Assoc. Prof. Dr. Mohd Afandi bin P Mohammed
Department of Process and Food Engineering,
Universiti Putra Malaysia,
43400 UPM Serdang, Selangor, Malaysia

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Education

3. PhD & DIC, Mechanics of Materials, 2012, Imperial College London
   (SV: Prof. Maria Charalambides & Prof. J.G. Williams)
2. Master of Manufacturing Systems Engineering, 2008, Universiti Putra Malaysia
1. B. Eng (Mechanical), 2006, Universiti Putra Malaysia

Areas of Interest

Food mechanics

Professional Qualification/ Membership/ Affiliation

Graduate member, Board of Engineers Malaysia (BEM) (GE56942A)
Professional member, Malaysian Society of Agricultural Engineers (MSAE) (P2060)

Appointments

No.	Position	Duration
6.	Associate Professor, Department of Process and Food Engineering, Universiti Putra Malaysia	2024 - to date
5.	Senior Lecturer, Department of Process and Food Engineering, Universiti Putra Malaysia	2012 - 2024
4.	Industrial Attachment, FGV Bhd	2019 - 2020
3.	Postdoctoral Researcher, Department of Mechanical and Materials Engineering, Universiti Kebangsaan Malaysia	2014 - 2015
2.	Tutor, Department of Process and Food Engineering, Universiti Putra Malaysia	2007 - 2012
1.	Process and Equipment Engineer, Engineering Department, Philips/NXP Semiconductors Malaysia	2006 - 2007

Publications/Outcomes

Website links

Google Scholar: https://scholar.google.com/citations?user=Sir3xSgAAAAJ&hl=id&oi=ao
ResearchGate: https://www.researchgate.net/profile/Mohd-Afandi-P-Mohammed
Scopus ID: 57212307185
Orcid: https://orcid.org/0000-0002-6743-0174

Journals (1st , corresponding or senior author for * papers)

2025

49. * DM Parid, AT Talib, AS Baharuddin, NAA Rahman, **MAP Mohammed**, M Wakisaka. 2025. Mechanics of 3D printing process of white chocolate. *Journal of Food Engineering, 391, 112429 (Q1 JCR 2023)*

48. *** SH Hanipah**, NFNC Hassan, AT Talib, **MAP Mohammed**, M Wakisaka, Z Abdullah. Virtual model of kenaf bast fibres based on solid mechanics and finite element study. *Biosystems Engineering, 251, 20-30 (Q1 JCR 2023)*
47. * DM Parid, **MAP Mohammed**, AS Baharuddin, NAA Rahman, AT Talib, M Wakisaka. 2024. Extrusion-based 3D food printing: printability assessment on the effect of process parameters on printing output of white chocolate. *Food Research 9(S1): 158-169 (Scopus)*
46. **XF Lee**, MN Naim, NSM Azmi, MAP Mohammed, SH Othman, NF Abu Bakar, F Adam. 2025. Dynamic modelling of oil and water molecules of methylcellulose-coated fried potato during and in the post-frying condition. *Food Research 9(3): 67-75 (Scopus)*
45. NHM Azib, **MSM Basri**, MZM Nor, FSH Salleh, SH Othman, MAP Mohammed, N Mazlan, SH Kamarudin, MH Hamzah. 2025. Effect of Hydrogen Peroxide and Sodium Alcohol Ether Sulphate on the Properties of Porous Rice Husk Ash-based Geopolymer Foam. *Pertanika Journal of Science and Technology, 33(S1), 65-81 (Q3 JCR 2023)*
44. NS Azmi, **RK Basha**, SH Othman, MAP Mohammed, M Wakisaka, SH Ariffin, NH Salim. 2025. Development of fish gelatin film for anti-fogging mushroom packaging. *Journal of Food Engineering, 387, 112306 (Q1 JCR 2023)*

2024

43. *** MAP Mohammed**, M Wakisaka. 2024. Atomic force microscopy, deformation-recovery and numerical study of wheat dough. *Food Hydrocolloids, 153, 109976: 1-11 (Q1 JCR 2023)*
42. NLCieh, **MN Mokhtar**, AS Baharuddin, MAP Mohammed, MZM Nor, M Wakisaka. 2024. Evaluation on potential application of lipase immobilized on rice husks in enzymatic glycerolysis. *Biochemical Engineering Journal, 109500 (Q2 JCR 2023)*
41. NSH Md-Yunos, HS Hafid, FN Omar, MAP Mohammed, M Wakisaka, NA Mustapha, **AS Baharuddin**. 2024. Microwave-assisted treatment for the improvement of rice flour properties and rice flour bread quality. *International Journal of Food Science & Technology, 59(12): 9157-9169 (Q2 JCR 2023)*
40. **MN Mokhtar**, R Zakaria, MAP Mohammed. 2024. Optimizing lactic acid production through dynamic simulation in repeated-batch fermentation system. *Advance in Agricultural and Food Research Journal*, 5, 1; a0000485
39. NGL Cieh, **MN Mokhtar**, AS Baharuddin, MAP Mohammed, M Wakisaka. 2024. Progress on lipase immobilization technology in edible oil and fat modifications. *Food Review International, 40(1): 457-503 (Q1 JCR 2023)*

2023

38. *** MAP Mohammed**, MN Mokhtar, M Wakisaka. 2023. A viscoelastic cohesive zone model for starch-gluten interface to simulate dough deformation. *Food Structure, 35, 11036: 1-11 (Q2 JCR 2022)*
37. **FWA Hamidi**, MS Anuar, AS Baharuddin, MAP Mohammed, MN Naim, SM Tahir. 2023. Flowability properties of binary powder mixtures containing dates powder (pheonix dactylifera) mixed with lactose monohydrate and microcrystalline cellulose based excipients. *ASEAN Engineering Journal, 13(4): 13-18 (Scopus)*
36. MMM Makki, MA Mohd Basri, AS Baharuddin, MAP Mohammed, YA Yusof, M Wakisaka, **NA Rahman**. 2023. Development of a direct observation method and the influence of formulation parameter on frozen ice cream microstructure. *Food Research, 7(2): 186-193 (Scopus)*
35. **SH Othman**, NDA Ronzi, RA Shapi'I, M Dun, SH Ariffin, MAP Mohammed. 2023. Biodegradability of starch nanocomposite films containing different concentrations of chitosan nanoparticles in compost and planting soils. *Coatings, 13(4):777 (Q2 JCR 2022)*

2022

34. *** SH Hanipah**, AT Talib, **MAP Mohammed**, AS Baharuddin, M Wakisaka. 2022. Oil palm fibres: Anisotropic behaviour. *Journal of Natural Fibers, 19(17): 15541-15551 (Q1 JCR 2021)*
33. *** MAP Mohammed**, AS Baharuddin, M Wakisaka. 2022. Numerical study of starch-gluten dough: deformation and extrusion. *Journal of Food Engineering, 329, 111078: 1-12 (Q1 JCR 2021)*
22. LH Ying, **MN Naim**, MAP Mohammed, F Hamidon, NFA Bakar, K Vangai, W Jittanit, TH Fang. 2022. Inhibition of acrylamide formation in potato strip by ultrasonic-treated methylcellulose batter. *International Journal of Food Science & Technology, 57(6): 3292-3302 (Q2 JCR 2021)*

2021

31. ***** NSH Md-Yunos, FN Omar, HS Hafid, **MAP Mohammed**, **AS Baharuddin**, M Wakisaka. 2021. Experimental and numerical study of wheat and rice doughs. *Journal of Food Engineering, 311, 110712: 1-12 (Q1 JCR 2020)*
30. HS Hafid, **AS Baharuddin**, MN Mokhtar, FN Omar, MAP Mohammed, M Wakisaka. 2021. Enhanced laccase production for oil palm biomass delignification using biological pretreatment and its estimation at biorefinary scale. *Biomass and Bioenergy, 144: 105904 (Q2 JCR 2020)*
29. DM Parid, **NAA Rahman**, AS Baharuddin, R Kadir Basha, MAP Mohammed, A Mat Johari, SZ Abd Razak. 2021. Effects of carboxymethyl cellulose extracted from oil palm empty fruit bunch stalk fibres on the physical properties of low-fat ice cream. *Food Research, 5(1): 1-7 (Scopus)*

2020

28. *** SH Hanipah**, FN Omar, AT Talib, **MAP Mohammed**, AS Baharuddin, M Wakisaka. 2020. Effect of silica bodies on oil palm fibre-polyethylene composites. *Bioresources,* 15(1): 360-367 *(Q2 JCR 2019)*
27. SN Sulin, **MN Mokhtar**, MAP Mohammed, AS Baharuddin. 2020. Review on palm oil contaminants related to 3-monochloropropane-1,2-diol (3-MCPD) and glycidyl esters (GE). *Food Research*, 4(6): 11-18 *(Scopus)*
26. AM Johari, **NAA Rahman**, RK Basha, AS Baharuddin, MAP Mohammed, AT Talib, M Wakisaka. Effect of different jackfruit puree concentrations on the mechanical properties of jackfruit frozen confection. *Advances in Agricultural and Food Research Journal, 1(1): a0000110*
25. LH Ying, **MN Naim**, MAP Mohammed, F Hamidon, NFA Bakar. 2020. Effects of ultrasonicated methylcellulose coating on French fries during deep frying process. *Journal of Food Process Engineering,* 43(2): e13332 *(Q3 JCR 2019)*
24. AM Johari, **NAA Rahman**, AS Baharuddin, RK Basha, MAP Mohammed, DM Parid, SZA Razak, M Wakisaka. 2020. Effects of different low temperature storage conditions on the physico-chemical properties of Masture (J37) jackfruit bulbs. *Journal of Agriculture and Food Engineering, 1-0009: 1-6. http://doi.org/10.37865/jafe.2020.0009*
23. NS Azmi, **RK Basha**, NN Tajul Arifin, SH Othman, MAP Mohammed. 2020. Functional properties of tilapia's fish scale gelatin film: effects of different type of plasticizers. *Sains Malaysiana,* 49(9): 2221-2229 (*Q4 JCR 2019)*

2019

22. ***** AT Talib, CC Jie, **MAP Mohammed**, AS Baharuddin, MN Mokhtar, M Wakisaka. 2019. On the nonlinear viscoelastic behaviour of fresh and dried oil palm mesocarp fibres. *Biosystems Engineering, 186: 307-322 (Q1 JCR 2018)*
21. *** NAA Rahman**, DM Parid, SZA Razak, AM Johari, AT Talib, **MAP Mohammed**, AS Baharuddin, M Wakisaka. 2019. In-situ viscoelastic characterization and modeling of ice cream. *Journal of Food Engineering*, *263: 96-101 (Q1 JCR 2018)*

20. * AT Talib, **MAP Mohammed**, AS Baharuddin, MN Mokhtar, M Wakisaka. 2019. Mechanical characterisation of lignocellulosic fibres using toy bricks tensile tester. *Journal of the Mechanical Behavior of Biomedical Materials, 97: 58-64 (Q1 JCR 2018)*
19. **FWA Hamidi**, MS Anuar, AS Baharuddin, MAP Mohammed, MN Naim, SM Tahir. 2019. Compaction behaviour and mechanical characteristics of chewable binary tablet mixture containing lactose (Flowlac 100) and date (Phoenix dactylifera) powders. *International Journal of Research in Pharmaceutical Sciences, 10(4): 3385-3391 (Scopus)*
18. NS Azmi, **R Kadir Basha**, SH Othman, MAP Mohammed. 2019. Characterization of antioxidant tapioca starch/polyaniline composites film prepared using solution casting method. *Food Research, 3(4): 317-324 (Scopus)*

2018

17. * Z Zabidin, FN Omar, HS Hafid, NSH Md Yunos, **MAP Mohammed**, AS Baharuddin, T Omura, **M Wakisaka**. 2018. Micromechanical investigation of milled and unmilled rice grains through experimental study and finite element analysis. *Biosystems Engineering, 176: 48-58 (Q1 JCR 2017)*
16. DM Parid, **NA Rahman**, AS Baharuddin, MAP Mohammed, AM Johari, SZA Razak. 2018. Synthesis and characterization of carboxylmethyl cellulose from oil palm empty fruit bunch stalk fibres. *Bioresources, 13(1): 535-554 (Q2 JCR 2017)*

2017

15. * FN Omar, HS Hafid, AS Baharuddin, **MAP Mohammed**, J Abdullah. 2017. Oil palm fibers biodegradation: Physico-chemical and structural relationships. *Planta, 246(3): 567-577* (*Q1 JCR 2016)*
14. * **MAP Mohammed**, L Wanigasooriya, S Chakrabarty-Bell, **MN Charalambides**. 2017. Extrusion of unleavened bread dough: Experiments and simulations. *Journal of Rheology, 61(1): 49-65 (Q1 JCR 2016)*
13. * SH Hanipah, LY Xiang, **MAP Mohammed**, AS Baharuddin. 2017. Study of non-linear mechanical behaviour of oil palm mesocarp fibres. *Journal of Natural Fibers, 14(2): 153-165 (Q2 JCR 2016)*
12. NSH Md-Yunos, CC Jie, **AS Baharuddin**, MN Mokhtar, A Sulaiman, MA Rajaeifar, YN Larimi, AF Talebi, MAP Mohammed, M Aghbashlo, M Tabatabaei. 2017. Enhanced oil recovery and lignocellulosic quality from oil palm biomass using combined pretreatment with compressed water and steam. *Journal of Cleaner Production, 142: 3834-3849 (Q1 JCR 2016)*

2016

11. * FN Omar, SH Hanipah, LY Xiang, **MAP Mohammed**, AS Baharuddin, J Abdullah. 2016. Micromechanical modelling of oil palm empty fruit bunch fibres containing silica bodies. *Journal of the Mechanical Behavior of Biomedical Materials*, *62: 106-118 (Q1 JCR 2015)*
10. * LY Xiang, **MAP Mohammed**, AS Baharuddin. 2016. Characterisation of microcrystalline cellulose from oil palm fibres for food applications. *Carbohydrate Polymers, 148: 11-20 (Q1 JCR 2015)*
9. * SH Hanipah, **MAP Mohammed**, AS Baharuddin. 2016. Non-linear mechanical behaviour and bio-composite modelling of oil palm mesocarp fibres. *Composite Interfaces, 23(1): 37-49 (Q3 JCR 2015)*
8. M Saifullah, **YA Yusof**, NL Chin, MG Aziz, MAP Mohammed, NA Aziz. 2016. Dissolution profiling and its comparison of natural fruit powder effervescent tablets. *Journal of Food Engineering*, *178: 60-70 (Q1 JCR 2015)*
7. **SB Tan**, R Shamsuddin, MA Mohammed, NA Rahman. 2016. Effect of mixing period, water and sugar on the sesame cracker dough stickiness. *International Food Research Journal, 23: S249-S254 (Q4 JCR 2017)*

2015

6. * LY Xiang, SH Hanipah, **MAP Mohammed**, AS Baharuddin, AM Lazim. 2015. Microstructural, mechanical, and physicochemical behaviours of alkali pre-treated oil palm stalk fibres. *Bioresources, 10(2): 2783-2796 (Q1 JCR 2014)*
5. FN Omar, LY Xiang, LY Lie, CA Dzulkornain, MAP Mohammed, **AS Baharuddin**. 2015. Investigation of physico-chemical properties and microbial community during poultry manure co-composting process. *Journal of Environmental Sciences, 28: 81-94 (Q2 JCR 2014)*

2014

4. * FN Omar, **MAP Mohammed**, AS Baharuddin. 2014. Effect of silica bodies on the mechanical behaviour of oil palm empty fruit bunch fibres. *Bioresources, 9(4): 7041-7058 (Q1 JCR 2013)*
3. * **MAP Mohammed**. 2014. Visco-hyperelastic model for soft rubber-like materials. *Sains Malaysiana, 43(3): 451-457 (Q3 JCR 2013)*
2. * FN Omar, **MAP Mohammed**, AS Baharuddin. 2014. Microstructure modelling of silica bodies from oil palm empty fruit bunch (OPEFB) fibres. *Bioresources, 9(1): 938-951 (Q1 JCR 2013)*

2013

1. * **MAP Mohammed**, E Tarleton, **MN Charalambides**, JG Williams. 2013. Mechanical characterization and micromechanical modeling of bread dough. *Journal of Rheology, 57(1): 249-272 (Q1 JCR 2012)*

Conferences / Proceedings

14. DM Parid, MAP Mohammed, AS Baharuddin, NAA Rahman, AT Talib, M Wakisaka. 2023. Extrusion-based 3D food printing: printability assessment on the effect of process parameters on printing output of white chocolate. 5th International Conference on Agricultural and Food Engineering (CAFEi2023), Serdang (2023)
13. DM Parid, AS Baharuddin, NAA Rahman, MAP Mohammed, MAP Mohammed, M Wakisaka. Extrusion-based 3d food printing: printability assessment on the effect of process parameters on printing output of white chocolate. 11th International Symposium on Applied Engineering and Sciences (SAES2023), 20-21 November 2023, Serdang (2023)
12. AT Talib, MAP Mohammed, AS Baharuddin, MN Mokhtar, M Wakisaka. Toy bricks tensile tester for mechanical characterization of lignocellulosic fibres. 7th International Symposium on Applied Engineering and Sciences (SAES2019), 11-12 November 2019, Serdang (2019)
11. AT Talib, MAP Mohammed. Viscoelastic modelling of fresh and dry oil palm fibre. 4th International Conference on Agricultural and Food Engineering, CAFEi2018, Putrajaya (2018)
10. MAP Mohammed, L Wanigasooriya, S Chakrabarty –Bell, MN Charalambides. Experimental and numerical investigation of ram extrusion of bread dough. 8th International Conference of the Hellenic Society of Rheology. Limassol, Cyprus (2017)
9. MAP Mohammed, L Wanigasooriya, MN Charalambides. Experimental and numerical investigation of ram extrusion of bread dough. ESAFORM 2016, Nantes, France (2016). (AIP Conference Proceedings 1769: 180004-1-6 (2016))
8. SH Hanipah, FN Omar, LY Xiang, MAP Mohammed, AS Baharuddin, J Abdullah. Micromechanics of oil palm fibres with silica bodies. 8th Plant Biomechanics International Conference, Nagoya, Japan (2015)
7. SH Hanipah, MAP Mohammed, AS Baharuddin. Oil palm mesocarp fiber (OPMF): Non-linear mechanical behavior. Postgraduate Symposium on Biocomposite Technology 2015. Serdang, Selangor, Malaysia (2015) (SH Hanipah awarded the best poster presenter)
6. SH Hanipah, MAP Mohammed, AS Baharuddin. Modelling heterogeneous solids using a combined viscoelastic-viscoplastic and visco-hyperelastic model. The Postgraduate Symposium on Composite Science and Technology, Putrajaya, Malaysia (2014)

5. MAP Mohammed, E Tarleton, MN Charalambides, JG Williams. Mechanical characterisation and micromechanical modelling of bread dough. Poster Presentation, The Graduate School Summer Research Symposium, Imperial College London, UK (2012)
4. MAP Mohammed, E Tarleton, MN Charalambides, JG Williams. A composite model for wheat flour dough under large deformation. Poster Presentation, Mechanical Engineering Department Research Showcase 2012, Imperial College London, UK (2012)
3. MAP Mohammed, E Tarleton, MN Charalambides, JG Williams. A composite model for wheat flour dough under large deformation. 11th International Congress on Engineering and Food (ICEF11), 22-26 May 2011, Athens, Greece. (Procedia Food Science 1: 492-498 (2011))
2. MAP Mohammed, E Tarleton, MN Charalambides, JG Williams. Mechanical characterisation and constitutive modelling of wheat flour dough. Non-Newtonian Club Meeting, British Society of Rheology, 10th November 2010, London, UK. (British Society of Rheology: Rheology Bulletin 52(1): 2011, ISSN-1469-4999 (2010))
1. MAP Mohammed, E Tarleton, MN Charalambides, JG Williams. A micromechanics model for bread dough. Eight International Conference of Computational Methods in Sciences and Engineering (ICCMSE 2010), 3-8 October 2010, Kos, Greece. (AIP Conference Proceedings 1642: 305-309 (2015))

Magazines

1. AS Baharuddin, MAP Mohammed, FN Omar. Insight into lignocellulosic biodegradation and its potential for enzyme production. *Jurutera*, pg. 12-15. October 2015 issue, ISSN 0126-9909

Patents

1. DM Parid, MAP Mohammed. 2025. Adaptive nozzle for chocolate 3D printer. Patent application (in progress)
2. AS Baharuddin, MAP Mohammed, NA Rahman, MS Anuar, M Wakisaka, LY Xiang. 2017. Green and rapid method for producing microcrystalline cellulose from oil palm stalk fibres (OPSF). PI2017702276 (Patent pending)

Reviewer for journals/proceedings

2025
24 International Journal of Biological Macromolecules
2024
23. International Journal of Biological Macromolecules
22. Biomass Conversion and Biorefinery
21. Journal of Cereal Science
20. Current Research in Food Science
19. Food Chemistry: X
18. Journal of Food Measurement and Characterization
17. Biomass Conversion and Biorefinery
2023
16. Carbohydrate Polymers
2022
15. Journal of Cereal Science
14. Biosystems Engineering
2021
13. Carbohydrate Polymers
12. SN Applied Sciences
2020
11. Journal of Natural Fibers

10. International Journal of Biological Macromolecules
2019
9. Carbohydrate Polymers
8. The Journal of the Textile Institute
2018
7. The Journal of the Textile Institute
6. Carbohydrate Polymers
2017
5. Carbohydrate Polymers
2016
4. Carbohydrate Polymers
3. International Journal of Biological Macromolecules
2015
2. Composite Interfaces
1. Agriculture and Agriculture Science Procedia

Research seminars/talks

2. My experience of study abroad- PhD study at Imperial College London. 2017 Seminar for Globally Aware Researchers. Kyushu Institute of Technology, Kitakyushu, 27th March 2017
1. Mechanical characterization and constitutive modelling of wheat flour dough. Non-Newtonian Club meeting, British Society of Rheology, London, 10th November 2010

Research Projects

No	Research grant project title (Leader)	Amount (RM)	Year	Fund name
7.	Nanomechanics of soft solid food	8,000	2023-2024	Geran Insentif Putra
6.	Complex viscoelasticity of 3D printing process: experimental and modelling study	20,000	2023-2025	Putra Grant (IPS)
5.	Relationship between nonlinear viscoelastic behaviour of food with 3D printing process through experimental and modelling methods	139,300	2020-2024	Fundamental Research Grant Scheme (FRGS)
4.	Multiphysics mechanics of microbial agent and lignocellulosic materials for degradation process	100,000	2017-2019	Putra Grant (Putra Berimpak)
3.	Biomechanics of oil palm fibre biodegradation	20,000	2017-2019	Putra Grant (IPS)
2.	Experimental and numerical investigation of micromechanical behaviour of oil palm empty fruit bunch	44,000	2013-2015	Putra Grant (IPM)
1.	Micromechanical investigation of lignocellulosic materials	84,000	2013-2015	Fundamental Research Grant Scheme (FRGS)

	under micro, meso and ultra-structures			
	Total	**415,300**		

No	Research grant project title (Member)	Amount (RM)	Year	Fund name
6.	Raman vibration signal study of hydrocolloid mixtures conversion to batter-coated layer after the post-frying process	141,800	2019-2022	Fundamental Research Grant Scheme (FRGS)
5.	Production of biodiesel from recovered residual oil in palm oil milling process	54,000	2017-2018	Matching Grant UPM-Kyutech
4.	Compaction of single layer and bilayer phoenix dactylifera tablets	20,000	2018-2020	Putra Grant (IPS)
3.	Microcrystalline cellulose production from oil palm empty fruit bunches (OPEFB) and its functional characteristics in food industry	100,000	2017-2019	Putra Grant (Putra Berimpak)
2.	Development of technology for ice cream cones	25,000	2017-2018	Public-Private Research Network (PPRN)
1.	In vitro biodegradation of oil palm palm empty fruit bunch composting by locally developed lignocelluloytic fungal consortia	200,000	2014-2015	Geran Putra Berprestasi Tinggi
	Total	**540,800**		

No.	International research work	Amount (RM)	Year	Fund name
2.	Kyutech-UPM collaborative research, digital technology for agriculture/ environment ((involving workstations, server and atomic force microscope)	USD100,000	2022	Kyutech, Japan
1.	Kyutech-UPM international internship	~USD10,000	2017, 2018, 2019, 2022	Kyutech Educational Program

No.	Industrial Work/Consultation	Year	Company/Agency
4.	Integrated microbubble system for clean water discharge	2019-2023	Honda Pump Japan and FGV
3.	Rice processing mini mill	2020	Lembaga Pertubuhan Peladang (Farmers Association Board)
2.	Hosokawa rice milling machine	2017-2019	Hosokawa, Japan

1.	Pembuatan pembangunan aiskrim nangka Mastura (Jackfruit Mastura ice -cream development)	2016	Lembaga Pertubuhan Peladang (Farmers Association Board)

International Collaborations

3. (Meat Analog Process Modelling) A*Star Singapore Institute of Food and Biotechnology Innovation (SIFBI), Singapore
2. (Food Engineering) Prof. Dr. Minato Wakisaka, Food Study Center, Fukuoka Women's University, Japan
1. (Food Mechanics) Prof. Dr. Maria Charalambides, Mechanical Engineering, Imperial College London, UK

Awards/Recognition

No	Award Name	Title	Award Authority	Award Type	Year
5.	Sijil Perkhidmatan Cemerlang (Outstanding Service Award)		Universiti Putra Malaysia	University	2012, 2014, 2017, 2018, 2023
4.	Outstanding Contribution in Reviewing- Carbohydrate Polymers	Elsevier Reviewer Recognition	Elsevier	International	2017
3.	Insentif Makalah Jurnal (Journal Incentive)	Majlis Apresiasi Penyelidikan UPM	Universiti Putra Malaysia	University	2017
2.	ScienceDirect Top 25 List of Most Downloaded Articles (Jan-Dec 2012)	A Composite Model for Wheat Flour Dough under Large Deformation	ScienceDirect	International	2013
1.	Food Engineer of the Year Award 2011	A Composite Model for Wheat Flour Dough under Large Deformation	Institution of Mechanical Engineers, UK.	International	2011

Students Supervision

Phd

No	Name	Research	Status
10.	Dzieda Mohamad Parid - chairman	Relationship between nonlinear viscoelastic behaviour of food with 3D printing process through experimental and modelling methods	On-going

9.	Ahmad Tarmezee Talib (GS47760) -chairman	Biomechanics of oil palm fibre biodegradation	Completed
8.	Suhaiza Hanim Hanipah (GS38212) -chairman	Micromechanics of oil palm mesocarp fibres and composites	Completed
7.	Ng Lin Cieh (GS52168) - member	Enzymatic production of momoaclglycerol (MAG) from biomasss residual oil by immobilized lipase from Candida Antarctica	On-going
6.	Siti Naderah Sulin (GS52604) -member	Continuous production of biodiesel from residual palm oil biomass using heteregeneous ion exchange resin	On-going
5.	Noor Seribainun Hidayah Md Yunos (GS45487) - member	Rice flour in food application	Completed
4.	Farah Wahida Ahmad Hamidi (GS45704) – member	Nanoencapsulation of anticancer drug	On-going
3.	Nazatul Shima Azmi (GS48684) – member	Active food packaging system	Completed
2.	Loo Yu Xiang (GS37627) - member	Microcrystalline cellulose from oil palm fibres	Completed
1.	Farah Nadia Omar (GS35338) - member	Strain improvement for oil palm fibres	Completed

MSc

No	Name	Research	Status
5.	Izzati Najihah Yuslee (GS70085) - member	TBD	On-going
4.	Lua Hwee Ying (GS52299) - member	Effects of batter-coated methylcellulose on potato substrate during the frying process	Completed
3.	Lee Xiao Fen (GS43509) - member	Methylcellulose coating to reduce oil uptake of fried potato strips	Completed
2.	Dzieda Muhamad Parid (GS43868) -member	Oil palm derived stabilizer – application in ice cream	Completed
1.	Md Saifullah (GS35172) - member	Dissolution characteristics of selected fruit tablets with effervescent agents	Completed

Final year project

No	Name	Research	Status
15.	Nurul Izzah Othaman	Nonlinear viscoelastic behaviour of rice paste and dough	Completed
14.	Qurratu Ainah Abdul Latib	Texture analysis of 3D printed rice paste	Completed
13.	Nurul Iffa Fadzreen Ibrahim	Investigation of soft solid food using 3D food printer	Completed
12.	Chin Moon Chi	Finite viscoelastic behaviour of oil palm fresh fruitlets	Completed
11.	Shukry Jameri	Tabletop universal testing machine for soft solids	Completed
10.	Kong Kah Mun	Sheeting mechanics of limited materials	Completed

9.	Fan Yew Fang	In situ ice-cream structure mechanical investigation	Completed
8.	Nurazlina Mohd Ruslan Jais	Mechanics of rice grains due to milling process	Completed
7.	Ng Chin Kai	Rheological characterization of flour dough constituents	Completed
6.	Emi Zuziana Mohd Zulkifli	Mechanical behaviour of instant ice-cream	Completed
5.	Lee Jiat Ling	Mechanical characterisation of multilayer films for aseptic packaging application	Completed
4.	Nur Leha Mansor	Mechanical behavior of fresh oil palm mesocarp fibers	Completed
3.	Lee Xiao Fen	Mechanical behaviour of starch film reinforced with microcrystalline cellulose	Completed
2.	Jackson Lim Hwa Keen	Micromechanical characterization of treated and untreated oil palm mesocarp fiber (OPMF)	Completed
1.	Lim Soo Ying	Rheological behaviour of oil palm mesocarp fibre (OPMF) micro-components	Completed

Thesis Examiners

Phd (Internal)

No	Name	Thesis title
4.	Mouluda Sohany (GS57976)	Anthocyanin Immobilized in Active Sweet Potato Starch Films for Intelligent PH Indicator
3.	Puteri Nurain Megat Ahmad Azman (GS66027)	The effects of soaking, storage and cooking conditions on the physicochemical, phytochemical, functional and textural properties of local glutinous rice cultivar siding
2.	Christine Jamie Anak Vincent Eddy (GS36281)	Enhancing separation and recovery of palm mesocarp and nuts using the batch drupe dehusker machine
1.	Jhauharotul Muchlisyiyah (GS61573)	The effect of processing conditions on the physical, chemical, microstructure, and digestibility properties of malaysia parboiled rice MR297

MSc (External)

No	Name	Thesis title
1.	Maizura Jolkili (UNIMAP)	Sorption isotherms and bioactive compound compositions of cassia alata dried herbal leaves stored under different temperature and humidity

MSc (Internal)

No	Name	Thesis title
4.	Nurzia Mohamad (GS55885)	Developing rapid water dissolvable pectin-fruit puree films and evaluating quality (q10 quotient) of pineapple powder stored in the packages
3.	Farahana Nabilah Zainal A'bidin (GS50319)	Design, develop and performance evaluation of green nipah banana peeling tool for small scale industry
2.	Wan Mohd Fariz Wan Azman (GS50914)	Design and development of a grating machine for wet sago starch production

1.	Mazidah Mior Zakuan Azmi (GS44033)	Evaluation studies on the effects of precessing parameters in different operationg conditions on the quality of moist chocolate cake

Teaching

No	Code	Course name	Semester
27.	ENG3001	Engineering mathematics I	Sem 1 2025/2026
26.	EPF3109	Numerical and computer methods	Sem 2 2024/2025
25.	ENG3202	Computer programming	Sem 2 2024/2025
24.	EPF5711	Packaging machinery and automation	Sem 1 2024/2025 – Postgraduate course
23.	ENG3001	Engineering mathematics I	Sem 1 2024/2025
22.	EPF3702	Packaging engineering	Sem 2 2023/2024
21.	EPF3202	Computer programming	Sem 2 2023/2024
20.	EPF5711	Packaging machinery and automation	Sem 1 2023/2024 – Postgraduate course
19.	EPF4806	Processing machinery dynamics	Sem 1 2023/2024
18.	ENG3202	Computer programming	Sem 2 2022/2023
17.	EPF5711	Packaging machinery and automation	Sem 1 2022/2023 – Postgraduate course
16.	EPF4806	Processing machinery dynamics	Sem 1 2022/2023
15.	ENG3002	Engineering mathematics II	Sem 2 2021/2022
14.	EPF3109	Numerical and computer methods	Sem 1 2021/2022
13.	ECC3012	Engineering mathematics II	Sem 2 2020/2021
12.	EPF3109	Numerical and computer methods	Sem 1 2020/2021
11.	ECC3002	Engineering mathematics II	Sem 2 2019/2020
10.	EPF4708	Food engineering operations	Sem 1 2018/2019
9.	ECC3002	Engineering mathematics II	Sem 2 2017/2018
8.	EPF3109	Numerical and computer methods	Sem 1 2017/2018
7.	EMM3518	Computer aided engineering drawing	Sem 2 2016/2017
6.	ECC3003	Engineering mathematics III	Sem 1 2016/2017
5.	EMM3108	Strength of materials	Sem 2 2015/2016
4.	EMM3102	Statics	Sem 1 2015/2016
3.	EPF3301	Computer programming for process engineers	Sem 2 2013/2014
2.	EPF3701	Packaging engineering	Sem 1 2013/2014
1.	EPF3301	Computer programming for process engineers	Sem 2 2012/2013

Administrative work

No.	Position (Department level)	Duration
7.	Development department coordinator	2025-2027
6.	Industrial linkages and community (JINM) department coordinator	2021-2024
5.	Head, Food process machinery laboratory, UPM	2020-2024
4.	Academic coordinator (EAC 2018 SAR and visit)	2017-2019
3.	Head, Agricultural process engineering laboratory, UPM	2015-2018
2.	Head of new program elective courses development (Processing machinery design engineering option courses: Processing machinery elements design, Processing machinery dynamics, Processing machinery system and automation)	2015-2017

1.	Treasurer, sponsorship, promotion, and scientific secretariat, International Conference on Agricultural and Food Engineering (CAFEi2014, CAFEi2016, CAFEi 2018, CAFEi2020, CAFEi2023, CAFEi2025)	2014-2025

References

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