



#### **CURRICULUM VITAE**

# PERSONAL DETAILS

Name : Khalida Muda
Date of Birth : 5 March 1969
Nationality : Malaysian
Marital Status : Divorce

Home Address : No 53 Jalan Utama 13, Taman Mutiara Rini,

81300, Skudai, Johor, Malaysia.

Correspondent : Water and Environmental Engineering

Address School of Civil Engineering,

Faculty of 43Engineering,

Universiti Teknologi Malaysia, Malaysia

81310, Skudai, Johor.

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khalida\_muda@yahoo.com

Website : civil.utm.my/khalida

ID Staff : 7308

# **ACADEMIC QUALIFICATIONS**

2010 : Doctor of Philosophy (Ph.D)

Universiti Teknologi Malaysia, Johor Bahru Campus

Biological Wastewater Treatment

Thesis: Facultative Anaerobic Granular Sludge for

Textile Dyeing Wastewater Treatment.

1996 : Master of Science (MSc.)

Manchester University, United Kingdom

Master Course: Pollution and Environmental Control

Master Project: Shear Force Effect on Algae

Bachelor of Science (Bsc.) with Honors

Universiti Kebangsaan Malaysia

Clinical Biochemistry

Thesis: Profil Bahan Organik dan Inorganik Dalam

Serum Individu Normal and Pesakit Urolitiasis

1994 : Diploma Penterjemahan Khusus (Sains & Teknik)

Dewan Bahasa & Pustaka

# RESEARCH EXPERTISE

Expertises : Biological Wastewater Treatment

Water Treatment

**Environmental Management** 

**Environmental Impact Assessment** 

# RESEARCH DIGITAL PROFILER

1. Scopus: 35105426800 (H Index - 9)

2. ORCID: 0000-0001-7285-7044

3. Researchgate ID: Khalida Muda (H Index - 10)

4. Google Scholar: Khalida Muda (H Index – 12)

5. Thomson Reuters RESEARCHID: K-5790-2012

6. Website:

i. civil.utm.my/khalida

ii. www.researchgate.net/profile/Khalida Muda

iii. http://orcid.org/0000-0001-7285-7044

# **WORKING EXPERIENCES**

1. Associate Professor

Department of Water and Environmental Engineering, Faculty of Civil Engineering, Universiti Teknologi Malaysia

December 2017 – Present

#### 2. Associate Professor

Department of Environmental Engineering, Faculty of Civil Engineering, Universiti Teknologi Malaysia

October 2013 - December 2017

#### 3. Senior Lecturer,

Department of Environmental Engineering, Faculty of Civil Engineering, Universiti Teknologi Malaysia

May 2010 – October 2013

#### 4. Lecturer

Department of Environmental Engineering, Faculty of Civil Engineering, Universiti Teknologi Malaysia

May 1997 - May 2009

#### 5. Scientific Officer

Department of Pathology, Hospital Kuala Lumpur

1994 - 1995

#### 6. Assistant Research Officer

Department of Biochemistry, Faculty of Life Sciences, Universiti Kebangsaan Malaysia

1993 - 1994

# 7. Research Assistance

Department of Public Health, Medical Faculty, Universiti Kebangsaan Malaysia 1992 – 1993

#### 8. Biochemistry Practical Training

Chemical Pathology Department, Medical Faculty, Universiti Kebangsaan Malaysia 1992

# 9. Biochemistry Practical Training

General Hospital Kuala Terengganu, Terengganu 1991

# AWARD AND HONORS RECEIVED

- 1. August 2020 Publication Award in Index Journal, Citra Karisma, UTM.
- 2. Sept 2019 Silver Award Exhibition & Competition for the innovation in Implementation of Active Learning Approach in Teaching Environmental Management Course at New Academia Learning Innovation (NALI 2019).

- 3. Nov 2019 Sijil Kecemerlangan Perkhidmatan Tahun 2018, Majlis Anugerah Gemilang, Fakulti Kejuruteraan 2019.
- 4. Dec 2018 Best Paper Award ICSEWR, Omar, A.H., Toeman, S., Muda, K. and Sulaiman, S.F. Effect of Magnetic Field on the Efficiency of Granular Sludge Development for Pharmaceutical Wastewater Treatment. 2<sup>nd</sup> International Symposium on Civil and Environmental Engineering (ISCEE'18), The Federal Kuala Lumpur.
- 5. Dec 2018 Best Paper Award ICSEWR, Zaidi, N.S., Muda, K., Loan, L.W., Sagawi, M.S. and Rahman, M.A.A. Potential of fruit peels in becoming natural coagulant for water treatment. 2<sup>nd</sup> International Symposium on Civil and Environmental Engineering (ISCEE'18), The Federal Kuala Lumpur.
- 6. July 2016 Anugerah Khidmat Cemerlang, Fakulti Kejuruteraan Awam, UTM.
- 7. June 2014 Paper Award, 2<sup>nd</sup> Place, 7<sup>th</sup> International Conference on Environmental. Science and Technology, Crown Plaza Hotel Reliant /Medical Center, Houston, USA
- 8. Sept. 2013 Anugerah Harta Intelek, Anugerah Kualiti, Fakulti Kejuruteraan Awam, UTM.
- 9. Sept. 2013 Special Recognation for the Most Active Task Force Conducive Working Environment (Publication Secretariat). Anugerah Kualiti, Fakulti Kejuruteraan Awam, UTM.
- 10. July 2012 Pengiktirafan Penyelidik, Fakulti Kejuruteraan Awam, UTM.
- 11. July 2012 Anugerah Khidmat Cemerlang, Fakulti Kejuruteraan Awam, UTM.
- 12. Dec 2011 Gold Medal, Seoul International Invention Fare (SIIF 2011), Pacific Hall, Coex, Seoul Korea.
- 13. Sept. 2011 Anugerah Khas Fakulti, Fakulti Kejuruteraan Awam, UTM.
- 14. July 2011 Publication Award in Index Journal, Citra Karisma, UTM.
- 15. Feb 2011 Gold Medal, Malaysian Technology Exhibition (MTE 2011), Kuala Lumpur Convention Centre, Kuala Lumpur.
- 16. Feb 2011 Green Technology of the Year. Malaysian Technology Exhibition (MTE 2011), Kuala Lumpur Convention Centre, Kuala Lumpur.
- 17. August 2010 Silver Medal, INATEX Exhibition. DSI, UTM JB Campus.

- 18. July 2000 Project Consultancy Award Terengganu River Basin Environmental Management Plan Study by Universiti Teknologi Malaysia.
- 19. October 1998 Visiting Scholars, Kyoto University, Kyoto, Japan. JSPS Program.

#### JOURNAL EDITOR/EDITORIAL/ADVISORY PANEL

- Editorial Board Member of Indonesian Journal of Urban and Environmental Technology, Department of Environmental Engineering, Universitas Trisakti May 2017 – present
- 2. Editorial Board Member of Malaysian Journal of Civil Engineering (MJCE) Faculty of Civil Engineering, UTM, Jan 2016 present
- 3. Editorial Board Member of Malaysian Journal of Civil Engineering (MJCE) Faculty of Civil Engineering, UTM, Jan 2013 Dec 2015

# ADMINISTRATIVE EXPERIENCE – FACULTY LEVEL

- 1. Acting as Associate Chair of Research and Academic Staff of School of Civil Engineering, Faculty of Engineering, UTM, 1 Sept 2020.
- 2. Head of Water &Wastewater Research Group, School of Civil Engineering, Faculty of Engineering, UTM, Mac 2020 present
- 3. FE Gold 1 Mentoring Program, Faculty of Engineering, UTM, 1 March 2020 31 Oct 2021
- 4. Research Manager, School of Civil Engineering, School of Civil Engineering, Faculty of Engineering, UTM, Oct 2018 present
- 5. Head of Water and Environmental Engineering Department, Faculty of Civil Engineering, UTM, Dec 2017 June 2018
- 6. Head of Environmental Engineering Department, Faculty of Civil Engineering, UTM March 2015 Nov 2017
- 7. Head of Environmental Laboratory, Department of Environmental Engineering, Faculty of Civil Engineering, UTM, July 2013 March 2015
- 8. Head of KAI: KFA 2: Excellence and Learning and Teaching and Transformation of Campus Experience, School of Civil Engineering, Faculty of Engineering, UTM

- 9. Task Force KFA 2: Excellence in Reseach and Industrial and Community Engagement, School of Civil Engineering, Faculty of Engineering, UTM Jan Dis 2019
- 10. Task Force KFA 6: Notability and Branding, School of Civil Engineering, Faculty of Engineering, UTM Jan Dis 2019
- 11. Facilitator and Instructor for Summer School Program, Department of Environmental Engineering, Faculty of Civil Engineering, UTM, 2017
- 12. Mentoring Postgraduate Student Supervision Courses AS103, Department of Environmental Engineering, Faculty of Civil Engineering, UTM, April 2017
- 13. Task Force Community Industry Engagement Program/Project, Department of Environmental Engineering, Faculty of Civil Engineering, UTM April Dec 2017
- 14. Task Force Increase the Visibility of UTM Expertise, Department of Environmental Engineering, Faculty of Civil Engineering, UTM, April Dec 2017
- 15. Task Force Branding and Global Prominent, Department of Environmental Engineering, Faculty of Civil Engineering, UTM, April Dec 2017
- 16. Task Force Enhancing Graduates' Ability to Global Levels Through Empowerment of Tradition of Intelligence and Entrepreneurship, Faculty of Civil Engineering, UTM, April Dec 2017
- 17. Task Force Student Development Program, Faculty of Civil Engineering, UTM, April Dec 2017
- 18. Task Force Realign Niche Areas Focus & Prioritize on Our Strength, Faculty of Civil Engineering, UTM, April Dec 2017
- 19. Task Force Skilled Staff with Holistic Values, Faculty of Civil Engineering, UTM, April Dec 2017
- 20. Coordinator for Summer School Program, Department of Environmental Engineering, Faculty of Civil Engineering, UTM, July 2011- June 2013
- 21. Committee Member of Undergraduate, Faculty of Civil Engineering, UTM. Feb 2016

   Dec 2016
- 22. Committee Member of Postgraduate, Faculty of Civil Engineering, UTM. Feb 2016 Dec 2016

- 23. Committee Member on Research and Innovation, Faculty of Civil Engineering, UTM. April 2016 Dec 2016
- 24. Coordinator for MYRA (Staff Visibility, Publication, Innovation, Income Generation, Network & Linkages), Faculty of Civil Engineering, UTM. April 2016 Dec 2016
- 25. Committee Member of the Opening of Quotation, Faculty of Civil Engineering, UTM. Feb 2015 –Jan 2017
- 26. Committee Member of the Movable Asset, Faculty of Civil Engineering, UTM. Feb 2015 –Jan 2017
- 27. Committee Member of the Price Evaluation, Faculty of Civil Engineering, UTM. Feb 2015 –Jan 2017
- 28. Head of Task Force Undergraduate (Case Study; Problem Based Learning), Faculty of Civil Engineering, UTM, March Dec 2015
- 29. Head of Task Force Graduate on Time, Faculty of Civil Engineering, UTM, March Dec 2015
- 30. Committee Member of Summer Course 2014: Managing Water Environment in Tropical Countries, Faculty of Civil Engineering, UTM, September 2014 August 2015
- 31. Head of Task Force To Enhance Staff Development, Faculty of Civil Engineering, UTM, Jan Dec 2014
- 32. Head of Task Force To Promote, Host and Encourage Students to Participate in International Exchange Programmes, Faculty of Civil Engineering, UTM, Jan Dec 2014
- 33. Secreteriat Committee for Seminar on River Mangement for Sungai Johor Catchment & Book Chapter Workshop, Institute of Environmental and Water Resources Management, UTM, 3<sup>rd</sup> 4<sup>th</sup> Feb. 2014.
- 34. Strategic Planning Workshop, Water Research Alliance, UTM, Golden Palm Tree Resort, Sepang, Negeri Sembilan, 24-26 April 2013
- 35. Committee Member for Case Study Establishment for Environmental Management Course, Faculty of Civil Engineering, UTM (SAB 4913/ SAM 5913/SKAA 3913)

- 36. Committee Member of Symposium on Alge Research with Japanese Delegation, Faculty of Sciences, UTM, Dec 2013
- 37. Head of Task Force for Publication (Under Global Player), Faculty of Civil Engineering, UTM, Jan 2013- Dec 2013
- 38. Committee Member of A Case Study Development for Environmental Management Course (SAB 4913/SKAA 3913), Faculty of Civil Engineering, UTM, Feb 2013
- 39. Course Coordinator of Environmental Management Course (SAB 4913/SKAA 3913) Faculty of Civil Engineering, UTM, August 2012 June 2014
- 40. Strategic Planning Workshop 2013, PBL1, Faculty of Civil Engineering, UTM, 17-18 Dec 2012
- 41. Facilitator of Faculty of Civil Engineering Retreat, Taman Hutan Lagenda Gunung Ledang, Batu Pahat, Johor, 21-24 Nov 2012
- 42. Stragetic Planning Workshop 2012, Faculty of Civil Engineering, UTM, Melaka Century Mahkota, Melaka, 20-22 Nov 2011
- 43. Acreditation Committee Member of Civil Engineering Bachelor Degree, Faculty of Civil Engineering, UTM August 2011 August 2013.
- 44. Exhibitor, Invention and Innovation Festival, UTMost, Padang Kawad, UTM, 17-19 Feb 2011
- 45. Committee Member of Kelab Keluarga FKA, Faculty of Civil Engineering, UTM, May 2010 April 2013.
- 46. Task Force Member on Publication, Faculty of Civil Engineering, UTM, Jan Dec 2012.
- 47. Committee Member of Undergraduate Service Management, Jan Dec 2012
- 48. Committee Member of Faculty of Civil Engineering Quality Day Ceremony, Feb 2012
- 49. Committee Member of ISO 9001:2008 (Time Table), Faculty of Civil Engineering, May 2011.
- 50. Coordinator of Image Analyzer Workshop, Faculty of Civil Engineering, UTM, May 2011

- 51. Committee Member of Fire, Safety and Health, Faculty of Civil Engineering, UTM, 1999-2004
- 52. Committee Member of Civil Engineering Seminar (SEMKA 2004), De Rhu Beach Resort, Kuantan, Pahang, 27-28 March 2004
- 53. Committee Member for Folder for the Faculty (Committee Member for Academic Publication), Faculty of Civil Engineering, UTM, Dec 2001 Dec 2003
- 54. Committee Member of Civil Engineering Seminar (SEMKA 2003/2004), Faculty of Civil Engineering, UTM, 16-17 & 24 Aug 2003
- 55. Committee Member of Civil Engineering Seminar (SEMKA 2002/2003), Faculty of Civil Engineering, UTM, 11-12 & 25 Jan 2003
- 56. Committee Member of Civil Engineering Seminar (SEMKA 2002/2003), Faculty of Civil Engineering, UTM, 3-4 & 17 Aug 2002
- 57. Committee Member of Civil Engineering Seminar (SEMKA 2002), Faculty of Civil Engineering, UTM, Puteri Resort, Ayer Keroh, Melaka, 15-16 May 2002
- 58. Committee Member of Civil Engineering Seminar (SEMKA 2002), Faculty of Civil Engineering, UTM, Grand Continental Hotel, Kuala Terengganu, Terengganu, 30 & 31 March 2002
- 59. Committee Member for Excellent Book of Faculty of Civil Engineering, Faculty of Civil Engineering, UTM, 1999-2002
- 60. Committee Member of Publication for the Faculty of Civil Engineering, Faculty of Civil Engineering, UTM, 1999-2001
- 61. Committee Member of Civil Engineering Seminar (SEMKA 2002), Faculty of Civil Engineering, UTM, 13,19 & 20 Jan. 2002
- 62. Committee Member of Civil Engineering Seminar (SEMKA 2001), Faculty of Civil Engineering, UTM Crown Prince Hotel, Tanjung Bungah, Pulau Pinang, 10-11 March 2001
- 63. Committee Member of Civil Engineering Seminar (SEMKA 2000/2001), Faculty of Civil Engineering, UTM, 11,17 & 24 Sept. 2000
- 64. Committee Member of Civil Engineering Seminar 2000 (SEMKA 2000), Faculty of Civil Engineering, UTM, Hotel Grand Continental Kuantan, Pahang, 20-21 May 2000

- 65. Committee Member of Civil Engineering Seminar (SEMKA 1999/2000-2), Faculty of Civil Engineering, UTM, 4-5 & 12 Mei 2000
- 66. Committee Member of Professional Civil Engineering Seminars 2000 (SEMPRO 2000), Faculty of Civil Engineering, UTM, Kuala Lumpur International Hotel, Kuala Lumpur, 19-21 Feb. 2000
- 67. Committee Member of Professional Civil Engineering Seminars 2000 (SEMPRO 2000), Kuala Lumpur International Hotel, Kuala Lumpur, 30 Jan 1 Feb 2000
- 68. Committee Member of Environmental Laboratory Accreditation, Faculty of Civil Engineering, UTM, Jan 1998-2000
- 69. Committee Member of Civil Engineering Seminar (SEMKA '99-2), Faculty of Civil Engineering, UTM Bayu Beach Resort Port Dickson, Negeri Sembilan. 6-7 Dis 1999
- 70. Editorial Committee "Faculty of Civil Engineering News" Faculty of Civil Engineering, UTM, April 1998
- 71. Committee Member of Faculty of Civil Engineering Marketing Team, Faculty of Civil Engineering, UTM, 7 Jan 1998
- 72. Secretary for Environmental Intensive Course". Department of Environmental Engineering, Faculty of Civil Engineering, UTM, 25-27 Nov 1997
- 73. Committee Member of Constructed Wetlands for Water Pollution Control Course Department of Environmental Engineering, Faculty of Civil Engineering, UTM, 26-27 Aug 1997
- 74. Committee Member of The Design of Wastewater Treatment Plants Course. Department of Environmental Engineering, Faculty of Civil Engineering, UTM, 5-7 Aug. 1997

# ADMINISTRATIVE EXPERIENCE – UNIVERSITY LEVEL

- 1. UTMFR Application Panel Evaluator Phase 1/20120, UTM, 2020
- 2. Technical Committee of The 4<sup>th</sup> International Conference on Water Resources (ICWR 2018), UTM, Oct 2018
- 3. FRGS Application Panel Evaluator Phase 1/2018, UTM, 2018
- 4. Special Performance Appraisal Panel for the Implementation of Exit Policy, Academic Staff, UTM, June 2017-May 2018

- 5. GUP Application Panel Evaluator Phase 1/2018, Faculty of Engineering, UTM, 2018
- 6. Facilitator and Speaker of Summer Course 2017: Managing Water Environment in Tropical Countries, UTM, Feb 2017
- 7. FRGS Application Panel Evaluator Phase 1/2017, UTM, 2017
- 8. TRGS Application Panel Evaluator Phase 1/2017, UTM, 2017
- 9. GUP Application Panel Evaluator Phase 1/2017, UTM, 2017
- 10. FRGS Application Panel Evaluator Phase 1/2016, UTM, 2016
- 11. PRGS Application Panel Evaluator Phase 1/2016, UTM, 2016
- 12. TRGS Application Panel Evaluator Phase 1/2016, UTM, 2016
- 13. GUP Application Panel Evaluator Phase 1/2016, UTM, 2016
- 14. Secretariat Member for Malaysian Education Experience Summer School 2016: Managing Water Environment in Tropical Countries, UTM, 18 Jan 5 Feb 2016
- 15. TRGS Application Panel Evaluator Phase 1/2015, UTM, 2015
- 16. FRGS Application Panel Evaluator Phase 1/2015, UTM, 2015
- 17. GUP Application Panel Evaluator Phase 3/2015, UTM, 2015
- 18. University Techical Committee (JPTU, UTM), March 2014 Dec 2015
- 19. TRGS Application Panel Evaluator Phase 2/2014, UTM, 2014
- 20. FRGS Application Panel Evaluator Phase 2/2014, UTM, 2014
- 21. PRGS Application Panel Evaluator Phase 1/2014, UTM, 2014
- 22. FRGS Application Panel Evaluator Phase 1/2014, UTM, 2014
- 23. Committee of Research, Development and Commercialization, UTM, October 2014
- 24. Scientific Committee of IGCESH 2014. The 5<sup>th</sup> International Graduate Conference on Engineering Science & Humanity 2014 (IGCESH2014), 19-21 August 2014

- 25. Reviwer of IGCESH 2013. The 4<sup>th</sup> International Graduate Conference on Engineering Science & Humanity 2013 (IGCESH2013), 16-17 April 2013
- 26. Facilitator and Speaker of Summer Course 2012: Managing Water Environment in Tropical Countries, Faculty of Civil Engineering, UTM, 2 -19 July 2012.
- 27. Officer of Protocol and Social Ethics Faculty of Civil Engineering, UTM, April 2011.
- 28. Facilitator of Research Methodology Courses, Faculty of Civil Engineering, UTM, October 2011.

#### NATIONAL APPOINTMENT/COMMITTEE

- Reseach Collaboration of Agreement between Universiti Teknologi Malaysia with Universiti Malaysia Kelantan, Universiti Malaysia Terengganu and Universiti Malaysia Perlis, 2019
- 2. Organizing Committee of Mentor Mentee STEM Program Southern Branch, March June 2019
- 3. FRGS Application Panel Evaluator Phase 1/2019, UMP, 18<sup>th</sup> Feb 15<sup>th</sup> March, 2019
- 4. Task Force Member for the Propposed Establishment of the Center for Science, Engineering, Technology and Mathematic (STEM) October 2018 October 2020.
- 5. Memorendum of Understanding between The Malaysian Water Association and Universiti Teknologi Malaysia, May 2018 April 2023.
- American Chemical Society (ASC) Malaysia Chapter Task Force Member for A Day with Water organized by Faculty of Sciences UTM, Malaysia Institute of Chemistry (IKM) Southern Branch, Johor Department of Chemistry and Johor Education Department, 22<sup>nd</sup> September 2018
- 7. Panel Evaluator Expert Field Categories Best Journal MAPIM-KPT Award 2017, Jan 2018, Kementarian Pengajian Tinggi
- 8. Assessor for MQA Program Accreditation for UTP, June 2017 May 2020
- 9. Memorendum of Understanding between DJ Water Sdn. Bhd. and Universiti Teknologi Malaysia, Dec 2017

- 10. External Assessor for the Promotion to Associate Proffesor, Universiti Kebangsaan Malaysia, Dec 2014
- 11. Exhibitor, Pameran Hari Harta Intelek, Persada Johor, 26 April 2011
- 12. Committee Member of Training and Research, Malaysia Water Assosiation (MyWA), Jun 2011
- 13. Exhibitor, Malaysian Technology Exhibition (MTE 2011), Kuala Lumpur Convention Centre, Kuala Lumpur, Jun 2010 -2012
- 14. Secretary for First National Short Course on Advance Wastewater Treatment. Kampus Kuala Lumpur, UTM, 27-29 Jan 1999
- 15. Committee for Science and Technology Promotion Program, Johor State, 24-25 Julai 1998
- 16. Committee Member for Science & Technology Exhibition of Johor State '98, 30 Sept. 1998

# INTERNATIONAL APPOINTMENT/COMMITTEE

- 1. Facilitator for Sakura Science Plan Program at Ritsumeikan University, Shiga, Japan, Sponsored by Japan Sciene & Technology Agency (JST), 17-26 Feb 2017
- 2. Committee Member of Comprehensive Symposium 4 (CS4), JSPS Asian Core: Reseach and Education Center for the Risk Based Oriented Integrated Watershed Management, 3<sup>rd</sup> 4<sup>th</sup> Dec 2014, UTM.
- 3. Committee Member of Islamic Madenah Universiti Curriculum (IUM), Civil Engineering Faculty, Dec 2014.
- 4. A Reviewer of The International Conference on mathematics, Engineering and Industrial Applications (ICOMEIA 2014), Universiti Malaysia Perlis, 28-30 May 2014
- Visiting Scientist at the Graduate School of Engineering, Kyoto University, Scientific Cooperation between JSPS (Japan Society for the Promotion of Science) and MOE (Ministry of Education, Malaysia). 3<sup>rd</sup> Comprehensive Symposium, JSPS Asian CORE Program, 27 – 30 Oct 2013.
- 6. Scientific Committee J-BioTech. The 3th International Biotechnology and Biodiversity Conference & Exhibition. Johor Bahru, Johor, 9-11 June 2012

- 7. Judge, International Engineering Invention & Innovation Exhibition (i-ENVEX) and Malaysian International Young Olympiad (MIYIO). 2020 Hall, Kangar, Perlis, 26-29 April 2012
- 8. Visiting Scientist at the Graduate School of Engineering, Kyoto University, Scientific Cooperation between JSPS (Japan Society for the Promotion of Science) and MOE (Ministry of Education, Malaysia). 1st Comprehensive Symposium, JSPS Asian CORE Program, 24 Feb. 1 March 2012.
- 9. Exhibitor, Seoul International Invention Fare, Pacific Hall, Coex, Seoul Korea, 1-4 Dec 2011
- 10. Technical Committee member of The 1<sup>st</sup> IWA Malaysia Young Water Professional International Conference, Kuala Lumpur. Dec 2009.
- 11. Visiting Scholars at Kyoto University, Kyoto, Japan, JSPS Program, Oct 1998

# PROFESSIONAL MEMBERSHIP / QUALITICATIONS / RECOGNITION

- 1. Member of Resource Sustainability Research Alliance, UTM.
- 2. Member of Water and Wastewater Treatment Research Group, Resource Sustainability RA, UTM.
- 3. Member of Malaysian Society for Engineering Technology (MySET)
- 4. Member of Society of Engineering Education Malaysia.

# TEACHING – UNDERGRADUATE COURSES TAUGHT

- 1. DAW 3513 Environmental Engineering
- 2. SAW 5913/SWZ 3913/SPK 3912 Environmental Engineering
- 3. SAE 3922/SAA 3922/SAM 5913/ SWZ 3922/SAB 4913/SKAA 3913 - Environmental Management
- 4. SAS 3912/SAE 3932/SAE 3912 SAC 3913/SAA 2913 - Water Quality Management
- 5. SAS 4914 Pollution and Environmental Control

- 6. SAE 4953/SAS 4953 Solid Waste Management
- 7. DAW 3952/SAA 3052/SAW 4052,

SAM 4051/SAB 3011 - Environmental Engineering Laboratory

8. SAA 4914/SAC 4914 - Advance Wastewater Treatment

# TEACHING - POSTGRADUATE COURSES TAUGHT

1. MKAK 1003 - Environmental Management and Sustainability

MKAK 1103
 Air and Noise Pollution

# **INTERNATIONAL GRANTS**

#### **ERASMUS**

1. Marine Coastal and Delta Sustainability for Southeast Asia (ERASMUS+; 610327-EPP-1-2019-1-DE-EPPKA2-CBHE-JP, 2020-2023) Capacity Building in Higher Education, (EU Total Grant: 968844 EUR-Jerman, Italy, Estonia, Malaysia, Vietnam) Co-Members. RM 73,461.00

# RESEARCH PROJECT UNDERTAKEN

# RESEARCH GRANTS – MOSTI (ESCIENCE FUND)

- Enhancement of Activated Sludge Settleability With Potential Reduction of Sludge Bulking Under Magnetic Field Effect (eScienceFund-Vot No. 4S032; 2012-2015) Co-Researcher; RM 325,000.00
- 2. Development of New Form Biogranular Sludge Under the Influence of Magnetic Induction for Industrial Wastewater Treatment (eScienceFund-Vot No. 4S029; 2012-2014) **Project Leader**; RM 227,000.00
- 3. Development of Granular Sludge System Containing Specialized Dye Degrading Microbes for Textile Wastewater Treatment (eScience Fund-Vot No. 79137 (02-01-06-SF310); 2007-2010) **Co-Researcher**; RM 220,000.00

# RESEARCH GRANTS – MOHE (FUNDAMENTAL RESEARCH GRANT SCHEME – FRGS FUND)

#### On-going

- 1. Determination the sorption behaviou of nickel and cadmium ions during struvite crystallization in wastewater. (MOHE- FRGS/1/2019/TK01/UTM/02/5; 2019-2021). **Co-Researcher**; RM77,900.00
- 2. The development of meshfree formulation for flood modeling and analysis. (MOHE-FRGS/1/2019/TK01/UTM/03/1; 2019-2021). **Co-Researcher;** Rm70,200.00
- 3. Role of active coagulant agent from fruit wastes in enhancing destabilisation of colloidal particles in wastewater. (MOHE-FRGS/1/2019/TK01/UTM/02/11; 2019-2021). **Co-Researcher;** RM106,700.00
- 4. Behaviour and transport mechanism of PM2.5 speciated mass and particle number concentration in urban environment in Southern Peninslar Malaysia. (MOHE-FRGS/1/2019/WAB05/UTM/02/7; 2019-2021). **Co-Researcher**. RM69,200.00
- 5. Removal Mechanism of Organics and Nutrients from Low-Strength Wastewater Using Biogranulation Technology. (MOHE FRGS Vot. No. 5F064; 2018-2020); RM 94,000.00
- 6. Study on the biodegradation process of nutrient in municipal wastewater under the influence of electromagnetic field (MOHE FRGS Vot. No. 4F984; 2017-2019) **Project Leader;** RM98,000.00

- 1. Magnetism Characteristic Towards The Filamentous Proliferation of Microorganisms Rate During Sludge Bulking Behavior. (MOHE FRGS Vot No. 4F512; 2014-2016) **Project Leader**; RM 98,200.00
- 2. Effect of Different Magnetic Field Adaptation on the Microbial Diversity, Activity and Settling of Activated Sludge in Sequencing Batch Reactors. (MOHE FRGS Vot No. 4F601; 2014-2016) **Co-Researcher**; RM116, 000.00
- 3. Characterization of Anaerobic Granular Sludge in Bioconversion of Leachate. (FRGS; Vot No. 78498; 2009-2011)- **Co-Researcher**; RM 50,000.00.
- 4. Biochemical Reduction of Azo Dye from Textile Dyeing Wastewater Using Facultative Granular Sludge. (FRGS-Vot No. 78211; 2007-2009)-Co-Researcher; RM 100,000.00

# RESEARCH GRANTS – MOHE (PROTOTYPE RESEARCH GRANT SCHEME – PRGS FUND)

#### On-going

 Development of Cyclic Aerobic Granular Sludge Bioreactor (CAgSBio) Prototype for Domestic Wastewater Treatment. MOHE PRGS-Vot No. 4L682; 2016-2018. Co-Researcher; RM215,000.00

#### Completed

1. Treatment of Textile Wastewater using Hybrid Biogranule System (PRGS MOHE-Vot No. 4L610; 2012-2014) **Co-Researcher**; RM375,000.00

# RESEARCH GRANTS – MOHE (EXPLORATORY RESEARCH GRANT SCHEME – ERGS FUND)

# Completed

- 1. New treatment approach for new emerging pollutant using magnetized biogranular sludge (MOHE ERGS Vot No. 4L119; 2013-2015) **Project Leader**; RM80,000.
- Bioadsorbance potential of selected banana species in removing metal (MOHE ERGS Vot No. 4L113; 2013-2015) Co-Researcher; RM 80,000.00

# RESEARCH GRANTS – MOHE (PUBLIC-PRIVATE RESEARCH NETWORK SCHEME – PPRN FUND)

# Completed

 Green and Efficient Treatment of Batik Wastewater using MICROCLEAR Technology (MOHE PPRN-Vot No. 4L202; 2016-2017) Co-Researcher; RM31,243.00

# RESEARCH GRANTS – MOHE (NETWORKING RESEARCH GRANT SCHEME – NG FUND)

- Application of STEM Activity in Learning the Basic Concept of Environmental Sustainability for Secondary School Students (MESTECC NG-Vot 4X461) Co-Researcher; RM300.00
- 2. Application of STEM Activity in Learning the Basic Concept of Water Treatment for Secondary School Students (MESTECC NG-Vot 4X463) **Co-Researcher**; RM300.00

- 3. Mentor-Mentee Program for Science Subject: Water Properties (MESTECC NG-Vot 4X464) **Co-Researcher**; RM300.00
- 4. Menaiktaraf Fasiliti Asas bagi Meningkatkan Kehidupan dan Ekonomi Asnaf (MOHE NG Vot 4X283; 2017) **Co-Researcher**; RM11, 986.00

# RESEARCH GRANTS – UTM (COLLABORATIVE RESEARCH GRANT SCHEME – CRG FUND)

- 1. CRG 15: Enhanced anaerobic and aerobic biogranulation system for treating palm oil mill wastewater. 2019-2021. **Program Leader**; RM160,00.00
  - i. CRG 15.1: Development and evaluation on the performance of aerobic biogranules system for the treatment of pretreated POM wastewater. 2019-2021. **Project Leader**; RM40,000.00
  - ii. CRG 15.1: Development and characterization on the newly developed natural coagulant suitable for the pretreatment of POM wastewater. 2019-2021. **Co-Researcher**; RM20,000.00
  - iii. CRG 15.1: Development and evaluation on the performance of an anaerobic biogranules system for the treatment of pretreated POM wastewater. 2019-2021. Co-Researcher; RM20,000.00
  - iv. CRG 15.1: Characterization and identification on the biological properties and microbial communities in the developed an anaerobic and aerobic biogranules during the treatment of pretreated POM wastewater. 2019-2021. **Co-Researcher**; RM20,000.00

# RESEARCH GRANTS - UTM (BUSINESS ENTITY RESEARCH GRANT SCHEME – BE FUND)

- 1. Pelestarian Sarang Lebah Kelulut Menggunakan Teknologi Bahan Binaan Alami. (UTM-CCIN-4Y237, 2020) **Co-Researcher**; RM 20000.00
- 2. Ternakan Kelulut Menggunakan Teknologi Simenfero Mesra Alam (UTM-CCIN 4Y159, 2019) **Co-Researcher**; RM 5000.00
- 3. Aplikasi Modul Kesedaran Air bagi Menerapkan Kefahaman Tentang Kepentingan Air Kepada Pelajar Sekolah Menengah. (UTM-CCIN-Vot No. 4Y205, 2019). **Co-Researcher**; RM2999.00

4. Membaik Pulih Projek Sistem Penuaian Air Hujan, Kg Air Papan Mersing, Johor (UTM-CCIN -Vot No. 4Y077; 2016-2017) **Co-Researcher**; RM15,000.00

# RESEARCH GRANTS – UTM (RESEARCH UNIVERSITY GRANT SCHEME – RUG FUND)

# On-going

- Carbon Dioxide Adsorption Between Liquid-Gas Phase in Palm Oil Effluent (POME) suing POME Sludge System (UTM-GUP Tier 2 Vot. No. 16J89; 2019-2020) Co-Researcher; RM 20,000.00
- 2. Study on Fertilizing Efficiency of Struvite Recovered in Portable Toilets Wastewater. (UTM-GUP Tier 2 Vot. No. 16J67; 2019-2020) **Co-Researcher**; RM 20,000.00
- 3. Removal of Organics and Nutrients from Domestic Wastewater Using Biogranulation Technology. (UTM-GUP Tier 1; 18H89; 2017) **Co-Researcher**; RM 50,000.00
- 4. Enhancement of Biogranular Process Through the Application of Natural Polymer for the Wastewater Treatment. UTM-GUP Vot No. 18H96; 2017-2019. **Project Leader;** RM50,000.00

- 1. Removal of Organics and Nutrients from Domestic Wastewater Using Biogranulation Technology. UTM-GUP Vot No. 18H89. **Co-Researcher**; RM50,000.00
- 2. PM2.5 Concentration Forecasting Using Geographic Information System (GIS) Spatial Mapping in Southern Peninsular Malaysia. UTM GUP-Vot No. 14J61; 2017-2018. Co-Researcher; RM20,000.00
- 3. Batch Test Study on Maintaining Low Dissolved Oxygen During Aeration Process in Wastewater Treatment under Exposure of Magnetic Field. UTM GUP-Vot No. 14J41; 2017-2018. **Co-Researcher**; RM20,000.00
- 4. Characterization and assessment of Atmospheric Segregated Fine Particulates in Urban-Industrial Area. UTM PASS-Vot No. 02K82; 2017-2018. **Co-Researcher**; RM20,000.00
- 5. Optimization of Coagulation Condition for Micropollutant Recovery in Wastewater Using *Jatropha Curca* (UTM GUP-Vot No. 12J71; 2016-2017) Co-Researcher; RM20,000.00

- 6. A GIS-Based Spatial Correlation Analysis for Atmospheric Fine Particulates Assessment of Urban-Industrial Area (UTM GUP-Vot No. 12J72; 2016-2017) Co-Researcher; RM20,000.00
- 7. Development of Baseline Data on Sludge Bulking in Selected Sewage Treatment Systems. (UTM GUP-Vot No. 12H26; 2015-2017) **Project Leader;** RM50,000.00
- 8. Water Quality Assessment and Modeling of Sg. Johor Basin (Flagship Grant-Vot No. 03G03; 2015-2016) Co-Researcher; RM103,500.00
- 9. Micro-bioreactor Systems Containing Various Palm-Based Materials (PBMS) in Palm Oil Mill. (UTM GUP-Vot No. 10H18; 2015-2016) **Co-Researcher**; RM26,000.00
- 10. Development of a high porosity carbon (HPC) from the POME sludge for Acttached-growth biological wastewater treatment process (UTM GUP-Vot No. 07H24; 2014-2015) **Project Leader**; RM 44,000.00
- 11. Innovative development of nanomagnetized biogranules for textile wastewater treatment. (UTM GUP-Vot No. 03H91; 2013-2015) **Project Leader**; RM 200,000.00
- 12. Enhancing bio-carriers in improving aerobic upflow bioreactor for tertiary treatment of plam oil mill effluent. (UTM GUP-Vot No. 01H53; 2011-2013) **Co-Researcher**; RM 130,000.00
- 13. Rhizofiltration for Enhancement of Municipal Wastewater Treatment. (UTM GUP; Vot No. 02J54; 2011-2013) **Co-Researcher**; RM 40,000.00
- 14. The Enhancement Of Microbial Granules Formation Using Augmentation Solution For Biogranulation Wastewater Treatment. (UTM GUP-Vot No. 01H08; 2011-2013) **Project Leader**; RM 130,000.00
- 15. Development of Microbial Granular Sludge for Tertiary Treatment of Palm Oil Mill Effluent (POME). (UTM GUP-Vot No. 01H07; 2011-2013) **Co-Researcher**; RM 145,000.00
- 16. Investigation and Determination on the Effectiveness of Phytoremediation (Rhizofiltration) Process to Improve the Performance of Domestic Wastewater. (UTM GUP-Vot No. 02J49; 2011-2012) **Co-Researcher**; RM 40,000.00
- 17. Imposex Occurrence on Gastropods as Indicator of Tributyltin (TBT) Contamination in Johor Coastal Areas (UTM GUP-Vot No. 02J48; 2011-2012) **Co-Researcher**; RM 40,000.00
- 18. Land Use Impact and Variation in Biogeochemical Properties on Inter Tidal Seagrass Shoal (UTM GUP-Vot No. 03J65; 2011-2012) **Co-Researcher**; RM 40,000.00

- 19. Biokinetic and specific degradation rate of ammonia-nitrogen and total organic carbon from leachate using microbial granular sludge. (ST\_UTMRG-Vot No. 77261; 2009-2012) -Project Leader; RM 20,000.00
- 20. Bioremediation of Color Contaminant for Textile Dyeing Wastewater Using Aerobic Granular Sludge (IRGS-Vot No. 75221; 2007)-Co-Researcher; RM 10,000.00

# RESEARCH GRANTS – UTM (RESEARCH UNIVERSITY GRANT SCHEME – FLAGSHIP FUND)

# Completed

1. Water Quality Assessment and Modeling of Sg. Johor Basin (Flagship Grant-Vot No. 03G03; March 2015- June 2016) **Co-Researcher**; RM103,500.00

# RESEARCH GRANTS – UTM (TRANSDISCIPLINE UNIVERSITY GRANT SCHEME – UTM TDR FUND)

- 1. Waste Materials as Housing Finishes with Thermal Insulation Performance. (UTM-TDR 47.2/T1, 06G64; 2018) Co-Researcher; RM 80,000.00
- 2. Ammonia Recovery From Palm Oil Mill Effluent Using Coconut Pith. (UTM-TDR15.3/T2, 05G09; 2018) Co-Researcher; RM 40,000.00
- 3. Modular Coordination and Waste Valorisation Towards Achieving Sustainable Housing. (UTM-TDR47, 07G06; 2018) Co-Researcher; RM 212,000.00

#### **CONTRACT RESEARCH GRANTS**

# Proposed Project

1. Analysis of River Water Quality (MBJBT). **Project Leader**, RM72,000.00

#### Completed

1. Rancangan Kawasan Khas Gugusan Pulau Tioman – Kajian Keupayaan Tampungan (Carrying Capacity) Terhadap Biodiversiti di Gugusan Pulau Tioman. (RJ Planning Consultant – April 2018 – October 2019). **Project Leader;** RM50,000.00

- 2. Verification and Performance Study of Pilot Trial Sewage Treatment Plant. (AEC Project Management SDN. BHD 4C173; Dec 2017- July 2018). **Co-Researcher**; RM42,241.00
- 3. Assessment Study of Sewage Treatment Plant Systems at Petronas Rapid Temporary Camp Facilities (Infra Desa (Johor) SDN. BHD CR Vot No. 4C154; July October 2017) Co-Researcher; RM 103,217.50
- 4. Improvement of pH in SAJH Water Network at Tenggaroh area. Contract Research Projet under SAJ Holding Sdn. Bhd. (SAJH-Vot No. 4C025; Sept 2012 March 2013) Co-Researcher; RM 45, 000.00

#### **INTELLECTUAL PROPERTY**

### New patent submission

- 1. IP/CR/00562 ARMS Stand for Stingless Bee Hive 2019 -Co-Inventor
- 2. IP/CR/00752 Modul Aktiviti Keadah Rawatan Air -Co-Inventor
- 3. IP/PT/2019/0631 Magentized biogranules for textile wastewater treatment Inventor
- 4. IP/PT/2019/0836 Application of Electromagnetic Field in Municipal Wastewater Treatment under Low Dissolved Oxygen -Inventor

# Patent granted

1. MY-145578-A - Bacteria granules for treating wastewater (2013); **Inventor** 

#### Patent filing

- PI 2018700784 Sequential batch reactor for controlling sludge bulking (2018); Co-Inventor
- 2. PI20092162 A process for treating wastewater (2009); Inventor

### Copyrights

- 1. LY2019007766 Carica Papaya Seed as Natural Coagulant for Water Treatment; **Inventor**
- 2. LY2019008646 Kaji Selidik Kelestarian Alam Sekitar; Co-Inventor
- 3. LY2019008994 Modul of Water Properties Experiments and Activities; Co-Inventor
- 4. LY2018004850 Kaji Selidik Pengunaan Polystyrene Sebagai Pembungkus Makanan di Kalangan Pelajar UTM; **Co-Inventor**
- 5. LY2018004844 Kaji Selidik Pengunaan Air di Kalangan Pelajar UTM; Co-Inventor
- 6. LY2018004842 Kaji Selidik Pengunaan Bahan Detergent di Kalangan Pelajar UTM; Co-Inventor
- 7. LY2018003887 Questionnaire on Air-Condition Usage in UTM; Co-Inventor
- 8. LY2018004839 Kaji Selidik Keberkesanan Pengasingan di Arked Meranti UTM; **Co-Inventor**

- 9. LY2018004834 Kaji Selidik Kesedaran Carpooling di Kalangan Pelajar UTM; Co-Inventor
- 10. LY2018004832 Questionnaire on Electric Usage Among UTM Student; Co-Inventor
- 11. IP/CR/2017/0846 Coffee Table Book: Sakura Science Program; Inventor
- 12. IP/CR/2016/0541 Survey Questionnaire on Public Awareness of Biodiesel from Waste Cooking Oil; **Inventor**
- 13. IP/CR/2016/1474 Survey Questionnaire on the Awareness of Workers on Noise Pollution at Construction Site; **Inventor**
- 14. IP/CR/2017/0771 Research Proposal on Characterization and Source Apportionment of PM2.5 Speciated Mass and Particle Number Concentration in Urban Area; Co-Inventor

## **SUPERVISION**

## PROJECT SUPERVISION (POSTDOCTORAL)

- 1. Dr Ezechi Hendry Ezerie. Study on the Biodegradation Process of Nutrient in Municipal Wastewater Under the Influence of Electromagnetic Field (2018-2019)
- 2. Dr Susilawati Toeman. Application of Magnetized Biogranular System for the Application of New Emerging Pollutant Containing Wastewater (2016-2017)
- 3. Dr Augustine Chioma Affam. Development of New Form of Biogranular Sludge Under the Influence of Magnetic Under Magnetic Induction for Wastewater Treatment (2014-2015)

# PROJECT SUPERVISION (Ph.D)

# Ongoing supervision

- Nur Shahidah Ali Aftar. Enhanced Biogranules Development Using Natural Polymer for Treating Palm Oil Mill Wastewater. – Main Supervisor (Civil Engineering – September 2018)
- 2. Wadji Mustafa Wadji Jalal. Effect of Electromagnetic Field on Nutrient Removal from Municipal Wastewater **Main Supervisor** (Civil Engineering March 2018)
- 3. Sepri Rika Putri. Municipal Solid Waste Management in Palembang City Main Supervisor (Civil Engineering Feb 2017)

#### Graduated

- 1. Nadhira Dahari. Formulation of Mathematical Model for Atmospheric Fine Particles Assessment in Industrial Area **Main Supervisor** (Civil Engineering 2020)
- 2. Ahmad Hanis Omar@Omri. Development of Nanomegnetized Biogranules for Textile Wastewater Treatment **Main Supervisor** (Civil Engineering 2020)
- 3. Suryati Sulaiman. Study on the Effect of Static Mixer on the Biogranulation Development **Co-supervisor** (Civil Engineering 2020)
- 4. Fazlin Md Sairan. Development of a New Inventory System and Procedures to Monitor the Greenhouse Gas Emissions From Demestic Wastewater Treatment Plants **Co-supervisor** (Civil Engineering 2020)
- 5. Ranjeni Krisnan. Biogranulation Development During Treatment of Real Textile Wastewater Co-supervisor (Civil Engineering Jan 2018)
- 6. Liew Wai Loan. Development of a Laboratory-Scale Aerobic Fluidized Bed Reactor for Polishing Treated Palm Oil Mill Effluent (POME) Co-Supervisor (Civil Engineering October 2017)
- 7. Inawati Othman. Aerobic Granular Sludge from Different Cycle Time for Livestock Wastewater Treatment **Co Supervisor** (Civil Engineering April 2017)
- 8. Nur Syamimi Zaidi. Application of Magnetic Field for Reduction of Sludge Bulking in Activated Sludge System **Co Supervisor** (Civil Engineering August 2016)

# PROJECT SUPERVISION (POSTGRADUATE - MASTER by RESEARCH)

#### Ongoing supervision

1. Mohamad Saiful Mohamad Khir. Spatial-Temporal Analysis of Fine Particulate Matter in Southern Peninsular of Malaysia – **Main Supervisor** (Civil Engineering – July 2016)

### Graduated

- 1. Amir Hariz Amran. Development of Natural Coagulant from Carica Papaya Seeds for Municipal Water Treatment **Co-Supervisor** (Civil Engineering 2020)
- 2. Mohd Arif Hakimi Mat Hassan. Rhizofiltration for Nutrient Removal from Municipal Wastewater **Main Supervisor** (Civil Engineering March 2017)

- 3. Siti Hana Elias. The effectiveness of Heavy Metal Removal by Rhirofiltration Treatment for Industrial Wastewater Co Supervisor (Civil Engineering March 2015)
- 4. Mohamand Anuar bin Alias. Granulation Study-Development of Granulation Enhancer. **Main Supervisor** (Civil Engineering March 2015)
- 5. Kee Thuan Chien. Development of Biogranules Using Selected Decolourising Bacteria for Textile Wastewater Treatment -Co Supervisor (BioEngineering Dec 2012)
- 6. Mohd Faiz Mohd Amin. Assisting suvervision together with Prof. Madya Dr Zaharah Ibrahim, Dr. Adibah Yahya dan Prof. Madya Dr. Azmi Aris. Development of Aerobic Granules For Textile Wastewater Treatment (BioEngineering Sept 2010)
- 7. Mohamed Zuhaili Mohamed Najib. Treatment of Textile Wastewater Using Biogranules -Co-supervisor (Civil Engineering March 2010)

#### PROJECT SUPERVISION (POSTGRADUATE – MASTER by TAUGHT COURSE)

#### Graduated

- Nulhazwany Abdul Malik. Effect of Electromagnet Field on the Treatment of Municipal Wastewater under Low Dissolved Oxygen - Main Supervisor (Environmental Engineering – Jan 2018)
- 2. Fatiha Syahirah. Intermittent Effect of Electromagnet Exposure on the Performance of Wasterwater Treatment Main Supervisor (Environmental Engineering Jan 2018)
- 3. Payam. Effect of different types of co-substrate in POME treatment using Experimental Design Expert -Main Supervisor (Environmental Engineering Dec 2012)
- 4. Shokouh Rahsepar. Development of microbial granules using raw textile wastewater **Main Supervisor** (Environmental Engineering July 2012)
- 5. Nur Jawahir. Study on Coaggregation and Surface Hydrophobicity on Bacteria Isolated From Granular Sludge -Co Supervisor (BioEngineering Nov 2009)
- 6. Tan Zee Sin. Performance of Anaerobic Granular Sludge Using Upflow Anaerobic sludge Blanket System in Bioconversion of Leachate —**Main Supervisor** (Environmental Engineering Nov 2009)

7. Cheryl Yong Yie Wah. Performance of Aerobic Granular Sludge Using Sequential Batch Reactor System in Bioconversion of Leachate -Co Supervisor (Environmental Engineering -Nov 2009)

## PROJECT SUPERVISION (UNDERGRADUATE)

*Undergraduate Supervision (Ongoing)* 

- 1. Khairul Asrie Haridon. Effect of Cation and Natural Polymer on the Initial Development of Biogranules
- 2. Mohammad Nur Raihan. Effect of Cation in Combination with Natural Polymer on the Initial Development of Biogranules

#### *Undergraduates Supervision (Completed)*

- 1. Mohamad Syafiq Zulkefli. Comparison on the Removal Performance of Different Sewage Treatment Plant. May 2019
- 2. Amir Aminuddin Mohammad. Plant-Based Natural Coagulant for Turbidity Removal in Sewage. May 2019
- 3. Ahmad Syukri Abdul Rahman. Kajian Tahap Kesedaran Tentang Kemalangan dan Keselamatan Jalanraya di Lembah Klang. Dis 2018
- 4. Siti Zakiah Thayib. Kajian Kualiti Air Bersih di Daerah Tampin, Negeri Sembilan. Dis 2018
- 5. Mohd Zairie Zainal Abidin. Kajian Pencemaran Air Sungai di Daerah Tampin. Dis 2018
- 6. Sapura Doni. Kajian Pencemaran Alam Sekitar bagi Projek Pembinaan Jalanraya. Dis 2018
- 7. Ummu Nusaibah Abdullah. Study on Natural Coagulant for Water Treatment. September 2017
- 8. Ahmad Bazli Sahir. Effect of Natural Coagulant (Grass Plant Based) on Water Treatment. September 2017
- 9. Mohamad Firdaus Bachok. Pengeluaran Bunyi Bising dari Kilang Menghasilkan Produk Berasaskan Besi di Negeri Selangor. Jan 2018

- 10. Zulfadhli Mohd Roslanudin. Kajian Bunyi Bising di Kawasan yang Berdekatan Dengan Pembinaan Lebuhraya. Jan 2018
- 11. Nor Farida Mohd Shazilli. Kajian Penilaian Kauliti Air di Sungai Ampang. Jan 2018
- 12. Zulfakri Yahya. Perbandingan Keberkesanan Rawatan Air Sisa Kumbahan di Antara Sistem Tangki Reaktor Berkelompok dan Sistem Tangki Pengudaraan Tambahan Enapcemar Teraktif. Jan 2018
- 13. Aqillah Liyana Mohamad Affendi. Study on Potential Occurrence of Sludge Bulking in Wastewater Treatment. June 2017
- 14. Nazihah Yaacob. Potential Occurrence of Sludge Bulking in Municipal Wastewater Treatment. June 2017
- 15. Muhammad Shafiq Syazani Hazry. Sludge Bulking Occurrence in Wastewater Treatment System. June 2017
- 16. Anis Amira Mohamed Zen. Study on Sludge Bulking Occurrence at Municipal Wastewater Treatment. June 2017
- 17. Tengku Nor Sakinah Tengku Nasharuddin. Investigation of Sludge Bulking in Wastewater Treatment. June 2017
- 18. Muhammad Azwan Md Khalid. Analysis of the Environmental Aspect at Construction Site. June 2017
- 19. Mohd Akmal Talha. Pengurusan Sisa Pejal Secara Pembakaran (Insinerator) di Pulau Tioman, Pahang. April 2017
- 20. Azwan Zahari. Kajian Pengurusan Sisa Binaan di Tapak Pelupusan Sisa Lengai di Sungai Kertas, Gombak dan Dengkil. December 2016
- 21. Kartini Hashim. Kajian Kebisingan yang dihasilkan oleh Industri Pembuatan Elektronik di Selangor. December 2016
- 22. Mohd Syukri Zulyunasri. Kualiti Pelepasan Efluen dari Kilang Pemprosesan Getah Standard Malaysian Rubber (SMR). December 2016
- 23. Nulhazwany Abdul Malik. Effect of Magnetic Field on the Treatment of Textile Wastewater. June 2016
- 24. Nurul Qurani Mohd Zaini. Study on the Removal Performance of Textile Wastewater under the influence of Magnetic Field. June 2016

- 25. Siti Nurehan Omar. Kajian Kitar Semula Minyak Masak Terpakai Bagi Proses Biodesel di Kawasan Sabak Bernam, Selangor. December 2015
- 26. Raknasaridewi Achmad Fuad. Kajian Kualiti Air Sunagi Balok, Pahang. December 2015
- 27. Rogayah Che Well. Kajian Keberkesanan Loji Rawatan Kumbahan di Lembuhraya Lekas. December 2015
- 28. Rabiah Mohamad. Kajian Kualiti Udara di Pusat Pemeriksaan Kenderaan. December 2015
- 29. Abdul Hafizh Abdul Nasir. Performance of MBBR System Using Polyurethane as the Support Material. Jun 2015
- 30. Shariza Ahmad. Performance of MBBR System Using Polyurethane as the Support Material. Jun 2015
- 31. Nurul Suhaida Yaakub. Development of Support Material from POME Sludge. Jun 2015
- 32. Ummi Hani Mahamad Anuar. Development of Support Material from POME Sludge. Jun 2015
- 33. Mohamad Afnan Abdullah. Water Quality Study of Sungai Johor at Bandar Kota Tinggi. June 2014
- 34. Nazry Azillah. Study on Potential Pollution Source of Sungai Johor, Kota Tinggi. June 2014
- 35. Nazirah Ahmad Shukri. Study on Selected Parameters of Sungai Johor at Bandar Kota Tinggi. June 2014
- 36. Haliza Ismail. Kajian pencemaran bunyi di kawasan pembinaan. Jan 2014
- 37. Syarifah Norazura Syed Ali. Kajian kualiti air di Sungai Ulu Pontian, Pontian. Jan 2014
- 38. Mohd Fuzi Ibrahim. Kajian kualiti air di Sungai Bekok, Batu Pahat. Jan 2014
- 39. Mohd Hafezee Halim. Kajian ke atas kekeruhan dan pengurangan baki klorin terhadap kandungan microb didalam air terawatt di system agihan. Jan 2014

- 40. Lai Kok Yan. Effect of different particle sizes as the support material in SBR system for treating POME. June 2013
- 41. Thong Yeap Hong. Effect of different particle sizes as the support material in SBR system for treating POME. June 2013
- 42. Si Zi Yang. Effect of different particle sizes as the support material in SBR system for treating POME. June 2013
- 43. Mohad Azarul Izam Mohamad Rifin. Perbandingan Kualiti Air di Sungai Sungai Mengkibol dan Sungai UTM. June 2013
- 44. Zainal Abidin Ibrahim. Kajian Kualiti Air di Sungai Sungai Mengkibol dan Sungai Melantai di Daerah Kluang. Jan 2013
- 45. Ahmad Hanis Omar@Omri. Kajian Kualiti Air di Sungai UTM. October 2012
- 46. Mohd Azrin Mat Nashir. Kajian Kualiti Air di Sungai UTM. October 2012
- 47. Dewi Muhaini Tumiran. Kajian Pengurusan and Keberkesanan Sistem Kitar Semula di Jasin Melaka. March 2012
- 48. Haris Haji Husain@ Hj. Hashim. Pengurusan Tanah Bencah di Putrajaya. March 2012
- 49. Md. Fairuzzani Koyubee. Kualiti Air dan Punca Pencemaran di Sungai Kelang. Jan 2012
- 50. Sofiah Kamaruzaman. Kajian Kesan Pembanguan Terhadap Kualiti Air Sungai di Melaka. March 2012
- 51. Nurfarahin Misbah. Kajian Tasik Bandar di Hutam Bandar Mutiara Rini, Johor Bahru March 2011
- 52. Noor Rahayu Mazlan. Tasik Bandar di Taman Bandar Pasir Gudang. Johor Bahru March 2011
- 53. Hisyam Ahamad Hanafiah. Kajian Pengurusan Kualiti Air di Tasik Taman Pelangi Indah, Johor Bahru. March 2011
- 54. Nasrullah bin Zainal Abidin. Pengurusan Kualiti Air di Tasik Taman Rekreasi Hutan Bandar Johor Bahru. March 2011
- 55. Amin Sabran Nordin. Kajian Banjir Kilat di Taman Tun Dr. Ismail Jaya, Shah Alam, Selangor. Nov 2010.

- 56. Mohd Faizal Baharin. Kajian Penilaian Kualiti Air Sungai Manjung Di Daerah Manjung, Perak. Nov 2010.
- 57. Hamid Anuar Amirullah. Kajian Keberkesanan Sistem Rawatan Air Kumbahan. Nov 2010.
- 58. Mohd Affandi Mohd. Kajian Banjir Kilat di Kuala Lumpur. Nov 2010.
- 59. Ita Liyana Tugiman. Treatment of Textile Dyeing Wastewater Using Anaerobic-Aerobic SBR System. March 2010.
- 60. Zainur Azizi Sanot. Kajian Kes: Kualiti Sungai Segget Dan Sungai Tebrau. Sept.2002.
- 61. Noorul Azwan. Kajian Kualiti Air Sungai Segget Dan Sungai Tebrau. Sept. 2002.
- 62. Azihan Abdullah Zawawi. Kajian Kualiti Air Sungai Tebrau Dan Sungai Segget. Sept. 2002.
- 63. Nazriazman Mustaffa. Kajian Pengurusan Dan Pembersihan Sungai Dan Tali Air: Kes Majlis Bandaraya Johor Bahru Dan Majlis Penbandaran Johor Bahru Tengah. Sept. 2002.
- 64. Mohd Hairi Tukiran. Kajian Kes: Kualiti Air Sungai Tebrau Dan Sungai Segget. Sept. 2002
- 65. Aaron Lim Meng Sheng. Kajian Kesan Pemuliharaan Sungai Melaka. Mac 2002.
- 66. Wan Zahairuddin Wan Ismail. Kesan Pembangunan Aktiviti Manusia Terhadap Kualiti Air. Kajian Kes: Sungai Rengit. Mac 2002.
- 67. Mohd Sharedza Sharom. Kesan Pembangunan Aktiviti Manusia Terhadap Kualiti Air. Kajian Kes: Sungai Rengit. Mac 2002.
- 68. Lim Chai Heng. Kajian Kesan Pemuliharaan Sungai Melaka. Mac 2002.
- 69. Nur Jaslina Muhamad Saleh. Kesan Aktiviti Di Pelabuhan Terhadap Kualiti Air. Mac 2002.
- 70. Liong Chee Hou. Keberkesanan Penggunaan Pengudaraan Sub-Permukaan Dalam Rawatan Air Sisa. Jan 2002.
- 71. Fong Chee Meng. Penggunaan Kolam Tahanan Dalam Sistem Rawatan Air. Nov 2001.

- 72. Hasmadi Hamid. Pemantauan Terhadap Keberkesanan Beberapa Loji Di Kawasan Plentong. Nov 2001.
- 73. Ismail Mat Zain. Kesan Penempatan Kawasan Setinggan Dan Perkampungan Terhadap Kualiti Air. Oct. 2001.
- 74. Yin Kam Seng. Kajian Keberkesanan Enapcemar Teraktif Secara Konvensional Terhadap Air Kumbahan. Sept 2001.
- 75. Mohamad Noor Afandi Ahmad. Kesan Pencemaran Udara dan Air Dari Tapak Bina Kerja-Kerja Infra Kepada Penduduk Setempat. Sept 2001.
- 76. Zulkefli Yusof. Kajian Ke Atas Kualiti Air Mentah Dan Air Bersih Serta Pengurusan Kualiti Sumber Air Di Loji Air Kepong, Syarikat Air Terengganu Sdn. Bhd. (SATU). April 2001.
- 77. Norhayati Mahmood. Pengurusan Sisa Berbahaya di Hospital Daerah Muar dan Hospital Sultanah Aminah, Johor Bahru. April 2001.
- 78. Masipah Selamat/Amat Samsi. Pencemaran Hingar (Kajian Kes: Kawasan-Kawasan Pengankutan Utama di Johor Bahru). Nov 2000.
- 79. Hairul Anuar Ahmadan. Kajian Pencemaran Air Terhadap Sungai Melana. April 2000.
- 80. Zalipah Jamelodin. Kajian Pencemaran Hingar Dalam Kampus UTM, Skudai. April 2000.
- 81. Ku Sukiman Ku Ali/Ku Johari. Kajian Pencemaran Air Terhadap Sungai Melana. April 2000.
- 82. Ahmad Firus Yusof. Kajian Keberkesanan Pengurusan Sisa Pejal. Kajian Kes: Majlis Perbandaran Kuala Terengganu. April 2000.
- 83. Natalia Puspa Dewi Pelipus. Penggunaan Indikator Biologi (Kolifom Jumlah Dan E-Coli) Dalam Mengesan Tahap Pencemaran Sungai. April 1999
- 84. Zawawi Mohamed. Kajian Kos Sebenar Pengeluaran Air dan Masalah Di Dalam Sistem Memproses Air Di Tanah Merah. Dec 1998.
- 85. Lokman Mustapha. Sistem Pelupusan Sisa Pejal Negeri Kelantan: Kajian Kes Di MPKB, MDKB, MDPM dan MDT. Dec 1998.
- 86. Iskandar Abdul Rahman. Pengurusan dan Permasalahan Bekalan Air Di Tumpat, Kelantan. Dec 1998.

- 87. Che Kamkah Sulaiman. Kajian Tarif Air Di Kelantan. Dec 1998.
- 88. Sab'un Ab. Rahman. Masalah Keselamatan Dan Kesihatan Dalam Mengendalikan Gas Klorin Di Dalam Proses Rawatan Air Minum. Dec 1998.

# POSTGRADUATE EXAMINATION/VIVA – Ph.D

- Emmanuel Olisa, The Performance Semi-aerobic Landfill and its Improvement by Leachate Attenuation by Methanogenic Sand Column Application. UTP (2018) – External Examinar
- 2. Noor Hasyimah Rosman, Aerobic Granular Sludge Technology for the Treatment of Rubber Wastewater, UTM (2016) **Internal Examinar**
- 3. Nor Zaiha Arman, Biological Assessment of Tropical Rivers using Benthic Macroinvertebrates, UTM (2016) **Internal Examinar**

# POSTGRADUATE EXAMINATION/VIVA – MASTER

- 1. Siti Nur Fatihah Moideen, The Study on the Composite Absorbent of Crushed Cockle Shell and Natural Zeolite for Water Treatment, UTM (2016) **Internal Examinar**
- 2. Hou Siau Shi, Master Engineering (Environment), Faculty of Civil Engineering, UTM (April 2014) **Chairman**
- 3. Meor Mohd Fikri Ahmad Zubir, Master Engineering (Environment), Faculty of Civil Engineering, UTM (April 2014) **Chairman**
- 4. Sofia Anak Jimmy, Master Engineering (Environment), Faculty of Civil Engineering, UTM (October 2014) **Chairman**
- 5. Tan Jie Ru, Characterization of Residual Soil for the Potential as Land Field Liner, Sarjana Kejuruteraan Alam Sekitar, UTM (2010) **Internal Examiner**
- 6. Cho Jian Yin, Kahang Clay soil Characterization As Potential Landfill Liner, Sarjana Kejuruteraan Alam Sekitar, UTM (2010) **Internal Examiner**
- 7. Seng Chin Loon, Master in Environmental Engineering, Faculty of Civil Engineering, UTM, 2009 **Thesis reviewer**

# PUBLICATIONS AND PAPER PRESENTED

#### **THESIS**

- 1. Khalida Muda (2010). Facultative Anaerobic Granular Sludge for Textile Dyeing Wastewater Treatment. Ph.D Thesis. Universiti Teknologi Malaysia
- 2. Khalida Muda (1996). Shear Force Effect on Algae. Master of Science (MSc.) Manchester University, United Kingdom
- 3. Khalida Muda (1992). Profil Bahan Organik dan Inorganik Dalam Serum Individu Normal and Pesakit Urolitiasis. Clinical Biochemistry. BSc. Universiti Kebangsaan Malaysia

#### **BOOK CHAPTERS**

- 1. Ezechi, E. H., Affam, A.C. and **Muda, K.** (2019). Biological Nutrient Removal by Suspended Growth System. Handbook of Research on Resource Management for Pollution and Waste Treatment. ISBN 9781799803690. IGI Global. USA. 264-293.
- 2. Ezechi, E. H., Affam, A.C. and **Muda, K.** (2019). Principles of Electrocoagulation and Application in Wastewater Treatment. Handbook of Research on Resource Management for Pollution and Waste Treatment. ISBN 9781799803690. IGI Global. USA. 404-431.
- 3. Zaidi, N.S., **Muda, K.,** Sohaili, J. and Sillanpaa, M. (2017). Activated Sludge Separation Problems: Theory, Control Measures, Practical Experiences: Experiences in Various Countries Malaysia. Second Edition. ISBN 9781780408637. IWA Publishing. London. 233-238.
- 4. **Khalida Muda**, Nur Syamimi Zaidi (2017). Sakura Science Plan 2017. Coffee Table Book. ISBN 978-967-2171-02-72171-02-7
- 5. **Khalida Muda**, Azmi Aris, Mohd Razman Salim and Zaharah Ibrahim (2013). Sequential Anaerobic-Aerobic Phase Strategy of Microbial Granular Sludge For Textile Wastewater Treatment. Book Chapter, "InTech Biomass Now Sustainable Growth and Use / Book 1", ISBN 979-953-307-804-4; http://dx.doi.org/10.5772/54458, InTech-Open Science; 232-263.

#### **PUBLICATIONS (ISI JOURNALS)**

#### Submitted to ISI Journal

- 1. Omar, A.H., **Muda, K**., Majid, Z.A. and Ezery, H. (2020). Prediction of Dye Decolorization by Magnetic Activated Carbon Aerobic Granules using Artificial Neural Network. (Submitted to Process Safety and Environmental Protection PSEP-D-20-00895)
- 2. Aftar, A.N.S., **Muda, K.**, Ezery, H., Najib, M.Z.M. and Darwish, M. (2020). Biogranules: Initialization, Enhancement and Mechanisms of Biogranulation in Wastewater Treatment. (Submitted to Separation and Purification Technology SEPPUR-D-20-02814)
- 3. **Muda, K.**, Omar, A.H., Majid, Z.A. and Ezery, H. (2020). Development of Biogranules using Magnetic Powder Activated Carbon for Textile Wastewater Treatment (Submitted to Journal of Water Process Engineering- JWPE-D-20-02335)
- 4. **Muda, K.**, Omar, A.H., Ezechi, E.H. and Khamidun, M.H. (2020). Mass Transfer Resistance of Textile Dye Decolorization on Magnetic Powder Activated Carbon Biogranules. (Submitted to Process Safety and Environmental Protection PSEP-D-20-00850)
- 5. Khamudin, M.H., Al-Gheethi, A., Malek, M.A., Fulazzaky, M.A., Ali, U.F.M., **Muda, K**. and Hadibarata, T. (2020). Removal of Phosphorus from Wastewater Treatment Plant Effluent by Using Laterite Granules; Response Surface Methodology, Isotherm and Kinetics Studies. (Submitted to Processes Processes-934913)
- 6. Toeman, S., Sulaiman, S.F., Rosid, S.J.M., Bakar, W.A.W.A., Mokhtar, W.N.A.W., Nadarajan, R. and **Muda, K**. (2020). Effectiveness of Ru/Mg/Ce Catalyst on Direct Conversion of Syngas to Methane: Tailoring Activity and Physicochemical Studies. (Submitted to Korean Journal of Chemical Engineering- KJCE-D-20-00975)

#### **Published articles**

- 1. Zaidi, N.S., **Muda, K**., Sohaili, J. Loan, L.W. and Sillanpaa, M. (2020). Enhancement of Nitrification Efficiency During Sludge Bulking by Magnetic Field Under Long Sludge Retention Time. Vol. 10(9), 408. (IF 1.798)
- 2. We, A.C.E., Aris, A., Zain, N.A.M., **Muda, K**. and Sulaiman, S. (2020). Influence of Static Mixer on the Development of Aerobic Granules for the Treatment of Low-Medium Strength Domestic Wastewater. Chemosphere (Q1, IF 5.778) (Accepted, in press)

- 3. Ezechi, E.H., Isa, M.H., **Muda, K**., Kutty, S.R.M. (2020). A Comparative Evaluation of Two Electrode Systrems on Continuous Electrocoagulation of Boron from Produced Water and Mass Transfer Resistance. Journal of Water Process Engineering, 34,101133 (Q2, IF 3.465)
- 4. Dahari, N., **Muda, K**., Hussein, N. and Latif, M.T. (2020). Influence of Meteorological Variables on Suburban Atmospheric PM<sub>2.5</sub> of Southern Region of Peninsular Malaysia. Aerosol and Air Quality Reseach. 20(1), 14-25 (Q2, IF 2.735)
- 5. Omar, A.H., **Muda, K**., Majid, Z.A., Affam, A.C. and Ezery, H. (2020). Effect of Magnetic Activated Carbon on Surface Hydrophobicity for Initial Biogranulation via Response Surface Methodology. Water Environmental Research (92(1); 73-83. (Q3 IF 0.825)
- 6. Dahari, N., **Muda, K**., Hussein, N., Latif, M.T., Khan, M.F., and Khir, S.M. (2019). Studies of Atmospheric PM2.5 and its Inorganic Water Soluble Ions and Trace Elements around Southeast Asia. A Review Asia Pacific Journal of Atmospheric Science. <a href="https://doi.org/10.1007/s13143-019-00132-x">https://doi.org/10.1007/s13143-019-00132-x</a> (Q3, IF 1.772).
- 7. Zaidi, N.S., **Muda, K**., Sohaili, J., Hussein, N., Loan, L.W. and Sillanpaa, M. (2019). Potential of a Static Magnetic Field to Inhibit Filamentous Sludge Bulking in Activated Sludge Process. Journal of Environmental Engineering (United States). Vol. 145(3) 04019001 (Q2, IF 1.541)
- 8. Zaidi, N.S., **Muda, K**. and Silanpää, M. (2019). Effect of Extra-cellular Polymeric Substance Towards Physical Properties of Biomass Under Magnetic Field Exposure. International Journal of Environmental Science and Technology. Vol. 16 (7); 3801-3808. (Q1, IF 2.037)
- 9. Fulazzaky, M., Nuid, M., Sumeru, S., Aris, A. and **Muda, K.** (2019). Mass Transfer Kinetics of Phosphorus by Aerobic Granules. Journal of Water Process Engineering. 31; 1-8. 100889. (Q1, IF 3.173)
- Zaidi, N.S., Muda, K., Sohaili, J., Hussein, N. and Loan, L.W. and Silanpää, M. (2018). Potential Approach by Static Magnetic Feild to Inhibit Filamentous Sludge Bulking in Activated Sludge Process. Journal of Environmental Engineering. 145(3),04019001. (Q2 IF 1.541)
- 11. Omar, A.H., Muda, K., Majid, Z.A., Affam, A.C., Toemen, S., Sulaiman, S.F., Zaidi, N.S., Affam, A.C. Sapari, N., Olisa, E. Hussien, N. and Hashim, N. (2018). Development of Microbial Granules Using Low Strength Textile Wastewater Under Influence of Static Magnetic Field. International Journal of Pure and Applied Mathematics. Vol. 118(24), 1-19. (Q4 IF 0.29).

- 12. Fulazzaky, M.A., Nuid, M., Aris, A. and **Muda, K.** (2018). Mass transfer kinetics of biosorption of nitrogenous matter from palm oil mill effluent by aerobic granules in sequencing batch reactor. Environmental Technology (United Kingdom) 39(17), 2151-2161. (Q2-IF 1-79)
- 13. Zaidi, N.S., **Muda, K**., Silanpää, M. (2018) Effects of extra-cellular polymeric substances (EPS) towards physical properties of biomass under magnetic field exposure. International Journal of Environmental Science and Technology 1-8. (Q1-IF 2.1160)
- 14. Omar, A.H., **Muda, K**., Toemen, S., Sulaiman, S.F., Zaidi, N.S., Affam, A.C. (2018). Study on the Effect of Static Magnetic Field in Enhancing Intial State of Biogranulation. Journal of Water Supply: Research and Technology AQUA 67(5); 484-489. (Q2-IF 0.824)
- 15. Fulazzaky, M.A., Nuid, M. Aris, A. **Muda, K**. (2017). Kinetics and mass transfer studies on the biosorption of organic matter from palm oil mill effluent by aerobic granules before and after the addition of Serratia marcescens SA30 in a sequencing batch reactor. Process Safety and Environmental Protection. Vol. 107, 259-268. (Q1-IF 2.905)
- 16. Najib, M.Z.M, Salmiati, Ujang, Z., Salim, M.R., Ibrahim, Z. **Muda, K**. (2016). Reduction and biofixation of carbon dioxide in palm oil mill effluent using developed microbial granules containing photosynthetic pigments. Bioresource Technology. Vol. 221, 157-164. (Q1-IF 5.651)
- 17. Affam, A.C., Chaudhuri, M., Kutty, S.R.M. **Muda, K**. (2016). Combination of FeGAC/H<sub>2</sub>O<sub>2</sub> advanced oxidation processand sequencing batch reactor for treatment pesticide wastewater. Environ Earth Sci. Vol. 75, 348-349 (Q2-IF 1.765)
- 18. Affam, A.C., Chaudhuri, M., Kutty, S.R.M. **Muda, K**. (2016). Degradation of chlorpyrifos, cypermethrin and chlorothalonil pesticides in aqueous solution by FeGAC/H<sub>2</sub>O<sub>2</sub> process. Desalination and Water Treatment. Vol. 75 (11). 5146-5154 (Q2-IF 0.852)
- 19. Loh, S.K., Liew, W.L., Kassim, M.A., **Muda, K**. (2015). Efficiency of nutrients removal from palm oil mill effluent treatment systems. Journal of Oil Palm Research. Vol 27(4), 433-443 (Q3-IF 0.321)
- 20. Kee, T.C., Bay, H.H., Lim, C.K., **Muda, K**., Ibrahim, Z. (2015) Development of biogranules using selected mixed culture of decolorizing bacteria for the treatment of textile wastewater Desalination and Water Treatment. Vol 54 (1), 132-139 (DOI: 10.1080/19443994.2013.877853). (Q2-IF 0.852)

- 21. Liew, W.L., Kassim, M.A., **Muda, K**., S.K., Loh. (2014). Palm Oil Mill Effluent Treatment: Conventional Methods and Emerging Wastewater Polishing Technologies. Journal of Environmental Management. Vol. 149, 222-235. (Q1-IF 3.188)
- 22. Affam, A.C., Chaudhuri, M., Kutty, S.R.M. **Muda, K**. (2014). UV Fenton and sequencing batch reactor treatment of chlorpyrifos, cypermethrin and chlorothalonil pesticide wastewater. International Biodeterioration & Biodegradation. Vol. 93, 195-201. (Q2-IF 2.235).
- 23. **Muda, K.**, Aris, A., Salim, M.R., Ibrahim, Z., Van Loosdrect, M.C.M, Nawahwi, M.Z., Affam, A.C. (2014). Aggregation and Surface Hydrophobicity of Selected Microorganisms Due to the Effect of Substrate, pH and Temperature. International Biodeterioration & Biodegradation. Vol. 93, 202-209. (Q2-IF 2.235).
- 24. Zaidi, N.S., Sohaili, J., **Muda, K**., Silanpää, M. (2014) Magnetic Field Application and its Potential in Water and Wastewater Treatment Systems. Purification and Separation Review. Vol. 43, 206-240 (Q1-IF 3.154)
- 25. Aris, A., **Muda, K.**, Salim, M.R., Ibrahim, Z., Nawahwi, M.Z. (2013). COD and color removal from textile effluent using granular sludge biomass: effect of substrate and riboflavin. Desalination and Water Treatment (DOI: 10.1080/19443994.2013.823568). (Q2-IF 0.852)
- 26. **Muda, K.**, Aris, A., Salim, M.R., Ibrahim, Z., Yahya, A., van Loosdrecht, M.C.M., Ahmad, A., Nawahwi, M.Z. (2011). The Effect of Hydraulic Retention Time on Granular Sludge Biomass in Treating Textile Wastewater. Water Research. Vol. 45, 4711-4721 (Q1-IF 4.87)
- 27. **Muda, K.**, Aris, A., Salim, M.R., Ibrahim, Z., Yahya, A., van Loosdrecht, M.C.M., Ahmad, A., Nawahwi, M.Z. (2010) Development Of Granular Sludge For Textile Wastewater Treatment, Water Research. Vol. 44, 4143-4150 (Q1-IF 4.87)
- 28. Ibrahim, Z., Amin, M.F.M., Yahya, A., Aris, A., **Muda, K**. (2010). Characteristics of the Developed Granules Containing Selected Decolourising Bacteria for the Degradation of Textile Wastewater, Water Science Technology. Vol. 61 No. 5, 1279-1288. (Q2-IF 1.12)
- 29. Ibrahim, Z., Amin, M.F.M., Yahya, A., Aris, A., Umor, A., **Muda, K**., Sofian, N.S. (2009). Characterisation of Microbial Flocs Formed from Raw Textile Wastewater in Aerobic Biofilm Reactor (ABR), Water Science Technology, 60(3): 683-688. (Q2-IF 1.12)
- 30. Osman Ali, Khalida Muda and Khalid, B.AK. (1994). Iodine Content in Urine

Samples among Malays and Aborigines, Acta. Med. Okayama; 48(6): 289-292. (Q2-IF 0.84)

# PUBLICATIONS (SCOPUS INDEX JOURNALS)

To be submitted to Scopus Journal:

- 1. Mohd Amin, M.F., **Muda, K**., Rasat, M.S.M. and Moh, M.A. (2020). Potential of Natural-Based Polymers for Particle and Humic Acid Removal from Wastewater.
- 2. Wajdi, M., **Muda, K.** and Zaidi, N.S. (2020). Acetogenic Removal Efficiency of POME under the influence of Electromagnetic Field.

#### **Published articles**

- 1. Malik, N.A., **Muda, K.,** Zaidi, N.S., Darwish, M. and Omar, A.H. (2020). Application of Electromagnetic Field in Municipal Wastewater Treatment Under Low Dissolved Oxygen. (Accepted Journal of Environmental Treatment Techniques)
- 2. Ali, N.S.A., **Muda, K**., Abdullah, U.N. and Sahir, A.B. (2020). Potential Use of Fruit Seeds and Plant as Coagulation Agent in Water Treatment. Journal of Environmental Treatment Technoques. Vol. 8(3), 971-977.
- 3. Wajdi, M., **Muda, K**., Zaidi, N.S., Puteh, M.H., Darwish, M., Omar, A.H. and Mohd Amin, M.F. (2020). Effect of Initial pH Adjustment on Acetogenic Treatment of Palm Oil Mill Effluent. Annals Tropical Medicine and Public Health. Vol. 23(12),
- 4. Putri, S.R., **Muda, K.,** Saggaff, A., Jimmyanto, H. (2020). Study of Household Solid Waste Generation in Seberang Ulu Region Palembang City. International Journal of Scientific and Technology Research. 9(3), 5957-5963
- 5. Astuti, A. and **Muda**, **K**. (2020). Effect of Pretreatment of Biosorbent in Biosorption: A Comparative Study. Journal of Environmental Treatment Technoques. Vol. 8(3); 894-899.
- 6. Ezechi, E.H. and **Muda, K**. (2019). Optimization of Methelyne Blue Biosorption and Mass Transfer Resistance on *Gardenia carinata* Activated Carbon. Desalination and Water Treatment. 158, 343-352.
- 7. Ezechi, E.H., Kutty, S.R.M., **Muda, K.** and Yacub, A. (2019). A Comparative Evaluation of An Intergrated Hybrid Bioreactor Treating Industrial Wastewater. Journal of Water Process Engineering. 31(100805), 1-9.

- 8. Omar, A.H., Toeman, S., Muda, K. and Sulaiman, S.F. (2019). Effect of Static Magnetic Field on the Efficiency of Granular Sludge Development For Pharmaceutical Wastewater Treatment. International Journal of Entergrated Engineering, Vol.11(1), 151-159.
- 9. Sulaiman, S., Aris, A., Razak, A.S.A., Anuar, A.N. and **Muda, K**. (2019). Influence of Static Mixer on the Properties of Biogranules. Journal Teknologi (Science and Engineering). Vol 81(1).
- 10. Zaidi, N.S., **Muda, K**., Hussein, N. and Sillanpaa, M. (2018). Potential Inhibition of Filamentous Microorganisms in Sludge Bulking by Static Magnetic Field. International Journal of Engineering and Technology (UAE). 7(3.9), 15-17.
- 11. Khir, M.S.M., **Muda, K**., Hussein, N., Khan, M.F.A., Othman, M.N. and Hashim, N. (2018). Spatial-Temporal Analysis of PM10 in Southern Peninsular Malaysia. International Journal of Engineering and Technology (UAE). 7(3), 27-30.
- 12. Amran, A.H., Zaidi, N.S., **Muda, K**. and Loan, L.W. (2018). Effectiness of Natural Coagulant in Coagulation Process: A Review. International Journal of Engineering and Technology (UAE). 7(3), 34-37.
- 13. Krishnen, R., Aris, A., **Muda, K**., Ibrahim, Z. and Salim, M.R. (2017). Development of a Pilot-Scale Sequential Batch Reactor Treating Actual Textile Wastewater. Jurnal Teknologi, 79(6), 221-231
- 14. Liew, W.L., Muda, K., Kassim, M.A., Affam, A.C. and Loh, S.K. (2017). Agro-Industrial Waste Sustainable Management A Potential Source of Economic Benefits to Palm Oil Mills in Malaysia (2017). Journal of Urban and Environmental Engineering, Vol. 11(1), 108-118. ISSN19823932 (Waiting for indexing in Scopus/WOS)
- 15. Alias, M.A., **Muda, K.**, Affam, A.C., Aris, A., Hashim, N. (2017). The effect of divalent and trivalent cations on aggregation and surface hydrophobicity of selected microorganism. Environmental Engineering Research Vol 22(1), 61-74.
- 16. Hassan, M.A.H.M., Muda, K., Toeman, S., Yusof, N.Z. Anuar, A.N., Elias, S.H., Othman, M.N., Said, M.I.M., Mohamad, M. and Affam, A.C. (2016). Rhizofiltration for the Enhancement of Biofuel Production. ARPN Journal of Engineering and Applied Sciences ISSN 1819-6608.
- 17. **Muda, K.,** Liew, W.L., Kassim, M.A. and Loh, S.K. (2016). Performance Evaluation of POME Treatment Plants. ARPN Journal of Engineering and Applied Sciences. 11(4), 2153 2159.

- 18. Liew, W.L., Kassim, M.A., **Muda, K**. and Loh, S.K. (2016) Feasibility Study on Palm Oil Processing Wastes Towards Achieving Zero Discharge. ARPN Journal of Engineering and Applied Sciences ISSN 1819-6608.
- 19. Zaidi, N.S., Muda, K., Sohaili, J., Silanpää, M., Toeman, S. And Yusof, N.Z. (2016). Optimization of Operating Parameters for Aggregation under Magnetic Field by Response Surface Methodology. ARPN Journal of Engineering and Applied Sciences ISSN 1819-6608.
- 20. Zaidi, N.S., **Muda, K**., Sohaili, J., Silanpää, M. (2014). Optimization of Activated Sludge Physical Properties by Magnetic Field via Respond Surface Modeling. Applied Mechanics and Materials Vol. 567, 98-103.
- 21. Liew, W.L., **Muda, K.,** Kassim, M.A., Lai, K.Y., Si, Z.Y., Thong, Y.H. and Loh, S.K. (2014). POME Treatment Efficacy as Affected by Carrier Material Size in Micro-Bioreactor System. Applied Mechanics and Materials Vol. 567, 104-109.
- 22. Liew, W.L., Kassim, M.A., **Muda, K**. and S.K., Loh (2014). Performance Evaluation of Industrial Effluent Treatment Systems (IETSs): An Insight for Biotechnology Advance in Agro-based Wastewater Treatment. World Applied Science Journal. Vol. 30, 316-325.
- 23. Elias, S.H., Mohamed, M., Anuar, A.N., **Muda, K**., Hassan, M.A.H.M., Othman, M.N., Chelliapan, S. (2014). Ceramic Industry Wastewater Treatment by Rhizofiltration System Application of Water Hyacinth Bioremediation. IIOABJ, Vol. 5(1), 6–14.
- 24. Elias, S.H., Mohamed, M., Nor-Anuar, A., **Muda, K**., Hassan, M.A.H.M., Othman, M.N., Chelliapan, S. (2014). Water hyacinth bioremediation for ceramic industry wastewater treatment-application of rhizofiltration system. Sains Malaysiana. Vol. 43 (9): 1397-1403.
- 25. Liew, W.L., Kassim, M.A., **Muda, K**., S.K., Loh (2013). Agro-Industrial Waste Profile: A Study on the Availability, Disposal and Potential Uses. IOP Conference Series: Earth and Environmental Science.
- Sabri, S., Said, M.I.M., Azman, S., Muda, K. (2013). Arsenic, Cadmium and Copper in Gastropod Strombus canarium in Western Part of Johor Straits. World Applied Science Journal. Vol. 23 (6), 734-739.
- 27. **Muda, K.**, Aris, A., Salim, M.R., Ibrahim, Z., Yahya, A. (2012). Textile Wastewater Treatment Using Biogranules Under Intermittent Anaerobic/Aerobic React Phase. Journal of Water and Environmental Technology. Vol. 10, No. 3, 303-315.

## **PUBLICATIONS (NON-INDEX JOURNAL)**

1. Sabri, S., Said, M.I.M., Azman, S., **Muda, K.,** Kassim, M.A., Salmiati (2012). Copper in water, sediment and Strombus canarium at South Western Coast of Peninsular Malaysia. International Journal of Environmental Science and Development. Vol 3. No.3, 217-219.

### PUBLICATIONS (CONFERENCE PAPER/PROCEEDING)

- Wajdi, M., Muda, K., Zaidi, N.S., Puteh, M.H. and Darwish, M. (2020). Acetogenic Removal Efficiency of POME under the Influence of Electromagnetic Field. 1<sup>st</sup> International Conference on Biomass Utilization and Sustainable Energy 2020. (ICoBiomasSE 2020). 15-16 Dec 2020. Universiti Malaysia Perlis.
- 2. Wajdi, M., **Muda, K**., Zaidi, N.S., Puteh, M.H., Darwish, M. and Amin, M.F. (2020). Anaerobic Acetogenic Treatment of Palm Oil Mill Effluent Coupled with Aerobic Condition. 8<sup>th</sup> International Graduate Conference on Engineering, Science and Humanities. IGCESH2020, 18-19 August 2020. Universiti Teknologi Malaysia.
- 3. **Muda, K.** Omar, A.H., Ezechi, E.H. and Khamudin, M.H. (2019). Mass Transfer Resistance of Textile Dye Decolorization on Magnetic Activated Carbon aerobic granules. International Conference on Environmental Sustainability and Resource Security, IC-ENSURES 2019, 5-6 Nov 2019. Kuala Lumpur.
- 4. **Muda, K**., Malik, N.A., Zaidi, N.S. Darwish, M., Omar, A.H. and Aftar, N.S.A. (2019). Application of Electromahnetic Field in Municipal Wastewater Treatment Under Low Dissolved Oxygen. International Conference on Environmental Sustainability and Resource Security, IC-ENSURES 2019, 5-6 Nov 2019. Kuala Lumpur.
- 5. Ezechi, E.H. and **Muda, K.** (2019). Determination of Mass Transfer Resistance of Boron Removal from Wastewater by Electrocoagulation. International Conference on Environmental Sustainability and Resource Security, IC-ENSURES 2019, 5-6 Nov 2019. Kuala Lumpur.
- 6. Ali, N.S.A., **Muda, K**., Abdullah, U.N. and Sahir, A.B. (2019) Potential use of Plantbased Natural Coagulants for Water Treatment. International Conference on Environmental Sustainability and Resource Security, IC-ENSURES 2019, 5-6 Nov 2019. Kuala Lumpur.
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- 9. Omar, A.H., Toeman, S., **Muda, K**. and Sulaiman, S.F. (2018) Effect of Magnetic Field on the Efficiency of Granular Sludge Development for Pharmaceutical Wastewater Treatment. 2<sup>nd</sup> International Symposium on Civil and Environmental Engineering (ISCEE'18), The Federal Kuala Lumpur.
- 10. Zaidi, N.S., **Muda, K**., Loan, L.W., Sagawi, M.S. and Rahman, M.A.A. (2018) Potential of fruit peels in becoming natural coagulant for water treatment. 2<sup>nd</sup> International Symposium on Civil and Environmental Engineering (ISCEE'18), The Federal Kuala Lumpur.
- 11. Putri, S.R., **Muda, K**., Saggaf, A. and Astuti, D. (2018). Municipal Solid Waste Transport Operational Cost of Seberang Ulu Area, Palembang. The 1<sup>st</sup> Sriwijaya International Conference On Environmental Issues (1<sup>st</sup> SRICOENV 2018). Synergy in Science: Promoting Solution for Environmental Issues. 26-27 September, Palembang, Indonesia.
- 12. Astuti, A.D and **Muda, K**. (2018). Biosorption Process of Synthetic Textile Wastewater Using Bjerkandera Agustavia Via Response Surface Methodology. The 1<sup>st</sup> Sriwijaya International Conference On Environmental Issues (1<sup>st</sup> SRICOENV 2018). Synergy in Science: Promoting Solution for Environmental Issues. 26-27 September, Palembang, Indonesia.
- 13. Dahari, N., Muda, K., Latif, M.T. and Hussein, N. (2018). Influence of Meteorological Variables on Suburban Atmospheric PM2.5 of Southern Region of Peninsular Malaysia. International Conference on Science, Engineering and Technology – ICSET. 2018, 9-10 May, Yokohama, Japan.
- 14. Khir, M.S.M., Muda, K., Hussein, N., Khan, M.F.A., Othman, M.N. and Hashim, N. (2018). Spatial-Temporal Analysis of PM10 in Southern Peninsular Malaysia. 2<sup>nd</sup> International Conference on Architecture and Civil Engineering. 2018. 9-10 May. Park Royal Hotel, Batu Ferringhi.
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- 16. Amran, A.H., Zaidi, N.S., Muda, K. and Loan, L.W. (2018). Effectiness of Natural Coagulant in Coagulation Process: A Review. 2<sup>nd</sup> International Conference on Architecture and Civil Engineering. 2018. 9-10 May. Park Royal Hotel, Batu Ferringhi.
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## PUBLICATIONS (OTHER PUBLICATION)

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- 2. Zulkefli, M.S. and **Muda, K.** (2019). Comparison of Removal Peformence on Different Type of Advance Treatment on Treating Sewage. 4<sup>th</sup> Proceeding of Civil Engineering, Water and Environmental Engineering, Faculty of Civil Engineering, UTM.
- 3. Mohammad, A.A. and **Muda, K**. (2019). Plant-Based Natural Coagulant for Turbidity Removal in Sewage. 4<sup>th</sup> Proceeding of Civil Engineering, Water and Environmental Engineering, Faculty of Civil Engineering, UTM.
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- 5. Sahir, A.B. and **Muda**, **K**. (2018). Effect of Natural Coagulant (Grass Palnt Based) on Water Treatment. 3<sup>th</sup> Proceeding of Civil Engineering, Water and Environmental Engineering, Vol. 3, Faculty of Civil Engineering, UTM.
- 6. Yaacob, N and **Muda, K**. (2017). Invesitigate of Potential of Sludge Bulking at Sewage Treatment Plant. 2<sup>nd</sup> Proceeding of Civil Engineering, Environmental Engineering, Hidraulic and Hydrology. Vol. 3, 50-55. Faculty of Civil Engineering, UTM.
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#### PLENARY LECTURE / KEYNOTE ADDRESS

- 1. **Muda, K.** (2020). Enhancement on Biogranulation Development Process. International Conference on Energy, Environment and Bioengineering (ICEEB 2020), Xi'an, China. 8<sup>th</sup> August. Online Conference.
- 2. **Muda, K.** (2018). Environmental Issues and Potential Recovery from Palm Oil Industry The 1<sup>st</sup> Sriwijaya International Conference On Environmental Issues (1<sup>st</sup> SRICOENV 2018). Synergy in Science: Promoting Solution for Environmental Issues. 26-27 September, Palembang, Indonesia.
- 3. **Muda, K**. (2017). Potential Application of Magnetic Field Influence on the Enhancement of Biogranulation Technology A Review. World Summit on Recycling And Environmental Management (Recycling Summit 2017). 22 May, Kuala Lumpur, Malaysia.

## **INVITED/GUEST SPEAKER**

- Muda, K. (2017). Biogranulation Technology and its Enhancement Approach A Mini Review. The 3<sup>rd</sup> International Conference on Construction and Building (ICONBUild 2017), Palembang, Indonesia; 14-17 August – Invited Speaker
- 2. **Muda, K.** (2017). Roles of Civil and Environmental Engineers. Public Lecturer at Sriwijaya Universiti, Palembang, Indonesia16 August Invited Speaker
- 3. **Muda, K**. (2017). Carbon Credit: A Way Towards Sustainable Environment. Seminar Alam Sekitar, Negeri Johor. 5 December Invited Speaker

### REVIEWER (JOURNAL MANUSCRIPT)

- 1. Techon 2019 (August 2019)
- 2. Desalination and Water Treatment (April 2014, August 2019)
- 3. Sains Malaysiana (March 2017; August 2019)
- 4. Journal of Environmental Management (May 2018, Feb 2018, May 2017)

- 5. Journal of Hazardous Materials (Feb 2017, May 2014, August 2013, Feb 2012, Jun 2011)
- 6. Water Research (April 2018, April 2014, August 2011, Sept 2011)
- 7. Separation and Purification Technology (March 2014)
- 8. Process Safety and Environmental Protection (October 2014)
- 9. Process Biochemistry (April 2013)
- 10. Environmental Engineering and Management Journal (April 2012)
- 11. Environmental Science and Technology (March 2012)
- 12. CLEAN –Soil, Air, Water A Journal of Sustainability and Environmental Safety (Nov 2011, Sept. 2011, May 2011)
- 13. Environmental Technology (Oct 2011)
- 14. Journal of Biotechnology (August 2010)

## REVIEWER (MANUSCRIPT FOR CONFERENCE)

- 4<sup>th</sup> International Conference on Construction and Building Engineering & 12<sup>th</sup> Regional Conference in Civil Engineering
- 2. The 12<sup>th</sup> International Civil Engineering Postgraduate Conference (SEPKA) The 3rd International Symposium on Expertise of Engineering Design (3rd ISEED). Le Grandeur Palm Resort, Senai, Johor Malaysia, 27th 28th August 2018.
- 3. The 3<sup>rd</sup> International Conference on Construction and Building (ICONBUild 2017), 14-17 August, Palembang, Indonesia.
- 4. ICOMEIA 2014. The International Conference on Mathematics, Engineering and Industrial Applications, March May 2014.
- 5. Civil Engineering Reseach Seminar, Faculty of Civil Engineering (SEPKA 2014). March April 2014, UTM.
- 6. Civil Engineering Postgraduate Conference, Civil Engineering Faculty, UTM, March 2014

- 7. IGCESH 2013. The 4<sup>th</sup> International Graduate Conference on Engineering Science & Humanity 2013 (IGCESH2013), UTM, February April 2013.
- 8. J-BioTech 2012. The 3th International Biotechnology and Biodiversity Conference & Exhibition (9-11<sup>th</sup> June 2012)
- 9. 1st IWA MALAYSIA Young Water Professionals Conference, February, 2010.

## **CONSULTANCY PROJECTS**

- 1. Development of Water Quality Management Plan of Sungai Segget and Sungai Tebrau (2001-2003), Jabatan Alam Sekitar, Kuala Lumpur (Vot No. 62393 RM 2.03 Millions)
- 2. Development of Water Quality Management Plan for Terengganu River Basin (1998-2000). Jabatan Alam Sekitar Kuala Lumpur (Vot No 63192 RM 900,000.00)