

## Curriculum Vitae

### I. Personal Particulars

**Name:** MOHD REMY ROZAINY MOHD ARIF ZAINOL

**Current position:** SENIOR LECTURER (DS51)



### II. A. Academic and Professional Qualifications

Year	Degree	Discipline	University
2004	Bachelor of Science	Civil Engineering	Universiti Sains Malaysia
2008	Masters of Science	Urban Drainage	Universiti Sains Malaysia
2012	Doctor of Philosophy	Water Resources Engineering	Kyoto University

### B. Titles of postgraduate theses

Master thesis

Modeling of Flow Characteristic in a Pump Sump Physical Model by Using Computational Fluid Dynamics (CFD).

PhD thesis

A Study on Particle Segregation Processes in Debris Flow by an Euler-Lagrangian Coupled Hydraulic Model

### III. Work Experience

Year	Position	Field of Work	Place of Work
March 03 – May 03	Industrial Trainee	Civil Engineering	Jamil Ghani Construction Sdn Bhd
Oct 04 – Sept 08	Research Officer	Research on Water Resources Engineering	School of Civil Engineering, USM
Oct 08 – March 09	Research Fellow	Research on Water Resources Engineering	Disaster Prevention Research Institute, Kyoto University
April 12 – present	Senior Lecturer	Lecturer	School of Civil Engineering, USM

### IV. Main Current Research Areas (Please list a maximum of three)

- Hydraulic Physical Model and Numerical Simulation
- Water treatment
- Geopolymer

1.0 RESEARCH AND PUBLICATION	
1.1	<b>Research Publications</b>
(a)	<ol style="list-style-type: none"> <li>1. <b>Mohd Remy Rozainy Mohd Arif Zainol</b>, Zul Ilham Zulkifle Lubes, Mohd Radzi Abu Mansor, Mohd Hakimi Mohd Shafiai, Mohd Mustafa Al Bakri Abdullah, 2016, International Sustainable Technology, Energy and Civilization Conference, School of Civil Engineering, p168.</li> <li>2. Mohd Radzi Abu Mansor, Mohd Hakimi Mohd Shafiai, <b>Mohd Remy Rozainy Mohd Arif Zainol</b>, Zul Ilham Zulkifle Lubes, Amir A'ffan Abdul A'zim International Sustainable Technology, Energy and Civilization Conference 2016, Universiti Kebangsaan Malaysia, p150</li> <li>3. Izwan Johari, Nor Azam Ramli, Megat Azmi Megat Johari, Norazura Muhammad Bunnori, Irvan Dahlan Nur Sabahiah Abdul Sukor Mohd, <b>Mohd Remy Rozainy Mohd Arif Zainol</b>, Noor Faizah Fitri Md. Yusof, 2012, Bridging Technologies Towards Sustainability and Humanization, School of Civil Engineering, 180</li> </ol>
(b)	<p><b>Journal/E-Journal/Journal Proceeding (each publication)</b></p> <p><b>International</b></p> <ol style="list-style-type: none"> <li>1. Mohamed Shaban Abu Jabal, Ismail Abustan, <b>Mohd Remy Rozainy</b>, Hussam Al-Najar (2014). Fluoride Enrichment in Groundwater of Semi-Arid Urban Area: Khan Younis City, Southern Gaza Strip (Palestine). <i>Journal of African Earth Sciences</i>, no. 100, pp 259-266. (ISI)</li> <li>2. Hamzah, HAZAMAAH Nur; Al Bakri Abdullah, MOHD Mustafa; HEAH Cheng Yong; <b>Arif Zainol MOHD Remy Rozainy</b>; Hussin, KAMARUDIN, Assessment to the Solid to Liquid Ratios on the Soil Strength and Water Absorption of the Kedah's Soil, Material Science Forum, Vol 841 p59 (SCOPUS)</li> <li>3. Mohd Khairul Nizam Mahmad, <b>Mohd Remy Rozainy M.A.Z</b>, Ismail Abustan and Norlia Baharun, 2016, Electrocoagulation Process by Using Aluminium and Stainless Steel Electrodes to Treat Total Chromium, Colour and Turbidity, <i>Procedia Chemistry</i> 19 (2016) 681 – 686 (SCOPUS)</li> <li>4. M N Adlan, <b>Mohd Remy Rozainy M A Z</b>, M F Ghazali, M R Selamat and S Z Othman (2016). A study on the soil characteristic and properties of riverbank soil samples from Sungai Perak, Kota Lama Kiri, Kuala Kangsar, Malaysia. <i>IOP Conf. Material Science Engineering</i>. (SCOPUS)</li> <li>5. Mohd Khairul Nizam Mahmad, <b>Mohd Remy Rozainy M.A.Z</b> and Norlia Baharun (2016). Applications of Radio Frequency Identification (RFID) in Mining Industries. <i>IOP Conf. Material Science Engineering</i>. (SCOPUS)</li> <li>6. Rrahimi Jamil, <b>Mohd Remy Rozainy M.A.Z</b>, Mohd Nordin Adlan (2016). Monitoring of Dissolved Oxygen by Using Cascade Aerator for Removing Iron and Manganese. <i>International Journal of Scientific Research in Knowledge</i>, 4 (WSC'16), pp. 007-010 (INTERNATIONAL)</li> <li>7. Warid Wazien A.Z, Mohd Mustafa Al Bakri Abdullah, Rafiza Abd. Razak, <b>Mohd Remy Rozainy M.A.Z.</b>, and Muhammad Faheem Mohd Tahir (2016). Strength and Density of Geopolymer Mortar Cured at Ambient Temperature for Use as Repair Material. <i>IOP Conf. Material Science Engineering</i>. (SCOPUS)</li> <li>8. Warid Wazien A.Z., Mohd Mustafa Al Bakri Abdullah, Rafiza Abd. Razak, <b>Mohd Remy Rozainy M.A.Z.</b>, Muhammad Faheem Mohd Tahir, M.A. Faris, and Hazamaah Nur Hamzah (2016). Review on Potential of Geopolymer for Concrete Repair and Rehabilitation. Phuket, Thailand. (SCOPUS)</li> <li>9. Warid Wazien A.Z. Mohd Mustafa Al Bakri Abdullah, Rafiza Abd. Razak, <b>Mohd Remy Rozainy M.A.Z.</b>, Muhammad Faheem Mohd Tahir, Kamarudin Hussin (2016). Potential of</li> </ol>

Geopolymer Mortar as Concrete Repairing Materials. *Materials Science Forum*. Vol. 857, pp 382-387. (SCOPUS)

10. Che Mohamad Amirus Shafiq Che Ismail, **Mohd Remy Rozainy M.A.Z.**, I. Abustan, A.M. Mustafa Al Bakri. The Study of Mengkuang Dam's Chute Spillway by Physical Modeling. *Applied Mechanics and Materials*. Vol 802 (2015) pp63-67 (INTERNATIONAL)
11. **Mohd Remy Rozainy M.A.Z.**, Khairy A.W., I. Abustan, A.M. Mustafa Al Bakri. Model Study for Upgrading of Sungai Belibis Pump Sump. *Applied Mechanics and Materials*. Vol 802 (2015) pp417-622 (INTERNATIONAL)
12. Mohd Khairul Nizam Mahmad, **Mohd Remy Rozainy M.A.Z.**, Ismail Abustan, and Norlia Baharun. Electrocoagulation Process by Using Aluminium and Stainless Steel Electrodes to Treat Total Chromium, Colour and Turbidity. 5th International Conference on Recent Advances in Materials, Minerals and Environment (RAMM) & 2nd International Postgraduate Conference on Materials, Mineral and Polymer (MAMIP), 4-6 August 2015. (SCOPUS)
13. Syafalni S., Dhaarisheni M., Ismail Abustan, **Mohd Remy Rozainy M. A. Z.** (2015). Landfill Leachate Treatment by Using Peat Soil and Laterite Soil as Natural Adsorbents. *International Journal of Applied Engineering Research*, vol 10, no 3, pp 5707-5728. (SCOPUS)
14. **Mohd Remy Rozainy M.A.Z.**, Rhahimi Jamil, Nordin Adlan. A Review of Removal Iron and Manganese by Using Cascade Aeration Systems. Postgraduate Conference on Protection of Drinking Water for Society: Source Abstraction and Treatment, 10-11 February 2015, Kuala Lumpur, Malaysia. *Jurnal Teknologi*. Vol 74, No 11 (SCOPUS)
15. Azrin Mohd Sanusi, Mohd Nordin Adlan, **Mohd Remy Rozainy M.A.Z.**, Rhahimi Jamil. Removal of Iron and Manganese Using Cascade Aerator and Limestone Roughing Filter. The 3rd International Conference on Civil and Environmental Engineering for Sustainability (IConCEES 2015). *Journal of Applied Mechanics and Material*. (SCOPUS)
16. Hazamaah Nur Hamzah, Mohd Mustafa Al Bakri Abdullah, Heah Cheong Yong, **Mohd Remy Rozainy Arif Zainol**, Kamarudin Hussin (2015). Review on Soil Stabilation Technique: Geopolymerization Method One of the New Technique. *Journal of Key Engineering Materials*. (SCOPUS)
17. Mohd Khairul Nizam Mahmad, **Mohd Remy Rozainy M.A.Z.**, Ismail Abustan, Norlia Baharun (2015). Removal of Iron and Total Chromium Contaminations in Landfill Leachate by Using Electrocoagulation Process. *Journal of Key Engineering Materials*. (SCOPUS)
18. **Mohd Remy Rozainy M.A.Z.**, Mohd Khairul Nizam Mahmad, Ismail Abustan, Norlia Baharun (2015). Removal of Cadmium and Zinc Contaminations in Landfill Leachate by Using Electrocoagulation Process, 4-5 December 2015, Taiwan. (SCOPUS)
19. Rafiza Ramli, Ng Chee Mang, Zulkifli Ahmad, Mariatti Jaafar, **Mohd Remy Rozainy Mohd Arif Zainol** (2015). Synthesis and Studies on the Effect of Phenyl Side –Chain Content on Refractive Index of Polysiloxane Resin. *Applied Mechanics and Materials*, vols. 754-755 pp 881-885. (INTERNATIONAL)
20. Chitosan and Bentonite as Coagulation in Dissolved Air Flotation Tank. **Mohd Remy Rozainy Mohd Arif Zainol**, Hasif Mokhtar, Syafalni Sutan, Khairy Abdul Wahab and Mohd Mustafa Al Bakri Abdullah (2015). *Applied Mechanics and Materials*, Vols. 728-732. (INTERNATIONAL)
21. **Mohd Remy Rozainy M.A.Z.**, Hasif M., Syafalny S., and Pugeswary P. Physical modeling of flow characteristic in dissolved air flotation tank with chitosan and bentonite as coagulant. *Advances in Engineering Mechanics and Materials*, pp 241-245. (INTERNATIONAL)
22. **Remy Rozainy M.A.Z.**, Hasif M., Syafalny, Pugeswary P. and Afifi A. (2014). Combination of Chitosan and Bentonite as Coagulant Agents in Dissolved Air Flotation. Singapore. *APCBEEES Procedia*. (SCOPUS)
23. Mohammed Abu Jabal, Ismail Abustan, **Mohd Remy Rozainy**, Hussam El Najar (2014). Groundwater beneath the urban area of Khan Younis City, Southern Gaza Strip (Palestine): Hydrochemistry and water quality. *Arab J Geosci*. (ISI)

24. Pingping Luo, Bin He, Pedro Luiz Borges Chaffe, Daniel Nover, Kaoru Takara and **Mohd Remy Rozainy M.A.Z.** (2013). Statistical Analysis and Estimation of Annual Suspended Sediment of Major Rivers in Japan. *Journal of Environmental Science: Processes & Impacts.* (ISI)
25. **Remy Rozainy M.A.Z.**, Yosuke Yamashiki, Taku Matsumoto, Tamotsu Takahashi and Kaoru Takara (2013). Particle routing segregation of debris flow mechanisms near the erodible bed, Dubai. *APCBEEES Procedia*, no. 5, pp 527-534. (SCOPUS)
26. **Remy Rozainy M.A.Z.**, Yosuke Yamashiki, Taku Matsumoto, Tamotsu Takahashi and Kaoru Takara (2012). A study on particle segregation processes in debris flow. International Conference on Advances and Science and Contemporary Engineering. *Journal of Procedia Engineering*, Vol. 50, pp. 406-415. (SCOPUS)
27. Yosuke Yamashiki, **Remy Rozainy M.A.Z.**, Taku Matsumoto, Tamotsu Takahashi and Kaoru Takara (2012). Simulation and Calibration of Hydro-Debris 2D Model (HD2DM) to Predict the Particle Segregation Processes in Debris Flow. *Journal of Civil Engineering and Architecture.* (INTERNATIONAL)
28. Yosuke Yamashiki, **Remy Rozainy M.A.Z.**, Taku Matsumoto, Tamotsu Takahashi and Kaoru Takara (2012). Experimental Study of Debris Particle Routing Segregation at Low and High Slope. *Journal of Global Environmental Engineering* (JGEE), Vol. 17, pp. 9-18. (SCOPUS)
29. **Remy Rozainy M.A.Z.**, Yosuke Yamashiki, Kaoru Takara and Taku Matsumoto (2011). A Study on Mechanism of the Limestone Debris Flow and its Flow Characteristics. Disaster Prevention Research Institute (DPRI) Annual Meeting, 23-24 February 2011, Kyoto, Japan, No 54B, pp. 71-81.
30. **Remy Rozainy M.A.Z.**, Yosuke Yamashiki, Kaoru Takara, Matsumoto Taku. (2010). Routing Particle Segregation of Limestone Debris Flows. Second Asian Heads of Research Councils (ASIAHORCS) Joint Symposium, 1-2 November 2010, Kuala Lumpur, Malaysia.
31. Abustan. I., **Mohd. Remy Rozainy M.A.Z.**, Abdullah. M. Z., Hazha. H. and Abustan, M.S. (2009). Physical Modelling Design Enhancement of Tenom Pangi Hydro-Station For Flood Event Analysis. Regional GeoDisaster Mitigation, 3-4 Mac 2009 Kuala Lumpur.
32. **Remy Rozainy M.A.Z.**, Yosuke Yamashiki, Kaoru Takara, Cao W. (2010). Routing Debris Flow with Limestone. Disaster Prevention Research Institute (DPRI) Annual Meeting, 23-24 February 2010, Kyoto, Japan, No. 53B, pp. 83-88.
33. Noor Aida Saad, Hamidi Abdul Aziz, Mohd Zulkifly Abdullah, Mohamad Zubair, **Mohd Remy Rozainy M.A.Z.** Oxigen Uptake by Biological Processes Inside Oxidation Ditch. *Applied Mechanics and Materials.* Vol 802 (2015) pp490-495 (INTERNATIONAL)
34. **Mohd Remy Rozainy M.A.Z.**; Rhahimi Jamil; Aizat Abas; Mohd Noerdin Adlan; W.K Chee, Lattice-Boltzmann Study of Cascade Aerator System, *Australian Journal of Basic and Applied Sciences*, 2015. (SCOPUS)
35. Nurliyana Ariffin, Mohd Mustafa Al-Bakri, **Mohd Remy Rozainy Mohd Arif Zainol**, Mohd Fared Murshed, Hariz-Zain and M.A. Faris, Review on adsorption of heavy metal in wastewater by using geopolymer, Vietnam. (SCOPUS)
36. Hazamaah Nur Hamzah, Mohd Mustafa Al Bakri Abdullah, Heah Cheng Yong , Mohd Remy Rozainy Mohd Arif Zainol , Aiman Mahmud Nor, and Warid Wazien A.Z. Correlation of the Na<sub>2</sub>SiO<sub>3</sub> to NaOH Ratios and Solid to Liquid Ratios to the Kedah's Soil Strength. *MATEC Web of Conferences*, 78, 01071 (2016) (SCOPUS)
37. Mohamad Aizat Abas; Fei Chong Ng; **Mohd. Remy Rozainy M. A. Z.**; Mohd. Nordin Adlan; Wei Loon Tam, Effect of Barrier Height on the Design of Stepped Spillway using Smoothed Particle Hydrodynamics and Particle Image Velocimetry, *Journal of Hydrology* (under review)
38. Mohamad Aizat Abas, Fei Chong Ng, **Mohd. Remy Rozainy M. A. Z.**, Mohd. Nordin Adlan, Wei Loon Tam, Norizham Abdul Razak, Effect of Barrier Height on the Design of Stepped Spillway using Smoothed Particle Hydrodynamics and Particle Image Velocimetry, *Advances in Water Resources.* (under review)

Ismail Abustan, Harmuni Halim, **Mohd Remy Rozainy M.A.Z.**, Batch studies for removal of Iron and Manganese Using Granular Activated Carbon and Zeolite In Artificial Barrier of Riverbank Filtration, ICAMET 2016. (INTERNATIONAL)

39. Zainordin Firdaus Zulkefli, **Mohd Remy Rozainy M. A. Z.**, Norhayati Osman, (2017), A Development Of Anti-Slip Sustainable Tiles From Agricultural Waste, *Advanced Materials Engineering and Technology V: International Conference on Advanced Material Engineering and Technology 2016*, DOI: 10.1063/1.4981843. (INTERNATIONAL)
40. Rhahimi Jamil, **Mohd Remy Rozainy M.A.Z.**, Mohd Nordin Adlan, Rossitah Selamat, A comparative study on flow rate for geometry of the multiphase fluids simulated by PALABOS, NRICon 2016 (accepted)
41. **M. R. Rozainy M. A. Z.**, I. Shafiq, H. A. Hussein, M. K. Abdullah, I. Abustan, M. Khairi, and N. Bhardwaj, Investigation of stilling basin performance by using physical model and computational fluid dynamics, *AIP Conference Proceedings 1885*, 020102 (2017); doi: 10.1063/1.5002296. (INTERNATIONAL)
42. **M. R. Rozainy**, M. A. W. Khairi, H. A. Hussein, I. Abustan, I. Shafiq, and N. Bhardwaj, Experimental investigation of swirl angle in Sungai Belibis pump sump, *AIP Conference Proceedings 1885*, 020100 (2017); doi: 10.1063/1.5002294. (INTERNATIONAL)
43. Mohd Azmi Ismail, Ismail Abustan, **Mohd Remy Rozainy Mohd Arif Zainol**, Mohd Zulkifly Abdullah, Che Mohamad Amirus Shafiq Che Ismail (2017), Applying Numerical Method in Improving Emergency Gate Design of Mengkuang Dam, *Advances and Applications in Fluid Mechanics*. Vol 20, No 3, pp. 353 – 362. (INTERNATIONAL)
44. Mohammed Shaban Abu Jabal, Ismail Abustan, **Mohd Remy Rozaimy**, Hussam El Najjar. The deuterium and oxygen-18 isotopic composition for the groundwater of Khan Younis City, southern Gaza Strip (Palestine), *Environmental Earth Sciences*, 2017. (Submitted)
45. A. Saleh, I. Abustan, **Mohd Remy Rozainy M. A. Z.** and N. Sabtu (2017), Optimal Sand Removal Capacity For In-Stream Mining In Perak River, Malaysia, *International Journal of Civil Engineering & Technology (IJCIET)*, Vol 8, No. 11. (INTERNATIONAL)
46. A. Saleh, I. Abustan, **Mohd Remy Rozainy M. A. Z.** and N. Sabtu (2017), Assessment of Total Bed Material Equations on Selected Malaysia Rivers, *AIP Conference Proceedings 1892*, 070002 (2017); doi: 10.1063/1.5005720. (INTERNATIONAL)
47. Warid Wazien A.Z. Mohd Mustafa Al Bakri Abdullah, **Mohd Remy Rozainy M.A.Z.**, Rafiza Abd. Razak, Muhammad Faheem Mohd Tahir, Compressive and bonding strength of fly ash based geopolymer mortar, *Green Construction And Engineering Education For Sustainable Future: Proceedings of the Green Construction and Engineering Education (GCEE) Conference 2017 AIP Conference Proceedings 1887(1):020058* (2017), DOI: 10.1063/1.5003541. (INTERNATIONAL)
48. Nurliyana Ariffin, Mohd Mustafa Al Bakri Abdullah, **Z. Mohd Remy Rozainy**, Mohamad Fared Murshed, Geopolymer as an Adsorbent Of Heavy Metal: A review, *AIP Conference Proceedings: 3rd Electronic And Green Materials International Conference 2017 (EGM 2017)1885(1):020030* · September 2017, DOI: 10.1063/1.5002224. (INTERNATIONAL)
49. Mohd S. Abu Jabal, Ismail Abustan, **Z. Mohd Remy Rozainy**, Husam Al-Najar, Groundwater beneath the urban area of Khan Younis City, southern Gaza Strip (Palestine): assessment for multi-domestic purposes (2017), *Arabian Journal of Geosciences*, Vol 10, No 257, pp.1-15. (INTERNATIONAL)
50. Aizat Abas, Rhahimi Jamil, **Mohd Remy Rozainy M.A.Z.**, Mohd Azwan Zainol, Mohd Nordin Adlan, C. W. Keong, PIV Study of Aeration Efficient of Stepped Spillway System (2017), *IOP Science*, DOI:10.1088/1757-899X/209/1/012090. (INTERNATIONAL)
51. Ismail Abustan, Harmuni Halim, **Mohd Remy Rozainy M.A.Z.**, Removal of iron and manganese using granular activated carbon and zeolite in artificial barrier of riverbank filtration (2017), *AIP Conference Proceedings 1835(1):020056*, The 3rd ISM International Statistical Conference 2016 (ISM-III): Bringing Professionalism and Prestige in Statistics DOI: 10.1063/1.4983796. (INTERNATIONAL)

	<p>52. Nurliyana Ariffin, Mohd Mustafa Al Bakri Abdullah, <b>Z. Mohd Remy Rozainy</b>, Mohamad Fared Murshed, Haris Zain, Meor Ahmad Faris, Ridho Bayuaji (2017), Review on Adsorption of Heavy Metal in Wastewater by Using Geopolymer, MATEC Web of Conferences, 97, 01023, DOI: 10.1051/mateconf/20179701023. (INTERNATIONAL)</p> <p><b>National</b></p> <p>53. <b>Mohd Remy Rozainy M.A.Z.</b>, Ismail ABUSTAN, Khairy A.W. (2016). Model Study for Upgrading and Rehabilitation of Batu Kitang Water Treatment Plan. Seminar on Physical Modelling Applications and Technology (PHYMAT), <i>Malaysia Water Research Journal</i>, vol 7, No. 1, pp 48-63 (NATIONAL)</p> <p>54. <b>Mohd Remy Rozainy M.A.Z.</b>, Ismail ABUSTAN, Khairy A.W., Siti Shaiirah Rahim, Mohamad Nasran Nasehir Khan, Nasehir Khan E.M. Yahaya (2017), A Study on the Selection of Suitable Sites for Integrated Smart Trapper System Installation (InSmarts), <i>Engineering Heritage Journal</i>, DOI: 10.26480/gwk.01.2017.06.10. (NATIONAL)</p> <p>55. Ismail ABUSTAN, <b>Mohd. Remy Rozainy M.A.Z.</b>, Abdullah. M. Z, (2012). Experimental and Numerical Simulation of Flow Characteristics in a Pump Sump Model. Seminar on Physical Modelling Applications and Technology (PHYMAT), Seri Kembangan, Selangor. (NASIONAL)</p> <p>56. M.N. Adlan, M.F. Ghazali, <b>M.R.R. Mohd. Arif Zainol</b> (2016). Removal of E.Coli and Turbidity Using Riverbank Filtration Technique (RBF) for Riverside Alluvial Soil in Malaysia. <i>IEM Journal</i>.</p> <p>57. <b>Mohd. Remy Rozainy M.A.Z.</b>, 2012, Ciwiday Debris Flow, Bandung, Indonesia, NEWSLETTER, School of Civil Engineering, USM</p>
(d)	<p><b>Proceeding</b></p> <p>58. <b>Mohd Remy Rozainy M.A.Z.</b>, Muhammad Khairi A.W, Ismail Abustan, Mohd Azmi Ismail (2016). A Review Paper on Improvements of Hydraulic Performance in Pump Sump. International Sustainable Technology, Energy &amp; Civilization Conference (ISTECC 2016), Kuala Lumpur, Malaysia. (INTERNATIONAL)</p> <p>59. <b>Mohd Remy Rozainy M.A.Z.</b>, C.M.A.S. Che Ismail, M.K. Abdullah, I. Abustan, Choong W.K. (2016). Review Paper on Mengkuang Dam's Spillway Stilling Basin. International Sustainable Technology, Energy &amp; Civilization Conference (ISTECC 2016), Kuala Lumpur, Malaysia. (INTERNATIONAL)</p> <p>60. <b>Mohd Remy Rozainy M.A.Z.</b>, Husnul Azan Tajarudin, Nurliyana Ariffin, Rhahimi Jamil (2015). Removal of Colour, COD, Iron and Manganese from Landfill Leachate by Using Activated Carbon, Limestone and Zeolite. International Sustainable Technology, Energy and Civilization Conference (ISTECC 2015), 10-11 January 2015, Kuala Lumpur, Malaysia. (INTERNATIONAL)</p> <p>61. <b>Mohd Remy Rozainy M.A.Z.</b>, Mohd Khairul Nizam Mahmad, Ismail Abustan, Norlia Baharun (2015). Removal of Nickel, Cadmium and Zinc Contaminations in Landfill Leachate by Electrocoagulation Process, International Sustainable Technology, Energy and Civilization Conference, 10-11 January 2015, Kuala Lumpur, Malaysia. (INTERNATIONAL)</p> <p>62. Nor Amirah Abu Seman, Ismail Abustan, <b>Mohd Remy Rozainy</b>. Water quality and Hydraulic Performances of the HMGDS Drainage Module. THA 2015 International Conference on Climate Change and Water &amp; Environment Management in Monsoon Asia, 28-30 January, Bangkok, Thailand. (INTERNATIONAL)</p> <p>63. Syamsul Azlan Saleh, Ismail Abustan, <b>Mohd Remy Rozainy</b>, Abdulaziz Al-Bassam. Study on the Sustainable Sand Removal Capacity on Sand Mining Capacity. THA 2015</p>

	<p>International Conference on Climate Change and Water &amp; Environment Management in Monsoon Asia, 28-30 January, Bangkok, Thailand. (INTERNATIONAL)</p> <p>64. Ismail Abustan, Mohd Ashraf Mohamad Ismail, <b>Mohd Remy Rozainy Mohd Arif Zainol</b>, Kamar Shah Ariffin, 2013, Study on the Sustainable Sand Removal/Mining Capacity of Sungai Perak, Pendiati, Proceeding of the 5th AUN/SEED-Net Regional Conference on Geological Engineering in ASEAN, 15-16 January 2013, pp 39 (INTERNATIONAL)</p> <p>65. <b>Mohd Remy Rozainy, M.A.Z.</b>, Abustan, I., Abdullah, M.Z., Muhad, R.M. Nawi., and M.A. Ismail. (2006). Computational Fluid Dynamic (CFD) to Modeling of Flow Characteristics in Physical Model of Pump Sump. 1<sup>st</sup> Civil Engineering Colloquium, School of Civil Engineering, Universiti Sains Malaysia. (NATIONAL)</p> <p>66. <b>Mohd. Remy Rozainy, M.A.Z.</b>, Abustan. I, Abdullah. M. Z, Muhad R. M. Nawi, M. A. Ismail (2007). Flow Characteristics in Physical Model of Pump Sump Using Computational Fluid Dynamics (CFD). National Seminar on Civil Engineering Research (SEPKA), Johor Darul Takzim. (NATIONAL)</p> <p>67. <b>Mohd. Remy Rozainy M.A.Z.</b>, Ismail Abustan, Abdullah. M. Z., Mohd. Ashraf M. I., Choong W.K., (2008) Modeling of Flow Characteristics in a Pump Sump Physical Model at 4l/s, 10l/s and 15l/s, International Seminar on Civil and Infrastructure Engineering (ISCIE08), Shah Alam, Malaysia. (INTERNATIONAL)</p> <p>68. Mohd Nordin Adlan, mohd Fared Murshed, <b>Mohd Remy Rozainy M.A.Z.</b>, Rhahimi Jamil, Azrin Mohd Sanusi. The Effect of Flowrate and Limestone Size on the Removing of Iron and Manganese Using Cascade Aerator. The 4rd International Conference on Advance Material Engineering and Technology (ICAMET 2015). (INTERNATIONAL)</p> <p>69. <b>Mohd. Remy Rozainy M.A.Z.</b>, Ismail Abustan, Abdullah. M. Z., Mohd. Ashraf M. I., Application of Computational Fluid Dynamics (CFD) in Physical Model of Pump Sump to Predict the Flow Characteristics, ICCBT 2008, (07) pp79-90 (INTERNATIONAL)</p> <p>70. <b>Remy Rozainy M.A.Z.</b>, Yosuke Yamashiki, Kaoru Takara, Taku Matsumoto and Tamotsu Takahashi (2012). Calibration of Hydro-Debris 2D Model (HD2DM) Near Erodible Bed. Annual of Disaster Prevention Research Institute (DPRI), 23-24 February 2012, Kyoto, Japan (INTERNATIONAL)</p> <p>71. <b>Remy Rozainy M.A.Z.</b>, Yosuke Yamashiki, Kaoru Takara, Taku Matsumoto and Tamotsu Takahashi (2011). Debris Flow Particle Tracing Mechanism Characteristics Study. JSCE Kansai Chapter Annual Meeting, 12 June 2011, Kansai University, Japan. (INTERNATIONAL)</p>
(e)	<p><b>Conference Presentation (oral and poster)</b></p> <p>1. Remy Rozainy M.A.Z, Yosuke Yamashiki, Kaoru Takara, Taku Matsumoto and Tamotsu Takahashi (2011). Experimental Study of Debris Routing Particle Segregation with constant discharge. 13th International Summer Symposium of The International Activities Committee, Japan Society of Civil Engineering, 26 August 2011 Uji, Kyoto University, Japan, pp. 231-234.</p> <p>2. Oral presentation – Deposition Pattern and Characteristics of the Limestone Debris Flow, Human Security Engineering for Asian Megacities – HSE, Disaster Management for Human Security in Asian Megacities, 25th August 2010, Wood Hall, Kyoto University, Uji Campus</p> <p>3. Oral presentation - Development of Debris-Flow Alert System to Secure Urban Zone, Human Security Engineering for Asian Megacities – HSE, Disaster Management for Human Security in Asian Megacities, 25th August 2009 Wood Hall, Kyoto University, Uji Campus</p> <p>4. Oral Presentation - A Study of Submergence Levels of Pump Sump by using Computational Fluid Dynamic (CFD) 15th Kyoto University Southeast Asia Forum 2014, January 17-19 Lombok, Indonesia.</p> <p>5. Oral Presentation - Applications of Radio Frequency Identification (RFID) in Mining Industry, EUROINVENT 2016</p>

	<p>6. Oral Presentation - A Study on Soil Characteristics and Properties of Riverbank Soil Samples from Sungai Perak, Kota Lama Kiri, Kuala Kangsar, Malaysia, EUROINVENT 2016</p> <p>7. Poster Presentation - <b>Remy Rozainy M.A.Z</b>, Yosuke Yamashiki, Kaoru Takara, Taku Matsumoto and Tamotsu Takahashi (2011). Segregation of Particles with Two Different Sizes at Three Different Slope Angles. 5<sup>th</sup> International Conference on Flood Management (ICFM5), 27-29 September 2011, Tsukuba, Japan, pp. 296.</p> <p><b>National</b></p> <p>8. Ismail Abustan, Nuridah Sabtu, <b>Mohd Remy Rozainy M.A.Z.</b>, Khairy A.W., Ismail M.A. (2016). Optimum Positioning Of Baffle Blocks In Stilling Basin For Mengkubau Dam. Seminar on Physical Modelling Applications and Technology (PHYMAT), Seri Kembangan, Selangor, Malaysia.</p> <p>9. Mohd Remy Rozainy bin Mod Arif Zainol, Ismail Abustan Che Mohamad Amirus Shafiq Che Ismail Dr Muhammad Khalil Abdullah, Dr Nuridah Sabtu (2016). Study Of Flow Characteristics In Mengkubau Dam Spillway. Seminar on Physical Modelling Applications and Technology (PHYMAT), Seri Kembangan, Selangor, Malaysia.</p>
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<b>1.2</b>	<b>Publications Related to Teaching</b>
(c)	<p><b>(i) Teaching Modules</b></p> <ol style="list-style-type: none"> <li>1. Autocad 2D for Civil Engineering 2012/13, 2013/14, 2014/15, 2015/16, 2016/17</li> <li>2. Autocad 3D for Civil Engineering 2016/17</li> <li>3. Short Course module on Computational Modelling: FLOW 3D, 25-27 May 2015, School of Civil Engineering, USM</li> </ol>

<b>1.3</b>	<b>Research Grant</b>
(a)	<p><b>International</b></p> <p><b>(iii) Co-researcher</b></p> <ol style="list-style-type: none"> <li>1. <b>Physical Hydraulic Model Study on Labyrinth Spillway, Swee Sendirian Berhad Bandar Seri Begawan, Brunei,</b>          Researchers: Prof Dr Ismail Abustan          Dr Mohd Remy Rozainy Mohd Arif Zainol          Prof Zulkifly Abdullah          Amount RM253,200.00,          Duration 1/12/2014 – 30/6/2017</li> <li>2. <b>Simulation of Iron and Manganese Removal from Cascade Aerator by Using CFD (Palabos)</b>          Researchers: Dr. Aizat Abas (Main researcher)          Dr Mohd Remy Rozainy Mohd Arif Zainol          Prof Zulkifly Abdullah          Amount RM6000          Duration 8/12/2015 – 8/12/2016</li> </ol>



(b)

**National**

**(ii) Project Head**

1. **FRGS:** A Study on Particle Segregation Processes in Debris Flow for Malaysia Case Study by an Euler-Lagrangian Coupled Hydraulic Model

Researches: Dr. Mohd Remy Rozainy Mohd Arif Zainol

Prof Ismail Abustan

Dr. Mohd Ashraf Mohamad Ismail

Dr. Mohamad Aizat Abas

Dr. Mohd Aminur Rashid Mohd Amiruddin

Arumugam

Amount: RM 101, 500.00

August 2016 – July 2019.

**(iii) Co-researcher**

1. **LRGS:** River Bank/Bed Filtration For Drinking Water Source Abstraction

**Researches:** Prof Nordin Adlan

Prof Hamidi Abd Aziz

Prof Ismail Abustan

Prof Azlin

Prof Suffian

**Amount: Rm** 2,696,150.00

**Duration:** August 2012 – 31 July 2017

2. **FRGS:** Stochastic Modelling Of Reservoir Systems For Sustainable Water Resources Management

**Researches:** Dr. Rozi Abdullah

Dr. Mohd Remy Rozainy Mohd Arif Zainol

**Amount: Rm** 132,300.00

**Duration:** 1 December 2013 – 31 May 2017

3. Raw Water Pump Sump Model Test for Batu Kitang Water Treatment Plant 3, Kuching, Sarawak, Water Engineering Technology Sdn. Bhd.

**Researchers:** Prof Ismail Abustan

Dr. Mohd Remy Rozainy Mohd Arif Zainol

**Amount:** Rm 80,000

**Duration:** 1/12/13 – 30/11/14

4. **RUI:** Use Of Filtration And Solar Treatment For Conversion of Harvested Rainwater Into Alternative Source Of Drinking Water

**Researchers:** Dr. Pugeswary D/O Palaniandy

Dr. Mohd Remy Rozainy Mohd Arif Zainol

**Amount:** Rm 133,489

**Duration:** 1/12/13 – 31/8/16

5. Water Quality Study for Green Drainage System (GDS), IJ Berkat Enterprise

**Researchers:** Prof Ismail Abustan

Dr. Mohd Remy Rozainy Mohd Arif Zainol

**Amount:** Rm 30,000

**Duration:** 2/1/2013 – 31/2/2016

6. Mengkuang Dam Expansion Project, Pulau Pinang Construction of Dam and Associated Works, China International Water & Electric Corp (M) Sdn. Bhd.

**Researchers:** Prof Ismail Abustan

Dr. Mohd Remy Rozainy Mohd Arif Zainol

Prof Zulkifly Abdullah

**Amount:** Rm 125,760

**Duration:** 1/5/2014 – 31/7/2016

7. **FRGS:** Flood and Flood Disaster : Flood Hazard Map Utilizing Public Domain Inundation Hydrological (FRM) and Hydraulic (HEC-RAS) Models and GIS

**Researchers:** Prof Ismail Abustan

Dr. Mohd Remy Rozainy Mohd Arif Zainol

**Amount:** Rm 99,700

**Duration:** 1/4/2015 – 30/4/2016

	<p>8. <b>FRGS:</b> Impact on Environmental Assets: Preparedness on water abstraction and treatment for flood prone areas in Kelantan River Basin.  <b>Researchers:</b> Prof Nordin Adlan  Prof Ismail Abustan  Dr. Mohd Remy Rozainy Mohd Arif Zainol  <b>Amount:</b> Rm 99,400  <b>Duration:</b> 1/45/2015 – 30/4/2016</p> <p>9. <b>PPRN:</b> Chilli Paste and Ground Chilli Machine  <b>Researchers:</b> Dr Azmi Abdullah  Dr. Mohd Remy Rozainy Mohd Arif Zainol  <b>Amount:</b> Rm 32,040  <b>Duration:</b> 1/7/2016 – 1/7/2017</p> <p>10. <b>PPRN:</b> Temperature Control Distribution For Broiler Chicks Coop  <b>Researchers:</b> Dr Azmi Abdullah  Dr. Mohd Remy Rozainy Mohd Arif Zainol  <b>Amount:</b> Rm 29,520  <b>Duration:</b> 1/6/2016 – 1/4/2017</p> <p>11. <b>FRGS:</b> The Feasibility Study Of Waqf-Based Crowdfunding For Humanitarian Aid  <b>Researchers:</b> Dr Mohd Hakimi Mohd Shafiai  Dr. Mohd Remy Rozainy Mohd Arif Zainol  <b>Amount:</b> Rm 49,500  <b>Duration:</b> 1/8/2016 – 31/7/2018</p> <p>12. <b>Gated Spillway Hydraulic Modelling of SAB Dam and Structural Analysis of Tilting Gate</b>  <b>Researchers:</b> Prof Ismail Abustan  Dr. Mohd Remy Rozainy Mohd Arif Zainol  <b>Amount:</b> Rm 543,780  <b>Duration:</b> 5/9/2016 – 31/7/2018</p>
(c)	<p><b>University</b></p> <p><b>(i) Project Manager</b></p> <p>1. <b>Innovation Seed Fund:</b> A Development of Integrated Smart Trapper System (INSMARTS)  <b>Researches:</b> Dr. Mohd Remy Rozainy Mohd Arif Zainol  Prof Ismail Abustan  Dr. Nasehir Khan E.M. Yahaya  <b>Amount:</b> RM 49,999.56  December 2015 – November 2016</p> <p>2. <b>Innovation Seed Fund:</b> A Development of Portable water Sampler for Various Water Bodies  <b>Researches:</b> Dr. Mohd Remy Rozainy Mohd Arif Zainol  Prof Ismail Abustan  Encik Ali Huddin  Dr. Khalil Abdullah  Dr. Asrulnizam  <b>Amount:</b> RM 47,641.08  <b>Duration:</b> 15/09/2014 – 14/08/2015</p> <p>3. <b>Short Term Grant:</b> The Pump Sump Physical Model by Using Computational Fluid Dynamic (CFD)  <b>Researches:</b> Dr. Mohd Remy Rozainy Mohd Arif Zainol  Prof Ismail Abustan  Prof Zulkifly Abdullah  <b>Amount:</b> RM 40 000.00  <b>Duration:</b> October 2013 – September 2014</p> <p>4. <b>Incentive Grant:</b> Prediction of the Particle Segregation Processes in Debris Flow  <b>Researches:</b> Dr. Mohd Remy Rozainy Mohd Arif Zainol  Prof Ismail Abustan  Prof Zulkifly Abdullah  <b>Amount:</b> RM 40 000.00  <b>Duration:</b> August 2012 – July 2013</p> <p><b>(ii) Co-researcher</b></p>

	<p>1. <b>RUI:</b> Exploratory Study On The Sustainable Sand Mining Activities Using ADCP, Resistivity Method And Sediment Transport  <b>Researchers:</b> Prof Ismail Abustan  Dr. Mohd Remy Rozainy Mohd Arif Zainol  <b>Amount:</b> Rm 150,000  <b>Duration:</b> 1/12/13 – 31/05/16</p> <p>2. <b>Innovation Seed Fund:</b> Development of NRAG for Decolorization of Industrial Organic Dyes  <b>Researchers:</b> Dr. Noor Hana Hanif Abu Bakar  Prof Mohamad Abu Bakar  Dr. Mohd Remy Rozainy Mohd Arif Zainol  <b>Amount:</b> Rm 49,982.56  <b>Duration:</b> 1/12/2014 – 30/6/2016</p> <p>3. <b>RUI:</b> Enhancement of Landfill Closed Soil Cover Performance by Using Mixture of Natural Soil and Agricultural Wastes  <b>Researchers:</b> Prof Ismail Abustan  Dr. Mohd Remy Rozainy Mohd Arif Zainol  <b>Amount:</b> Rm 100,000  <b>Duration:</b> 1/3/2016 – 28/2/2018</p>
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<b>1.4</b>	<b>Other Publications</b>
(c)	<p><b>Multimedia Material</b></p> <ol style="list-style-type: none"> <li>1. Video for innovation competition – NR-Ag Ball</li> <li>2. Video for innovation competition – ALLi Portable Water Sampler for Various Water Bodies.</li> <li>3. Video for innovation competition – InSMARTS: Integrated Smart Trapper System.</li> </ol>
(g)	<p><b>Report</b></p> <ol style="list-style-type: none"> <li>1. Nucleus as Open Channel Bed (2016)</li> <li>2. Final Report: Hydraulic Model Study of Mengkubau Dam Spillway, Brunei Darussalam (2016)</li> <li>3. Final Report: Hydraulic Model Study of Batu Kitang Pump House (2015)</li> <li>4. Final report Computer modeling of flow characteristics in Water tower (tower 1) for the mengkuang dam expansion project, Pulau pinang (2014)</li> <li>5. Progress Report: Gated spillway hydraulic modelling of sultan abu bakar (sab) dam and the structural analysis of the tilting gate (2016)</li> <li>6. Pump Sump Model Test for Sidam Kanan, Pantai Perai and Terat Batu</li> <li>7. Data Collection and Observation at a Debris Flow Site Near Ciwidey, Citarum River basin, Global Center for Education and Research on Human Security Engineering for Asian Megacities. Article- <a href="http://hse.gcoe.kyoto-u.ac.jp/en/education/overseas-training/2009/remy/">http://hse.gcoe.kyoto-u.ac.jp/en/education/overseas-training/2009/remy/</a>.</li> <li>8. Water Resources and Water Related Disaster under Climate Change (Prediction, Impact Assessment and Adaptation). International Hydrological Program (IHP 2009).</li> <li>9. Final Report Research Contract from TNB Research, Malaysia, R&amp;D Project on Physical Modelling Design Enhancement of Tenom Station Trash Diverter (2008)</li> <li>10. Final Draft Pump Sump Models Testing for TTDI Jaya and Taman Kebun Bunga.</li> <li>11. Final Report Research involved in consultancy work of Pump Sump Physical Modeling, Pasir Mas, Kelantan.</li> </ol>

## 2.0 TEACHING AND SUPERVISION

(a)

### Undergraduate Teaching / Post-Graduate Teaching

1. Autocad for Civil Engineering 2012/2013, 2013/2014, 2014/2015, 2016/2017, 2017/2018
2. Hydraulic, Geotechnic dan Environmental Laboratory 2012/2013, 2013/2014, 2014/2015, 2015/2016
3. Fluid Mechanics (EAH221/3) Semester 1, 2012/2013, 2013/2014, 2014/2015
4. Engineering Hydrology, 2013/2014, 2014/2015, 2015/2016, 2016/2017, 2017/2018
5. Advance Water Resources Engineering 2013/2014
6. Water Treatment and Distribution Engineering 2013/2014
7. Water Supply Engineering 2013/2014, 2014/2015, 2015/2016 (master mixmode)
9. Wastewater Engineering 2013/2014 (master mixmode)
10. Hydraulics for Civil Engineering 2013/2014, 2014/2015, 2015/2016
11. Urban Water Resources Engineering 2017/2018

(b)

### Graduate Supervision

#### (i) Ph.D

1. **Rhahimi Binti Jamil** - Simulation of Iron and Manganese Removal from Cascade Aerator by Using CFD (Palabos) (Main Supervisor: on going)
2. **Miskiah Fadzilah Binti Ghazali** - River Bank/bed Filtration for Drinking Water Source Abstraction: Mass Flux Transport and Soil Matrix Interaction in Alluvial Soil (Co-Supervisor: on going)
3. **Mohd Khairul Nizam Bin Mahmud** - Synthesis and characterization of Schwertmannite for the removal of Arsenic Contaminant in Mining Waste Water (Co-Supervisor: on going)
4. **Nor Amirah Bt Abu Seman** - Flow Pattern and Hydraulic Characteristics of Hexagonal Modular Green Drainage System (HMGOS) for Stormwater Management (Co-Supervisor: on going)
5. **Salwa Binti Mohd Zaini Makhtar** - Water Quality Improvement in Hexagonal Modular Porous Pavement System for Stormwater Management (Co-Supervisor: on going)
6. **Hazamaah Nur Hamzah (UNIMAP)** - Developing New Technique for Soil Stabilization Using Geopolymerization Method (Co-Supervisor: on going)
7. **Warid Wazian Ahmad Zailani (UNIMAP)** - Development of Geopolymer Grouting for Concrete Repairing Application (Co-Supervisor: on going)
8. **Nurliyana Ariffin (UNIMAP)** - Heavy Metal Removal By Geopolymeric Adsorbent From Wastewater (Co-Supervisor: on going)

	<p><b>(ii) Master Degree (Research)</b></p> <ol style="list-style-type: none"> <li>1. <b>Muhammad Khairi Bin A.Wahab, 2017</b> - Physical Hydraulics Model and Computational Fluid Dynamics of Sg. Belibis Pump Sump (Main supervisor: graduated)</li> <li>2. <b>Che Mohamad Amirus Shafiq Bin Che Ismail, 2017</b> - A Study of Flow Characteristics in Spillway Model by Using Computational Fluid Dynamics (CFD) (Main supervisor: graduated)</li> <li>3. <b>Syamsul Azlan Bin Saleh, 2016</b> - Optimal Sand Removal Capacity for In-stream Mining (Co-supervisor: graduated)</li> </ol>
	<p><b>(iii) Master's Dissertation (Mixed Mode)</b></p> <ol style="list-style-type: none"> <li>1. <b>Muhamad Zulhasif Mokhtar, 2013</b> - Computational and Experimental Modeling of Dissolve Air Flotation Process in a Tank With Chitosan and Bentonite as Coagulation (Main supervisor: graduated)</li> <li>2. <b>Afifi Akhbar, 2013</b> - Grounwater Treatment Using Activated Carbon and Surfactant Modified Zeolite for Potable Water (Main supervisor: graduated)</li> <li>3. <b>Nurliyana Ariffin, 2014</b> - Removal of Fe, Mn, Color and COD in Landfill Leachate by Combination of Natural Adsorbents. (Main supervisor: graduated)</li> <li>4. <b>Mohd Khairul Nizam Mahmad, 2014</b> - A Study of Electrocoagulation in Waste Water for Heavy Metal Removal (Main supervisor: graduated)</li> <li>5. <b>Nurulezzah Abdul Rahim, 2014</b> - Initial Treatment of Abstraction Water Source by Riverbank Filtration for Removal Zink and Iron at Lubuk Buntar, Kedah(Co supervisor: graduated)</li> <li>6. <b>Khaliza Sedek, 2015</b> - Water Quality and Paddies Yield Assessments for Muda Irrigation Scheme, Kedah Darul Aman(Co supervisor: graduated)</li> <li>7. <b>Salmah Ishak , 2017</b> - A Study of Cascade Aerator System by Using Computational Fluid Dynamics (Main supervisor: On going)</li> </ol>
(c)	<p><b>Undergraduate Supervision</b></p> <p><b>(i) Final Year</b></p> <ol style="list-style-type: none"> <li>1. <b>Muhammad Khairi B. A. Wahab (2012/2013)</b> - The Hydraulic Modelling of Pump Sump by Using Computational Fluid Dynamic (CFD)</li> <li>2. <b>Muhamad Hisyam B. Halim (2012/2013)</b> - Rainwater Harvesting System for School of Civil Engineering, USM.</li> <li>3. <b>Muhammad Shazril Idris B. Ibrahim (2012/2013)</b> - Study on the Sand Removal Capacity of Bota Kiri, Sungai Perak</li> <li>4. <b>Azura Abdul Rahman (2013/2014)</b> - A study of Portable Water Sampler for Various Water Bodies.</li> <li>5. <b>Che Mohamad Amirus Shafiq Che Ismail (2013/2014)</b> - The Modeling of Spillway Study by using Computer Fluid Dynamic.</li> <li>6. <b>Mohd Khairul Azami Md Noor (2012/2013)</b> - The Modeling of Mengkuang Dam Water Tower by using Computer Fluid Dynamic.</li> <li>7. <b>Muhammad Fuad Hassan (2012/2013)</b> - Rainwater Harvesting System for Darul Hanan Care Center, Kepala Batas, Penang.</li> <li>8. <b>Muhammad Nasran Nasehir Khan (2014/2015)</b> -Development of Integrated Smart Trapper System (InSmarT)</li> <li>9. <b>Nur 'Izzati Mohd Radzi (2014/2015)</b> - Non Revenue Water Approach for a Sustainable Universiti Sains Malaysia Engineering Campus</li> </ol>

	<p>10. <b>Nurfarhana Ayuni Adnan (2014/2015)</b> - Enhancement of a Lightweight Portable Water Sampler (ALLi) for Various Water Bodies</p> <p>11. <b>Muhammad Alif Ariffin Jasmi (2015/2016)</b> - Development of Deep Potable Water Sampler for Various Water Bodies.</p> <p>12. <b>Muhammad Kashfy Zainalfikry (2015/2016)</b> - A Study of Hexagonal Modular Cell as Channel Bed for Open Channel.</p> <p>13. <b>Siti Syahiirah Rahim (2015/2016)</b> - A Study on Selection of Suitable Sites for The Integrated Smart Trapper System Installation.</p>
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<b>3.0 ACADEMIC RECOGNITION AND LEADERSHIP</b>	
(a)	<p><b>Academic Awards (Recognition from a prestigious body for academic achievement)</b></p> <ol style="list-style-type: none"> <li>1. UEM Medal Award as Supervisor for Final Year Project (ALLi: Portable Water Sampler for Various Water Bodies), 2013, National level, Malaysia</li> <li>2. UEM Medal Award as Supervisor for Final Year Project (A Study of Hexagonal Modular Cell as Channel Bed for Open Channel), 2016, National level, Malaysia</li> <li>3. Semi Grand Award (World Inventors Association, Korea) – RHA Lightweight Portable Water Sampler, WiC 2016</li> <li>4. Special Award TISIAS, Canada - Nr-Ag Ball: Degradation Of Dyes Using Natural Rubber In Water Treatment Tank, Bangkok International Intellectual Property, Invention, Innovation and Technology Exposition, 2017</li> <li>5. Creative Award and Gold Medal Award Novel Research &amp; Innovation Competition (NRIC) 2014</li> <li>6. Best presenter at the 1<sup>st</sup> Civil Engineering Colloquium (2006), School of Civil Engineering, Universiti Sains Malaysia.</li> </ol>
	<p><b>Assessor / Examiner</b></p> <p><b>(i) External Examiner for Thesis:</b></p> <ol style="list-style-type: none"> <li>1. Msc (research), 2016, Design of Long Storage for Excess Water in Sungai Sarawak. – Nur Afnie Faryisha Bt. Mohamad Hamsah (UNIMAS)</li> <li>2. Msc (research), 2016, Flood Hazard Assessment at Bertam Catchment, Cameron Highlands – Nurul Amira Bt. Abdul Aziz (UNITEN)</li> <li>3. Msc (research), 2016, Fundamental Study on Compactibility Effect on Geopolymerization Method for Soil Stabilization Application – Sharifah Zaleha Syed Zuber (UNIMAP)</li> </ol> <p><b>(iii) Internal Examiner for Thesis:</b></p> <ol style="list-style-type: none"> <li>1. Msc (research), 2013, Application of Remote Sensing and Geographical Information System (GIS) for Land Use and Land Cover Change Detection Analysis for Shah Alam. – Maha Letchumy A/P Balakeristanan.</li> </ol>

	<ol style="list-style-type: none"> <li>2. Msc (research), 2012, Removal of Turbidity, pH and Micro Organisms Using Laboratory Model for River Bank Filtration - Norizana Bt. Abdul Aziz</li> <li>3. Msc (research), 2013, Effectiveness of Detention Ponds for Sungai Pechong Flood Mitigation Project – Rayhana Sarento Pangilan.</li> <li>4. Msc (research), 2016, Community-Sourced Digital Flood Photographs for Temporal and Spatial Calibration of Flood Model in Ungauged Catchment - Leow Cheng Siang</li> <li>5. Msc (research), 2017, Kajian Model Fizikal Sistem Penapisan Dasar Sungai untuk Penyingkiran Kekeruhan Warna dan Pepejal Terampai untuk Penjernihan Air – Noor Amiza Bt. Ab Aziz</li> <li>6. Msc (mix-mode), 2011/2012, Treatment of Dye Waste using Fenton Reagent and Absorbent (Natural Bentonite, Surfactant Modified Bentonite and Activated Carbon) – Aizuddin Azlan Yusof</li> <li>7. Msc (mix-mode), 2011/2012, Treatment of Semi-Aerobic Leachate by Raw and Modified Limestone – Cheong Wai Keong</li> <li>8. Msc (mix-mode), 2011/2012, Application of Box Behnken Design for Preparation of Low Cost Coal Bottom Ash Based Sorbent for the Removal of Nikel (Ni+2) – Mohsein Vafaei Fard</li> <li>9. Msc (mix-mode), 2012/2013, Sharifah Farah Fariza Bt Syed Zainal</li> <li>10. Msc (mix-mode), 2012/2013, Maisarah</li> </ol>
(c)	<p><b>(i) Visiting Lecturer / Visiting Scientist / Visiting Fellow / Visiting Professor</b></p> <ol style="list-style-type: none"> <li>1. Prof. Yosuke Yamashiki Laboratory, Graduate School of Advanced Integrated Studies in Human Survivability, Kyoto University, March 2015, Japan <b>(Visiting Researcher)</b></li> <li>2. Japan Agency for Marine-Earth Science and Technology (JAMSTEC), 2014, Japan <b>(Visiting Researcher)</b></li> <li>3. Visiting lecturer at Fakultas Teknik, Universitas Negeri Padang, 11 – 28 November 2016, Indonesia <b>(Visiting Researcher)</b></li> <li>4. Prof. Yosuke Yamashiki Laboratory, Graduate School of Advanced Integrated Studies in Human Survivability, Kyoto University, 10 - 24 January 2016, Japan <b>(Visiting Researcher)</b></li> <li>5. Visiting Lecturer: Pegawai Khas Menyertai Mesyuarat/Lawatan Bersama Institusi. Institusi Penyelidikan Di Jepun, 22-28 March 2015</li> <li>6. Visiting Fellow: Research Center for Water Resources (RCWR) Bandung, Indonesia, 8 March 2010 – 28 March, 2010</li> <li>7. Visiting Lecturer: Meeting Toward Establishment of Global Center of Excellent for Research and Education in the Field of Global and Architectural Engineering, 26 March 2014</li> </ol> <p><b>(iii) Fellowship</b></p> <ol style="list-style-type: none"> <li>1. GCOE Research Fellow, Human Security Engineering Education Program, Disaster Prevention Research Institute (DPRI), Kyoto University, Japan. (2009-2012).</li> <li>2. Center of Excellent Geopolymer and Green Technology (CeGeoGTech) 2015-2016, 2017-2018, UNIMAP <b>(Associate Researcher)</b></li> </ol>
	<p><b>(ii) Technical Assessor (per appointment) / Assessor for Grant Application (per appointment)</b></p> <ol style="list-style-type: none"> <li>1. Invited Jury for International Engineering Invention &amp; Innovation Exhibition (i-ENVEX) &amp; Malaysia International Young Inventor Olympiad (MIYIO) 2013</li> </ol>

2. Invited Jury for International Engineering Invention & Innovation Exhibition (i-ENVEX) & Malaysia International Young Inventor Olympiad (MIYIO) 2014
3. Invited Jury for International Engineering Invention & Innovation Exhibition (i-ENVEX) & Malaysia International Young Inventor Olympiad (MIYIO) 2015
4. Invited Jury for International Engineering Invention & Innovation Exhibition (i-ENVEX) & Malaysia International Young Inventor Olympiad (MIYIO) 2016
5. Invited Jury 35<sup>th</sup> Science and Engineering Design Exhibition (SEDEX 35) 2015, 2016
6. Invited Jury for Perlis Engineering Research & Learning Innovation Symposium (PERLIS 2015)
8. Invited Jury for I-STEEX 2016, 2017 UNIMAS
9. Invited jury at Indonesian Invention and Innovation Promotion Association (INNOPA), Surabaya, Indonesia
10. Invited Jury at Kaohsiung International Invention and Design Expo (KIDE) 2016, Taiwan
11. Jury member for EYRec-MyRIS Young Invention Show (EMYIS 2015)

**(iii) Member of a Panel Discussion / Forum**

1. Invited to participate in the Course of Japan-Asia Youth Exchange Program in Science (SAKURA Exchange Program in Science), 2015
2. Member of a Panel Discussion of JASTRIP Conference, 5 February 2017, Bangkok, Thailand
3. Member of a Panel Discussion and session chairman at JASTRIP Conference, March 2017, Kyoto, Japan
4. Member of a Panel Discussion at GADRI Conference, March 2017, Kyoto, Japan
5. Member of a Panel Discussion at Kyoto Asean Forum, 2016, Kuala Lumpur, Malaysia
6. Invited to participate in the Meeting Toward the Establishment of Global Center of Excellent for Research and Education in the Field of Global and Disaster, Kyoto, Japan, 2014.
7. 5<sup>th</sup> International Conference on Debris-Flow Hazard Mitigation: Mechanics, Prediction and Assessment, 14-17 June 2011, University of Padua, Italy.
8. International Workshop on Water Resources and Water Disaster Issues of Rivers in Vietnam, 13 January 2011, Kyoto University, Uji, Japan.
9. International Symposium on a Robust and Resilient Society against Natural Hazards & Environmental Disasters and The 3<sup>rd</sup> AUN/SEED-Net Regional Conference on Geo-Disaster Mitigation, 24-26 August 2010, Kyoto University, Uji, Japan.
10. International Symposium on Prediction and Simulation Methods for Geohazard Mitigation (IS-Kyoto), Kyoto, Japan, 25-27 May 2009.
11. Kyoto University Global COE Program 2009-2014, Sustainability/Survivability Science for a Resilient Society Adaptable to Extreme Weather Conditions, Kyoto, Japan, 12 – 14 January 2010.
12. Parellel session Chairman for International Sustainable, Technology, Energy and Civilization Conference (ISTECC 2015)
13. Parellel session Chairman for 1st Postgraduate Conference 2015 on Protection of Drinking Water for Society: Source Abstraction and Treatment
14. Parellel session Chairman for AWAM International Conference on Civil Engineering (eco-AICCE'15)
15. Geopolymer Seminar (GeoSEM 2015, 2016), UNIMAP, Perlis



	<p>16. Participant in Awam International Conference on Civil Engineering 2015</p> <p>17. Kyoto University Alumni Malaysia Meeting (KUAM), Tun Abdullah Badawi Office, 2015</p> <p>18. Parellel session Chairman for International Sustainable, Technology, Energy and Civilization Conference (ISTECC 2016)</p> <p>19. Technical Program Committee International Conferences on Civil Offshore &amp; Environmental Engineering (ICCOEE 2016)</p> <p>20. Technical Program Committee International Conference on Business and Management (ICBM 2016)</p> <p>21. Technical Panel for Water Security Conference, 2016, USM Engineering Campus</p>
(e)	<p><b>Editorial Board (per appointment)</b></p> <p>1. Technical Committee and Editorial Review Board for World Academy of Science, Engineering and Technology 2014 (WASET)</p> <p>2. International Advisory Board, International Conference Advanced Materials Engineering &amp; Technology (ICAMET 2015)</p> <p>3. Editorial Board Committee For The International Conference On Civil and Environmental Engineering For Sustainability (IconcEEs 2015)</p> <p>4. Committee Board for The International Sustainable Technology, Energy and Civilization Conference (ISTECC 2015)</p> <p>5. Editorial Board Galeri Warisan Kejuruteraan (GWK), Malaysia</p> <p>6. Editorial Board Committee for The International Conference on Sustainable Environment and Water Research (ICSEWR) 2016</p> <p>7. Advisory Board Member for UNIMAS STEM EnCon 2016</p> <p>8. International Scientific Committee 37<sup>th</sup> IAHR Congress 13-18 August 2017</p>
(f)	<p><b>Keynote Speaker (Conference / Seminar / Symposium and other similar academic forums)</b></p> <p>1. Keynote Speaker: Mohd Remy Rozainy M.A.Z, Abustan I., Zulkifli Abdullah, 2016, A Hydraulics Physical Modelling Study of Pump Sump and Spillway, World Academy of Science, Engineering and Technology Conference, Bayview Hotel, Penang, Malaysia</p> <p>2. Keynote Speaker: Ismail Abustan, Mohd Zulkifly Abdullah, Nabsiah Abdul Wahid, Mohd Remy Rozainy Mohd Arif Zainol, Mohd Azmi Ismail, Nuridah Sabtu. Physical Hydraulic Modeling: The Way Forward. Phymat 2016, NAHRIM, Seri Kembangan, 24 may 2016.</p> <p>3. Invited Speaker: Model Study for Upgrading and Rehabilitation of Batu Kitang Water Treatment Plant, National Hydraulic Research Institute of Malaysia 30 October 2014.</p> <p>4. Invited Speaker: Program Inovasi Turun Sekolah, Sekolah Kebangsaan Sungai Setar, Perak Darul Ridzuan, 2015</p> <p>5. Invited Speaker: Hydraulic Physical Modeling of Pump Sump and Spillway Talk, Nottingham University, Malaysia, 2015</p> <p>5. Invited Speaker: Latihan Intensif Hand On Permodelan Fizikal Bagi Skop Pump Sump &amp; Spillway, USM, 2015</p> <p>6. Invited Speaker: Latihan Simulasi Perkomputeran Dinamik Bendalir Skop Flow 3D, USM, 2015</p> <p>7. Invited lecture for Hydrology Subject Hidrologi (EAT 238), UNIMAP, Perlis</p>

(g)

**Awards for Innovation**

1. Gold Medal – ALLi: Portable Water Sampler for Various Water Bodies, i-ENVEX 2014
2. Silver Medal – InSmarTS: Integrated Smart Trapper System, MTE 2015
3. Special Award (Asia Invention Association, Korea) – InSmarTS: Integrated Smart Trapper System, MTE 2015
4. Gold Medal – InSmarTS: Integrated Smart Trapper System, i-ENVEX 2015
5. Special Award (World Invention Intellectual Property Association, Taiwan) – InSmarTS: Integrated Smart Trapper System, i-ENVEX 2015
6. Gold Medal - InSmarTS: Integrated Smart Trapper System, EUROINVENT 2015
7. Special Award (Aydin New Ideas association, Turkey) – InSmarTS: Integrated Smart Trapper System, EUROINVENT 2015
8. Special Award (Erika Power System, Romania) – InSmarTS: Integrated Smart Trapper System, EUROINVENT 2015
9. Silver Medal – DyFlexSeiS: Dynamic Flexible Seismic Source for Shallow Seismic Survey, EUROINVENT 2015
10. Special Award (Asia Invention Association, Korea) – DyFlexSeiS: Dynamic Flexible Seismic Source for Shallow Seismic Survey, EUROINVENT 2015
11. Gold Medal - InSmarTS: Integrated Smart Trapper System, WiC 2015
12. Special Award (World Inventors Association, Korea) – InSmarTS: Integrated Smart Trapper System, WiC 2015
13. Bronze Medal - InSmarTS: Integrated Smart Trapper System, Novel Research & Innovation Competition (NRIC) 2015
14. Gold Medal - KMR GPCrete™: Multi-Purpose Repair Material, 9<sup>th</sup> International Warsaw Invention Show, IWIS 2015
15. Gold Medal (World Inventors Association, Korea) – RHA Lightweight Portable Water Sampler, WiC 2016
16. Gold Medal (Toronto International Society of Innovation and Advanced Skills) – Wall Buffer Block, TISIAS 2016
17. Gold Medal – Deep Portable Water Sampler for Various Water Bodies, IYIA 2016
18. Gold medal – Nr-Ag Ball: Degradation Of Dyes Using Natural Rubber In Water Treatment Tank, Bangkok International Intellectual Property, Invention, Innovation and Technology Exposition, 2017
19. Leading Innovation Award - Bifunctional NR-Ag Membranes: Economical Dye Contaminant Removal, KIDE 2015
20. Special Award Korea - Nr-Ag Ball: Degradation Of Dyes Using Natural Rubber In Water Treatment Tank, Bangkok International Intellectual Property, Invention, Innovation and Technology Exposition, 2017
21. Gold Medal – Soil Treatment and Stablelization for Slope Application During Road Construction, Bangkok International Intellectual Property, Invention, Innovation and Technology Exposition, 2017
22. Silver Medal – cascade Aerator: Pitot Project at Rumah Nur Kasih, Taiping on Removing of Iron and Manganese, I-STEEX 2016
24. Special Award Romania – Soil Treatment And Stabilization For Slope Application During Road Construction, Bangkok International Intellectual Property, Invention, Innovation and Technology Exposition, 2017

	<p>25. Silver Medal – Natural Rubber Treatment System Based on NR-NHT and NR-AG Composites, International Warsaw Invention Show (IWIS 2016)</p> <p>26. Special Award TISIAS, Canada – Natural Rubber Treatment System Based on NR-NHT and NR-AG Composites, International Warsaw Invention Show (IWIS 2016)</p> <p>27. Silver Medal - PORAC-Physiochemically Optimized Rubber Seed Coat Activated Carbon, KIDE 2015</p> <p>28. Gold Medal - Cascade Aerator: The Effect of Flowrate and Limestone Size on the Removing of Iron and Manganese, KIDE 2015</p> <p>29. Bronze Medal - InSmarTS: Integrated Smart Trapper System, Novel Research &amp; Innovation Competition (IPITEX) 2016</p> <p>30. Special Award (Poland) - InSmarTS: Integrated Smart Trapper System, Novel Research &amp; Innovation Competition (IPITEX) 201631.</p> <p>31. Gold Medal - Bifunctional NR-Ag Membranes: Economical Dye Contaminant Removal, KIDE 2015</p>
(h)	<p><b>Member in Professional / Academic Associations</b></p> <ol style="list-style-type: none"> <li>1. Associate Researcher Center of Excellence Geopolymer &amp; Green Technology (CEGEOTECH) 2015-2016, 2017-2018</li> <li>2. Vice President of Kyoto Alumni Association Malaysia (MYKYOTO) 2016 – 2018</li> <li>3. Member of Japan Society Civil Engineer (JSCE) since 2009</li> </ol> <p><b>(ii) Member (per society)</b></p> <ol style="list-style-type: none"> <li>1. Member of MyGeopolymer, Malaysia since 2016</li> <li>2. Member of SAKURA Science Club since 2015</li> <li>3. Malaysia Research and Innovation Society (MyRIS) since 2015</li> <li>4. Vice President II Kelab Kebajikan dan Kakitangan Kejuruteraan Awam since 2013 - 2016</li> </ol> <p><b>(iii) Committee Member (Conference / Seminar /Workshop)</b></p> <ol style="list-style-type: none"> <li>1. Vice President for International Sustainable Technology, Energy and Civilization Conference (ISTECC 2015)</li> <li>2. Committee member for Kyoto Asean Forum 2016</li> <li>3. Technical Progrm Committee for 2016 International Conference on Business and Management</li> <li>4. Invitation As Technicat And Organizing Committees For Internationat Conference Advanced Materiats Engineering &amp; Technology (ICAMET 2015)</li> <li>5. Committee member International Conference on Civil Engineering (AICCE'12) and Geohazard Information Zonation (GIZ'12)</li> <li>6. Secretariat Workshop on Earthquake Engineering: Theory and Applications (WEE'13)</li> <li>7. Working Committee for AWAM 2015, 2017</li> <li>8. Committee International Sustainable Technology, Energy &amp; Civilization Conference (ISTECC 2016)</li> <li>9. Secretariat for 1<sup>st</sup> Civil Engineering Collocium 2006 (CEC,06)</li> </ol>

	10. Committee member Water Security Conference 2016, USM Engineering Campus.
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4.0 CONSULTANCY	
(a)	<p><b>Consultancy With Monetary Reward (University / School / Personal)</b></p> <p><b>(i) Principal Consultant</b></p> <ol style="list-style-type: none"> <li>1. Nucleus as Open Channel Bed, 1/5/2016 – 31/3/2017, RM25,000</li> <li>2. Vibration Analysis and Seismic Monitoring of Dam Structure for TNB Chenderoh Hydropower Station, 1 August -31 December 2018, RM 230,000.</li> </ol> <p><b>(ii) Co-Consultant</b></p> <ol style="list-style-type: none"> <li>1. Kajian Penentuan Kapasiti Pengeluaran Pasir Secara Mapan Sg. Perak di Bota, Perak Tengah, Jabatan Pengairan &amp; Saliran Negeri Perak Darul Ridzuan, RM21,094, main researcher: Prof Ismail Abustan, 2/1/2013 – 30/6/2014.</li> <li>2. Kajian Impak Projek RTB Sg, Chukai Terhadap Penerobosan Air Masin dan Stabiliti Saluran Sungai Serta Kelestarian, RM 25,000.</li> <li>3. Computational Modelling Study Using Fluent (CFD) for Mengkuang Dam, Adasfa Sdn. Bhd, RM 34,800, main researcher: Prof Ismail Abustan, 25/11/2013 – 24/11/20164</li> </ol>
(c)	<p><b>Consultation Without Monetary Rewards (with appointment letter / consultation report)</b></p> <ol style="list-style-type: none"> <li>1. Environmental Protection And Enhancement Work For Road Construction (Phase 2), From Kg Bharu To Kg Teluk, Mukim of Sitiawan, Manjung, Perak</li> <li>2. Fasilitator dan penceramah inovasi untuk Pejabat Pendidikan Daerah Seberang Perai Selatan, Pulau Pinang, 2017</li> </ol>