research , 1115 pp.390-393
- 2015** [Synthesis of co-deposited hexagonal boron nitride for thermally-efficient tribological performance.](#) Advanced Materials Research , 1115 pp.166-169
- 2015** [Mechanical and physical properties of sago starch/halloysite nanocomposite film.](#) Advanced Materials Research , 1115 pp.394-397
- 2015** [Morphological structures of rattan waste binderless particleboard: effect of acid treatment.](#) MicroSOM (Buletin of the Microscopy Society Malaysia, MSM) , 13 (2) pp.11-13
- 2014** [Holly Qur'an: the key reference of materials.](#) Science International Lahore , 26 (5) pp.2033-2035
- 2014** [Tapping into student's passion, curiosity, engagement and dreams: engineering educator's task.](#) Science International Lahore , 26 (5) pp.2569-2575
- 2014** [Incorporation of kenaf core fibers into low density polyethylene/thermoplastic sago starch blends exposed to natural weathering.](#) Molecular Crystals and Liquid Crystals , 603 (1) pp.180-193
- 2014** [Evaluation of Kenaf Fibres Reinforced Starch Based Biocomposite Film through Water Absorption and Biodegradation Properties .](#) Journal of Engineering Science , 10 pp.31-39
- 2014** [Characterizations of thermoplastic starch and starch reinforced montmorillonite clay nanocomposite.](#) Advances in Environmental Biology , 8 (3) pp.792-796
- 2014** [Properties of thermoplastic starch/kenaf composite.](#) Molecular Crystals and Liquid Crystals , 603 (1) pp.173-179
- 2014** [Preparation and characterization of low density polyethylene/thermoplastic sago starch/kenaf core fiber composites and their hybrid composites with halloysite clay.](#) Advances in Environmental Biology , 8 (3) pp.704-711
- 2014** [Effect of kenaf fibre on starch based biopolymer composite.](#) Advances in Environmental Biology , 8 (3) pp.765-769
- 2014** [Influence of halloysite nanotubes hybridized with kenaf core fibers on the physical and mechanical properties of low density polyethylene/thermoplastic sago starch blends.](#) Polymer-Plastics Technology and Engineering , 53 pp.107-113

- 2013** [Low Density Polyethylene \(LDPE\)/ Thermoplastic Sago Starch \(TPSS\) blend Filled Kenaf Core Fiber \(KCF\).](#) Advanced Materials Research , 626 pp.1048-1053
- 2013** [The effects of initiator content on sago \(metroxylon rottb.\) starch-G-PAN hydrogel](#) . Advanced Materials Research , 683 pp.218-221
- 2013** [The effect of kenaf core fibre loading on properties of low density polyethylene/thermoplastic sago starch/kenaf core fiber composites.](#) Journal of Physical Science , 24 (2) pp.97-115
- 2012** [Integrating and infusing of Islamic values in the existing engineering course subject: a case study.](#) Advances in Natural and Applied Sciences , 6 (5) pp.625-632
- 2012** [Properties of montmorillonite-reinforced thermoplastic sago starch composites .](#) Advanced Materials Research , 445 pp.469-474
- 2012** [Effect of fiber loading on properties of thermoplastic sago starch/kenaf core fiber biocomposites.](#) BioResources , 7 (3) pp.4294-4306
- 2012** [Improvement of Mechanical Properties of Injection-Molded Polylactic Acid-Kenaf Fiber Biocomposite .](#) Journal of Thermoplastic Composite Materials , 25 (2) pp.153-164
- 2012** [Morphological study of Superabsorbent polymer hydrogels from sago starch.](#) Advanced Materials Research , 576 pp.338-341
- 2012** [The effect of water and citric acid on sago starch bio-plastics.](#) International Food Research Journal , 19 (2) pp.715-719
- 2012** [Rheological behavior and stability of cassava starch for ceramic mould binder application.](#) Advanced Materials Research , 576 pp.162-165
- 2012** [The study of glycerol plasticized thermoplastic sago starch.](#) Advanced Materials Research , 576 pp.289-292
- 2012** [Properties of sago starch-nanoclay biocomposites film.](#) Advanced Materials Research , 576 pp.480-483
- 2011** [Improvement in mechanical properties of reinforced thermoplastic elastomer composite with kenaf bast fibre.](#) Composites: Part B: Engineering , 42 pp.462-465
- 2011** [Micromechanical property investigations of poly\(lactic acid\)-kenaf fiber biocomposites.](#) Journal of Natural Fibers , 8 (1) pp.14-26
- 2011** [Thermal properties of injection moulded polylactic acid 13 kenaf fibre biocomposite.](#) Malaysian Polymer Journal , 6 (1) pp.51-57
- 2011** [Effect of fiber length variations on mechanical and physical properties of coir fiber reinforced cement-alkalimumer composites \(CFRCC\).](#) IIUM Engineering Journal , 12 (1) pp.63-75
- 2011** [Cotton reinforced biopolymer matrix composite: effect of curing and aging conditions on its mechanical properties.](#) Key Engineering Materials , 471-72 pp.403-408
- 2011** [Egg Yolk as pore creating agent to produce porous tri-calcium phosphate for bone implant application.](#) Advanced Materials Research , 265 pp.760-764

- 2011 [The study of biodegradable thermoplastics sago starch.](#) Key Engineering Materials , 471 pp.397-402
- 2011 [Interfacial shear strength of Polylactic Acid-Kenaf fibre biocomposites.](#) Key Engineering Materials , 471 pp.781-785
- 2011 [Islamisation of engineering education in International Islamic University Malaysia \(IIUM\): problems and prospect.](#) Revelation and Science , 1 (3) pp.131-137
- 2011 [Porous alumina through protein foaming-consolidation method: effect of dispersant concentration on the physical properties.](#) Asia-Pacific Journal of Chemical Engineering , 6 pp.863-869
- 2011 [Cotton reinforced biopolymer matrix composite: effect of ultraviolet \(UV\) on its mechanical properties.](#) Key Engineering Materials , 472-72 pp.928-932
- 2011 [The effect of fiber content on cotton reinforced albumen composites .](#) IIUM Engineering Journal , 12 (2)
- 2011 [Properties of compression moulding starch-nanoclay biocomposites.](#) World Journal of Engineering , 8 (Supp.1) pp.1377-1378
- 2010 [Application of low cost polyurethane \(PU\) foam for fabricating porous tri-calcium phosphate \(TCP\).](#) Journal of Biomimetics, Biomaterials and Tissue Engineering , 8 pp.1-7
- 2008 [Fracture behavior of natural fiber reinforced biopolymer matrix composite.](#) Advanced Materials Research , 47 pp.1189-1192
- 2007 [Performance of hybrid filament wound composites tubes subjected to quasi static indentation.](#) Materials and Design , 28 pp.71-77
- Conference or Workshop Item**
- 2020 [Low cost piezoresistive pressure sensor matrix for pressure ulcer prevention and management.](#) In: **2019 7th International Conference on Mechatronics Engineering (ICOM) 2019**
- 2019 [Electrical stimulation in combating pressure ulcer for immobilize subjects: a conceptual framework.](#) In: **International Conference on Biomedical Engineering**
- 2018 [Non-acidic method for isolation of microcrystalline cellulose from oil palm empty fruit bunch fiber.](#) In: **2nd International Conference on Applied Sciences and Industrial Technology (ICASIT 2018)**
- 2018 [Influence of fiber treatment on dimensional stabilities of rattan waste composite boards.](#) In: **International Conference on Advances in Manufacturing and Materials Engineering 2017, ICAMME 2017**
- 2017 [Analysis of design tool attributes with regards to sustainability benefits.](#) In: **International Conference on Advances in Manufacturing and Materials Engineering (ICAMME 2017)**
- 2017 [Physical properties of heat-treated rattan waste binderless particleboard.](#) In: **3rd International Conference of Global Network for Innovative Technology 2016: Advanced Materials for Innovative Technologies, IGNITE 2016**

- 2016 [Fungi growth on rattan board exposed to natural weathering.](#) In: **4th International Conference on Biotechnology Engineering 2016 (ICBioE 2016)**
- 2016 [Sustainable manufacturing framework from Islamic perspective.](#) In: **3rd International Conference on Mechanical, Automotive and Aerospace Engineering 2016 (ICMAAE'16)**
- 2016 [Development of integrated curriculum and teaching materials for science/engineering courses.](#) In: **Kuala Lumpur International Islamic Studies and Civilisations (KLIISC) 2016**
- 2015 [Development of activated hexagonal boron nitride for tribo-composite coatings using electroless nickel plating technique.](#) In: **3rd International Doctoral Student Symposium with Partner Universities**
- 2015 [Preparation and characterization of TIG-alloyed hybrid composite coatings for high-temperature tribological applications.](#) In: **Malaysian International Tribology Conference 2015**
- 2014 [Noble electroless Ni-P deposited hexagonal boron nitride for effective solid lubricant application.](#) In: **Malaysia Technology Expo 2014**
- 2014 [Engineered hexagonal boron nitride utilizing environmental friendly co-deposition technique.](#) In: **International Research, Invention and Innovation Exhibition 2014 (IRIIE2014)**
- 2013 [Creativity and the future of engineering education: making the strange familiar.](#) In: **International Conference on Engineering Education 2013**
- 2012 [Mechanical and flammability properties of PVC reinforced with nano-sized ATH particles.](#) In: **International Conference on Nanotechnology (ICONT 2012)**
- 2011 [The effect of nanoclay on the tensile properties of PLA-kenaf fibre hybrid bionanocomposite.](#) In: **International Conference on Advanced Manufacturing of Composites (ICMAC)**
- 2011 [Injection moulded lightweight kenaf fibre thermoplastic elastomer composite for automotive components.](#) In: **IUM Research, Invention and Innovation Exhibition (IRIIE) 2011**
- 2011 [Eco-friendly PLA-kenaf fibre biocomposite for food packaging.](#) In: **IUM Research, Invention and Innovation Exhibition (IRIIE) 2011**
- 2011 [Eco-friendly PLA-kenaf fibre biocomposite for food packaging.](#) In: **Malaysia Technology Expo (MTE 2011)**
- 2011 [Integrating Tawhidi values into science and engineering education: a case study.](#) In: **International Conference on Islamization in Modern Science and Scientification of Islamic Studies: Prospects and Bridges**
- 2011 [Properties of compression moulding starch - nanoclay biocomposites.](#) In: **The 19th Annual International Conference on Composites/Nano Engineering (ICCE 19)**
- 2011 [Properties of montmorillonite-reinforced thermoplastic sago starch composites.](#) In: **14th International Conference on Advances in Material and Processing Technologies (AMPT 2011)**

- 2011 [Integrating and infusing of Islamic values in the existing engineering course subject: A case study](#) . In: **The 2nd International Conference on Engineering Professional Ethics and Education (ICEPEE '11)**
- 2011 [The effect of water and citric acid on sago starch bio-plastics](#). In: **2nd International Conference on Biotechnology Engineering (ICBioE 2011)**
- 2011 [Study of new eco-core metal matrix composite sandwich structure](#). In: **14th International Conference on Advances in Material and Processing Technologies (AMPT 2011)**
- 2011 [Fabrication of porous ceramic scaffolds via polymeric sponge method using sol-gel derived strontium doped hydroxyapatite powder](#). In: **5th Kuala Lumpur International Conference on Biomedical Engineering, BIOMED 2011**
- 2011 [Comparison of theoretical and experimental values of tensile properties of injection moulded polylactic acid – kenaf fibre biocomposite](#). In: **14th International Conference on Advances in Material and Processing Technologies (AMPT 2011)**
- 2010 [Biodegradable PLA-Kenaf fibre biocomposite for cleaner environment](#). In: **Malaysian Science and Technology Congress (MSTC 2010)**
- 2010 [Hazardless nanocomposite for gas barrier potential](#). In: **IIUM Research, Innovation & Invention Exhibition (IRIIE 2010)**
- 2010 [Lightweight biodegradable cotton/albumen board \(CAB\) for sustainable environment](#). In: **IIUM Research, Innovation & Invention Exhibition (IRIIE 2010)**
- 2010 [Single kenaf fibre properties via in situ monitoring using acoustic emission](#). In: **Simposium Kebangsaan Aplikasi Sains Matematik 2010 (SKSM)**
- 2010 [Kenaf fibre reinforced poly\(lactic acid\) biocomposites](#). In: **8th Global WPC and Natural Fibre Composites Congress and Exhibition**
- 2010 [Renewable food packaging from PLA-kenaf fibre biocomposite](#). In: **Islamic Innovation Expo 2010 (i-Inova' 2010)**
- 2010 [An eco-plastic made of PLA-Kenaf fibre biocomposite for cleaner environment](#). In: **IIUM Research, Innovation & Invention Exhibition (IRIIE 2010)**
- 2009 [Effects of nanoclays on the structure and properties of cotton/albumen composites](#) . In: **2nd Annual International Conference on Green Technology and Engineering**

Book

- 2011 [SAGO \(metroxylyon rottb\) and its applications](#). IIUM Press . ISBN 9789674181635

Book Section

- 2018 [Perceptions of the students on the developed Islamic Integrated Physics Textbook \(IIPT\): a case study](#). In: **Rejuvenating Islamic thought** IIUM Press, International Islamic University Malaysia . ISBN 978-967-491-010-5 , pp.152-166
- 2012 [Surface properties and thermal behavior of Malaysian coir fiber](#). In: **Materials in Engineering in Health Sciences** Universiti Sains Malaysia . ISBN 978-983-861-533-4 , pp.1-7

- 2011 [Investigation on the effect of water immersion on cotton albumen composite.](#) In: **Advances in composite materials** IIUM Press . ISBN 9789674182311 , pp.178-181
- 2011 [The effect of fibre content on thermal property of coir fibre reinforced cement-albumen composite.](#) In: **Advances in materials engineering** IIUM Press . ISBN 9789674181673 , pp.172-177
- 2011 [Workability of coir fibre-reinforced cement-albumen composite.](#) In: **Advances in materials engineering** IIUM Press . ISBN 9789674181673 , pp.195-200
- 2011 [Foam impregnation method for artificial bone graft application : study on the effect of drying time.](#) In: **Advances in Materials Engineering - Volume 2** IIUM Press . ISBN 9789674181680 , pp.78-83
- 2011 [Foam impregnation method for artificial bone graft application: study on the effect of sintering temperature.](#) In: **Advances in Materials Engineering - Volume 2** IIUM Press . ISBN 9789674181680 , pp.84-88
- 2011 [Mechanical behaviour of Oil Palm Empty Fruit Bunch \(OPEFB\) albumen-composites concrete.](#) In: **Advances in composite materials** IIUM Press . ISBN 9789674182311 , pp.49-54
- 2011 [The influence of biopolymer and natural fiber on the physical and mechanical properties of cement composite.](#) In: **Advances in composite materials** IIUM Press . ISBN 9789674182311 , pp.55-61
- 2011 [Thermal and morphological study of Biopolymer Cotton-Albumen Clay \(BCAC\) composites.](#) In: **Advances in composite materials** IIUM Press . ISBN 9789674182311 , pp.62-67
- 2011 [Effect of compaction time on the properties of coir fiber reinforced cement-albumen composite.](#) In: **Advances in composite materials** IIUM Press . ISBN 9789674182311 , pp.68-73
- 2011 [Oil Palm Empty Fruit Bunch \(OPEFB\) for lightweight composites concrete .](#) In: **Advances in composite materials** IIUM Press . ISBN 9789674182311 , pp.74-79
- 2011 [Sago, its properties and applications: a review.](#) In: **SAGO (Metroxylan rottb) and its applications** IIUM Press . ISBN 9789674181635 , pp.1-15
- 2011 [Overview on Malaysia natural fibres and its applications .](#) In: **Malaysia natural fibers for diversified bio-based application** IIUM Press . ISBN 9789674180218 , pp.1-19
- 2011 [Malaysian coir fibre for acoustical absorption cement composite panel .](#) In: **Malaysia natural fibers for diversified bio-based application** IIUM Press . ISBN 9789674180218 , pp.39-48
- 2011 [Sago starch: nanoclay biocomposites film.](#) In: **SAGO (Metroxylan rottb) and its applications** IIUM Press . ISBN 9789674181635 , pp.87-99
- 2011 [Preparation and characterization of glycerol plasticized sago starch-Kenaf core fibers biocomposites .](#) In: **SAGO (Metroxylan rottb) and its applications** IIUM Press . ISBN 9789674181635 , pp.101-114

- 2011** [Comparative study between standard and commercial sago starch.](#) In: **SAGO (Metroxylan rottb) and its applications** IIUM Press . ISBN 9789674181635 , pp.17-26
- 2011** [Investigation on the effect of ultra violet on cotton albumen composite.](#) In: **Advances in materials engineering - Volume 2** IIUM Press . ISBN 9789674181680 , pp.96-99
- 2011** [The effects of chemical and mechanical treatments on coir fiber to mechanical properties of coir-albumen-concrete.](#) In: **Advances in composite materials** IIUM Press . ISBN 9789674182311 , pp.108-113
- 2011** [An investigation of hybrid composites tubes subjected to quasi-static loading.](#) In: **Advances in composite materials** IIUM Press . ISBN 9789674182311 , pp.138-143
- 2011** [Mechanical behaviour of Biopolymer Cotton Albumen Clay \(BCAC\) composites.](#) In: **Advances in composite materials** IIUM Press . ISBN 9789674182311 , pp.144-149
- 2011** [SEM analysis of coir fiber and coir fiber-albumen-concrete before and after surface treatments.](#) In: **Manufacturing management from basic machining to quality product** IIUM Press . ISBN 9789674181659 , pp.220-229