

## CURRICULUM VITAE



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### Education

1. Ph.D. Chemical Engineering, 2012, Universiti Putra Malaysia.
2. B.Eng. (Summa Cum Laude) Chemical Engineering and Mathematics, 2006, Vanderbilt University, USA.

### Areas of Interest

1. Nanotechnology and Nanomaterials – Synthesis, characterization, dispersion, and application.
2. Food Packaging Engineering – Active packaging, bio-composite and bio-nanocomposite materials, biodegradable packaging films, quality and shelf life.

### Professional Qualification/ Membership/ Affiliation

1. Chartered Member, Institution of Chemical Engineers (IChemE)
2. Board Member, Asia Packaging Network (APN)
3. Member, Malaysian Society of Agricultural Engineers (MSAE)
4. Professional Member, Malaysian Society for Engineering and Technology (MySET)
5. Graduate Member, Institution of Engineers Malaysia (IEM)
6. Member, Board of Engineers Malaysia (BEM)
7. Member, Tau Beta Pi

### Appointments

Position	Duration
1. Head, Packaging Engineering Research Group, Department of Process and Food Engineering, Faculty of Engineering, UPM	November 2019 to date
2. Associate Professor, Department of Process and Food Engineering, Faculty of Engineering, UPM	June 2019 to date
3. Associate Researcher, Institute of Advanced Technology, UPM	June 2015 to date
4. Academic Coordinator, Department of Process and Food Engineering, Faculty of Engineering, UPM	July 2017 – January 2020
5. Head of Laboratory, Packaging and Preservation Laboratory, Department of Process and Food Engineering, Faculty of Engineering, UPM	August 2014 - August 2018
6. Senior Lecturer, Department of Process and Food Engineering, Faculty of Engineering, UPM	March 2012 – June 2019
7. Tutor, Department of Process and Food Engineering, Faculty of Engineering, UPM	July 2008 – March 2012

### Awards and Recognition

Title	Organization	Award	Year
1. Antimicrobial properties of corn starch/nanocellulose bionanocomposite films and the application on chicken meat	Asia Packaging Network (APN) International Packaging Symposium 2021	Gold	2021
2. Development of starch-based films containing essential oils for food packaging applications	APN International Packaging Symposium 2021	Gold	2021

3. Effect of different glycerin concentrations on physical, barrier, and surface topography of pectin-pineapple puree based edible films	APN International Packaging Symposium 2021	Silver	2021
4. Preparation and characterization of starch-based films incorporated with nanoparticles for food packaging applications: A review	APN International Packaging Symposium 2021	Silver	2021
5. Influence of zinc oxide nanoparticles (ZnO NPs) on the morphological, mechanical and thermal properties of biodegradable polylactide-based composites	APN International Packaging Symposium 2021	Bronze	2021
6. Development of active PLA and PLA/NFC films with anthocyanin as pH indicator	APN International Packaging Symposium 2021	Bronze	2021
7. <i>Anugerah Penyelidik Bersekutu Cemerlang Institut Teknologi Maju 2020</i>	Institute of Advanced Technology (ITMA), UPM	Certificate/ Incentive	2021
8. Shelf life extension of Saba banana: Effect of vacuum packaging and storage	5th International Conference on Agricultural and Food Engineering Joint Conference 13th International FRUTIC Symposium	Consolation Prize Best Paper Award (Special Jury)	2021
9. Characterization and antimicrobial activity of sweet potato-based films at different varieties: Vitato and Anggun	5th International Conference on Agricultural and Food Engineering Joint Conference 13th International FRUTIC Symposium	Second Prize Best Paper Award (Special Jury)	2021
10. Effect of different glycerin percentages on mechanical properties and seal strength of pectin film	5th International Conference on Agricultural and Food Engineering Joint Conference 13th International FRUTIC Symposium	Second Prize Best Poster Award (Special Jury)	2021
11. Corn starches/nanocellulose/ thymol bio-nanocomposite films for potential active food packaging materials	<i>Pertandingan Inovasi Teknologi Pertanian dan Makanan Mampan</i>	<i>Anugerah Emas</i>	2021
12. Development of starch-based films containing essential oils for food packaging applications (Final Year Student Project Presentation)	Faculty of Engineering	Best Project (Silver)	2021
13. Physicochemical and antimicrobial characterization of nanocellulose/starch-based films incorporated with thyme essential oil	Virtual Materials Technology Challenges 4.0 (v-MTC4.0)	Gold Medal	2020
14. Tensile and water solubility of edible pectin-papaya puree based films	Virtual Materials Technology Challenges 4.0 (v-MTC4.0)	Gold Medal	2020
15. Sustainable and environmentally friendly starch plastic	International STEM Olympiad ISTEMO 2019	Silver	2019
16. <i>Anugerah Perkhidmatan Cemerlang 2018</i>	Universiti Putra Malaysia	Certificate/ Incentive	2019
17. Maybank Academy Urban Farming Skilling	Universiti Putra Malaysia	High Impact Community Project 2018	2019

18. The influence of glycerol and thymol on mechanical properties of starch films	Symposium on Scientific Development of Food Packaging: Innovation, Safety and Sustainability	Best Poster	2019
19. Zinc oxide nanoparticles green-synthesized from pineapple peel extract using various synthesis conditions	International Symposium on Advanced Materials and Nanotechnology	Bronze	2019
20. Properties of starch/nanocellulose composite film containing thymol for food packaging application ( <i>Pameran Projek Pelajar Tahun Akhir</i> )	Faculty of Engineering	Best Project (Bronze)	2019
21. Characterisation and antimicrobial activity of jackfruit peel-based films incorporated with thymol	2 <sup>nd</sup> International Food Research Conference 2019	Third Prize Poster Presentation	2019
22. Mechanical properties of tapioca starch-based film incorporated with bulk chitosan and chitosan nanoparticle: A comparative study	4 <sup>th</sup> International Conference on Agricultural and Food Engineering	Best Paper (Food Engineering)	2018
23. In-vitro dissolution effect on conventional pineapple fruit powder tablet	International Engineering Invention & Innovation Exhibition (i-ENVEX) 2014	Bronze Medal	2014

### Teaching

1. Process Control (EPF3304)
2. Process and Food Plant Design (EPF4802)
3. Chemical Engineering Thermodynamics (ECH3120)
4. Chemical Engineering Thermodynamics (ECH3108)
5. Safety and Health in Processing Industries (EPF3502)
6. Food Process Engineering Laboratory I (EPF3104)
7. Bio-Material Polymer Technology (EPF4602)
8. Food Process Engineering Laboratory II (EPF3105)
9. Engineering Mathematics I (ECC3001)
10. Final Year Project I (EPF4999A)
11. Final Year Project I (EPF3999A)
12. Final Year Project II (EPF3999B)
13. Process Control and Instrumentation (EPF3303)

### Supervision of Postgraduate Students

Program Level	Name of Student	Supervisor/ Co-supervisor	Status (On-going/ Graduated)
PhD	Norhazirah Binti Nordin (GS48541), Characterization of Starch Film Incorporated with Nanocrystalline Cellulose and the Application as Food Packaging	Supervisor	On-going
PhD	Ruzanna Binti Ahmad Shapi'i (GS54581), Bilayer Films for Food Packaging Application	Supervisor	On-going
PhD	Nazatul Shima Binti Azmi (GS30095), Mathematical Modelling and Experimental Evaluation of Mass Transfer in Active Food Packaging System	Co-supervisor	On-going
PhD	Nashratul Shera Binti Mohamad Ghazali (GS52942), Physicochemical Properties of Stingless Bee Honey	Co-supervisor	On-going
PhD	Farhana Azmira Binti Asmadi (GS57198), Characterization of Active Bio-Polymer Composite Films Incorporated with Essential Oils Nanoparticles for Food Packaging	Co-supervisor	On-going
PhD	Mohamad Omar Syafiq Bin Razali (GS54002), Development and Characterization of Sugar Palm Based	Co-supervisor	On-going

	Starch Nanocellulose Biocomposites Films Incorporated with Plants Essential Oil		
Master	Ruzanna Binti Ahmad Shapi'i (GS42370), Development of Starch/Chitosan Nanoparticle Nanocomposite Films with Antibacterial Properties	Supervisor	Graduated (2018)
Master	Nazratul Putri Binti Risyon (GS40522), Characterization of Polylactic Acid/Halloysite Nanotubes Bionanocomposite Film for Food Packaging	Supervisor	Graduated (2017)
Master	Siti Mariam Binti Mohd Zahiruddin (GS48084), Properties Evaluation and Shelf Life Prediction of Nanocomposite Edible Film	Supervisor	On-going
Master	Mao Dun (GS57509), Characterization of Starch-Based Films Incorporated with Shell-Based Chitosan Nanoparticle for Food Packaging Applications	Supervisor	On-going
Master	Amir Alizadehmonir (GS36390), Effects of Annealing Temperature and Time on Properties of Composites Based on Poly(Lactic Acid), Microcrystalline Cellulose and Kenaf Fiber	Co-supervisor	Graduated (2018)
Master	Taufiq Aminullah Bin Mokhtar (GS34257), Characterisation and Dissolution Kinetics of Tamarind and Pineapple Tablets	Co-supervisor	Graduated (2018)
Master	Syahrul Anis Hazwani Binti Mohd Baroyi (GS48186), Physico-Chemical and Sensory Properties of Stingless Bee Honey Processing and Packaging	Co-supervisor	Graduated (2021)
Master	Hasbullah Bin Hassan Basri (GS51563), Properties Evaluation on Green Synthesized Nano-Zinc Oxide/Biopolymer Composite Films for Food Packaging and Their Antioxidant and Antibacterial Activities	Co-supervisor	On-going
Master	Danial Iman Haris Bin Nor Azman (GS58581), The Effect of Probiotics Incorporated with Commercial Feeds and Nanoparticles in Disease Resistant in White Shrimp	Co-supervisor	On-going
Master	Lee Xiao Fen (GS43509), Methylcellulose Coating to Reduce Oil Uptake of Fried Potato Strips	Co-supervisor	On-going
Master	Nurzia Mohamad (GS55885), Melt Edible Composite Films Made from Fruit Puree and Pectin	Co-supervisor	On-going

## Publications

H-index = 12 (Scopus), 15 (Google Scholar)

### Journals

#### a. Citation Indexed Journals (SCOPUS/ISI)

1. **\*S.H. Othman**, B.M. Wane, N. Nordin, N.Z.N. Hasnan, R.A. Talib, J.N.W. Karyadi. Physical, Mechanical, and Water Vapor Barrier Properties of Starch/Cellulose Nanofiber/Thymol Bionanocomposite Films, *Polymers*, 13(4060): 16 pages, 2021. (Q1)
2. **\*S.H. Othman**, N. Nordin, N.A.A. Azman, I.S.M.A. Tawakkal, R.K. Basha. Effects of Nanocellulose Fiber and Thymol on Mechanical, Thermal, and Barrier Properties of Corn Starch Films, *International Journal of Biological Macromolecules*, 183: 1352-1361, 2021. (Q1)
3. **\*S.H. Othman**, N.A. Abdullah, N. Nordin, N.N.A.K. Shah, M.Z. Mohd Nor, K.F. Md Yunus. Shelf Life Extension of Saba Banana: Effect of Preparation, Vacuum Packaging, and Storage Temperature, *Food Packaging and Shelf Life*, 28(100667): 7 pages, 2021. (Q1)
4. **\*S.H. Othman**, N.F.L. Othman, R.A. Shapi'i, S.H. Ariffin, K.F.M. Yunus. Corn Starch/Chitosan Nanoparticles/Thymol Bio-Nanocomposite Films for Potential Food Packaging Applications, *Polymers*, 13(390): 1-19, 2021. (Q1)
5. I.S.M.A. Tawakkal, N. Nordin, N.A.S. Romzi, Y.N. Manaf, S.H. Ariffin, **S.H. Othman**, Y.A. Yusof. Characterization of Active Sweet Potato-Based Films Containing Thymol at Different Varieties: VitAtoTM and Anggun, *Food Packaging and Shelf Life*, 30(100750): 10 pages, 2021. (Q1)
6. N.S.M. Ghazali, Y.A. Yusof, H. Ghazali, N.L. Chin, **S.H. Othman**, Y.N. Manaf, L.S. Chang, S.A.H.M. Baroyi. Effect of Surface Area of Clay Pots on Physicochemical and Microbiological Properties of Stingless Bee (*Geniotrigona Thoracica*) Honey, *Food Bioscience*, 40(100839): 10 pages, 2021. (Q2)

7. R.K. Basha, K.Y. Leong, **S.H. Othman**, R.A. Talib, M.N. Naim, N.Z.N. Hasnan, N.S. Azmi. Sorption Characteristic of Starch-Based Film, *Food Research*, 5(Suppl. 1): 193-200, 2021.
8. **\*S.H. Othman**, N.A.N. Tarmiti, R.A. Shapi'i, S.M.M. Zahiruddin, I.S.M.A. Tawakkal, R.K. Basha. Starch/Banana Pseudostem Biocomposite Films for Potential Food Packaging Applications, *BioResources*, 15(2): 3984-3998, 2020. (Q2)
9. N. Nordin, **\*S.H. Othman**, R.K. Basha, S.A. Rashid. Effects of Glycerol and Thymol on Physical, Mechanical, and Thermal Properties of Corn Starch Films, *Food Hydrocolloids*, 106(105884): 15 pages, 2020. (Q1)
10. N.P. Risyon, **\*S.H. Othman**, R.K. Basha, R.A. Talib. Characterization of Polylactic Acid/Halloysite Nanotubes Bionanocomposite Films for Food Packaging Application, *Food Packaging and Shelf Life*, 23(100450), 2020. (Q1)
11. R.A. Shapi'i, **\*S.H. Othman**, N. Nordin, R.K. Basha, M.N. Naim. Antimicrobial Properties of Starch Films Incorporated with Chitosan Nanoparticles: In Vitro and In Vivo Evaluation, *Carbohydrate Polymers*, 230(115602), 2020. (Q1)
12. H.H. Basri, R.A. Talib, R. Sukor, **S.H. Othman**, H. Ariffin. Effect of Synthesis Temperature on the Size of ZnO Nanoparticles Derived from Pineapple Peel Extract and Antibacterial Activity of ZnO-Starch Nanocomposite Films, *Nanomaterials*, 10(6), 1061, 2020. (Q1)
13. M.N.A. Marzuki, I.S.M.A. Tawakkal, M.S.M. Basri, **S.H. Othman**, S.H. Kamarudin, C.H. Lee, A. Khalina. The Effect of Jackfruit Skin Powder and Fiber Bleaching Treatment in PLA Composites with Incorporation of Thymol, *Polymers*, 12(11): 2622, 2020. (Q1)
14. N.S. Azmi, R.K. Basha, N.N.T. Arifin, **S.H. Othman**, M.A.P. Mohammed. Functional Properties of Tilapia's Fish Scale Gelatin Film: Effects of Different Type of Plasticizers, *Sains Malaysiana*, 49(9): 2221-2229, 2020.
15. R.A. Shapi'i, **\*S.H. Othman**, M.N. Naim, R.K. Basha. Effect of Initial Concentration of Chitosan on the Particle Size of Chitosan Nanoparticle, *International Journal of Nanotechnology*, 16(11/12): 680-691, 2019.
16. **\*S.H. Othman**, N.R.A. Kechik, R.A. Shapi'i, R.A. Talib, I.S.M.A. Tawakkal. Water Sorption and Mechanical Properties of Starch/CNP Films for Food Packaging Application, *Journal of Nanomaterials* 2019(Article ID 3843949): 12 pages, 2019. (Q2)
17. **\*S.H. Othman**, H.N. Ling, R.A. Talib, M.N. Naim, N.P. Risyon, M. Saifullah. PLA/MMT and PLA/Halloysite Bio-Nanocomposite Films: Mechanical, Barrier, and Transparency. *Journal of Nano Research*, 59: 77-93, 2019.
18. R.A. Shapi'i, **\*S.H. Othman**, M. Nazli Naim, R. Kadir Basha. Mechanical Properties of Tapioca Starch-Based Film Incorporated with Bulk Chitosan and Chitosan Nanoparticle: A Comparative Study. *Pertanika Journal of Science and Technology*, 27(S1): 95-107, 2019.
19. S.M.M. Zahiruddin, **\*S.H. Othman**, I.S.M.A. Tawakkal, R.A. Talib. Mechanical and Thermal Properties of Tapioca Starch Films Plasticized with Glycerol and Sorbitol. *Food Research*, 3(2): 157-163, 2019.
20. **\*S.H. Othman**, N.A. Majid, I.S.M.A. Tawakkal, R. Kadir Basha, N. Nordin, R.A. Shapi'i. Tapioca Starch Films Reinforced with Microcrystalline Cellulose for Potential Food Packaging Application. *Food Science and Technology*, 39(3): 605-612, 2019.
21. N.S.M. Ghazali, Y.A. Yusof, H.M. Ghazali, N.L. Chin, **S.H. Othman**, Y.N.A. Manaf, S.A.H.M. Baroyi, S.A.H.M. The Application of Clay Pot for Moisture Reduction of Geniotrigona Thoracica Stingless Bee Honey. *International Journal on Advanced Science, Engineering, Information and Technology*, 9(6): 2028-2034, 2019.
22. S.A.H.M. Baroyi, Y.A. Yusof, H.M. Ghazali, N.L. Chin, **S.H. Othman**, L.S. Chang, N.S.M. Ghazali. A Novel Method Based on Passive Diffusion That Reduces the Moisture Content of Stingless Bee (Heterotrigona Itama) Honey. *Journal of Food Process Engineering*, e13221: 1-10, 2019. (Q2)
23. M.S.M. Nazri, I.S.M.A. Tawakkal, N. Khairuddin, R.A. Talib, **S.H. Othman**. Characterization of Jackfruit Straw-Based Films: Effect of Starch and Plasticizer Contents. *Pertanika Journal of Science and Technology*, 27(S1): 1-14, 2019.
24. N.S. Azmi, R. Kadir Basha, **S.H. Othman**, M.A.P. Mohammed. Characterization of Antioxidant Tapioca Starch/Polyaniline Composites Film Prepared Using Solution Casting Method. *Food Research*, 3(4): 317-324, 2019.
25. N. Nordin, **\*S.H. Othman**, R. Kadir Basha, S. Abdul Rashid. Mechanical and Thermal Properties of Starch Films Reinforced with Microcellulose Fibres. *Food Research*, 2(6): 555-563, 2018.
26. **\*S.H. Othman**, N. Hassan, R.A. Talib, R. Kadir Basha and N.P. Risyon. Mechanical and Thermal Properties of PLA/Halloysite Bionanocomposite Films: Effect of Halloysite Nanoclay Concentration and Addition of Glycerol. *Journal of Polymer Engineering*, 37(4): 381-389, 2017.



27. R.A. Shapi'i, **\*S.H. Othman**, M. Nazli Naim and R. Kadir Basha. Effect of Ball Milling and Ultrasonication Time on Particle Size of Chitosan for Potential Nanofiller in Food Packaging Film. *Acta Horticulturae (ISHS)*, 1152: 125-130, 2017.
28. **\*S.H. Othman**, S.A.M. Edwal, N.P. Risyon, R.K. Basha, R.A. Talib. Water Sorption and Water Permeability Properties of Edible Film Made from Potato Peel Waste. *Food Science and Technology*, 37(Suppl. 1): 63-70, 2017.
29. N.P. Risyon, **\*S.H. Othman**, R. Kadir Basha and R.A. Talib. Effect of Halloysite Nanoclay Concentration and Addition of Glycerol on Mechanical Properties of Bionanocomposite Films. *Polymers and Polymer Composites*, 24(9): 793-800, 2016.
30. R.A. Shapi'i and **\*S.H. Othman**. Effect of Concentration of Chitosan on the Mechanical, Morphological and Optical Properties of Tapioca Starch Film. *International Food Research Journal*, 23(Suppl): S187-S193, 2016.
31. **\*S.H. Othman**, S. Abdul Rashid, T.I. Mohd Ghazi and N. Abdullah. 3D CFD Simulations: Effect of Operation Parameters on the Deposition of Photocatalytic TiO<sub>2</sub> Nanoparticles by MOCVD. *Chemical Vapor Deposition*, 21:99-110, 2015. (Q2)
32. A.M. Taufiq, Y.A. Yusof, N.L. Chin, **S.H. Othman**, A. Serikbaeva and M.G. Aziz. Physicochemical Properties of Tamarind and Pineapple Fruit Pulps and Powders. *International Food Research Journal*, 22:707-712, 2015.
33. S. Ramli, R.A. Talib, R.A. Rahman, N. Zainuddin, **S.H. Othman** and N.M. Rashid. Detection of Lard in Extracted Ink of Printed Packaging of Foodstuff using Fourier Transform Infrared Spectroscopy and Multivariate Analysis. *Journal of Spectroscopy*, 2015(Article ID 502340): 6 pages, 2015.
34. **\*S.H. Othman**, N.R. Abd Salam, N. Zainal, R. Kadir Basha and R. A Talib. Antimicrobial Activity of TiO<sub>2</sub> Nanoparticle-Coated Film for Potential Food Packaging Applications. *International Journal of Photoenergy* 2014(Article ID 945930): 6 pages, 2014. (Q2)
35. **\*S.H. Othman**, S. Abdul Rashid, T.I. Mohd Ghazi and N. Abdullah. 3D CFD Simulations of MOCVD Synthesis System of Titanium Dioxide Nanoparticles. *Journal of Nanomaterials* 2013(Article ID 123256): 12 pages, 2013. (Q2)
36. **S.H. Othman**, S. Abdul Rashid, T.I. Mohd Ghazi and N. Abdullah. TiO<sub>2</sub> Nanoparticles Prepared by MOCVD: Effect of Temperature, Flowrate, and Precursor. *Asia-Pacific Journal of Chemical Engineering* 8(1): 32-44, 2013.
37. T.C. Ooi, Y.A. Yusof, N.L. Chin, R.A. Talib, **S.H. Othman** and M.G. Aziz. Changes in Friction, Surface Roughness, and Tensile Strength Upon Compaction of Ficus deltoidea Powder. *ScienceAsia* 39(4): 520-526, 2013.
38. S.A. Rashid, M.Z.A. Rashid, M.A. Musa and **S.H. Othman**. (2013). Assessment of Gas Flow Characteristics and Reaction Kinetics of Chemical Vapour Deposition Reactors for the Production of Nano-Hybrid Fibre. *Asia-Pacific Journal of Chemical Engineering* 8(2): 254-261, 2013.
39. **S.H. Othman**, S. Abdul Rashid, T.I. Mohd Ghazi and N. Abdullah. Dispersion and Stabilization of Photocatalytic TiO<sub>2</sub> Nanoparticles in Aqueous Suspension for Coating Application. *Journal of Nanomaterials* 2012(Article ID 718214): 10 pages, 2012. (Q2)
40. **S.H. Othman**, S. Abdul Rashid, T.I. Mohd Ghazi and N. Abdullah. Fe-doped TiO<sub>2</sub> Nanoparticles Produced via MOCVD: Synthesis, Characterization, and Photocatalytic Activity. *Journal of Nanomaterials* 2011(Article ID 571601): 8 pages, 2011. (Q2)
41. **\*S.H. Othman**, S. Abdul Rashid, T.I. Mohd Ghazi and N. Abdullah. Effect of Fe Doping on Phase Transition of TiO<sub>2</sub> Nanoparticles Synthesized by MOCVD. *Journal of Applied Sciences* 10(12): 1044-1051, 2010.
42. **S.H. Othman**, S. Abdul Rashid, T.I. Mohd Ghazi and N. Abdullah. Effect of Postdeposition Heat Treatment on the Crystallinity, Size, and Photocatalytic Activity of TiO<sub>2</sub> Nanoparticles. *Journal of Nanomaterials* 2010(Article ID 512785): 10 pages, 2010. (Q2)
43. R.D. Weinstein, J. Richards, S.D. Thai, D.M. Omiatsek, C.J. Faulkner, **S. Othman** and G.K. Jennings. Characterization of Self-Assembled Monolayers from Lithium Dialkyldithiocarbamate salts. *Langmuir* 23(5): 2887-2891, 2007. (Q1)

#### **b. Non-Citation Indexed Journals**

1. R.K. Basha, N.F. Abuhan, **S.H. Othman**, N.Z.N. Hasnan, R. Sukor, N.S. Azmi, N.A.M. Amin, Z.M. Dom. Mechanical Properties and Antioxidant Activity of Sweet Potato Starch Film Incorporated with Lemongrass Oil. *Advances in Agricultural and Food Research Journal*, 1(2): 10 pages, 2020.
2. R.A. Shapi'i and **\*S.H. Othman**. Edible Nanofiller for Development of Edible Bio-Nanocomposite Film: A Review. *Journal of Polymer Science and Technology*, 1(1): 37-45, 2015.
3. **\*S.H. Othman**. Bio-nanocomposite Materials for Food Packaging Applications: Types of Biopolymer and Nano-sized Filler. *Agriculture and Agricultural Science Procedia*, 2: 296-303, 2014.

4. A.M. Taufiq, Y.A. Yusof, N.L. Chin, **S.H. Othman**, A. Serikbayeva and M.G. Aziz. In-Vitro Dissolution of Compressed Tamarind and Pineapple Powder Tablets. *Agriculture and Agricultural Science Procedia*, 2: 53-59, 2014.
5. **\*S.H. Othman**, S. Abdul Rashid, T.I. Mohd Ghazi and N. Abdullah. Synthesis and Photocatalytic Activity of Fe-doped TiO<sub>2</sub> Particles via Hydrothermal Treatment of Microemulsion. *International Journal of Engineering and Technology* 7(1): 21-25, 2010.

## Conferences/Seminar/Congress

### a. International

1. **S.H. Othman**, R.A. Shapi'i, N.F.L. Othman, R.K. Basha, M.N. Naim. Starch/Chitosan Nanoparticles Nanocomposite Films for Potential Food Packaging Applications. *Asia Packaging Network International Packaging Symposium 2021*, 22-23 September 2021, Kuala Lumpur, Malaysia.
2. N. Nordin, **S.H. Othman**, N.A.A. Azman, B.M. Wane, R.K. Basha, S.A. Rashid. Antimicrobial Properties of Corn Starch/Nanocellulose Bionanocomposite Films and the Application on Chicken Meat. *Asia Packaging Network International Packaging Symposium 2021*, 22-23 September 2021, Kuala Lumpur, Malaysia.
3. N.S. Kahar, **S.H. Othman**, N.D. Alias. Development of Starch-Based Films Containing Essential Oils for Food Packaging Applications. *Asia Packaging Network International Packaging Symposium 2021*, 22-23 September 2021, Kuala Lumpur, Malaysia.
4. M. Dun, **S.H. Othman**, N.Z.N. Hasnan, R.A. Talib. Preparation and Characterization of Starch-Based Films Incorporated with Nanoparticles for Food Packaging Applications: A Review. *Asia Packaging Network International Packaging Symposium 2021*, 22-23 September 2021, Kuala Lumpur, Malaysia.
5. N. Mohamad, R.A. Talib, **S.H. Othman**, I.S.M.A. Tawakkal. Effect of Different Glycerin Concentrations on Physical, Barrier, and Surface Topography of Pectin-Pineapple Puree Based Edible Films. *Asia Packaging Network International Packaging Symposium 2021*, 22-23 September 2021, Kuala Lumpur, Malaysia.
6. N.A. Zabidi, F. Nazri, I.S.M.A. Tawakkal, M.S.M. Basri, R.K. Basha, **S.H. Othman**. Development of Active PLA and PLA/NFC Films with Anthocyanin as PH Indicator. *Asia Packaging Network International Packaging Symposium 2021*, 22-23 September 2021, Kuala Lumpur, Malaysia.
7. H.H. Basri, R.A. Talib, R. Sukor, **S.H. Othman**, S.H. Ariffin. Influence of Zinc Oxide Nanoparticles (ZnONPs) on the Morphological, Mechanical and Thermal Properties of Biodegradable Polylactide-Based Composites. *Asia Packaging Network International Packaging Symposium 2021*, 22-23 September 2021, Kuala Lumpur, Malaysia.
8. **S.H. Othman**, N.A. Abdullah, N. Nordin, I.S.M.A. Tawakkal, R.K. Basha. Shelf Life Extension of Saba Banana: Effect of Vacuum Packaging and Storage Temperature. *5th International Conference on Agricultural and Food Engineering Joint Conference 13th International FRUTIC Symposium*, 3-4 February 2021, Kuala Lumpur, Malaysia.
9. R.A. Talib, N. Mohamad, **S.H. Othman**, I.S.M.A. Tawakkal. Effect of Different Glycerin Percentages on Mechanical Properties and Seal Strength of Pectin Film. *5th International Conference on Agricultural and Food Engineering Joint Conference 13th International FRUTIC Symposium*, 3-4 February 2021, Kuala Lumpur, Malaysia.
10. R.A. Talib, N. Mohamad, **S.H. Othman**, I.S.M.A. Tawakkal. Comparison of Edible Pectin Films Made of Different Fruit Purees on Water Solubility and Mechanical Properties. *5th International Conference on Agricultural and Food Engineering Joint Conference 13th International FRUTIC Symposium*, 3-4 February 2021, Kuala Lumpur, Malaysia.
11. R.K. Basha, L.K. Yan, **S.H. Othman**, R.A. Talib, M.N. Naim, N.Z.N. Hasnan, N.S. Azmi. Sorption Characteristic Of Starch-Based Film. *5th International Conference on Agricultural and Food Engineering Joint Conference 13th International FRUTIC Symposium*, 3-4 February 2021, Kuala Lumpur, Malaysia.
12. N. Nordin, N.A.S. Romzi, Y.N. Manaf, I.S.M.A. Tawakkal, S.H. Ariffin, **S.H. Othman**, Y.A. Yusof. Characterization and Antimicrobial Activity of Sweet Potato-Based Films at Different Varieties: Vitatotm and Anggun. *5th International Conference on Agricultural and Food Engineering Joint Conference 13th International FRUTIC Symposium*, 3-4 February 2021, Kuala Lumpur, Malaysia.
13. **S.H. Othman**, N.A.N. Tarmiti, R.A. Shapi'i, I.S.M.A. Tawakkal, R.K. Basha. Starch/Banana Pseudo-Stem Bio-Composite Films for Potential Food Packaging Application. *Malaysia Polymer International Conference 2019 (MPIC 2019)*, 30 October-1 November 2019, Faculty of Science and Technology, Universiti Kebangsaan Malaysia.
14. N. Nordin, **S.H. Othman**, S.A. Rashid, R.K. Basha. Mechanical Properties of Starch/Nanocellulose Fibre Films Containing Thymol Films Containing Thymol. *Malaysia Polymer International*

- Conference 2019 (MPIC 2019), 30 October-1 November 2019, Faculty of Science and Technology, Universiti Kebangsaan Malaysia.
15. S.M.M. Zahiruddin, **S.H. Othman**, I.S.M.A. Tawakkal, R.A. Talib. Tapioca Starch/Cellulose Nanofiber Film: Mechanical and Barrier Properties. Malaysia Polymer International Conference 2019 (MPIC 2019), 30 October-1 November 2019, Faculty of Science and Technology, Universiti Kebangsaan Malaysia.
  16. N.S. Azmi, R.K. Basha, N.N.T. Arifin, **S.H. Othman**, M.A.P. Mohammed. Functional Properties of Tilapia's Fish Scale Gelatin Film: Effects of Different Type of Plasticizers. Malaysia Polymer International Conference 2019 (MPIC 2019), 30 October-1 November 2019, Faculty of Science and Technology, Universiti Kebangsaan Malaysia.
  17. R.K. Basha, **S.H. Othman**, I.S.M.A. Tawakkal. Effect of Plasticizers and Cockle Shell Powder Content on Mechanical Properties of Polylactic Acid Film. Malaysia Polymer International Conference 2019 (MPIC 2019), 30 October-1 November 2019, Faculty of Science and Technology, Universiti Kebangsaan Malaysia.
  18. **S.H. Othman**. Packaging Research and Trends in Malaysia. 6<sup>th</sup> Asia Packaging Network (APN) International Packaging Symposium, 22-24 October 2019, Dusit Thani Hotel, Makati City, Philippines.
  19. **S.H. Othman**, N.A. Abdullah, N. Nordin, I.S.M.A. Tawakkal, R.K. Basha. Shelf Life Extension for Saba Banana. Symposium on Scientific Development of Food Packaging: Innovation, Safety and Sustainability, 24-25 September 2019, Gurney Hotel, Pulau Pinang, Malaysia.
  20. R.A. Shapi'i, **S.H. Othman**. Recent Trends of Nanomaterials in Active Food Packaging. Symposium on Scientific Development of Food Packaging: Innovation, Safety and Sustainability, 24-25 September 2019, Gurney Hotel, Pulau Pinang, Malaysia.
  21. S.M.M. Zahiruddin, **S.H. Othman**, I.S.M.A. Tawakkal, R.A. Talib. Effect of Various Concentrations of Cellulose Nanofiber (CNF) on Mechanical and Thermal Properties of Starch-CNF Films for Food Packaging Application. Symposium on Scientific Development of Food Packaging: Innovation, Safety and Sustainability, 24-25 September 2019, Gurney Hotel, Pulau Pinang, Malaysia.
  22. H.H. Basri, R.A. Talib, H. Ariffin, **S.H. Othman**, R. Sukor. Effect of Various Nano-ZnO Loadings in PLA Films on Morphology and Antibacterial Activities. Symposium on Scientific Development of Food Packaging: Innovation, Safety and Sustainability, 24-25 September 2019, Gurney Hotel, Pulau Pinang, Malaysia.
  23. N. Mohamad, R.A. Talib, H.H. Basri, H. Ariffin, **S.H. Othman**, R. Sukor. Effect of Green-synthesized Nano-ZnO/PLA Composite Packaging on the Microbial Reduction and Storage Qualities of Fresh Pineapple Juice MD2 Variety. Symposium on Scientific Development of Food Packaging: Innovation, Safety and Sustainability, 24-25 September 2019, Gurney Hotel, Pulau Pinang, Malaysia.
  24. N.S. Azmi, R.K. Basha, **S.H. Othman**, M.A.P. Mohammed. Antioxidant Analysis of Active Gelatin-based Films Incorporated with Polyaniline (PANI) as An Antioxidant. Symposium on Scientific Development of Food Packaging: Innovation, Safety and Sustainability, 24-25 September 2019, Gurney Hotel, Pulau Pinang, Malaysia.
  25. N. Nordin, **S.H. Othman**, R.K. Basha, S.A. Rashid. The Influence of Glycerol and Thymol on Mechanical Properties of Starch Films. Symposium on Scientific Development of Food Packaging: Innovation, Safety and Sustainability, 24-25 September 2019, Gurney Hotel, Pulau Pinang, Malaysia.
  26. U.A.A. Shukor, I.S.M.A. Tawakkal, R.A. Talib, **S.H. Othman**, R.K. Basha, M.S.M. Basri, S.H. Ariffin. Characterisation and Antimicrobial Activity of Jackfruit Peel-Based Films Incorporated with Thymol. 2<sup>nd</sup> International Food Research Conference 2019, 27-29 August 2019, The Everly Hotel, Putrajaya, Malaysia.
  27. R.A. Talib, H. Hassan, H. Ariffin, **S.H. Othman**, R. Sukor. Zinc Oxide Nanoparticles Green-Synthesized from Pineapple Peel Extract Using Various Synthesis Conditions. International Symposium on Advanced Materials and Nanotechnology (ISAMN 2019), 19-20 August 2019, Marriott Hotel, Putrajaya, Malaysia.
  28. R.A. Shapi'i, **S.H. Othman**, M. Nazli Naim, R. Kadir Basha. Mechanical Properties of Tapioca Starch-Based Film Incorporated with Bulk Chitosan and Chitosan Nanoparticle: A Comparative Study. International Conference on Agricultural and Food Engineering 2018 (CAFEi 2018), 7-9 November 2018, The Everly Hotel, Putrajaya, Malaysia.
  29. N. Nordin, **S.H. Othman**, R. Kadir Basha, S. Abdul Rashid. Mechanical and Thermal Properties of Starch Films Reinforced with Microcellulose Fibres. International Conference on Agricultural and Food Engineering 2018 (CAFEi 2018), 7-9 November 2018, The Everly Hotel, Putrajaya, Malaysia.



30. S.M.M. Zahiruddin, **S.H. Othman**, I.S.M.A. Tawakkal, R.A. Talib. Thermal Properties of Tapioca Starch Films Plasticized with Glycerol and Sorbitol. International Conference on Agricultural and Food Engineering 2018 (CAFEi 2018), 7-9 November 2018, The Everly Hotel, Putrajaya, Malaysia.
31. M.S. Mohd Nazri, I.S.M.A Tawakkal, N. Khairuddin, R.A. Talib, **S.H. Othman**. Characterization of Jackfruit Straw-Based Films: Effect of Starch and Plasticizer Contents. International Conference on Agricultural and Food Engineering 2018 (CAFEi 2018), 7-9 November 2018, The Everly Hotel, Putrajaya, Malaysia.
32. N.S. Azmi, R. Kadir Basha, **S.H. Othman**, M.A.P. Mohammed. Characterization of Antioxidant Tapioca Starch/Polyaniline Composites Film Prepared Using Solution Casting Method. Food Research, International Conference on Agricultural and Food Engineering 2018 (CAFEi 2018), 7-9 November 2018, The Everly Hotel, Putrajaya, Malaysia.
33. R.A. Shapi'i, **S.H. Othman**, M.N. Naim, R.K. Effect of Initial Concentration of Chitosan on The Particle Size of Chitosan Nanoparticle. 2nd International Symposium on Advanced Materials and Nanotechnology (i-SAMN 2018), 16-17 August 2018, The Everly, Putrajaya, Malaysia.
34. M.S.M. Nazri, I.S.M.A. Tawakkal, R.A. Talib, S.H. Othman, R.K. Basha. Characterization of Jackfruit Waste/Starch Materials as Potential Edible Films and Coatings. International Conference on Safe Biodegradable Packaging Technology 2018, 24-26 July 2018, MiGHT Partnership Hub, Cyberjaya, Malaysia.
35. N.A. Othman, R. Shamsudin, Z. Othman, **S.H. Othman**. Effect of Using Different Packaging Materials on Quality of Minimally Process (Fresh-Cut) Banana (*Musa acuminata balbisiana*) Cultivar 'Nipah'. 19th International Conference on Chemical and Food Engineering (ICCFE 2017), 18-19 December 2017, Holiday Inn London-Wembley, London.
36. N.F. Mahmood, I.S.M.A. Tawakkal, R.A. Talib, **S.H. Othman**, R.K. Basha. Effect of PLA/Jackfruit Skin Powder Composites Containing a Natural Agent on the Mechanical and Thermal Properties. Wood and Biofiber International Conference 2017 (WOBIC 2017), 21-23 November 2017, Hotel Bangi-Putrajaya, Selangor Malaysia.
37. R.A. Talib, A.A. Monir, K.A. Matori, **S.H. Othman**. Influence of Heat Treatment on the Heat Distortion Temperature of Composites Based on Poly (Lactic Acid), Microcrystalline Cellulose and Kenaf Fiber. 6th International Conference on Solid State Science and Technology (ICSSST 2017), 13 -16 November 2017, Olive Tree Hotel, Penang, Malaysia.
38. R.A. Shapi'i, **S.H. Othman**, N. Nordin, R.K. Basha, M. Nazli Naim. Antimicrobial Properties of Cassava Starch Films Incorporated with Chitosan Nanoparticles: In Vitro and In Vivo Evaluation. International Conference on Food Science and Nutrition (ICFSN 2017), 25-26 October 2017, Kota Kinabalu, Sabah, Malaysia.
39. R.A. Talib, **S.H. Othman**. Packaging Trends and Research in Malaysia. International Packaging Research and Innovation Forum 2017, 21-22 September 2017, BITEC Exhibition Center, Bangkok, Thailand.
40. N. Nordin, **S.H. Othman**. Cellulosic Materials from Fruit Wastes and Their Application in Bio-Nanocomposite Film. Malaysia Polymer International Conference 2017 (MPIC 2017), 19-20 July 2017, Universiti Kebangsaan Malaysia, Malaysia.
41. S.M.M. Zahiruddin, **S.H. Othman**. Properties of Starch/ $\text{CaCO}_3$  Bio-Nanocomposite Films Produced via Solvent Casting Method. Malaysia Polymer International Conference 2017 (MPIC 2017), 19-20 July 2017, Universiti Kebangsaan Malaysia, Malaysia.
42. **S.H. Othman**, A.S. Ruzanna, R. Kadir Basha, M.N. Naim. Effect of Chitosan Concentration on the Properties of Chitosan/Tapioca Starch Based Edible Film. The Food Factor I Barcelona Conference, 2-4 November 2016, University of Barcelona, Barcelona, Spain.
43. R.A. Shapi'i, **S.H. Othman**, M. Nazli Naim, R. Kadir Basha. Effect of Ball Milling and Ultrasonication Time on Particle Size of Chitosan for Potential Nanofiller in Food Packaging Film. International Conference on Agricultural and Food Engineering 2016 (CAFEi 2016), 23-25 August 2016, Seri Pacific Hotel, Kuala Lumpur, Malaysia.
44. N.P. Risyon, **S.H. Othman**. Effect of Halloysite Nanoclay Concentration on Water Vapor Transmission Rate of PLA/Halloysite Bionanocomposite Films for Food Packaging Applications. Workshop on Advanced Materials and Nanotechnology (WAMN), 4-5 Nov. 2015, Universiti Putra Malaysia, Serdang, Malaysia.
45. R.A. Shapi'i, **S.H. Othman**. Effect of Concentration of Chitosan on the Mechanical, Morphological and Optical Properties of Tapioca Starch Film. The 7th International Conference on Sustainable Agriculture for Food, Energy and Industry in Regional and Global Context 2015 (ICSAFEI2015), 25-27 August 2015, Faculty Engineering, Universiti Putra Malaysia, Serdang, Malaysia.
46. **S.H. Othman**, H.N. Ling. Mechanical and Physical Properties of Bio-Nanocomposite Films for Food Packaging Application. International Conference on Sustainable Agriculture for Food, Energy and

- Industry in Regional and Global Context 2015 (ICSAFEI2015), 25-27 August 2015, Faculty Engineering, Universiti Putra Malaysia, Serdang, Malaysia.
47. R.A. Shapi'i, **S.H. Othman**. Edible Nanofiller for Development of Edible Bio-nanocomposite Film: A Review. Malaysia Polymer International Conference 2015 (MPIC 2015), 10-11 June 2015, Palm Garden Hotel, Putrajaya, Malaysia.
  48. N.P. Risyon, **S.H. Othman**, R.K. Basha, R.A. Talib. Effects of Concentration of Halloysite Nanoclay Concentration and Addition of Glycerol on Mechanical Properties of Bionanocomposites Film. Malaysia Polymer International Conference 2015 (MPIC 2015), 10-11 June 2015, Palm Garden Hotel, Putrajaya, Malaysia.
  49. **S.H. Othman**. Bio-nanocomposite Materials for Food Packaging Applications: Types of Biopolymer and Nano-sized Filler. International Conference on Agricultural and Food Engineering 2014 (CAFEI 2014), 1-3 December 2014, Berjaya Times Square Hotel, Kuala Lumpur, Malaysia.
  50. A.M. Taufiq, Y.A. Yusof, N.L. Chin, **S.H. Othman**, A. Serikbayeva and M.G. Aziz. In-Vitro Dissolution of Compressed Tamarind and Pineapple Powder Tablets. International Conference on Agricultural and Food Engineering 2014 (CAFEI 2014), 1-3 December 2014, Berjaya Times Square Hotel, Kuala Lumpur, Malaysia.
  51. **S.H. Othman**, N. Zainal, N.R. Abd Salam, R.K. Basha and R.A. Talib. Antimicrobial Activity of TiO<sub>2</sub> Coated Food Packaging Film via In Vitro Test. UPM-KIT Symposium of Applied Engineering and Sciences, 30 Sept. - 1 Oct.2013, Universiti Putra Malaysia, Serdang, Malaysia.
  52. Basha, R.K., Hamzah, N., Ramli, N.A., Talib, R.A., and **Othman, S.H.** Mechanical Properties of Polylactic Acid/Cockle-Shell Powder Composite. UPM-KIT Symposium of Applied Engineering and Sciences, 30 Sept. - 1 Oct.2013, Universiti Putra Malaysia, Serdang, Malaysia.
  53. **S.H. Othman**, S. Abdul Rashid, T.I. Mohd Ghazi and N. Abdullah. TiO<sub>2</sub> Nanoparticle Coating for Potential Antimicrobial Application in Food Industry. International Conference on Agricultural and Food Engineering for Life 2012, 26-28 Nov. 2012, Palm Garden Hotel, Putrajaya, Malaysia.
  54. **S.H. Othman**, S. Abdul Rashid, T.I. Mohd Ghazi and N. Abdullah. Effect of Fe Dopant on Phase Transition of TiO<sub>2</sub> Nanoparticles Synthesized by MOCVD. International Conference on Process Engineering and Advanced Materials, 15-17 June 2010, Kuala Lumpur Convention Centre, Malaysia.
  55. **S.H. Othman**, S. Abdul Rashid, T.I. Mohd Ghazi and N. Abdullah. Effect of Reaction Temperature on Photocatalytic Activity of TiO<sub>2</sub> Nanoparticles Produced via MOCVD. International Advanced Technology Congress, 3-5 Nov. 2009, Putra World Trade Centre, Malaysia.
  56. **S.H. Othman**, S. Abdul Rashid, T.I. Mohd Ghazi and N. Abdullah. Synthesis and Photocatalytic Activity of Fe-doped TiO<sub>2</sub> Particles via Hydrothermal Treatment of Microemulsion. Symposium on Engineering and Technology, International Advanced Technology Congress, 15-16 Dec. 2008, Hilton, Kuching, Sarawak, Malaysia.

#### **b. National**

1. **S.H. Othman**. Bio-Nanocomposite Materials for Potential Food Packaging Applications. Materials Processing and Technology Laboratory (MPTL) Online Seminar, 9 February 2021, Microsoft Teams.
2. N. Nordin, N.A.A. Azman, **S.H. Othman**. Physicochemical and Antimicrobial Characterization of Nanocellulose/Starch-based Films Incorporated with Thyme Essential Oil. Virtual Materials Technology Challenges 4.0 (v-MTC4.0), 22 September 2020, Zoom Platform.
3. N. Mohamad, R.A. Talib, **S.H. Othman**, I.S.M.A. Tawakkal. Tensile and Water Solubility of Edible Pectin-Papaya Puree Based Films. Virtual Materials Technology Challenges 4.0 (v-MTC4.0), 22 September 2020, Zoom Platform.
4. N.A.S. Romzi, R.A. Shapi'i, I.S.M.A. Tawakkal, S.H. Ariffin, S. Ahmad, R.K. Basha, **S.H. Othman**, Y.A. Yusuf. Utilization of Sweet Potato Peel Waste for the Production of Starch-Based Films Containing Different Varieties (Vitatotm and Anggun). Konferen Webinar MSAE 2020, 29 Jun 2020, Online Platform.
5. R.K. Basha, N.F. Abuhan, **S.H. Othman**, N.Z.N. Hasnan, R. Syukor, N.S. Azmi, N.A.M. Amin, Z.M. Dom. Mechanical Properties and Antioxidant Activity of Sweet Potato Starch Film Incorporated with Lemongrass Oil. Konferen Webinar MSAE 2020, 29 Jun 2020, Online Platform.
6. N. Nordin, **S.H. Othman**. Influence of Glycerol and Thymol on Mechanical Properties of Starch Films. Malaysian Society of Agricultural Engineers Conference (MSAE 2019), 21 March 2019, Wisma Tani, Kementerian Pertanian dan Industri Asas Tani Malaysia, Putrajaya, Malaysia.
7. S.A.H. Mohd Baroyi, Y.A. Yusof, H.M. Ghazali, N.L. Chin, **S.H. Othman**, L.S. Chang, Y.N. Manaf. Effects of Conventional Processing on the Physical Properties of Stingless Bee Honey. Malaysian

- Society of Agricultural Engineers Conference (MSAE 2019), 21 March 2019, Wisma Tani, Kementerian Pertanian dan Industri Asas Tani Malaysia, Putrajaya, Malaysia.
8. N.S.M. Ghazali, Y.A. Yusof, H.M. Ghazali, N.L. Chin, **S.H. Othman**, C.L. Sin, Y.N.A. Manaf. Effects of Conventional Storage Method on Moisture Content Reduction of Geniotrigona Thoracica Stingless Bee Honey and Its Properties. Malaysian Society of Agricultural Engineers Conference (MSAE 2019), 21 March 2019, Wisma Tani, Kementerian Pertanian dan Industri Asas Tani Malaysia, Putrajaya, Malaysia.
  9. M.S.M. Nazri, M.A.T. Intan Syafinaz, R.A. Talib, **S.H. Othman**, R.K. Basha. Preparation and Properties of Starch Based Films Containing Jackfruit Straw Powder. Malaysian Society of Agricultural Engineers Conference (MSAE 2018), 7-8 February 2018, Faculty Engineering, Universiti Putra Malaysia, Serdang, Malaysia.
  10. A.M. Taufiq, Y.A. Yusof, N.L. Chin, **S.H. Othman**, A. Serikbaeva and M.G. Aziz. Effect of Vitamin C Release upon Dissolution of Pineapple and Tamarind Tablets. National Conference on Agricultural and Food Mechanization 2014 (NCAFM 2014), 20-22 May 2014, Kota Kinabalu, Sabah, Malaysia.

#### Chapter in Book

U.A.A. Shukor, N. Nordin, I.S.M.A. Tawakkal, R.A. Talib, S.H. Othman (2021). Biopolymers and Biocomposites from Agro-Waste for Packaging Applications, Chapter 9: Utilization of Jackfruit Peel Waste for the Production of Biodegradable and Active Antimicrobial Packaging Films. Eds: N. Saba, M. Jawaid, M. Thariq. Woodhead Publishing Series in Composites Science and Engineering, Woodhead Publishing, pp. 171-192.

#### Other Publication

1. S.H. Othman. (2021). Bionanocomposite: A Potential Sustainable Food Packaging Material. Nanoscope 2020, page 14-15, Institute of Advanced Technology, UPM.
2. S.H. Othman. (2021). Knowledge Transfer on the Production of Nanocellulose to MRSB Terendak, Melaka. UPM 'Nurtures' Society, page 12, University Community Transformation Centre (UCTC), UPM.
3. S.H. Othman. (2020). Bahan Pembungkus Makanan Daripada Biopolimer Mampu Kurangkan Pencemaran Alam. Tinta Minda, Bernama. <https://www.bernama.com/bm/tintaminda/news.php?id=1885913>
4. S.H. Othman. (2019). Urban Farming with Maybank Helps Cultivate Survival & Entrepreneurial Skills. Synthesis Magazine, Issue 02/2019, ISSN 0127-9394, page 19, Research Management Centre, UPM.

#### Intellectual Property

1. Copyright, Chitosan Nanoparticle. S.H. Othman, R.A. Shapi'i, R.K. Basha, M.N. Naim, Application No: LY2019003244, Notification No: CRLY00019015, 2019.
2. Copyright, Active Starch/Chitosan Nanoparticle Nanocomposite Film. S.H. Othman, R.A. Shapi'i, R.K. Basha, M.N. Naim, Application No: LY2019003245, Notification No: CRLY00019013, 2019.

Research Activities/Grants				
Project Title	Role (Project Leader/Member)	Amount (RM)	Year	Source of Fund
1. Kinetic Release Modelling to Elucidate Antimicrobial and Antioxidant Actions of Active Bionanocomposite Films Incorporated with Essential Oil	Project Leader	90,000.00	2021	Fundamental Research Grant (FRGS)
2. Inisiatif Pemerkasaan Penerbitan Jurnal Tahun 2020	Project Leader	7,370.85	2021 to date	Research Management Centre (RMC), UPM
3. Development of Sustainable Food Packaging Material	Project Leader	5,000 (USD)	2020 to date	University Consortium (UC) Seed Fund for Collaborative

4.	Release Kinetics Profile and Shelf Life Mechanism of Active Biopolymer-Based Films Containing Essential Oil Nanoparticles for Food Packaging	Member	105,400	2020 to date	Research (SEARCA) FRGS
5.	Evaluating Properties and Modelling of Water-Soluble Pectin-Puree-Based Edible Films and Shelf Life of Packed Fruit Puree	Member	99,200	2020 to date	FRGS
6.	Physicochemical and Antimicrobial Characterization of Nanocellulose/Starch-based Films Incorporated with Thyme Essential Oil	Project Leader	25,000	2017 to date	Universiti Putra Malaysia (GP-IPS)
7.	Preparation and Properties Evaluation of Edible Nanocellulose/Starch Bio-nanocomposite Films	Project Leader	20,000	2017 to 2020 (Completed)	Universiti Putra Malaysia (GP-IPS)
8.	Properties Evaluation on Green-synthesised Nano Zinc Oxide/Biopolymer Composite Films for Food Packaging and Their Antioxidant and Antibacterial Activities	Member	120,000	2017 to 2020 (Completed)	Universiti Putra Malaysia (Berimpak)
9.	Effects of Anti-Browning Treatment on Fresh Cut Banana Cultivar Nipah (musa AcuminateBalbisiana) for Domestic Cooking	Member	96,000	2017 to 2021 (Completed)	Universiti Putra Malaysia (Berimpak)
10.	Development of Active Food Packaging Composites From the Utilisation of Tropical Fruit Waste	Member	60,000	2017 to 2020 (Completed)	Universiti Putra Malaysia (GP-IPM)
11.	Characterization and Migration Evaluation of Fish Gelatin-Based Natural Antioxidant and Antimicrobial Film	Member	50,000	2017 to 2020 (Completed)	Universiti Putra Malaysia (Putra)
12.	Properties Evaluation and Shelf Life Modelling of Nanocomposite Edible Films	Project Leader	88,000	2016 to 2019 (Completed)	FRGS
13.	Physico-chemical and Sensory Properties of Stingless Bee Honey Processing and Packaging	Member	135,800	2016 to 2020 (Completed)	Trans-Disciplinary Research Grant (TRGS)
14.	Development of Starch-Based Food Packaging Film Incorporated with Edible Nanofiller	Project Leader	20,000	2015 to 2017 (Completed)	Universiti Putra Malaysia Grant (GP-IPS)
15.	Development of Bio-Nanocomposite Materials for Food Packaging Applications	Project Leader	145,500	2014 to 2017 (Completed)	ScienceFund
16.	Development of TiO <sub>2</sub> Nanoparticle-Coated Food	Project Leader	30,000	2013 to 2015 (Completed)	Research University Grant (RUGS)



Packaging Film for Antimicrobial Application					
17. Discrimination of Lard in Ink-Printed Packaging for Foodstuff using Fourier Transform Infrared Spectroscopy and Multivariate Analysis	Member	84,000	2013 to 2015 (Completed)	FRGS	
18. Performance and Characterization of Antimicrobial Packaging from Cockle Shell	Member	30,000	2013 to 2014 (Completed)	RUGS	

Professional Services		
Title	Organization/Program	Year
1. Chairperson	Asia Packaging Network (APN) International Packaging Symposium 2021	2021
2. Panel Advisor	International Symposium on Advanced Materials and Nanotechnology 2021 (iSAMN2021)	2021
3. Director	Training Kit, Certificate and Evaluation of FoodPro Training	2021
4. Committee	<i>Penilaian Permohonan Geran Penyelidikan Peringkat Universiti</i>	2021-2022
5. Panel Assessor	<i>Bengkel Penilaian LKP &amp; LAP Geran Putra Institute of Advanced Technology (ITMA)</i>	2020
6. External Assessor	Diploma in Chemical Engineering Technology (Food) at Universiti Kuala Lumpur Kampus Cawangan Malaysian Institute of Chemical & Bioengineering Technology (UniKL-MICET)	2019-2024
7. Director	Secretariat, FoodPro Training Sirie 2	2019-2020
8. Deputy Director	Publication Secretariat, 5 <sup>th</sup> International Conference on Agricultural and Food Engineering 2020	2019-2021
9. Panel Assessor	<i>Bengkel Penilaian LKP &amp; LAP Geran Putra Fakulti Kejuruteraan</i>	2019-2021
10. External Assessor	<i>Program Diploma Kolej Vokasional Kementerian Pendidikan Malaysia</i>	2019-2021
11. Treasurer	HAC01 Course: Introduction to HACCP, FoodPro Training	2019
12. Treasurer	GMP01 Course: Introduction to Good Manufacturing Practice (GMP), FoodPro Training	2019
13. Evaluation Panel	Student Assessment Centre Program <i>Tajaan JPA</i>	2018-2021
14. Committee	Promotion, 2nd International Symposium on Advanced Materials and Nanotechnology	2018
15. Committee Member	CEO Faculty @ Programme 2.0 Session 2	2018
16. Programme Assessor	Diploma in Chemical Engineering Technology (Food) at Universiti Kuala Lumpur Kampus Cawangan Malaysian Institute of Chemical & Bioengineering Technology (UniKL-MICET)	2017-2019
17. Director	Publication Secretariat of 4 <sup>th</sup> International Conference on Agricultural and Food Engineering 2018	2017-2018
18. Assessor	Maybank Go Ahead. Transform (MGAT), Regional Heat	
19. Vice Chairman	Process and Food Engineering Club, Department of Process and Food Engineering, Faculty of Engineering, UPM	2015-2018
20. Assessor	Research Grant, Institute of Advanced Technology, UPM	2015-2018
21. Deputy Director	Scientific Committee, 3 <sup>rd</sup> International Conference on Agricultural and Food Engineering 2016	2015-2016
22. Deputy Director	Final Year Project Open Day, Department of Process and Food Engineering, Faculty of Engineering, UPM	2015
23. Director	Final Year Project Open Day, Department of Process and Food Engineering, Faculty of Engineering, UPM	2014

24. Secretary	2 <sup>nd</sup> International Conference on Agricultural and Food Engineering for Life 2014	2013-2014
25. Director	Monthly Activity of Female Academic Officer, Department of Process and Food Engineering, Faculty of Engineering, UPM, "New Year, New Look"	2012
26. Secretary	Social and Welfare Club, Department of Process and Food Engineering, Faculty of Engineering, UPM	2011-2014
27. Secretary	1 <sup>st</sup> International Conference on Agricultural and Food Engineering for Life 2012	2011-2012

Consultation Activities					
No	Project	Role	Company/Community	Year	Status
1.	Development of Starch Based Films Containing Essential Oils for Food Packaging Applications	Main	Malaysian Agricultural Research and Development Institute	2020- Now	On-going
2.	Formulation and Properties Evaluation of Crispy Burger Patty	Main	Juara Rasa Maju Sdn. Bhd.	2020- 2021	Completed
3.	Production of Nanocellulose from EFB	Main	MRSM Terendak	2018- 2020	Completed
4.	Business Improvement of The University's Profit Center	Member	Universiti Putra Malaysia	2018- 2019	Completed
5.	Maybank Academy Urban Farm Skilling Project	Main	Maybank	2017- 2019	Completed
6.	Maybank GHC Analytics Immersion	Member	Maybank	2017	Completed
7.	Module Development for National Science Challenge 2015 Semi Final Competition	Member	Academy of Sciences Malaysia	2015	Completed