

### **CURRICULUM VITAE**



# ASSOC. PROF. DR. SYAZWANI IDRUS

Department of Civil Engineering

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### Education

- 1. Ph.D (Environmental Eng.–Waste Treatment), Faculty of Engineering and the Environment, University of Southampton, Hampshire, United Kingdom 2013
- 2. MSc. (Civil Eng.) (Environmental Eng.) Universiti Teknologi MARA, Malaysia 2007
- 3. BEng. Hons (Civil Eng.) Universiti Teknologi MARA, Malaysia 2005

### **Areas of Interest**

- 1. Environmental Engineering Water and Wastewater Treatment Technology
- 2. Anaerobic conversion of biomass for biogas production
- 3. Water Treatment: Adsorbent and coagulant development
- 4. Groundwater Treatment Technology

# **Professional Qualification/ Membership/ Affiliation**

- 1. Member, Board of Engineers, Malaysia BEM
- 2. International Water Association IWA

	Appointments
Position	Duration

- 1. Deputy Director, Putra International Centre (i-PUTRA), Universiti 1 April 2023 31 March 2024 Putra Malaysia
- Coordinator, Master of Water Engineering, Faculty of Engineering, Sept 2022- Aug 2026 UPM

3. Associate Professor, Department of Civil Engineering, Faculty of Oct 2019 to date Engineering UPM

4. Senior Lecturer, Department of Civil Engineering, Faculty of July 2013 - Sept 2019 Engineering UPM

5. Mobility Coordinator and Summer Programme Coordinator, Faculty Jan 2018 – May 2020 of Engineering, UPM - Appointed by Deputy Vice Chancellor (Academic and International), UPM

6. Head of Linkages, Alumni and Mobility Unit, Faculty of Engineering, June 2017 – May 2020

7. Evaluation Committee Member, "Tabung Amanah Jaringan Industri June 2017 – May 2020 dan Masyarakat (JINM) Faculty of Engineering, UPM"

8. Head, Public Health Laboratory

9. Students Affairs' and Alumni Coordinator
 10. Tutor, Department of Civil Engineering, UPM
 Dec 2013 -May 2017
 2008 – June 2013

11. Civil Engineer (Ministry of Works, Malaysia) 2007 -2008

# **Professional Services, Internationalization and Extension**

2014 to date

Professional Services					
2.	Invited Speaker	Swimming Pool Management and Safety: Water Quality and waterborne disease.	2024		
3.	Interview Panel (PhD Scholarship)	Malaysian Scholarship, Scholarship Division, Ministry of Higher Education, Malaysia	2024		
4.	Interview Panel (PhD Scholarship)	International Students Scholarship, Scholarship Division, Ministry of Higher Education, Malaysia	2024		
5.	Invited Speaker	Seminar: Conducting A Literature Review and Writing a Review Paper	2024		
6.	Head of Project	Characterization of Food waste and Biogas analysis for integrated pilot plant with RNG system: Volatile Organic compounds and ammonia gas production (TNB Research Sdn Bhd. Research Contract RM 209,714.64)			
7.	Head of Project	Anaerobic Treatment of Corn Cob and Olec Wastewater. (Forward Energy Sdn Bhd Research Contract RM 5,750.00)			
8.	Head of Project	Evaluation of Poultry Farm Environmental Remedies and Environmental Balance Device Effectiveness. (Rimbun Daun Venture Sdn Bhd. Research Contract RM 5,796.00)			
9.	Program Director	Sharing session and Professional Talk on Water Industry in collaboration with National Water Service Commission (SPAN)	2023		
10.	Interview Panel (PhD Scholarship)	Scholarship Division, Ministry of Higher Education, Malaysia	2023		
11.	Subject matter experts (Ministry of Human Resources, Malaysia)	Evaluation of final report and presentation by consultant: Occupational Description Related to Water Resources, Supply And Treatment	2023		
12.	Subject matter experts (Ministry of Human Resources, Malaysia)	Evaluation of progress report and presentation by consultant: Occupational Description Related to Water Resources, Supply and Treatment	2023		
13.	Subject matter Experts (Newspaper) i.Bernama News_ii.Borneo Post iii.Asia Times iv.Harian Metro	Pollution of Slaughterhouse wastewater: Impact and Mitigation Measures <a href="https://docs.google.com/document/d/1hxuTUyeJf3aJw6PSF5Eif5LF0VJn-">https://docs.google.com/document/d/1hxuTUyeJf3aJw6PSF5Eif5LF0VJn-</a>	2023		

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14.	Interview Panel (PhD Scholarship)	Ministry of Foreign Affairs, Malaysia	2022		
15.	Interview Panel (PhD Scholarship)	Scholarship Division, Ministry of Higher Education, Malaysia	2022		
16.	Subject matter experts (Ministry of Human Resources, Malaysia)	Evaluation of progress report and presentation by consultant: Occupational Description Related to Water Resources, Supply And Treatment	2022		
17.	Subject matter experts (Ministry of Water and Environment, Malaysia)	Evaluation of final report and presentation by consultant: Malaysian Green Technology and Climate Change	2022		
18.	Subject matter experts (Public Works Department, Malaysia)	Investigating the potential source of water at various points in the sloped area.	2022		
19.	Coordinator	Curriculum Review: Master of Water Engineering	2022		
20.	Subject matter experts (Department of Environment, Ministry of Environment and Water)	Amendments to the Environmental Quality (Sewage) Regulations 2019: Workshop with Stakeholders.	2021		
21.	Invited Speaker (Ministry of Agriculture and Food Industries)	Waste Treatment Technology, Organized by Department of Veterinary and Services, Putrajaya.	2021		
22.	Subject matter experts: Head of Technology and Innovation Cluster	of National Sewerage Policy Study Workshop organized by Ministry of Water, Land and Natural Resources, Malaysia			
23.	Subject matter experts	Modern Pig Farming (Waste Treatment) - Department of Veterinary Services, Melaka and UCTC UPM			
24.	Committee Member	Curriculum Review: Bachelor of Civil Engineering			
25.	Head of Project	Food Waste Characterization for Biogas Anaerobic Digestion Process. (TNB Research Sdn Bhd. Industrial Grant RM 219,803.00)			
26.	Interview Panel (PhD Scholarship)	Scholarship Division, Ministry of Education, Malaysia	2019		
27.	Invited Speaker	Livestock Wastewater Treatment – Department of Veterinary Services ,Perak and UCTC UPM	2019		
28.	Invited Speaker	Livestock Wastewater Treatment – Department of Veterinary Services, Pulau Pinang and UCTC UPM	2019		
29.	Guest Lecture	International Guest Lecture, Food waste as source of biogas Production, Universitas Brawijaya, Indonesia			
30.	Guest Lecture	Waste Treatment Technology – Inbound Mobility Programme from Kunming University of Science and Technology, China			
31.	Invited Speaker	Fundamental of Anaerobic Digestion, Tenaga Nasional Berhad (TNB Research Sdn Bhd)	2018		
32.	Head of Project	Chemical and Biochemical Analysis of Anaerobic Digestion Process Using Food Waste as Feedstock awarded by TNB Research Sdn Bhd (Research Contract RM 130,838.00)	2018 - 2019		
33.	Committee Member	Curriculum Review: Master of Water Engineering	2017		
34.	Committee member	Researcher Links Workshop: Innovative Designs of Sustainable Agro-Hydro Health Systems	2017		

		(Jointly organized by UPM and Imperial College London)		
35.	Co Advisor Final Year Project	Waste Detained and Oil Trap - Politeknik Sabak Bernam, Selangor	2015	
36.	Committee Member	Curriculum Review: Bachelor of Civil Engineering	2014	
	Inte	rnationalization		
1.	Editorial Board	Edu Tourism Book, Internationalization Division (BPPT) of Higher Education, Ministry of Higher Education, Malaysia	2024	
2.	Speaker (Special topic: Adaptation to Climate Change Education in Advanced Degree: Current practices and Challenges)	Inter-Regional Symposium Organized by SEAMEO Regional Centre for Higher Education and Development (RIHED)	2024	
3.	Invited Speaker	Edu Tourism Program, Internationalization Division (BPPT) of Higher Education, Ministry of Higher Education, Malaysia	2024	
4.	Facilitator	Edu Tourism Program, Internationalization Division (BPPT) of Higher Education, Ministry of Higher Education, Malaysia	2024	
5.	Presenter	Putra Experience: Mobility and Summer Program in UPM, Internationalization Division (BPPT) of Higher Education, Ministry of Higher Education, Malaysia		
6.	Delegates	International Relation Officer Meeting with SEAMEO Regional Centre for Higher Education and Development (RIHED) of Asian International Mobility for Students (AIMS) - Malaysia Chapter	2024	
7.	Advisor	Visa and Pass Workshop: Pass Renewal and Cancellation	2024	
8.	Advisor	Visa and Pass Workshop: Visa Application Letter and Special Pass	2024	
9.	Delegates	UK-Malaysia Higher Education Roundtable and Partnership Showcase. Jointly Organized by British Council and Ministry of Higher Education, Malaysia	2024	
10.	Delegates and Presenter	German Academic Exchange Service (DAAD) Matchmaking Event: Visit of 20 German University Presidents to Malaysia	2024	
11.	Delegates	Working Visit to Education Malaysia Global Services and roundtable discussion with Mr. Novie Tajuddin, the CEO of Education Malaysia Global Services (EMGS).	2024	
12.	Advisor and Editor-in-Chief	E-Newsletter Putra International Centre (Vol IV)	2024	
13.	Advisor	Mobility Students Farewell Semester 1 2023/2024	2024	
14.	Forum Moderator	Shaping Global Minds Through Internationalization: 1 <sup>st</sup> International Carnival, UPM	2023	
15.	Advisor and Editor-in-Chief	E-Newsletter Putra International Centre (Vol I, II, III)	2023	
16.	Advisor	Mobility Students Farewell Semester 2 2022/2023	2023	

17.	Delegates	6th Asean +3 Rectors' Conference, Asean	2023
17.	2 ologanos	University Network (AUN), Surabaya, Indonesia	
18.	Advisor	Visa and Pass Workshop: Enforcement Phase	2023
19.	Delegates	Working visit with Minister of Higher Education, His Excellency Dato' Seri Mohamed Khaled Nordin to Islamic Republic of Iran	2023
20.	Delegates	17 <sup>th</sup> Asian International Mobility for Students (AIMS) Review Meeting, Tagaytay, The Philippines	2023
21.	Chairman	1 <sup>st</sup> International Carnival 'The Tapestry of Internationalization', Universiti Putra Malaysia.	2023
22.	Program Director	i-PUTRA and international students with community 'Green Living with Sustainable Lifetstyle' Sekolah Buluh Nipis Muadzam Shah,Pahang	2023
23.	Invited Speaker	Optimizing International Student Governance Performance during Post-Covid Era, Conference for Students Affairs Professional, Universiti Teknologi Petronas	2023
24.	Program Director	i-PUTRA with community 'Dosen Berkarya Universitas Brawijaya' Salak Tinggi, Sepang, Malaysia	2023
25	Committee Member	Meet and Greet with International Students in Malaysia: Internationalization Division of Higher Education (BPPT), Ministry of Higher Education, Malaysia	
26.	Advisor	i-PUTRA with Community: Sustainable Development Goals 6 and 7 at Universitas Brawijaya, Malang, Indonesia	2023
27.	Delegates	Malaysian Universities International Director Meeting (JKPA)	
28.	Visit Coordinator	Head of Delegation: The President, Ning Xia University, China and MoU Signing Ceremony	2019
29.	Visit Coordinator	Head of Delegation: The Director, International Relation Office, MIT World Peace University, Pune, Maharashtra India	2019
30.	Research Visitor	Department of Environmental Engineering, Faculty of Civil Engineering, Yildiz Technical University, Istanbul, Turkiye	2019
31.	Keynote speaker	International Forum on wastewater treatment and Management: Textile wastewater Treatment, Universitas Brawijaya, Indonesia	
32.	Advisor and escorting officer	Mobility program to Universiti Teknologi Brunei, Brunei	2018
34.	Advisor and escorting officer	Mobility program to Kunming University of Science and Technology, China	
35.	Committee member	Crisis Management Plan Workshop (International Student Affairs), Putra International Centre, UPM	2018
36.	Advisor and escorting Officer	Mobility programme to Nanyang Technological University and Nanyang Environment & Water Research Institute, Singapore	2017
	PhD and	Master Examination	
1.	External Examiner (Master- Research) Universiti Kebangsaan Malaysia (UKM)	Characterization Of Biofilm on Settled Sediments and Sewage Pipe Walls in Pre Treatment Process.	2024

2.	Internal Examiner	Estimating The Susceptibility of Solid Waste	2024	
	(Ph.D)	Emission On Land Cover And Air Quality From Cement Plant Factory Using Gaussian Plumes Model and GIS		
3.	Internal Examiner (Ph.D)	Performance Analysis Of Waste Cooking Oil Granulate Modified Bitumen And Asphalt Mixtures		
4.	Internal Examiner (Ph.D)	Incorporating Intangible Damage And Evaluating Vulnerability In Flood Risk Assessment And Management	2024	
5.	Internal Examiner (Ph.D)	Development of Design Criteria for A Novel Self- Regulated Bubbles Irrigation System	2024	
6.	Internal Examiner (Ph.D)	Performance Evaluation of Stone Mastic Asphalt Mixtures With Waste Polyethylene Terephthalate as Aggregate Replacement	2023	
7.	External Examiner (Ph.D.) Dr. Vishwanath Karad MIT World Peace University, Pune, India	Behavior of Reinforced Fly ash Fill with Cellular Mattress	2023	
8.	Internal Examiner (Master)	Ammonia Recovery From Thermophilic Composting Of Shrimp Aquaculture Sludge And Dewatered Cow dung	2023	
9.	Internal Examiner (Master)	Uncertainty In Univariate Flood Damage Function for Vulnerability and Risk Assessment: Case Study In Peninsular Malaysia		
10.	Internal Examiner (Master)	Development Of Granular Activated Carbon- Based Immobilized Beads Alginate and Chitosan-Alginate as Biohydrogen Production		
11.	External Examiner (Ph.D) Griffith University, Australia	Plastic Waste Management and Policy in the Fast-Food Industry in Vietnam.	2021	
12.	External Examiner (Ph.D) Universiti Teknologi Mara (UiTM)	Seawater Desalination Using Newly Developed Kenaf MCC Flat sheet membrane.	2021	
13.	Internal Examiner (Ph.D)	Malaysian River Stability Index (MRSI) By Incorporating Morphological Assessment.	2021	
14.	External Examiner (Master- Research) Universiti Kebangsaan Malaysia (UKM)	Sustainable Domestic Wastewater Treatment By Fungal Pellets Of Medicinal Mushroom Ganoderma Lucidum	2021	
15.	External Examiner (Ph.D) Savitribai Pune University, India	Experimental and Analytical investigation of Ferrocement Panel under impact loading.		
16.	External Examiner (Master-Research) Griffith University, Australia	Effect of steam explosion pre-treatment and feed ratio on methane yields during anaerobic co-digestion of sugarcane bagasse with chicken manure.		
17.	Internal Examiner (Master- Research)	An Experimental Study on the Effectiveness of a Narrow Crested Submerged Breakwater Under Varying Wave Conditions.	2020	
	Conference Co	mmittee/Journal Reviewer		
1.	Reviewer and Coordinator	Asian International Mobility for Students (AIMS) Gading Journal For Social Science	2023	
2.	Technical Committee	8 <sup>th</sup> International Conference on Green Energy Technologies	2023	

3.	Journal Reviewer	Applied Science, Water, Biomass Conversion and Biorefinery, Journal of Environmental Management, Sustainability, Energies, Coatings, Atmosphere, Bioresources Technology.		
4.	External Editor (Universitas Brawijaya, Indonesia)	7 <sup>th</sup> International Conference on Green Agro- industry and Bioeconomy (ICGAB 2023)		
5.	Technical Committee and Session Chair	7th International Conference on Green Energy Technologies, Frankfurt, Germany	2022	
6.	Journal Reviewer	Journal of Advance Civil Engineering Practice and Research, Journal of Science and Technology, Water and Environmental Journal Desalination and Water Treatment, Agronomy Research and many more	2022	
7.	Journal Reviewers	Waste and Biomass Valorization International Journal of Technology Journal of Royal Society Open Science and many more	2021	
8.	Scientific committee	International Symposium of water and wastewater management, Malatya, Turkey	2017	
9.	Technical Committee	ICBAE 2017 – 3 <sup>rd</sup> International Conference on Biotechnology and Agriculture Engineering, Osaka Japan	2017	
10.	Presenter	ICBAE 2017 – 3 <sup>rd</sup> International Conference on Biotechnology and Agriculture Engineering, Osaka Japan		
11.	Technical Committee Member & Editor Journal Technology Special Issue	Paddy and Water Environment Engineering Society (PAWEES) - International Network for Water and Ecosystems in Paddy Fields (INWEPF) Joint Conference 2015		
12.	Presenter/Session Chair	International Conference on Future Environment and Energy, Dubai UAE	2015	
		Extension		
1.	Biography	Ilmuan Kejuruteraan Awam Darul Aman (Book) Publisher: Pusat Ilmuan Darulaman	2024	
2.	Participant	Workshop On Common Space In Southeast Asian Higher Education: Are We Ready? - Organized By AKEPT And UiTM	2023	
3.	Participant	International Student Management: Visa and Pass Section Jointly Organized by Education Malaysia Global Services and Department of Immigration Malaysia		
4.	Participant	Program AKEPT Leading The Way: Getting Real	2019	
5.	Officiator	Graduation day (Form 5), Sekolah Menengah Tunku Abdul Jalil, Hulu Langat.		
6.	Head of Protocol Unit	Global Civil Engineering Conference, Kuala Lumpur. Officiated by Minister of Works		
7.	Facilitator	STEM Community Pogram with PrimarySchool Children Jointly Organized by Islamic Relief Malaysia and UPM		
8.	Programme Director	1st CiviL Engineering Alumni Dinner (30 years Establishment of Department)		
9.	Head of Project	Community Project: Construction of 2 unit houses for Orang Asli, Kampung Kachau Luar, Semenyih: National Blue Ocean Strategy		

(NBOS) Community Grant, Ministry of Higher	r
Education (RM 86,000)	

# Publications (\* Corresponding author)

### **Indexed Journals**

- 1. Hamad, Hamad Noori, **Syazwani Idrus**\*, Badronnisa Yusuf, Nur Syakina Jamali, Enhancing Methylene Blue Removal: Synthesis, Characterization, and Performance Evaluation of Chemically Activated Carbon Adsorbents, *Process Biochemistry* 2024
- 2. Hamad, Hamad Noori, **Syazwani Idrus**\*, Badronnisa Yusuf, Nur Syakina Jamali, Amimul Ahsan, Sri Suhartini, and Abdul Malek Abdul Wahab. 2024. Optimized Bentonite Clay Adsorbents for Methylene Blue Removal, *Processes* 2024
- 3. Nur Ain Fitriah Zamrisham, **Syazwani Idrus**\*, Mohd Razif Harun, Mohd Shahrizal Ab Razak, Khairina JamanBiogas production by integrating lava rock, red clay & ceramic bio ring as support carrier in treatment of landfill leachate with liquidised food waste Vol 204, *Biochemical Engineering Journal* 2024
- 4. Afifi Zainal, Razif Harun, Liyana Yahya, **Syazwani Idrus** Operational process stability in pilot dry anaerobic digester of source-sorted organic fraction municipal solid waste *Asia Pacific Journal of Chemical Engineering* 2024
- 5. Nina Farhana Mohd Jamaludin, Luqman Chuah Abdullah, **Syazwani Idrus**, Nurul Sakinah Engliman, Jian Ping Tan, Nur Syakina Jamali Nickel-iron doped on granular activated carbon for efficient immobilization in biohydrogen production Vol (391) *Bioresource Technology* 2024
- 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 By Using Immobilized Cells On Carbon Composites (GAC-NiFe<sub>3</sub>O<sub>4</sub>) Vol (485) Chemical Engineering Journal 2024
- 7. Nur Ain Fitriah Zamrisham, Abdul Malek Abdul Wahab, Afifi Zainal, Dogan Karadag, Dinesh Bhutada, Sri Suhartini, Mohamed Ali Musa, and **Syazwani Idrus\*** State of the Art in Anaerobic Treatment of Landfill Leachate: A Review on Integrated System, Additive Substances, and Machine Learning Application Vol 15 (7), 1303 *Water* 2023
- 8. Khairina Jaman, **Syazwani Idrus**\*, Abdul Malek Abdul Wahab, Razif Harun, Nik Norsyahariati Nik Daud, Amimul Ahsan, Shahriar Shams, and Md. Alhaz Uddin. Influence of Molasses Residue on Treatment of Cow Manure in an Anaerobic Filter with Perforated Weed Membrane and a Conventional Reactor: Variations of Organic Loading and a Machine Learning Application, Vol (3) 159 *Membranes* 2023
- 9. Sri Suhartini, Novita Ainur Rohma, Nur Hidayat, Nimas Mayang S Sunyoto, Efri Mardawati, Nanang Mascruhin, **Syazwani Idrus**, Young Hoon Jung, Lynsey MelvilleComparison of acid and alkaline pretreatment on methane production from empty palm oil fruit bunches (OPEFB): Effect on characteristics, digester performance, and correlation of kinetic parameters Vol (215) *Renewable Energy* 2023

- 10. Amimul Ahsan, Nur Syuhada Ahmad, Ali Riahi, M. Alhaz Uddin, Daud Nabi Hridoy, M. Shafiquzzaman, Monzur Imteaz, Syazwani Idrus, Nadhir Al-Ansari, M.A.U.R. Atiq, Anne Ng. Modeling of a new triangular shape solar distillation system integrated with solar PV panel and DC water heater, Case Studies in Thermal Engineering, Volume 44, 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*, 2023
- 12. Al-Sulttani, A.O.; Ahsan, A.; Al-Bakri, B.A.R.; Hason, M.M.; Daud, N.N.N.; **Idrus, S.**; Alawi, O.A.; Macioszek, E.; Yaseen, Z.M. Double-Slope Solar Still Productivity Based on the Number of Rubber Scraper Motions. *Energies* 2022
- Hamad, Nouri Hamad and Syazwani Idrus\*, Recent Developments in the Application of Bio-Waste-Derived Adsorbents for the Removal of Methylene Blue from Wastewater: A Review. *Polymers*, Vol 14, (783) 2022
- 14. Jaman, Khairina, Nurjannah Amir, Mohammed A. Musa, Afifi Zainal, Liyana Yahya, Abdul M. Abdul Wahab, Sri Suhartini, Tuan N. Tuan Mohd Marzuki, Razif Harun, and Syazwani Idrus\*. Anaerobic Digestion, Codigestion of Food Waste, and Chicken Dung: Correlation of Kinetic Parameters with Digester Performance and On-Farm Electrical Energy Generation Potential, Fermentation 8 (28) 2022
- 15. Afifi Zainal, Razif Harun and **Syazwani Idrus**, Performance monitoring of anaerobic digestion at various organic loading rates of commercial Malaysian food waste, *Frontiers in Bioengineering and Biotechnology*, Vol 10 2022
- 16. Najeeb Y.Y. Emran, A. Ahsan, Ebrahim H.H. Al-Qadami, M.M. El-Sergany, M. Shafiquzzaman, M. Imteaz, A.W.M Ng, M.A.U.R. Tariq, **Syazwani Idrus**, Z. Mustaffa, F.Y. Teo, Efficiency of a triangular solar still integrated with external PVC pipe solar heater and internal separated condenser. *Sustainable Energy Technologies and Assessments*, Vol 52 Part C. 2022
- 17. Tuan Nurfarhana Tuan Mohd Marzuki, **Syazwani Idrus**\*, Mohammed Ali Musa, Abdul Malek Abdul Wahab, Nur Syakina Jamali, Hasfalina Che Man and Sabrina Ng Muhamad Ng, Enhancement of Bioreactor Performance Using Acclimatised Seed Sludge in Anaerobic Treatment of Chicken Slaughterhouse Wastewater: Laboratory Achievement, Energy Recovery, and Its Commercial-Scale Potential. *Animals Vol* 11(11) 2021 (Special issue: Recent Advancements in Livestock Waste and Wastewater Management)
- 18. Sabrina Ng Muhamad Ng, **Syazwani Idrus\***, Amimul Ahsan, Tuan Nurfarhana Tuan Mohd Marzuki and Siti Baizura Mahat, Treatment of Wastewater from a Food and Beverage Industry Using Conventional Wastewater Treatment Integrated with Membrane Bioreactor System: A Pilot-Scale Case Study. *Membranes* Vol 11(6) 2021.
- 19. Mohammed Ali Musa and **Syazwani Idrus**\*, Physical and Biological Treatment Technologies of Slaughterhouse wastewater: A Review, *Sustainability* Vol 13 (9), 2021.
- 20. Hasfalina Che Man, Norshafiqah Khairul Anuar, Muhammad Hazwan Hamzah, **Syazwani Idrus**, Nik Norsyahariati Nik Daud, The Potential Use Of Decanter Cake Waste As Co-Substrate for Methane Production Under Mesophilic Condition, *Journal of Engineering Science and Technology*, Vol 16, Issue 3,2021
- 21. Daud, N.N.N., Oluremi, J.R., Jocksing, O.D., **Syazwani Idrus,** Assessment of geotechnical engineering properties of soils contaminated by wasted engine oil as construction material, Journal of Mines, Metals and Fuels, Vol 69(8), 2021.
- 22. Mohammed Ali Musa and **Syazwani Idrus**\*, Effect of Hydraulic Retention Time on the Treatment of Real Cattle Slaughterhouse Wastewater and Biogas Production from HUASB reactor, *Water* Vol 12 (2), 2020.
- 23. Mohammed Ali Musa, **Syazwani Idrus**\*, Mohd Razif Harun Tuan Farhana Tuan Mohd Marzuki and Abdul Malek Abdul Wahab, A Comparative Study of Biogas Production from Cattle Slaughterhouse Wastewater Using Conventional and Modified Upflow Anaerobic Sludge Blanket (UASB) Reactors, *International Journal of Environmental Research and Public Health*, Vol 17(10), 2020.

- 24. Mohammed Ali Musa, **Syazwani Idrus\***, Hasfalina Che Man and Nik Norsyahariati Nik Daud, Performance Comparison of Conventional and Modified Upflow Anaerobic Sludge Blanket (UASB) Reactors Treating High-Strength Cattle Slaughterhouse Wastewater, *Water* Vol 11(4), p806, 2019. Q2
- 25. Mohammed Ali Musa, **Idrus Syazwani**\*, Hasfalina Che Man , Nik Norsyahariati Nik Daud, Effect of Organic Loading Rate on Anaerobic Digestion Performance of Mesophilic Upflow Anaerobic Sludge Blanket Reactor (UASB) using Cattle Slaughterhouse Wastewater as Substrate, International Journal of Environmental Research and Public Health, Vol 15(10), 2018.
- 26. Mohammed Ali Musa, **Syazwani Idrus**\*, Hasfalina Che Man, Nik Norsyahariati Nik Daud, Wastewater Treatment and Biogas Recovery using Anaerobic, Membrane bioreactors (AnMBR) Review Paper: Strategies and Achievements, Energies (Special Issue: Biofuel and Bioenergy Technology), Vol 11(7), 2018
- 27. **Syazwani Idrus**\*, Sim Jian Zhe, Nurul Shafiqah Rosli and Nik Norsyahariati Nik Daud, Co-Digestion of Rice Straw Leachate and Domestic Waste Water for Biogas Production with Addition of Urea as Nitrogen Source, International Journal of Engineering and Technology Vol 10(1) p 76 81, 2018
- 28. **S. Idrus\***, A. Ahsan and Nik Daud, N., Anaerobic Digestion of Domestic Wastewater in different Salinity Levels: The Adaptation Process, Pertanika: Journal Of Science & Technology, Vol. 25(1), 2017
- 29. SC Anijiofor, NNN Daud, **S Idrus**, HC Man, Recycling of fishpond wastewater by adsorption of pollutants using aged refuse as an alternative low-cost adsorbent, Sustainable Environment Research, Vol 28(6), 315 321, 2018
- 30. AO Al-Sulttani, A Ahsan, AN Hanoon, A Rahman, NNN Daud, **S Idrus**, Hourly yield prediction of a double-slope solar still hybrid with rubber scrapers in low-latitude areas based on the particle swarm optimization technique, Journal of Applied Energy, Vol. 203 p. 280 303, 2017 Q1
- 31. Iqbal K Erabee, Amimul Ahsan, Bipin Jose, T Arunkumar, R Sathyamurthy, **Syazwani Idrus**, NN Nik Daud, Effects of electric potential, NaCl, pH and distance between electrodes on efficiency of electrolysis in landfill leachate treatment, Journal of Environmental Science and Health, Part A, p. 1 7, 2017
- 32. IK Erabee, A Ahsan, NNN Daud, **S Idrus**, S Shams, Manufacture of Low-cost Activated Carbon Using Sago Palm Bark and Date Pits by Physiochemical Activation, BioResources Vol 12(1), 1916 1923, 2017 Q2
- 33. Ali Omran Al-Sulttani, Amimul Ahsan, Ataur Rahman, NN Nik Daud, **S Idrus**, Heat transfer coefficients and yield analysis of a double-slope solar still hybrid with rubber scrapers: An experimental and theoretical study, Desalination Vol 407, 61 74, 2017 Q1
- 34. Iqbal Khalaf Erabee, Amimul Ahsan, Abid Wahid Zularisam, **Syazwani Idrus**, Nik Norsyahariati Nik Daud, Thirugnanasambantham Arunkumar, Ravishankar Sathyamurthy, Aiman Eid Al-Rawajfeh, A New Activated Carbon Prepared from Sago Palm Bark through Physiochemical Activated Process with Zinc Chloride, Engineering Journal, Vol 21(5), p. 1 14, 2017
- 35. IK Erabee, A Ahsan, B Jose, MMA Aziz, AWM Ng, **S Idrus**, NNN Daud, Adsorptive treatment of landfill leachate using activated carbon modified with three different methods, Korean Society Civil Engineer Journal of Civil Engineering Vol 22(4) p1 13, 2017
- 36. Nurul Shafiqah Rosli and **Syazwani Idrus**\*, Assessment of Potential Biogas Production from Rice Straw Leachate in Upflow Anaerobic Sludge Blanket Reactor (UASB), International Journal of Smart Grid and Clean Energy, Vol 5(3) p 135 143, 2016
- 37. Nik Norsyahariati Nik Daud, Nursheela Abu Mansor, Amimul Ahsan, **Syazwani Idrus**, Leachate Treatment Using Aged Refuse as Biofilter Medium, Pol. Journal of Environmental Study Vol. 24(2), p 605 609, 2015
- 38. A. Ahsan, M. Alamgir, M. Imteaz S. Shams, M.K. Rowshon, M.G. Aziz, **S. Idrus**, Municipal Solid Waste Generation, Composition and Management: Issues and Challenges A Case Study, Environment Protection Engineering Vol 41(3) p 43 59, 2015
- 39. Amimul Ahsan, Masksedah Kamaludin, M. M. Rahman, A. H. M. F. Anwar, M. A. Bek, **S. Idrus**, Removal of Various Pollutants from Leachate Using a Low-Cost Technique: Integration of Electrolysis with Activated Carbon Contactor, Water, Air, & Soil Pollution Vol 225(2163) p 1 9, 2014
- 40. **Idrus, S**\*., Banks, C., & Heaven, S., Assessment of the potential for biogas production from wheat straw washwater in upflow anaerobic sludge blanket digesters, Water Science and technology: A Journal of the International Association on Water Pollution Research Vol 66(12) p 2737 2744, 2012

#### **Publications**

#### **Non-indexed Journals**

- 1. Anijofor, S.C., Nik Daud, N.N., **Idrus S.** and Ahsan A., Aged refuse characterization as resource for wastewater treatment and landfill remediation, International Journal of Waste Resources Vol 7(2) p 1-4, 2017
- 2. N. N. Nik Daud, O. A. Adeleke and **S. Idrus**, Preliminary Assessment of Lakes Water Quality Status at Campus Area in Selangor, Malaysia, Malaysian Journal of Civil Engineering (MJCE) Special Issue Vol 28(1) p 42 49, 2016
- 3. **Idrus, S.,** Banks, C., & Heaven, S, Comparison of an Upflow Anaerobic Sludge Blanket and an Anaerobic Filter for Treating Wheat Straw Washed water, Journal of Hydrology and Environment Research, Vol 3(1) p 30 37, 2015

### **Conference Proceedings**

- 1. **Syazwani Idrus**, Putra Experience: Optimizing International Student Governance Performance during Post-Covid Era, Conference for Students Affairs Professional, Universiti Teknologi Petronas 2023
- 2. **Syazwani Idrus** and Tuan Nur Farhana Tuan Mohammed Marzuki, Enhancing Bioreactor Performance Using Acclimatized Seed Sludge in Anaerobic Treatment of Chicken Slaughterhouse Wastewater. 2nd Global E Webinar on Civil, Architectural, and Environmental Engineering, India 2022
- 3. **Syazwani Idrus** and Nor Liyana Hussain, Anaerobic co-digestion of Textile Wastewater with Food Waste and Cow Manure in Upflow Anaerobic Sludge Blanket Reactor: A comparative study. International E-Conference on Developments in Chemical, Biological and Environmental Sciences (DCBES-2021), Hyderabad India, 2021
- 4. Anijiofor Sandra, Hasfalina Che Man, Nik Norsyahariati Nik Daud and **Syazwani Idrus**, Molecular Diversity and Compositional Analysis of Microbiota In Aged Refuse Biofilter Revealed By Amplicon Sequencing, 5<sup>th</sup> International Conference on Agricultural and Food Engineering Joint Conference (CAFE*i*-2021), Universiti Putra Malaysia, 2021
- 5. **Syazwani Idrus** and Darwina Rone, Adsorptive Removal of Ferum from Groundwater using Waste Derived Adsorbent, International E-Conference on Advances In Science And Technology for Betterment Of Health, Environment And Energy, Bengaluru India, 2020
- Syazwani Idrus, Sim Jian Zhe, Nurul Shafiqah Rosli and Nik Norsyahariati Nik Daud, Co-Digestion of Rice Straw Leachate and Domestic Wastewater for Biogas Production with Addition of Urea as Nitrogen Source, Proceedings – 3rd International Conference on Biotechnology and Agriculture Engineering, Osaka Japan, 2017
- 7. **Syazwani Idrus**, Uzana Ismail, Nik Norsyahariati Nik Daud, Mesophilic Co-digestion of Automotive Wastewater And Rice Straw Leachate In Continuous Stirred Tank Reactor (CSTR), Proceedings International Symposium of Water and Wastewater Management, Malatya Turkey, 2016
- 8. Nurul Shafiqah Rosli, **S. Idrus**, Md Dom A. and Nik Daud N., Potential of pineapple waste extract (PWE) as co-substrate in Anaerobic Digestion of Rice straw Washed Water (RSWW): Enhancement of biogas production, Proceedings Global Civil Engineering Conference, Kuala Lumpur, 2017
- 9. **Idrus, S.**, Banks, C., & Heaven, S., Comparison of an Upflow Anaerobic Sludge Blanket and an Anaerobic Filter for Treating Wheat Straw Washwater, Proceedings International Conference on Future Environment and Energy, Dubai UAE, 2015
- 10. **Idrus, S.**, Banks, C.J., Heaven, S. and Nik Daud, N., Anaerobic Digestion of Domestic Wastewater in different Salinity Levels: The Adaptation Process, Proceedings World Research and Innovation Convention on Engineering and Technology, Putrajaya Malaysia, 2014
- 11. Khairul Anuar, N., Che Man, H., **Idrus, S.,** Nik Daud, N. N, Biochemical Methane Potential (BMP) from Anaerobic Co-digestion of Sewage Sludge and Decanter Cake, IOP Conference Series: Materials Science and Engineering Vol. 368(1), p.12 27, 2018
- 12. Nik Norsyahariati Nik Daud, A Abdul Rahman, **S Idrus**, Preliminary assessment of lakes water quality status at campus area in Selangor Malaysia, Proceedings Malaysian Journal of Civil Engineering 28, 2016

- 13. Adeleke A.O, Nik Daud, N. and **S. Idrus**, Preliminary Assessment of Lakes Water Quality Status at Campus Area in Selangor, Malaysia, Proceedings World Research and Innovation Convention on Engineering and Technology, Putrajaya Malaysia, 2014
- 14. **Idrus, S.**, Banks, C., & Heaven, S., Assessment of the potential for biogas production from wheat straw washwater in upflow anaerobic sludge blanket digesters, Proceedings International Symposium on Anaerobic Digestion of Solid Waste and Energy Crops, Vienna Austria, 2012
- 15. **Idrus, S.** & Tajuddin, R.M., The effect of bubble size on the Rate Of Oxygen Transfer During Aeration Process, Proceedings World Engineering Conference, Penang, Malaysia, 2007

#### **Publications**

#### Books

- 1.Rosli N.S., **Idrus S\***., Md Dom A., Nik Daud N. N., Potential of Pineapple Waste Extract (PWE) as Cosubstrate in Anaerobic Digestion of Rice Straw Washwater (RSWW): Enhancement of Biogas Production., Lecture Notes in Civil Engineering, Springer (Vol 9, pg. 1479 1493, 2019. Indexed in Scopus)
- 2.Badronnisa Yusuf, Aidi Hizami Ales@Alias, Mohd Shahrizal Ab Razak, Noor Azline Mohd Nasir, Nabilah Abu Bakar, **Syazwani Idrus**, Zainuddin Md Yusoff, Nuzul Azam Haron, Nor Azizi Safiee, Farah Nora Aznieta Abd Aziz, Fauzan Mohd Jakarni "1985 2015, 30 Tahun Jabatan Kejuruteraan Awam, UPM", Universiti Putra Malaysia, ISBN 978-967-344-592-9, 2016

## **Publications (Newspaper)**

# Monograph/Module/Popular Writing & Article/Design

- 1.Bernama News 2023: https://www.bernama.com/en/b focus/v2/news.php?id=2153130
- 2.Borneo Post 2023
- 3.Asia Times 2023
- 4. Harian Metro 2023

https://docs.google.com/document/d/1hxuTUyeJf3aJw6PSF5Ei\_f5LF0VJn-k8/edit?usp=drive\_link&ouid=106470379201984213352&rtpof=true&sd=true

5.Innovation in wastewater and recyclable semi-solid wastes produces gas, Website Universiti Putra Malaysia, News :Published 31 Jan 2020

https://www.upm.edu.my/berita/inovasi\_air\_sisa\_dan\_sisa\_separa\_pepejal\_boleh\_diguna\_semula\_hasilk an\_gas-55157?L=en

6.Newspaper article "Pembinaan 2 Unit Rumah Rumah Orang Asli" 24th July 2016, Utusan Malaysia

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TitlePositionTypeISBN/ISSN No.YearModern Pig FarmingMemberDrawing (Artistic Work)AR20200035622020Model (MPF) UPM

Research Grants \*Principal Investigator (PI) Co-reseacher (Co)

No	Project Title	Amount (RM)	Year	Source of Fund
1.	Enhancing Anaerobic Co-Digestion of Cow Manure and Molasses Residue With Agro- Waste and Decanter Cake-Derived Activated Carbon: Performance Comparison and Kinetic Analysis *(PI)	RM 20,000	July 2022- June 2024	Geran Putra Inisiatif Siswazah, Putra- UPM
2.	Food Waste Characterization for Biogas Anaerobic Digestion Process *(PI)	RM 219,803	Aug 2019 to June 2022	TNB Renewable Energy and TNBR Sdn Bhd (Industrial Grant)
3.	Biogas Production from Slaughterhouse Wastewater and Treatment using Hybrid Upflow Anaerobic Membrane Bioreactor *(PI)	RM 25,000	Apr 2018 to Oct 2020	Geran Putra Inisiatif Siswazah, Putra- UPM (IPS)
4.	Co-digestion of Rice Straw Leachate and Domestic Wastewater for Biogas Production in Continuous Stirred Tank Reactor (CSTR) *(PI)	RM 50,000	Mar 2015 to Sep 2017	Geran Putra Inisiatif Pensyaeah Muda (IPM)
5.	Investigating the kinetics of co-digestion of Rice Straw Leachate and Domestic Wastewater for Optimal Biogas Production in UASB *(PI)	RM 76,000	Dec 2014 to Aug 2017	FRGS-MOHE
6.	Community Project: Construction of 2 unit houses for Orang Asli, Kampung Kachau Luar, Semenyih *(PI)	RM 86,000	2015 to 2017	NBOS-MOHE
7.	Determination of Permeability and Soil Water Characteristics Curve (SWCC) of the Lateritic Soil treated with Lime under Cyclic Wetting and Drying Conditions (Co -researcher)	RM 20,000	1 Nov 2019- 31 Oct 2021	Matching Grant UPM- UTM
8.	A feasibility Study on Biogas Production using Continuous Stirred Tank Reactor from Domestic Wastewater Produced by 'Off-grid' households and communities in Royal Belum (Co -researcher)	RM 13,000	Nov 2017 to Apr 2018	Newton Fund (Researcher Link- Work shop)
9.	Innovative designs of sustainable agrohydro-health systems for off-grid communities in a changing Malaysia (Coresearcher)	RM 245, 933	Apr 2017 to Mar 2018	International Grant
10.	Integration of electrocoagulation and palm- shell activated carbon contactor to remove multi-pollutants from landfill leachate: a sustainable approach. (Co -researcher)	RM 20,000	Apr 2016 to Sep 2017	Geran Putra Inisiatif Siswazah
11.	The Efficiency Of Aged Refuse As A Biofilter For Leachate Treatment. (Co - researcher)	RM 90,000	Jan 2015 to Jan 2018	Geran Putra Individu/ Berimpak

12.	Braided River Enhancement Using Spur Dikes. (Co -researcher)	RM 110,000	Mar 2015 to Mar 2017	Geran Putra Individu/ Berimpak
13.	A Comparative Study On The Properties Of Pofa Blended Concrete (Co -researcher)	RM 50,000	Mar 2015 to Sep 2017	Geran Putra Inisiatif Putra Muda
14.	Development of an Active Forced Convection Solar Still Coupled With External Condenser, Solar Panel and Heater To Produce Potable Water From Saline Water (AFSSCP) (Co -researcher)	RM 20,000	Dec 2015 to Dec 2017	Geran Putra Inisiatif Siswazah
15.	Anaerobic conversion of biomass for biogas production, Bio reactor design - Upflow Anaerobic Sludge Blanket, Continuous Stirred Tank Reactor and Anaerobic Filter	-	2009 – 2013	Bioenergy and Organic Resources Research Group , University of Southampton, UK

	Consultation/ Industrial	Collaboration as F	Pricipal Investi	gator (PI)
No.	Project Title	Amount (RM)	Year	Source of Fund
1.	Characterization of Food waste and Biogas analysis for integrated pilot plant with RNG system *PI	RM 209,714.64	2023-2024	TNB Research Sdn. Bhd.
2.	Anaerobic Treatment of Corn Cob and Oleo Wastewater*PI	RM 5,750.00	2024	Forward Energy Sdn Bhd
3	Evaluation of Poultry Farm Environmental Remedies and Environmental Balance Device Effectiveness*(PI)	RM 5,796	2023	Rimbun Daun Venture Sdn Bhd
4.	Anaerobic Treatment of Landfill Leachate* <b>PI</b>	In-kind Contribution	2022	Forward Energy Sdn Bhd
5.	Anaerobic Treatment of Molasses wastewater*PI	In-kind Contribution	2021	Forward Energy Sdn Bhd
6.	Chemical and Biochemical Analysis of Anaerobic Digestion Process Using Food Waste as Feedstock *PI	130,838.00	Oct 2018 to Jun 2019	TNB Research Sdn. Bhd.

	Awards/Recognition					
No	Award Type	Title	Award Authority	Level	Year	
1.	Certificate	Excellent Teaching Award (Undergraduates)	UPM	University	2022	
2.	Award	Excellent Service Award (Anugerah Perkhidmatan Cemerlang-APC)	UPM	University	2016 and 2020	
3.	Certificate	Excellent Service Certificate	UPM	University	2019	

		(Sijil Perkhidmatan Cemerlang)			
4.	Industrial Grant	Head of Project, Food Waste Characterization for Biogas Anaerobic Digestion Process	TNB Research Sdn Bhd	National	2019 – 2022
5.	Bronze medal	Cattle Slaughterhouse Wastewater Treatment Using Modified UASB	Universiti Putra Malaysia	Engineering Innovation Exhibition	2019
6.	Industrial Project	Head of Project, Chemical and Biochemical Analysis of Anaerobic Digestion Process Using Food Waste as Feedstock	Tenaga Nasional Berhad Research Sdn Bhd	National	2018 – 2019
7.	Gold Medal	Research Project, Adsorptive Removal of Heavy Metals from Groundwater	Faculty of Engineering, UPM	FYP Open Day	2018
8.	Silver Medal	Research Project, Biodegradation Rate of Textile Wastewater by Co Digestion of Food Waste and Cow Manure	Faculty of Engineering, UPM	FYP Open Day	2018
9.	Best Project Award	Adsorptive removal of heavy metals from groundwater	Faculty of Engineering, UPM	Pre- Graduation Ceremony	2018
10.	Bronze Medal	A Comparison Between Ambient, Mesophilic and Thermophilic Upflow Anaerobic Sludge Blanket (UASB) Reactors Treating Livestock Wastewater	Faculty of Engineering, UPM	FYP Open Day	2017
11.	Certificate	Excellent Teaching Award (Undergraduates)	UPM	University	2018
12.	Certificate	Excellent Teaching Award (Postgraduates)	UPM	University	2018
13.	Certificate	Excellent Teaching Award	UPM	University	2017
14.	Certificate	Excellent Service Award (Anugerah Perkhidmatan Cemerlang)	UPM	University	2017
15.	Certificate, Award	Excellent Service Award	UPM	University	2016
16.	Certificate	Excellent Service Award	UPM	University	2012
17.	Certificate	Academic Award	UPM	University	2008

	Student Supervision					
PhD (	PhD (Main Supervisor)					
No.	Name	Title	Status			
	Mohammed Ali Musa	Treatment of Cattle Slaughterhouse Wastewater and	Completed			
1.	(2017-2020)	Biogas Production Using Upflow Anaerobic Sludge	(Graduated on			
		Blanket (UASB) Reactors	time)			
	Hamad Noori Hamad	Development of Modified Activated Carbon and	Viva Completed.			
2.		Bentonite Clay via ZnCl <sub>2</sub> As Adsorbent for Removal of	Thesis accepted			
(2021 -2024)		Methylene Blue From Aqueous Solutions	for PhD.			
	Khairina Jaman	Numerical Modeling of Dry and Wet Anaerobic Co-				
3.	(2024)	Digestion of Cow Manure and Food Processing Waste	On going			
	(2024)	Produced from Agro-Food Industry				

	Abduljabbar Safa Zaid	Development and evaluation performance of hybrid	
4.	Abduljabbar	activated carbon and chitosan gel for removal of heavy	On going
	(2024)	metals.	

PhD (Co-Supervisor)

No.	Name	Title	Status
1.	Ali Omran Muhsin Al-Sulttani	Productivity Enhancement and Modelling of A New Double-Slope Solar Still with Rubber Scrapers In Low Latitude Areas for Desalination of Seawater	Completed
2.	Anijiofor Sandra Chinenyenwa	Adsorption and Biodegradation of Pollutants from Livestock Wastewater by Aged Refuse Bioreactor	Completed
3.	Iqbal Khalaf Erabee	Development of A Hybrid Technique by Integrating Electrolysis with Sago Palm Bark Activated Carbon to Treat Landfill Leachate	Completed
4.	Nur Muhammad Afifi Bin Zainal	Biogas Optimization from Anaerobic Digestion of Food waste: Techno-economic assessment	On going
5.	Nina Farhana Binti Mohd Jamaludin	Biomethane production from poultry leachate utilizing immobilized cell and biochar membrane in anaerobic membrane bioreactor (AnMBR).	On going
6.	Ahmed Nurudeen Onomhoale	Geoelectric Monitoring And Geotechnical Evaluation Of Bioremediated Hydrocarbon Contaminated Sites In Eleme, Nigeria.	On going

**Master with thesis (Main Supervisor)** 

No.	Name	Title	Status
1.	Nurul Shafiqah Rosli	Rice Straw Wash water with Urea and Co-Digestion of Anaerobic Treatment Application	Completed
2.	Tuan Nurfarhana Tuan Mohd Marzuki	Enhancement of Bioreactor Performance using Acclimatized Seed Sludge in Anaerobic Digestion of Chicken Slaughterhouse Wastewater: Energy recovery and its commercial-scale potential.	Completed
3.	Khairina Jaman@Zaman	Performance Comparison and Kinetics Evaluation of Dry and Wet Anaerobic Co-Digestion of Cow Manure and Food Processing Waste Produced from Agro-Food Industry.	Completed
4.	Nur Ain Fitriah Zamrisham	Landfill Leachate Treatment Using An Integrated Upflow Anaerobic Reactor And Machine Learning Application	On- going

Master with thesis (Co- supervisor)

No.	Name	Title	Status
1.	Norshafiqah Binti Khairul Anuar	Biomethane production from anaerobic process of sewage sludge	Completed
2.	Hamasa Kambakhsh	Geological and Geotechnical Characteristic of Weathered limestone	On going

Master by coursework (Main Supervisor)

No.	Name	Title	Status
1.	Azmir Md Dom	Assessment of Potential for Biogas Production from Rice Straw Leachate (RSL) & Fruit Waste Extract (FEW) in UASB (Upflow Anaerobic Sludge Blanket)  Reactor	Completed

No.	Name	Title	Status
2.	Uzana Ismail	Evaluation Of Potential Of Biogas Production From Automotive Wastewater And Rice Straw Leachate In Continuous Stirred Tank Reactor (CSTR)	Completed
3.	Fauziah Abdul Wahid	Treatment Of Food Court Wastewater Using UASB Reactor: The Biogas Production and Removal Of Oil & Grease.	Completed
4.	Ahmad Abdi Ginde	Evaluation Of The Potential Of Lake Water Treatment Using Synthetic Adsorbent And Aeration Process	Completed
5.	Abdulrahman Abdullahi Osman	Investigating the Effectiveness of Natural Adsorbent Couple with Membrane Filtration In Treating Slaughterhouse Wastewater	Completed
6.	Prakash A/L Peechmani	Investigating The Efficiency Of Adsorption Technique As Pretreatment For Membrane Filtration In Eliminating Metals In Groundwater	Completed
7.	Hussein Shuaib Said	Investigating The Potential Of Grey Water For Agricultural Purposes	Completed
8.	Rayner Thiam	Textile Wastewater Treatment Using Anaerobic Digestion And Adsorptive Method	Completed
9.	Ali Ismail Gurhan	Investigating The Potential Of Coconut Shell And Rice Husk For Food Court Wastewater Treatment	Completed
10.	Ahmad Fuad Zainudin	Zero Effluent Discharge Of Water Treatment Plant Using Atomix Cougulator	Completed
11.	Mir Naveed Ahmed Zehri	Development Of Agro Waste Adsorbent For The Removal Of Organic Matter And Iron From Groundwater	Completed
12.	Gilbert Jee Wen Cheng	Recycled Glass As Alternative Ballasting Agent For Ballasted Flocculant Treatment Process	Completed
13.	Hamad Nouri	Investigating the potential of Agro Waste Adsorbent For Groundwater Treatment: Column Filtration vs Batch Study	Completed
14.	Barre Ahmed Jama	Assessment of slaughterhouse waste water treatment using upflow anaerobic sludge blanket reactor	Completed
15.	Abdirahman Abdiqani Jamal	Treatment of cow manure using continuous stirred tank reactor under thermophilic condition	Completed
16.	Sabrina Ng Muhammad Ng	The Effectiveness of Wastewater Treatment Plant Using Membrane Bioreactor System (MBR) For Food and Beverage (F&B) Industries	Completed
17.	Ozza Wahiddah Umar Pandih	Enhancing Coagulation Process for Low Turbidity Water Using Magnesium Hydroxide	Completed
18.	Mohamed Hassan Wasuge	Anaerobic digestion/co-digestion of fish market wastewater and vegetable waste: Bioreactor performance and energy production	Completed
19.	Ahmad Badli Yusoff	Investigating the Potential of Aluminum Sludge (Water treatment Proces) for Removal of Phosphorus from Raw Water	Completed
20.	Ahmad Musthaain	River of Life Implementation Assessment	Completed
21.	Pirasathnaidu A/L Simmanchalam	Enhancement of Biogas Production in Anaerobic Treatment of Sewage Sludge and Food Waste	Completed
22.	Mohamad Hafzan Abdul Aziz	Pollutant Removal Performance of Stormwater Runoff by Using Biochar-Based Filtration in Road Drainage	Completed
23.	Norazila Binti Abdul Wahab	Chlorine And Free Chlorine Evaluation Of Wisma Putra Swimming Pool Water Treatment : A Case Study	On going
24.	Nur Amanina Abdul Wahid	Waste Water Treatment in Oil Palm Field by using POFA	On-going

No.	Name	Title	Status
25.	Datchaini Thiagarajan	Treatment of Wheel Wash Water on the Construction for Truck Wash and Site Debris Process	On-going
26.	Mohammad Huzaifah Bin Wahap	Study On Wastewater Treatment Using Constructed Wetland	On-going

Bachelor (Final Year Project – Main Supervisor)

No.	Name	Title	Status
1.	Sim Jian Zhi	Co-digestion of rice straw leachate and domestic wastewater for biogas production: The carbon balance	Completed
2.	Lee Yau Loon	Co-digestion of rice straw leachate and domestic wastewater for biogas production: The removal of light metal cations	Completed
3.	Low Phak Sheng	Co-digestion of rice straw leachate and domestic wastewater for biogas production: The accumulation of total ammonia nitrogen	Completed
4.	Marziyah Md Isa	Thermophilic digestion of chicken slaughtering house wastewater (formation of total ammonia nitrogen)	Completed
5.	Zulkarnain Shamsuri	Thermophilic digestion of Rice straw washed water and domestic wastewater	Completed
6.	Wan Nur Akalili Wan Tajudin Shah	Comparison Between Ambient, Mesophilic, and Thermophilic using UASB in Treating Livestock Wastewater	Completed
7.	Nurhasanah Ashard Binti Bustari	Anaerobic co digestion of rice straw washed water and organic waste in different salinity level	Completed
8.	Muhammad Hanif Bin Mohd Suhaimi	Performance of solar still coupled with dc heater to produce potable water from seawater	Completed
9.	Norliyana Hussin	Co-Digestion Of Textile Industry Wastewater And Food Waste At Low Temperature	Completed
10.	Darwina Anak Rone	Adsorptive Removal Of Metals From Groundwater	Completed
11.	Rusfaradila Madda	Groundwater Treatment Using Membrane Technology And Physical Separation	Completed
12.	Natasha Adlin Mansor	Investigating The Potential Of Dyes Removal In Textile Wastewater Using Anaerobic Rector Bio Granular System	Completed
13.	Said Nuh Iqbal Said Indra	Assessment Of The Potential For Biogas Production From Food Waste At Room And Mesophilic Temperature	Completed
14.	Muhammad Idham Che Lah	Evaluation of effective microorganism (EM) and anaerobic process (AD) for treatment of livestock wastewater	Completed
15.	Najua Emelda Hakimi Taib	Co-digestion of food and chicken manure with mixed sludge from wastewater treatment in continuously stirred tank reactors	Completed
16.	Wan Nur Syafiqah W. Ahmad Puzi	Integrated anaerobic digestion and adsorbent technique for textile wastewater treatment	Completed
17.	Nur Jannah Amir	Methane production from anaerobic digestion of food waste: A comparative study of pilot plant and laboratory scale reactor	Completed
18	Khairina Jaman	Investigating the effect of co substrate addition during anaerobic digestion of chicken dung: A comparative study on mono digestion and co digestion	Completed

No.	Name	Title	Status
19.	Nurfarah Izzati Mohd Jantan	Anaerobic digestion of cow manure: Laboratory achievements and its commercial-scale application potential.	Completed
20.	Thinesh Kanpathy Raman	Performance comparison and kinetics evaluation of anaerobic reactors treating food processing wastewater and agro-waste	Completed
21.	Siti Aina Aziz	Technoeconomic assessment of an on-farm cattle slaughterhouse wastewater treatment	Completed
22.	Fazirah Mohd Suhut	Development of decanter cake derived adsorbent produced from Sludge for Removal of Heavy Metals in Wastewater.	Completed
23.	Nurul Nashrah Mohamad Khalid	Performance Investigation and Application ofArtificial Neural Network vs Kinetic Model in Anaerobic Codigestion of Horse Dung and Beverage Wastewater	Completed
24.	Nur Atikah Abd Aziz	A Comparative Study Of Heavy Metal Removal From Laundry Wastewater By Using Cow Bone And Coconut Shells.	On-going

Bachelor – Main Supervisor (Industrial training during pandemic with Industrial Collaboration)

No.	Name	Title	Industry	Status
1.	Mohd Asyraf Nasar Khan	Development of plant for food waste treatment: Energy recovery and commercial-scale application potential	Tenaga Nasional Berhad Research	Completed
2.	Muhammad Amirul Hamzah	Development of Plant for molasses wastewater treatment: Technoeconomic assessment of an on-site treatment	Tenaga Nasional Berhad Research	Completed

Teaching Experience							
No	Course	Credit hour	Level	Semester			
1.	ECV 3405 Water & Wastewater Engineering	3 (2+1)	Bachelor	Semester 2 2013/2014			
2.	ECV 3408 Environmental Engineering	2 (2+0)	Bachelor	Semester 1 2014/2015			
3.	ECV 5409 Water Quality & Quantity Laboratory	1 (0+1)	Master				
4.	ECV 3405 Water & Wastewater Engineering	3 (2+1)	Bachelor	Semester 2 2014/2015			
5.	ECV 3408 Environmental Engineering	2 (2+0)	Bachelor	Semester 1 2015/2016			
6.	ECV 3405 Water & Wastewater Engineering	3 (2+1)	Bachelor	Semester 2 2015/2016			
7.	ECV 3408	1 (1+0)	Bachelor	Semester 1			

	Environmental Engineering			2016/2017
	ECV 4406			2010/2011
8.	Advance Water & Wastewater Engineering	3 (3+0)	Bachelor	
9.	ECV 4403 Groundwater Engineering	3 (3+0)	Bachelor	Semester 2 2016/2017
10.	ECV 5403 Design of Water and Wastewater Treatment	3 (3+0)	Master	
11.	ECV 4406 Advance Water & Wastewater Engineering	3 (3+0)	Bachelor	Semester 1 2017/2018
12.	ECV 5406 Groundwater Hydraulics	3 (3+0)	Master	
13.	ECV 4403 Groundwater Engineering	3 (3+0)	Bachelor	Semester 2
14.	ECV 5415 Design of Water and Wastewater Treatment	3 (3+0)	Master	2017/2018
15.	ECV 4406 Advance Water & Wastewater Engineering	3 (3+0)	Bachelor	Semester 1 2018/2019
16.	ECV 5417 Groundwater Hydraulics	3 (3+0)	Master	
17.	ECV 3413 Environmental Engineering Laboratory	4(3+1)	Bachelor	
18.	ECV 4403 Groundwater Engineering	3 (3+0)	Bachelor	Semester 2 2018/2019
19.	ECV 5415 Design of Water and Wastewater Treatment	3 (3+0)	Master	2010/2013
20.	ECV 3413 Environmental Engineering	4(3+1)	Bachelor	Semester 1 2019/2020
21.	ECV 5417 Groundwater Hydraulics	3 (3+0)	Master	
22.	ECV 4412 Water and wastewater Treatment	3 (3+0)	Bachelor	Semester 2 2019/2020
23.	ECV 5415 Design of Water and Wastewater Treatment	3 (3+0)	Master	
24.	ECV 3413 Environmental Engineering	4(3+1)	Bachelor	Semester 1
25.	ECV 5417 Groundwater Hydraulics	3 (3+0)	Master	2020/2021
26.	ECV 4412 Water and wastewater Treatment	3 (3+0)	Bachelor	Semester 2
27	ECV 5415 Design of Water and Wastewater Treatment	3 (3+0)	Master	2020/2021
28.	ECV 3413 Environmental Engineering	4(3+1)	Bachelor	Semester 1 2021/2022
29.	ECV 5417 Groundwater Hydraulics	3 (3+0)	Master	
30.	ECV 4412 Water and wastewater Treatment	4(3+1)	Bachelor	Semester 2 2021/2022
31.	ECV 5415	3 (3+0)	Master	

	Design of Water and Wastewater Treatment			
32.	ECV 3413 Environmental Engineering	4(3+1)	Bachelor	Semester 1 2022/2023
33.	ECV 5417 Groundwater Hydraulics	3 (3+0)	Master	
34.	ECV 4413 Groundwater Engineering	4(3+1)	Bachelor	Semester 2 2022/2023
35.	ECV 5415 Design of Water and Wastewater Treatment	3 (3+0)	Master	
36.	ECV 3413 Environmental Engineering	4(3+1)	Bachelor	Semester 1 2023/2024
37.	ECV 5417 Groundwater Hydraulics	3 (3+0)	Master	
38.	ECV 4412 Water and wastewater Treatment	3 (3+0)	Bachelor	Semester 2
39.	ECV 5415 Design of Water and Wastewater Treatment	3 (3+0)	Master	2023/2024