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CURRICULUM VITAE



Associate Professor Ts. Dr. Nur Syakina Jamali

Department of Chemical and Environmental Engineering,
Faculty of Engineering,
43400 UPM Serdang, Selangor
H-Index: 17 (Scopus); 20 (Google Scholar)



SCOPUS



GOOGLE SCHOLAR



ORCID

Service information

Name: Nur Syakina binti Jamali
Email: syakina@upm.edu.my
Official No: +603-9769 4464 (Office)

Education

1. Ph.D. in Chemical and Process Engineering (Biohydrogen), 2017, Universiti Kebangsaan Malaysia
2. Bachelor with first class honour in Chemical and Sustainable Engineering, 2013, Universiti Malaysia Sarawak.
3. Foundation in Biological Science, 2009, Universiti Malaya
4. Sijil Pelajaran Malaysia, 2007, SAM Bestari

Areas of Interest

1. Biohydrogen and Sustainable Bioenergy
2. Bioprocess Engineering
3. Fermentation Technology
4. Bioelectrochemical Engineering
5. Nanomaterials and Nanotechnology
6. Wastewater Treatment & Design

Professional Qualification/ Membership/ Affiliation

1. Professional Technologist, Malaysia Board of Technology (MBOT) (Membership No: PT26010182)
2. Associate Member, Institute of Chemical Engineers (AMICHEM) (Membership No: 100190991)
3. Associate Member, Institute of Engineers Malaysia (IEM)
4. Graduate Engineer, Board of Engineers Malaysia (BEM)
5. Competent Person - Certified Environmental Professionals in Sewage Treatment Plant Operation (CePSTPO)
6. Associate Member, Women in Green Hydrogen (WiGH), International Association
7. Sub-Committee Member, Global Methane Initiative (GMI) Association

Appointments

Position	Duration
1. Research Coordinator, Department of Chemical and Environmental Engineering, Faculty of Engineering, UPM	2024 to date
2. Senior Lecturer, Department of Chemical and Environmental Engineering, Faculty of Engineering, UPM	2018 to date
3. Research Associate, Institute of Nanoscience and Nanotechnology, Universiti Putra Malaysia, 43400 Serdang, Selangor Darul Ehsan, Malaysia	2023 to date
	2024 to date

4. Visiting Researcher, Centre of Excellence Water Research and Environmental Sustainability Growth (WAREG)
5. Industry and Community Relations (JINM) Coordinator, Department of Chemical and Environmental Engineering, Faculty of Engineering, UPM 2023-2024
6. Research Coordinator, Department of Chemical and Environmental Engineering, Faculty of Engineering, UPM 2020-2023
7. Students Affair (HEPA) Coordinator, Department of Chemical and Environmental Engineering, Faculty of Engineering, UPM 2018-2019
8. Tenaga Akademik Muda (TAM), Department of Chemical and Environmental Engineering, Faculty of Engineering, UPM 2014-2017

TEACHING ACTIVITIES								
Bil	Semester		Course Name	Code	Credit	Students <40	Students >40	Amali
1	2 nd	2017/2018	Engineering Math II	ECC3002	3+0		3	
2	2 nd	2017/2018	Energy Balance	ECH3115	2+1	2		3
3	1 st	2018/2019	Biochemical Engineering	ECH3201	2+1		2	3
4	1 st	2018/2019	Toxic and Hazardous Waste Management	ECH4509	3+0		3	
5	2 nd	2018/2019	Engineering Math II	ECC3002	3+0		3	
6	2 nd	2018/2019	Engineering Math II	ECC3012	3+0	3		
7	1 st	2019/2020	Material Balance	ECH3114	2+1	2		3
8	2 nd	2019/2020	Engineering Math II	ECC3012	3+0		3	
9	1 st	2020/2021	Material Balance	ECH3114	2+1	2		3
10	2 nd	2020/2021	Engineering Math II	ECC3012	3+0		3	
11	2 nd	2021/2022	Engineering Math II	ENG3002-G1	3+0		3	
12	2 nd	2021/2022	Engineering Math II	ENG3002-G2	3+0		3	
13	1 st	2022/2023	Green Engineering	ECH4505	3+0	3		
14	2 nd	2022/2023	Engineering Math II	ENG3002	3+0		3	
15	1 st	2023/2024	Engineering Math I	ENG3001	3+0	3		
16	1 st	2023/2024	Green Engineering	ECH4505	3+0	3		
17	2 nd	2023/2024	Engineering Math II	ENG3002	3+0		3	
18	1 st	2024/2025	Process Recovery	ECH4209	3+0	3	3	
19	1 st	2025/2026	Biochemical Reaction	ECH3201	0+1			3
Total						21	29	15

SUPERVISION ACTIVITIES

Category (Summary)	Current Student			Graduate		
	PhD	Master	Total	PhD	Master	Total
Chairman	3	2	5	1	2	3
Member	3	0	3	2	3	5
Total	6	2	8	3	5	8

Students Main Supervision (PhD)

Bil	Matrix No (Status)	Name	Title
1	GS58538 (Graduated)	Nina Farhana bt Mohd Jamaludin	Enhance biohydrogen production using magnetite-activated carbon embedded with nanoparticles in attached-biofilm reactor
2	GS53467 (Thesis submitted)	Siti Fatimah bt Ismail	Biogas production immobilized on a novel clay-hydroxyapatite beads support particles with integrated hydroponic system
3	GS57974 (On-going)	Samaneh Alijantabaraghousi	Development of cellulose nano fiber in anode-composite electrode for hydrogen production via Microbial Fuel Cell (MFC)
4	GS60317 (Graduated)	Zisha Shishita Zahan	Biogranule development using hydroxyapatite synthesis from eggshells for enhancement of biohydrogen production.

Students Main Supervision (Master by research)

Bil	Matrix No (Status)	Name	Title
1	GS52860 (Graduated)	Nur Farahana Dzul Rashidi	Biohydrogen production using entrapment mechanism in activated carbon: Effect of chitosan impregnated calcium alginate as a carrier
2	GS55593 (Graduated)	Tan Jia Boh	Two-stage anaerobic biohythane production using attached-biofilm immobilized beads from cow dung effluent
3	GS66661 (On-going)	Mohamad Tajuddin Bin Sabri	Enhanced Eco-Enzyme Production through Enzyme Immobilization using Clay-Hydroxyapatite Biomedia
4	GS72458 (On-going)	Hafsa Farooq	Nano-Magnetic Catalysts From Co-Pyrolyzed Waste Plastic And Biomass Char for Kinetically Enhanced Esterification of Palm Fatty Acid Distillate (PFAD) into Biodiesel

Students Co-Supervision (PhD)

Bil	Matrix No (Status)	Name	Title
1	GS59432 (Graduated)	Hamad Noori Hamad Hamad	Developments in the Application of Bio-Waste-Derived Adsorbents for the Removal of Methylene Blue from Wastewater
2	GS56813 (Graduated)	Laith Hamzah Thuaban	Improving Biofilm Formation and Growing on Novel Plastic Bio-Carriers Used in Circulating Aquarium System (RAS)
3	GS59756 (On-going)	Nur Farhana Binti Mohd Azmi	Removal of Perfluorooctanoic Acid from Aqueous Solution by Adsorption Using Agricultural Waste and Hybrid Mixture Derived Activated Carbon.
4	GS55847 (Graduated)	Izzah Farhana binti Ab Aziz	Delignification of Fibrous Material by Pre-Treatment in Optimization of Biohythane Production from Anaerobic Digestion
5	GS71777 (On-going)	Suhaili binti Ahmad	Enhanced Removal of Microplastics From River Water Using Modified Magnetite-Infused Biochar as An Adsorbent

Students Co Supervision (Master by research)

Bil	Matrix No (Status)	Name	Title
1	GS51204 (Graduated)	Tuan Nurfarhana Tuan Mohd Marzuki	Two-stage anaerobic biohythane production using attached-biofilm immobilized beads from cow dung effluent
2	GS52837 (Graduated)	Leow Yew Seng	Nanoemulsions Stabilised by Sophorolipids Produced from Starmerella Bombicola Using Different Vegetable Oils and Palm-Based Waste
3	GS56056 (Graduated)	Adila Fazliyana binti Aili Hamzah	Enhancement of biohydrogen production in co-digestion of pineapple waste and cow dung by sub-critical water pretreatment

Students Main Supervision (Master by coursework)

Bil	Matrix No (Status)	Name	Title
1	GS50956 (Graduated)	Rubaneshmani Subramaniam	Thermophilic Biohydrogen Production using Attached-Anaerobic Culture from Palm Oil Mill Effluent
2	GS52334 (Graduated)	Siti Syazwani Mahamad	Production of Biohydrogen from Food Waste Using Chitosan - Coated Calcium Alginate Beads Immobilized Cells Via Dark Fermentation
3	GS54453 (Graduated)	Khairul Hadyyan	Compost production from a solid fraction of FOG-removed Restaurant Grease Trap: Enhancement by biochar and the effect on plant growth.
4	GS55220 (Graduated)	Ahmed AlKalali	Pretreatment of lignocellulosic biomass on biohydrogen production from food waste
5	GS55562 (Graduated)	Koh Kai Seng	Heat Re-integration Cost Optimization of an Oleochemical Production Plant and Its Corresponding Environmental Study
6	GS56179 (Graduated)	Dharisinee A/P Jegathisan	Improving physical-Chemical treatment of lake water using Moringa Oleifera seeds in Cosmoballs as bio-carriers
7	GS58841 (Graduated)	Cynthia Jimmy Jinikol	Performance of Adsorica as bio-carriers in Moving Bed Bio Reactor (MBBR) For Sewage Treatment Plant In Langkawi Island, Malaysia
8	GS62663 (Graduated)	Muhammad Jazrul Nur Hafez bin Jazli	Optimization of CNF-Anode composite blend electrode for microbial fuel cell application
9	GS61335 (Graduated)	Syazani Azyyati binti Shariful Azri	Optimization of hydroxyapatite synthesis from eggshells for thermophilic biohydrogen production.
10	GS65842 (Graduated)	Sivan a/l Manikam	Organic Metal Removal Efficiency from Chicken Processing Wastewater using Eco Enzyme
11	GS67626 (Graduated)	Janagaraj a/l Sukumaran	Synergetic enhancement on biogas production and landfill sludge disposal using co-digestion of WAS-aerobic to anaerobic digestion system.
12	GS71618 (On-going)	Nurul Aini binti Mohamad	Bioelectricity Production using Formulated Black Soldier Fly Frass (BSFF) and Chlorella Sorokiniana (CS) Powder as Nutrient Added in Plant Microbial Fuel Cells (PMFCs)

Thesis Examination

Category (Summary)	Current Student			Graduate		
	PhD	Master	Total	PhD	Master	Total
Chairman	0	0	0	0	0	0
Member	1	1	2	1	2	3
Total	1	1	2	1	2	3

PhD

No.	Name	Title	Year	Status
1	Shahril bin Mohamad (GS55613)	Bacterial Cellulose Production by Acetobacter Xylinum 0416 Uisng Oil Palm frond Juice as Sole Medium	2025	Completed
2	Mariam Jamilah binti Mohd Fairus (GS61861)	Phenol Removal Performance of Nano-Magnetized Activated Carbon Prepared from Bamboo and Mill Scale Waste via Two-In-One Carbonization-Activation Reactor and High Energy Ball Milling	2025	On-going

Master by Research

No.	Name	Title	Year	Status
1.	Gustav Ludwig Meyer, Matrix No:220541698	Development and bench-scale optimization of a reactor system for rumen-based anaerobic digestion, from Cape Peninsula University of Technology, South Africa.	2021	Completed / International
2.	Khairina Binti Jaman @ Zaman (GS63583)	Enhancing Anaerobic Co-Digestion of Cow Manure with Molasses Residue with Various Support Carrier	2023	Completed
3.	Umar Adam Bin Majid (GS60228)	Sustainable Jatropha Membrane with Carbon Dots in Removal of Pb (II) From Aqueous Solution Process	2023	Completed
4	Muhammad Hairul Ridzwan bin Samsol (GS67392)	ION Exchange Adsorption Study for Isolation and Separation of Trehalulose Sugar from Stingless Bee Honey	2025	Completed

Master by Coursework (Internal)

No.	Name	Title	Year	Status
1.	Zain Alubden Murtada Abdulhafid Alsahli – GS47686	Production of Calcium Chloride from Electric Arc Furnace Steel Slag, from UPM	2017/ 2018	Completed
2.	Jason Ng Keng Loon - GS50002	Carbon Quantum Dots as Alternative Fertilizer in Agriculture, from UPM	2018/ 2019	Completed
3.	Islam El-Habil – GS51937	Statistical Study of Biogas Production in UPM Community, from UPM	2018/ 2019	Completed
4.	Samaneh Alijantabar Aghouzi – GS 48179	Feasibility Study of Biological Nutrient Removal in Sequencing Batch Reactor Treating Municipal Wastewater, from UPM	2018/ 2019	Completed
5.	Nurafitda binti Nawawi -GS52554	Pretreatment and Recovery of Sugar from Palm Oil Mill Effluent (POME) using Continuos Sub Critical of Water, from UPM	2018/ 2019	Completed
6.	Noor Fiza Asiqin Binti Mohd Ramlan - GS48720	Minimization of Relay Contactor Contamination by Engineering Contorl in UPM	2018/ 2019	Completed
7.	Kumarenderan Mahalingam GS54576	Analyzing the Degradability of Biodegradable Plastic in Malaysian Environment, from UPM	2019/ 2020	Completed

8.	Wong Tian Baw - GS55566	Source Reduction Approach for Metal Hydroxide Sludge Generation: A Way to Reduce Landfill Load, from UPM	2020/ 2021	Completed
9.	Ameera Nurul Sarah Binti Azman - GS57404	Synthesis of Carbon Nanotube Aerogel from Grease Trap Waste via Floating Catalyst Chemical Vapor Deposition for Oil Spill Removal, from UPM	2020/ 2021	Completed
10.	Poh Phaik Eong GS58421	Investigating Effect of Microplastics Concentrations in Municipal Wastewater Treatment Plant using GPS-X, from UPM	2021/ 2022	Completed
11.	Siti Normasyarah binti Muhamed GS58558	Treatment of Wastewater using Adsorption by Duckweed, from UPM	2021/ 2022	Completed
12.	Susmeethaa Vennu a/p Vennu GS58858	Simulation of Biomethane Production from Livestock Manure using SuperPro, from UPM	2021/ 2022	Completed
13.	Nur Azyan Fathiah	Production And Characterisation of Used Cooking Oil into Biodiesel, from UPM	2021/ 2022	Completed

Master by Coursework (External)

No.	Name	Programme	Year	Status
1	Curazon Landon Anak Munan	KNC61810 Research Project for Master of Engineering in Energy and Environment Programme, UNIMAS	2021	Completed
2	Siti Aishah binti Sallehuddin	KNC61810 Research Project for Master of Engineering in Energy and Environment Programme, UNIMAS	2021	Completed
3	Wong Shya	KNC61810 Research Project for Master of Engineering in Energy and Environment Programme, UNIMAS	2021	Completed
4	Watiqah binti Chali	KNC61810 Research Project for Master of Engineering in Energy and Environment Programme, UNIMAS	2022	Completed
5	Florence Wednna Sanggie	KNC61810 Research Project for Master of Engineering in Energy and Environment Programme, UNIMAS	2022	Completed

FYP

No.	Name	Title	Year	Status
1	Veknesh a/l Arumugam	Synthesizing Green Chitosan from Prawn Shell Waste for Effective Palm Oil Mill Effluent (POME) Treatment	2019	Completed
2	Alyaa Najihah	Extraction of bioactive compound from plant using NADES as potential green solvents	2020	Completed
3	Chong Yan Ting	BC composite hydrogel for potential biomedical application	2020	Completed
4	Miira Muruga	The Effect of Pre-treatment to the Germination Quality of Composting Soil	2020	Completed
5	Tasnim Asyiqin	Agrowaste based media for microbial culture	2020	Completed
6	Roobaraj Yatheven	Synthesis and characterization of biobased membrane decorated with various additives for filtration applications	2021	Completed
7	Afifah binti Mohamad Arshad	Assessment of Probiotic Encapsulation for Plant Growth Enhancer Application	2021	Completed
8	Mohamad Hazman Bin Mohamad Husnin	Filtration of Synthetic and Real Wastewater using Jatropha Oil Bio-Based Membrane	2021	Completed
9	Subashiny A/P Nadarajah	Extraction and Characterization of Essential Oil from Citrus Microcarpa Peels using NADES assisted Hydrodistillation	2021	Completed
10	Cheah Wan Yee	Preparation, characterization, and performance of sodium alginate-polyethylene glycol-perlite (SA-PEG-P) as cellulase immobilization matrix	2022	Completed

11	Aishah Adlina binti Ghozi	Increase production of bacteria cellulose using stacked fermentation method	2022	Completed
12	Chan Kai Li	Studies on native plasmid in Acetobacter Xylinum 0416 for strain development	2022	Completed
13	Muhammad Amir Irfan bin Sapa	Optimization of enzymatic hydrolysis of oil palm frond cellulose using immobilized cellulase	2022	Completed
14	Nishalni A/P Sivapalan	Formulating the papain-bacteria cellulose scrub	2023	Completed
15	Aisyah Atikah Binti Shaari	Optimization of enzymatic hydrolysis of pretreated OPF using composite alginate beads	2023	Completed
16	Wan Zanariah Binti Alaham	Black Soldier Fly excrement as Alternative Growth Media for Microalgae Cultivation	2023	Completed
17	Muhd Hafiz Aiman Bin Abd Rahman	Production of bacteria cellulose in a bubbled-tray fermenter	2023	Completed

PUBLICATION ACTIVITIES

Publication as Senior Author (Corresponding Author, Main Author, First Author)

No	Authors	Title	Journal (Category)	Year
1	Shishita Zahan Zisha, Hasfalina Che Man, Rozita Omar, Suraya Abdul Rashid, Tan Jian Ping, Shareena Fairuz Abdul Manaf, Tabassum Mumtaz, Nur Syakina Jamali	Thermophilic fermentation enhanced by eggshell-derived hydroxyapatite for sustainable hydrogen production	Bioresources and Bioprocessing (Q1)	2025
2	Shishita Zahan Zisha, Hasfalina Che Man, Rozita Omar, Suraya Abdul Rashid, Tan Jian Ping, Shareena Fairuz Abdul Manaf, Tabassum Mumtaz, Nur Syakina Jamali	Thermophilic Biohydrogen Production Utilizing Green-Synthesized Hydroxyapatite (HAP): Insights into Substrate Optimization and Biogranule Formation	Applied Biochemistry and Biotechnology (Q2)	2025
3	Amer Aref Said Ismail, Nur Syakina Jamali , Yuana Elly Agustin, Swee Keong Yeap, Teck Ann Yeow, Fang Baishan, Hemavathi Silvamany, Tan Peng Chee, Tan Jian Ping	Sustainable biological production and innovative purification of the 1, 3-propanediol from glycerol fermentation broth via resin adsorption	Food And Bioprocesses (Q2)	2025
4	Nina Farhana Mohd Jamaludin, Nurul Sakinah Engliman, Shareena Fairuz Abdul Manaf, Syazwani Idrus, Luqman Chuah Abdullah, Nur Syakina Jamali .	Effect of pH, temperature and agitation on thermophilic biohydrogen production using immobilized cells on carbon composites (GAC-NiFe ₃ O ₄)	Chemical Engineering Journal (Top 10%)	2024
5	Nina Farhana Mohd Jamaludin, Nurul Sakinah Engliman, Luqman Chuah Abdullah, Jian Ping Tan, Syazwani Idrus, Nur Syakina Jamali	Nickel-iron doped on granular activated carbon for efficient immobilization in biohydrogen production	Bioresource Technology (Top 10%)	2024
6	Shareena Fairuz Abdul Manaf, Sakinah Engliman, Abdullah Amru Indera Luthfi, Nur Syakina Jamali , Jian Ping Tan	Phenotype adaptation of Kluyveromyces marxianus for enhanced conversion of biomass into xylitol	Process Biochemistry (Q2)	2024
7	Yuana Elly Agustin, Ning Heb, Swee Keong Yeap, Abdullah Amru Indera Luthfi, Gongtao Ding, Peer Mohamed Abdul, Shareena Fairuz Abdul Manaff, Nur Syakina Jamali , Binghui Chen, Jian Ping Tan	Okara: A Promising Resource for Novel Bioflocculant Synthesis	Chemical Engineering Transactions (Scopus)	2024

8	Ker Yee Tey, Abdullah Amru Indera Luthfi, Kok Sin Woon, Swee Keong Yeap, Shareena Fairuz Abdul Manaf, Safa Senan Mahmod, Guo Ren Mong, Nur Syakina Jamali , Jian Ping Tan	Fibrous oil palm frond as a potential microbial immobilization carrier for enhanced 1, 3-propanediol productivity	Journal Of Environmental Chemical Engineering (Q1)	2024
9	Xue Yan Sim, Ning H, Nur Syakina Jamali , Peer Mohamed Abdul, Guo Ren Mong, Swee Keong Yeap, Kok Sin Woon, Yew Woh Hui, Peng Chee Tan, Jian Ping Tan	Synergistic impact of co-substrate of biodiesel crude glycerol and durian peel hydrolysate for biohydrogen and 1,3-propanediol synthesis by <i>Clostridium butyricum</i>	International Journal of Hydrogen Energy. (Q1)	2024
10	Abdullah Amru Indera Luthfi, Peer Mohamed Abdul, Jamaliah Md Jahim, Nurul Sakinah Engliman, Mohd Shaiful Sajab, Nur Syakina Jamali , Jian Ping Tan and Nurul Adela Bukhari	Isolation and Characterization of Biohydrogen-Producing Bacteria for Biohydrogen Fermentation Using Oil Palm Biomass-Based Carbon Source	Applied Sciences-Basel (Q2)	2023
11	Nina Farhana Mohd Jamaludin, Nur Syakina Jamali , Luqman Chuah Abdullah, Syazwani Idrus, Nurul Sakinah Engliman, Peer Mohamed Abdul	Biohydrogen production with utilisation of magnetite nanoparticles embedded in granular activated carbon from coconut shell	International Journal of Hydrogen Energy (Q1)	2023
12	Wen Xuan Woo, Jian Ping Tan, Ta Yeong Wu, Swee Keong Yeap, Abdullah Amru Indera Luthfi, Shareena Fairuz Abdul Manaf, Nur Syakina Jamali and Yew Woh Hui	An overview on the factors affecting enzymatic saccharification of lignocellulosic biomass into fermentable sugars	Reviews In Chemical Engineering (Q1)	2023
13	Xue Yan Sim, Jian Ping Tan, Abdullah Amru Indera Luthfi, Nur Syakina Jamali	Unraveling the effect of redox potential on dark fermentative hydrogen production	Renewable & Sustainable Energy Reviews (Top 10%)	2023
14	Ainul Husna Abdul Aziz, Nurul Sakinah Engliman, Mariatul Fadzillah Mansor, Peer Mohamed Abdul, Shalini Narayanan Arish, Nur Syakina Jamali , Ming Foong Tiang	Synergistic enhancement of biohydrogen production by supplementing with green synthesized magnetic iron nanoparticles using thermophilic mixed bacteria culture.	International Journal of Hydrogen Energy (Q1)	2022
15	Shareena Fairuz Abdul Manaf, mAbdullah Amru Indera Luthfi, Jian Ping Tan, Peer Mohamed Abdul, Nur Syakina Jamali	Kinetic study and model of fermentation parameters affected growth and xylitol production in bioreactors by <i>Kluyveromyces marxianus</i> ATCC 36,907	Biomass Conversion and Biorefinery (Q1)	2022
16	Nur Syakina Jamali , Jamaliah Md Jahim, Tabassum Mumtaz, Peer Mohamed Abdul	Dark fermentation of palm oil mill effluent by <i>Caldicellulosiruptor saccharolyticus</i> immobilized on activated carbon for thermophilic biohydrogen production	Environmental Technology & Innovation (Q1)	2021
17	Nur Syakina Jamali , Jamaliah Md Jahim, Peer Mohamed Abdul	Effect of nano zero-valent iron (nZVI) on biohydrogen production in anaerobic fermentation of oil palm frond juice using <i>Clostridium butyricum</i> JKT37	Biomass & Bioenergy (Q1)	2021

18	Jia Boh Tan, Nur Syakina Jamali , Wei En Tan, Hasfalina Che Man and Zurina Zainal Abidin	Techno-economic assessment of on-farm anaerobic digestion system using attached-biofilm reactors in the dairy industry	Sustainability (Q2)	2021
19	Nur Farahana Dzul Rashidi, Nur Syakina Jamali , Siti Syazwani Mahamad, Mohamad Faizal Ibrahim, Norhafizah Abdullah, Siti Fatimah Ismail, Shamsul Izhar Siajam	Effects of Alginate and Chitosan on Activated Carbon as Immobilisation Beads in Biohydrogen Production.	Processes (Q1)	2020
20	Nur Syakina Jamali , Jamaliah Md Jahim, Sompong O-Thong, Aminee Jehlee	Hydrodynamic Characteristics and Model of Fluidized Bed Reactor with Immobilized Cells on Activated Carbon for Biohydrogen Production	International Journal of Hydrogen Energy (Q1)	2019
21	Nur Syakina Jamali , Nur Farahana Dzul Rashidi, Jamaliah Md Jahim, Sompong O-Thong, Aminee Jehlee, Nurul Sakinah Englimand	Thermophilic biohydrogen production from palm oil mill effluent: Effect of immobilized cells on granular activated carbon in fluidized bed reactor.	Food And Bioproducts Processing (Q2)	2019
22	Ivy Ai Wei Tan, Nur Syakina Jamali and Winnie Huong Tien Ting	Phytoremediation of Palm Oil Mill Effluent (POME) Using Eichhornia crassipes	Journal Of Applied Science & Process Engineering (Scopus)	2019
23	Nur Syakina Jamali , Jamaliah Md Jahim, Wan Nor Roslam Wan Isahak, Peer Mohamed Abdul	Particle size variations of activated carbon on biofilm formation in thermophilic biohydrogen production from palm oil mill effluent.	Energy Conversion and Management (Top 10%)	2017
24	Nur Syakina Jamali , Jamaliah Md Jahim	Optimization of Thermophilic Biohydrogen Production by Microflora of Palm Oil Mill Effluent: Cell Attachment on Granular Activated Carbon as Support Media.	Malaysian Journal of Analytical Sciences (Q4)	2016
25	Nur Syakina Jamali , Jamaliah Md Jahim, Wan Nor Roslam Wan Isahak	Biofilm formation on granular activated carbon in xylose and glucose mixture for thermophilic biohydrogen production.	International Journal of Hydrogen Energy (Q1)	2016

Publication as Co Author in Journal Citation Index

No	Authors	Title	Journal (Category)	Year
1	Adila Fazliyana Aili Hamzah, Muhammad Hazwan Hamzah, Hasfalina Che Man, Nur Syakina Jamali and Shamsul Izhar Siajam	Influence Of Subcritical Water Pretreatment Temperature On Pineapple Waste Biogas Efficiency: Experimental And Kinetic Study	Journal Of Engineering And Sustainable Development (Scopus)	2024
2	Izzah Farhana Ab Aziz; Hasfalina Che Man; Ali Demirci; Muhammad Hazwan Hamzah; Rozita Omar; Nur Syakina Jamali ; Kamil Kayode Katibi And Abdul Salam Mohammed	Lignocellulosic Biomass-Derived Biogas: A Review On Sustainable Energy In Malaysia	Journal Of Oil Palm Research (Scopus)	2024

3	Hamad Noori Hamad, Syazwani Idrus, Badronnisa Yusuf, Nur Syakina Jamali	Enhancing methylene blue removal: synthesis, characterization, and performance evaluation of chemically activated carbon adsorbents	Process Biochemistry (Q2)	2024
4	Hamad Noori Hamad, Syazwani Idrus, Badronnisa Yusuf, Nur Syakina Jamali , Amimul Ahsan, Sri Suhartini and Abdul Malek Abdul Wahab	Optimized Bentonite Clay Adsorbents for Methylene Blue Removal	Processes (Q2)	2024
5	Adila Fazliyana Aili Hamzah, Muhammad Hazwan Hamzah, Hasfalina Che Man, Nur Syakina Jamali and Shamsul Izhar Siajam	Influence Of Subcritical Water Pretreatment Temperature On Pineapple Waste Biogas Efficiency: Experimental And Kinetic Study	Journal Of Engineering And Sustainable Development (Scopus)	2024
6	Izzah Farhana Ab Aziz; Hasfalina Che Man; Ali Demirci; Muhammad Hazwan Hamzah; Rozita Omar; Nur Syakina Jamali ; Kamil Kayode Katibi And Abdulsalam Mohammed	Lignocellulosic Biomass-Derived Biogas: A Review On Sustainable Energy In Malaysia	Journal Of Oil Palm Research (Scopus)	2024
7	Adila Fazliyana Aili Hamzah, Muhammad Hazwan Hamzah, Hasfalina Che Man, Nur Syakina Jamali , Shamsul Izhar Siajam, and Muhammad Heikal Ismail	Effect of Organic Loading on Anaerobic Digestion of Cow Dung: Methane Production and Kinetic Study	Heliyon (Q1)	2023
8	Izzah Farhana Ab Aziz, Hasfalina Che Man, Muhammad Hazwan Hamzah, Nur Syakina Jamali and Rozita Omar	Novel Pre-Treatment for Lignocellulosic Biomass Delignification Using Alkaline-Assisted Ohmic Heating	Pertanika Journal of Science and Technology (Scopus)	2023
9	Yew Seng Leow, Norhafizah Abdullah, Dayang Radiah Awang Biak, Nur Syakina Jamali , Rozita Rosli and Huey Fang Teh ³	Production of Biosurfactant Using Bacillus subtilis Natto Fermentation	Pertanika Journal Of Science and Technology (Scopus)	2023
10	Izzah Farhana Ab Aziz, Hasfalina Che Man, Ali Dermici, Muhammad Hazwan Hamzah, Rozita Omar, Nur Syakina Jamali , Kamil Kayode Katibi And Abdulsalam Mohammed	Biogas Production from Lignocellulosic Biomass, Opportunities And Challenges: A Review On Sustainable Energy From Malaysian Perspectives	Journal Of Oil Palm Research (Q4)	2022
11	Adila Fazliyana Aili Hamzah, Muhammad Hazwan Hamzah, Fauzan Najmi Ahmad Mazlan, Hasfalina Che Man, Nur Syakina Jamali , Shamsul Izhar Siajam	Biogas Production through Mono and Co-digestion of Pineapple Waste and Cow Dung at Different Substrate Ratio	Bioenergy Research (Q3)	2022
12	Adila Fazliyana Aili Hamzah, Muhammad Hazwan Hamzah, Hasfalina Che Man, Nur Syakina Jamali , Shamsul Izhar Siajam and Muhammad Heikal Ismail	Optimization of Subcritical Water Pre-Treatment for Biogas Enhancement on Co-Digestion of Pineapple Waste and Cow Dung using the Response Surface Methodology	Waste Management (Q1)	2022
13	Tuan Nurfarhana Tuan Mohd Marzuki, Syazwani Idrus, Mohammed Ali Musa,	Enhancement of Bioreactor Performance Using Acclimatised	Animals (Top 10%)	2021

	Abdul Malek Abdul Wahab, Nur Syakina Jamali , Hasfalina Che Man and Sabrina Ng Muhamad Ng	Seed Sludge in Anaerobic Treatment of Chicken Slaughterhouse Wastewater: Laboratory Achievement, Energy Recovery, and Its Commercial-Scale Potential		
14	Adila Fazliyana Aili Hamzah, Muhammad Hazwan Hamzah, Hasfalina Che Man, Nur Syakina Jamali , Shamsul Izhar Siajam and Muhammad Heikal Ismail	Recent Updates on The Conversion of Pineapple Waste (Ananas comosus) to Value-added Products, Future Perspectives and Challenge	Agronomy-Basel (Q1)	2021
15	Adila Fazliyana Aili Hamzah, Muhammad Hazwan Hamzah, Fauzan Najmi Ahmad Mazlan, Hasfalina Che Man, Nur Syakina Jamali , Shamsul Izhar Siajam	Anaerobic Co-digestion of Pineapple Wastes with Cow Dung: Effect of Different Total Solid Content on Bio-methane Yield	Advances In Agricultural and Food Research Journal (Scopus)	2020
16	Siti Baizurah Mahat A. Idris, R. Omar, Shreeshivadasan, H. Che Man, N.S. Jamali , A.I. Mohamad Idris, L.C. Abdullah, S.M. Mustapa Kamal	Performance of dynamic anaerobic membrane bioreactor (DAnMBR) with phase separation in treating high strength food processing wastewater	Journal Of Environmental Chemical Engineering (Q1)	2020

Conference Proceedings (Recent Conference Proceedings)

No	Conference	Title	Journal (Category)	Year
1	17th International Conference on Sustainable Energy & Environmental Protection (SEEP)	Effect of Clay Composite Derived Hydroxyapatite on Activated Carbon for Biogas Production	International	28-31 July 2025
2	WAREG	Synnergy effect of clay	International	18-19 Sept 2025
3	8th International Symposium on Advanced Materials and Nanotechnology 2024 (ISAMN2024)	Enhanced Eco-Enzyme Production through Enzyme Immobilization using Clay-Hydroxyapatite Biomedia	International	8-9 Oct 2024
4	2nd International Conference on Innovation in Chemical Engineering & Technology 2023 (ICICET2023)	The interaction mechanism between a green synthesis of hydroxyapatite nanoparticles and thermoanaerobacterium-rich species for granule formation in biohydrogen production	International	4-5 Sept 2023
5	1st International Conference on Innovation in Chemical Engineering & Technology 2023 (ICICET2023)	Performance of attached-biofilm on granular activated carbon as a carrier in two-stage biohythane production	International	30 Nov - 1 Dec 2021
6	16th Asian Biohydrogen and Biorefinery Symposium & Sustainability Challenge (ABBS-SC 2021)	Biohydrogen production with utilisation of magnetite nanoparticle embedded in granular activated carbon from coconut shell.	International	Dec 15-17, 2021
7	AFOB Malaysia Chapter International Symposium 2019 (AFOBMCIS 2019)	Thermophilic biohydrogen production utilizing activated carbon as immobilized	International	20-23 Oct 2019

		cells: Effect of sugar concentration and inoculum to substrate ratio in food waste variations		
8	International Conference Biotechnology Engineering, ICBioE. (2018)	Study of Eco-Cleaner Production from Pineapple Waste Fermentation Using Subcritical Water.	International	2018
9	International Conference on Biomass and the Environment-Food-Energy-Water Nexus (BEFEW 2018)	Thermophilic biohydrogen production from palm oil mill effluent: Effect of immobilized culture on activated carbon in fluidized bed reactor (FBR).	International	12-13 Dec 2018
10	Asia Biohydrogen and Biorefinery (ABBS2014) Symposium.	Utilization of Palm Oil Mill Effluent (POME) in thermophilic biohydrogen production by <i>Caldicellulosiruptor saccharolyticus</i> DSM 8903	International	2014
11	31st Symposium of Malaysian Chemical Engineers (SOMChE)	Microbial specific growth rate of an attached-biofilm mixed culture of hydrogen-producing bacteria by Monod kinetic model	National	2018
12	28th Symposium of Chemical Engineering (SomChE).	Optimization of Thermophilic Biohydrogen Production by Microflora of Palm Oil Mill Effluent: Cell Attachment on Granular Activated Carbon as Support Media.	National	2016

RESEARCH ACTIVITIES

Research Grants

Role as Leader (Principal Investigator)

No	Project Title	Source of Fund	Year	Amount (RM)
1.	Electrolysis-Based Hydrogen Production Using Wastewater-Derived Feedwater	GP-GPI	2025-2027	20,000
2.	MOF-based Catalysts for Conversion of Waste Feedstock from Palm Oil Industry into Renewable Fuels: Synthesis and Characterization	GP-GPI	2023-2026	48,000
3.	Eco-Village Carbon Reduction and Green Synergy through Eco Enzyme	GP-GPI	2024-2025	6,000
4.	The interaction mechanism between a green synthesis of Hydroxyapatite nanoparticles and Thermoanaerobacterium-rich species for granule formation in biohydrogen production. (Ref: FRGS/1/2023/TK08/UPM/02/3)	FRGS-2023	2023-2025	129,000
5.	Enhancement of biohydrogen production from palm oil mill effluent (POME) utilizing immobilize cell induced by magnetite nanoparticles via thermophilic dark fermentation.	GP-IPS	2022-2024	26,000
6.	Entrapment mechanism of attached-biofilm on biochar in the copolymerization of calcium alginate impregnated chitosan for	FRGS-2019	2019-2022	109,000

immobilized beads with enhanced two-stage anaerobic **biohythane** production. (Ref: FRGS/1/2019/STG05/UPM/02/28)

7.	Demonstration of the application of food waste composting and fertilizer for sustainable organic farming industry in Jenderam Hilir	KTGS	2019-2020	10,000
8.	Renewable and sustainable biohydrogen production from attached biofilm mixed anaerobic cultures with biomass as fermentation feedstocks	GP-IPM	2018-2020	60,000
Total				RM340,000

Role as Member

No	Project Title	Source of Fund	Year	Amount (RM)
1.	Biogas Production by Co-Digestion of Molasses with palm oil mill effluent (POME) and Chicken Manure	Private/ International	2024	14,973
2.	Manipulation of Central Metabolic Fluxes of Biocatalyst towards High Productivity of Succinic Acid from Durian Waste. (Ref: FRGS/1/2020/TK0/XMU/03/2)	FRGS - 2020	2020-2023	138,164
3.	Effects of ohmic heating pre-treatment on delignification kinetics for integrated biohydrogen production. (Ref: FRGS/1/2020/TK0/UPM/02/7)	FRGS - 2020	2020-2023	138,600
4.	Green synthesis of iron oxide nanoparticles for biohydrogen production via thermophilic anaerobic fermentation (Ref: FRGS/1/2019/TK07/UIAM/02/1)	FRGS - 2019	2019-2022	127,000
Total				RM403,764

Intellectual Properties (as Leader)

No	Intellectual Properties	Category IP	Year	Ref. File
1.	A Method of Clay-Hydroxyapatite (CHAp) Biomedica Production	Patent (PI)	2024	PI 2024007016
2.	Composition For Fabricating Article Suitable for Use as Carrier or Matrix Employable in Moving Bed Biofilm Reactor Associated with Recirculating	Patent (Member)	2025	PI 2025003202
3.	A Method of Biogranule Immobilizer of Thermoanaerobacterium rich sp. with hydroxyapatite additive	Patent (PI)	2025	Filing on-going
4.	A BIOHAP granule immobilizer for enhanced bioenergy and biohydrogen production	Patent (PI)	2025	Filing on-going
5.	Module on Green Synergy of Eco Enzyme Production using Fruit and Vegetable Wastes	Copyright	2024	CRLY2024W07414
6.	Module on the Development of Eco-VIVA Plastic Bags from Recycled Plastic Waste	Copyright	2024	CRLY2024W07414
7.	Module Clean Energy Cycle, a Biogas Training to Community	Copyright	2025	CRLY2025W03689
8.	Manual of Microbial Fuel Cell Setup	Copyright	2025	Filing

CONSULTATION ACTIVITIES

Consultation (Principal Investigator)

No	Year	Title	Industry	Amount
1.	2025	Synergetic enhancement on biogas production and landfill sludge disposal using co-digestion of WAS-aerobic to anaerobic digestion system.	Wastewater Treatment Plant	RM 109,960
2.	2025	Feasibility Study of Microbial Fuel Cell utilising Algae Biomass in Anode as Feedstock	World New Energy Centre Sdn. Bhd	RM50,000

LINGKAGE ACTIVITIES

Linkage (Leader)

No	Year	Title	Industry	Category
1.	2024	Product Innovation in ESG Buddy Ag Tech Expo	World New Energy Centre Sdn. Bhd	Exhibitor
2.	2024	Sharing session: Microbial kinetic analysis for biological treatment	IKA Works (Asia) Sdn Bhd	Speaker
3.	2023	Industrial visit to Wastewater Treatment Plant	Brand's Suntory Sdn Bhd	Visitor
4.	2023	Industrial visit for Eco-Friendly Remediation: Sustainable Sewage Solutions with Eco-Enzymes	MALE' Water & Sewerage Company PT LTD	Visitor
5.	2023	Sharing session: PETRONAS Net Zero Carbon Emissions 2050 Pathway	PETRONAS	Speaker
6.	2023	Building a Block of Risk Assessment in Green Design	PETRONAS	Speaker
7.	2021	National Seminar on Palm Oil Milling, Refining, Environment and Quality (POMREG 2022)	SYS Healthcare Sdn Bhd	Delegate
8.	2020	Biogas Production from Food Waste	TNB Research Sdn Bhd	Visitor
9.	2018	Solid maze trash trap at Sg Kerayong, Kuala Lumpur	Alliance Bank Sdn Bhd	Competition
10.	2018	Industrial Visit to Chemical Refinery Plant	Petron Refinery, Port Dickson	Visiting lecturer
11.	2018	Industrial Visit to Kilang Biogas Sisa Buah, Jogjakarta	Fruit Market Biogas Facility, Jogjakarta	Visiting lecturer
12.	2018	Industrial Visit to Pusat Inovasi Agroteknologi, Jogjakarta	Agrotechnology Innovation Centre (PIAT)	Visiting lecturer

COMMUNITY PROJECT (PROJECT LEADER)

No	Year	Title	Komuniti	Level
1	2025	Program Amazing Biowonder: Tenaga Bio-sel Lestari	SMK Putrajaya Presint 8(1)	5 Bintang
2	2025	Program EVZ-PMFC: Ecovoltzyme Plant Microbial Fuel Cell	SMK Desa Tun Hussein Onn, Kuala Lumpur	5 Bintang
3	2024	Program Pemindahan Ilmu: Jom Cuci Dengan Ecomixzyme	Kg. Gombak, Selangor	4 Bintang
4	2024	Program Pemindahan Ilmu: Kelestarian Pencuci EcoMixZyme daripada Sisa Limau Citrus	SMK. Convent Kajang, Jalan Gereja, Bandar Kajang, Selangor	3 Bintang
5	2024	Program Pemindahan Ilmu 'Karnival Stream': Teknologi Hijau menerusi Sabun Eco-Enzyme	SMK. Desa Tun Hussein Onn, Kuala Lumpur	3 Bintang
6	2023	Pemindahan Ilmu Sisa Kulit Sitrus sebagai Pencuci Pelbagai Guna	Jabatan Pendidikan Wilayah Persekutuan Kuala Lumpur (JPWPKL)	3 Bintang

RECOGNATION AT INTERNATIONAL & NATIONAL LEVEL
Professional Committee Appointment at International Level

No	Association	Title	Year
1	Women in Green Hydrogen	Executive member	2023 to date
2	Global Methane Associate Sub Committee	Executive member	2022 to date
3	Institute of Chemical Engineers, Malaysia Chapter (AMiChemE)	Associate member	2019 to date

Professional Committee Appointment at National Level

No	Association	Title	Year
1	National Standard Sub Committee, Department of Environment, Malaysia	Executive member	2023-2025
2	Persatuan Cendekiawan Ulung (PCU), Alumni Biasiswa Yang Di Pertuan Agong	AJK Promotion & Communication	2024-2025
3	Visiting Reseacher, Centre of Excellence Water Research and Environmental Sustainability Growth (WAREG)	Visiting Researcher	2024-2026
4	Associate Researcher, Institute of Nanoscience and Nanotechnology, Universiti Putra Malaysia	Associate Researcher	2023 to date

Scientific Reviewer in Journal Citation Index

No	Manuscript title	Journal	Category	Year
1	Oxidation Of Bio-Renewable Glycerol To Value-Added Chemicals Through Catalytic And Electro-Chemical Processes	Applied Energy	Top 10%	2018
2	Dynamic 3D carbon mapping with spatial micro bigdata	Applied Energy	Top 10%	2018
3	Rev01_Oxidation Of Bio-Renewable Glycerol To Value-Added Chemicals Through Catalytic And Electro-Chemical Processes	Applied Energy	Top 10%	2018
4	CFD modeling of hydrodynamics and kinetic reactions in a heavy oil riser reactor: influence of downward feed injection scheme	Powder Technology	Q2	2019
5	Rev01_CFD modeling of hydrodynamics and kinetic reactions in a heavy oil riser reactor: influence of downward feed injection scheme	Powder Technology	Q3	2019
6	Making next-generation biofuels a feasible reality	Current Opinion in Green and Sustainable Chemistry	Q1	2019
7	Anaerobic process with aluminum bauxite residue to enhance palm oil mill effluent treatment for methane production	Desalination and Water Treatment	Q4	2019
8	Improving bio-H ₂ production by manganese doped magnetic carbon	International Journal of Hydrogen Energy	Q1	2019
9	Continuous biohydrogen production from poplar biomass hydrolysate by a defined bacterial mixture immobilized on lignocellulosic materials under non-sterile conditions	Journal of Cleaner Production	Top 10%	2020
10	Cultivation Of Rhodotorula Toruloides Using Palm Oil Mill Effluent: Effect On The Growth, Lipid Production And Nutrient Removal	Journal of Science and Technology	Q3	2021
11	Assessment of domestic wastewaters as potential growth media for Chlorella vulgaris and Haematococcus pluvialis	Journal of Science and Technology	Q3	2021
12	Engineering of the Thermophilic Nitrile Hydratase from Pseudonocardia thermophila JCM3095 for Large-scale	International Journal of Biological Macromolecules	Q1	2021

Nicotinamide Production Based on Sequence-Activity Relationships

13	Fermentable sugar recovery from durian peel by using ultrasound-assisted chemical pretreatment	Ultrasonics Sonochemistry	Q1	2023
14	Rev01_Fermentable sugar recovery from durian peel by using ultrasound-assisted chemical pretreatment	Ultrasonics Sonochemistry	Q1	2024
15	Fermentative Biohydrogen Production from Sorghum Distillers Grains Using Anaerobic Microflora	Fuel	Top 10%	2024
16	A review on advancements in biogas production from waste biomass: Recent progress in pre-treatment techniques and innovations	Fuel	Top 10%	2024
17	Investigating the Influence and Mechanism of Substrate Carbon Source Variability on Enhanced Bio-hydrogen Production	Bioresources Technology	Top 10%	2024
18	Enhancing biohydrogen production from xylose at low temperature (20°C) using natural FeS ₂ Ore: Thermodynamic analysis and mechanistic insights	Bioresources Technology	Top 10%	2024
19	Rev01_Enhancing biohydrogen production from xylose at low temperature (20°C) using natural FeS ₂ Ore: Thermodynamic analysis and mechanistic insights	Bioresources Technology	Top 10%	2024
20	Efficient dark-fermentation biohydrogen production by <i>Shigella flexneri</i> SPD1 from biowaste-derived sugars through a green solvents approach	Bioresources Technology	Top 10%	2024

Scientific Reviewer in Scopus & Proceeding

No	Manuscript title	Publisher	Year	Category
1	Optimization of hydrothermal conditioning conditions for <i>Pennisetum purpureum</i> x <i>Pennisetum americanum</i> (Napier PakChong1 grass) to produce the press fluid for biogas production	Pertanika	2018	Proceeding
2	Study of glucose oxidase immobilization on hybrid nanoparticles: magnetic cellulose nanocrystals	Journal of Chemical Technology and Biotechnology (JCTB)	2018	Proceeding
3	Cultivation of <i>Rhodotorula Toruloides</i> Using Palm Oil Mill Effluent: Effect on The Growth, Lipid Production and Nutrient Removal	Pertanika	2021	Proceeding
4	Assessment of domestic wastewaters as potential growth media for <i>Chlorella Vulgaris</i> and <i>Haematococcus Pluvialis</i>	Pertanika	2021	Proceeding
5	Advances in Biomass Innovation towards a Circular Economy	Springer Book	2023	Book Chapter
6	Public Private Research Network (PPRN) 2.0 Phase 2 Year 2022	Xiamen University	2022	Proposal
7	8th International Symposium on Advanced Materials and Nanotechnology (iSAMN2024)	iSAMN2024 e-proceeding UPM	2024	Proceeding
8	A Study on the Impact of Chamber Size, Configuration, Environmental Factors and Maximum Power Point Tracking (MPPT) Integration on Microbial Fuel Cell Voltage	Journal of Science and Technology	2024	Proceeding

RECOGNATION AND EXTERNAL CONTRIBUTION

Recognition as Thesis Examiner at National Level

No	Examination	Name	Level	Year
1	External Examiner for KNC61810 Research Project for Master of Engineering in Energy and Environment Programme, Unimas	Curazon Landon Anak Munan	Master by Coursework	2021
2	External Examiner for KNC61810 Research Project for Master of Engineering in Energy and Environment Programme, Unimas	Siti Aishah binti Sallehuddin	Master by Coursework	2021
3	External Examiner for KNC61810 Research Project for Master of Engineering in Energy and Environment Programme, Unimas	Wong Shya	Master by Coursework	2021
4	External Examiner for KNC61810 Research Project for Master of Engineering in Energy and Environment Programme, Unimas	Watiqah binti Chali	Master by Coursework	2022
5	External Examiner for KNC61810 Research Project for Master of Engineering in Energy and Environment Programme, Unimas	Florence Wednna Sanggie	Master by Coursework	2022

Recognition as Thesis Examiner at International Level

No	Examination	Name	Level	Year
1.	Development and bench-scale optimization of a reactor system for rumen-based anaerobic digestion, from Cape Peninsula University of Technology, South Africa.	Gustav Ludwig Meyer, Matrix No:220541698	Master by Research	2021

Recognition as Judge

No	Conference/Competition/Exhibition	Category	Level	Year
1	Mapping the Path to Sustainability: Creative Infographics on Green Energy	Judge	National	2024
2	Technical Case Study Competition (UTM NACES 2021)	Judge for Technical Case Study	National	2021
3	6th International Biotechnology Competition and Exhibition (IBCEEx 2020).	Judge for Main Competition	International	2020
4	National Chemical Engineering Symposium (NACES)	Technical Debate Competition	National	2019
5	AFOB Malaysia Chapter International Symposium (AFOBMCIS)	Young Researcher Award	International	2019
6	International Chemical Engineering Symposium (IChES' 18), UTM Johor	Technical Debate Competition	International	2018
7	31st Symposium of Malaysian Chemical Engineers (SOMChe)	Best Oral Presenter Award	National	2018

Recognition as Invited Speaker

No	Title	Organizer	Level/Year	Category
1.	Thermophilic biohydrogen production utilizing activated carbon as immobilized cells: Effect of sugar concentration and inoculum to substrate ratio in food waste variations	AFOB Malaysia Chapter International Symposium (AFOBMCIS), The Everly, Putrajaya	International /2019	Invited Speaker
2.	Sewage & Effluent Treatment Processes - Practical Experiments on Wastewater Characteristics	Cambridge Training Sdn Bhd	National /2019	Speaker

3.	Wastewater Training: Wastewater Effluent and Treatment Process (WETPO1)	Master of Environmental Engineering, Universiti Putra Malaysia	National /2021	Invited Speaker
4.	Biochemical Engineering Seminar on Microbial Kinetic Analysis Biological Treatment	Department of Chemical and Environmental Engineering, Universiti Putra Malaysia	National /2023	Invited Speaker
5.	Workshop on Anaerobic Digestion: Biomass to Renewable Energy Processes by Department of Biological and Agricultural Engineering	Department of Biological and Agricultural Engineering, Universiti Putra Malaysia	National /2024	Invited Speaker

STUDENT DEVELOPMENT

Competition Project Advisor

No	Title	Organizer	Level / Year	Category
1.	Designing Solid Maze (SM) to trap solid waste to rivertalise sg. kerayong	Eco-Biz Dream Project, organize by Alliance Bank, Green tech, Eco Knight, Asia School of Bussines	Private/ National	2nd runner up, won RM3000
2.	Golden AIChE Challenge	International Chemical Engineering Symposium (IChES' 18), UTM Johor	International /2018	Gold (IQ challenge)
3.	Graphene balls for lithium rechargeable batteries in electric vehicles	International Chemical Engineering Symposium (IChES' 18), UTM Johor	International /2018	Gold (Poster)

Program Chairman

No	Program Linkage Institution/Industry	Level / Year	Category
1	Student Exchange Mobility to Department of Chemical Engineering, Universiti Gadjah Mada, Yogyakarta, Indonesia	International	Associate Lecturer
2	Student Exchange Mobility to Department of Chemical Engineering, Feng Chia University, Taiwan	International	Associate Lecturer
3	Industrial Visit to Maldives Utility Regulatory Authority (URA) dan Male' Water and Sewerage Company (MWSC)	International	Visiting Lecturer
4	Advisor to National Chemical Engineering Symposium (NACES) 2019	National	Advisor
5	Advisor to Student Competition Eco-Biz Dream Project 3 Challenge.	National	Advisor
6	Advisor to 14th Malaysia Chem-E-Car Competition 2019, 29 – 30 March 2019 at UniKL MICET, Alor Gajah Melaka.	National	Advisor
7	Coordinator for JINM Linkage: Amazing STEM di SMK Putrajaya Presint 8(1)	National	Coordinator
8	Coordinator for JINM Linkage: Sek. Men. Keb. Convent, Kajang, Selangor	National	Coordinator

POSITION RECOGNATION

Department Coordinator

No	Position	Head of Department	Year
1	Penyelaras Hal Ehwal Pelajar & Alumni (HEPA)	Assoc. Prof. Dr. Mohd Amran b Mohd Salleh	2018-2019
2	Penyelaras Penyelidikan	Prof. Dr. Ts. Mohd Razif b Harun	2020-2021
3	Penyelaras Penyelidikan	Assoc. Prof. Dr. Ir. Shamsul Izahar b Siajam	2022
4	Penyelaras Jaringan Industri & Masyarakat (JINM)	Assoc. Prof. Dr. Ir. Shamsul Izahar b Siajam	2023
5	Penyelaras Jaringan Industri & Masyarakat (JINM)	Assoc. Prof. Dr. Norhafizah bt Abdullah	2024
6	Penyelaras Penyelidikan	Assoc. Prof. Dr. Norhafizah bt Abdullah	2025-2027

Professional Committee Appointment

No	Program	Position	Level	Year
1	1 st Department Postgraduate MSKK Symposium	AJK Registration and Cert	Department	2020
2	1st International Conference on Innovation in Chemical Engineering and Technology (ICICET 2021)	AJK Technical and Publication	International	2021
3	2 nd Department Postgraduate MSKK Symposium	AJK Flow Manager and Examination	Department	2022
4	3 rd Department Postgraduate MSKK Symposium	AJK Registration and Cert	Department	2023
5	Persidangan Karnival STEM bersama sekolah-sekolah anjuran JPWKL	Department Coordinator	National	2023
6	2 nd International Conference on Innovation in Chemical Engineering and Technology (ICICET 2023)	Secretary 1	Department	2023-2024
7	8th International Symposium on Advanced Materials and Nanotechnology 2024 (ISAMN2024)	AJK Technical and Publication	International	2024
8	STEM: Kelestarian Alam Sekitar at SMK Convent Kajang, Selangor	Advisor	National	2024
9	Amazing STEM 1.0 at SMK Putrajaya, Presint 8(1)	Advisor	National	2024
10	Persatuan Cendekiawan Ulung (PCU) Alumni Biasiswa Yang DiPertuan Agong	AJK Publicity and Promotion	National	2025-2026
11	3 rd International Conference on Innovation in Chemical Engineering and Technology (ICICET 2026)	AJK Scientific	International	2025-2026

AWARDS

Award Achievement and Recognition (Fellowship/Excellent Service)

No	Name of the awards	Award Authority	Award Level	Year
1.	Anugerah Fellowship Naib Canselor, Penyelidik Muda (AFNC)	UPM	University	2025
2.	Anugerah Perkhidmatan Cemerlang (APC)	UPM	University	2024
3.	Anugerah Perkhidmatan Cemerlang (APC)	UPM	University	2019
4.	Sijil Perkhidmatan Cemerlang (SPC)	UPM	University	2023
5.	Sijil Perkhidmatan Cemerlang (SPC)	UPM	University	2022
6.	Sijil Perkhidmatan Cemerlang (SPC)	UPM	University	2021
7.	Sijil Perkhidmatan Cemerlang (SPC)	UPM	University	2020
8.	Sijil Perkhidmatan Cemerlang (SPC)	UPM	University	2018
9.	Biasiswa Yang DiPertuan Agong (BYDPA) for PhD degree	King of Malaysia	National	2014
10.	Pelajaran Diraja Award for bachelor's degree	King of Malaysia	National	2013
11.	Naib Canselor Award for bachelor's degree	UNIMAS	National	2013
12.	Gold Medal Award from Institute Engineering Malaysia	IEM	National	2013

Award Achievement and Recognition (Research and Academic)

No	Project title	Exhibition/Conference	Award	Year
1	CHApXcel: Precision Biomedica for Energy and Soil Health.	Engineering Innovation and Exhibition (EIE'25)	Anugerah Khas Inovasi	2025
2	CHApXcel: Precision Biomedica for Energy and Soil Health.	Engineering Innovation and Exhibition (EIE'25)	Gold Medal	2025
3	MAGBio: A Magnetite-Doped GAC for Waste2hydrogen Conversion	Engineering Innovation and Exhibition (EIE'25)	Gold Medal	2025
4	EVZ-PMFC: An Edukit for a sustainable plant microbial fuel cell via ecovoltzyme	Innovate for Impact: Engineering Futures for a Better World Design Competition	Bronze Medal	2025
5	Empowering Future Engineers Through Sustainable Innovation: Microbial Fuel Cell Prototypes for Green Energy and Environmental Solutions	7th International Putra InnoCreative Carnival in Teaching and Learning (I-PICTL2025) X SULAM@UPM CARNIVAL 2025	Gold Medal	2025
6	Transformative Teaching in Enzyme Recovery: Catalyzing Eco-Innovation for a Circular Bioeconomy	7th International Putra InnoCreative Carnival in Teaching and Learning (I-PICTL2025) X SULAM@UPM CARNIVAL 2025	Silver Medal	2025

Award FYP and Postgraduate Students

No	Project Title	FYP Students	Award/Category	Year
1	Modelling Kit of An Ergonomically Biogas Production from Cow Manure Wastewater in Malaysia	Tan Wei En - 188876	Gold Medal	2020
2	Digestate From Anaerobic Pond of Cow Manure for Hydroponic and Soil Cultivation	Divagar A/L Sivaselvam - 194893	Bronze Medal	2021
3	Thermophilic Biohydrogen Production by Mixed Culture: Effect of The Various Microbial Support Carrier	Mathesh Rao A/L Gunarayu - 195980	Gold Medal	2022
4	Magnetization Of Granular Activated Carbon to Enhance Biohydrogen Production in Thermophilic Fermentation of Pome	Loo Jing Lin - 199181	Silver Medal	2022
5	Evaluation of Attached-biofilm Formation Using Composite Clay Bio-media On Sequencing Batch Reactor for Biomethane Production	Looi Ean Ha - 200263	Gold Medal	2023
6	Feasibility Study on Bioelectricity Generation from Algae Biomass in Microbial Fuel Cell by Using Nanocomposite Cnf/Fe3O4 Anode	Ealvina A/P Seenivasan - 206611	Gold Medal	2024
7	Optimization of subcritical water pre-treatment for biogas enhancement on co-digestion of pineapple waste and cow dung using the response surface methodology	Adila Fazliyana Aili Hamzah	Gold Medal: International Session - Open Research	2022

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