

Mohamad Hidayat Jamal *P.Eng P.Tech CEng CMarEng MIMarEST*
PhD, M.Eng, B.Eng(Hons)

Mohamad Hidayat Jamal is a senior lecturer at Universiti Teknologi Malaysia (UTM). He obtained his PhD in the field of coastal engineering in 2011 from University of Plymouth, UK. Before that he already obtained Bachelor of Engineering (Civil) and Master of Engineering (Hydraulics and Hydrology) from UTM. He has been working at UTM since 2002. He is serving the Department of Water and Environmental Engineering, School of Civil Engineering, Faculty of Engineering, UTM. He is also a member of Center for Coastal and Ocean Engineering (COEI), Research Institute for Sustainable Environment (RISE), UTM. He is a Professional Engineer, Board of Engineer Malaysia, BEM (P120207), a Chartered Marine Engineer, the Institute of Marine Engineering, Science & Technology, UK (CMarEng, MIMarEST – 8027748), a Chartered Engineer of Engineering Council, UK (CEng - 647890), a Certified Professional in Erosion and Sediment Control (CPESC – 8674) and a professional Technologist, Malaysia Board of Technologist, MBOT (PT18040035).

Personal Information

Name: MOHAMAD HIDAYAT BIN JAMAL
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Academic Qualifications

2007-2011	Ph.D. Coastal Engineering, University of Plymouth, UK
2003-2004	M.Eng. Civil - Hydraulics and Hydrology, Universiti Teknologi Malaysia
1998-2002	B.Eng (Hons) Civil Engineering, Universiti Teknologi Malaysia

Academic and Employment Profile

About 15 years' experience as academician in School of Civil Engineering, Faculty of Engineering, UTM. He has taught several subjects such as fluid mechanics, hydraulics, Integrated design project, coastal engineering, water supply engineering and port & harbour engineering.

**Universiti Teknologi Malaysia
(2011 to current)**

Senior Lecturer

Teaching undergraduate and postgraduate students in School of Civil Engineering and also supervising Master and PhD students. Apart from teaching and supervision he also involved in research and consultancy work.

**University of Plymouth
(2007 - 2011)**

Ph.D. in morphodynamic modeling and Demonstrator for school of engineering, University of Plymouth (UoP)

- Doctoral experience in development and application of coastal morphodynamic models, and application of numerical methods in particular XBeach.
 - Involved in collecting profile survey data of Milford on Sea, Southampton (2008)
 - Demonstrator (UoP) for surveying, ACAD, Matlab and Excel.
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Universiti Teknologi Malaysia (2004 - 2011)	Lecturer Mainly teaching and member for several consultancy and research work. Mainly teaching fluid mechanics and civil engineering laboratory.
Universiti Teknologi Malaysia (2002 – 2004)	Tutor and M.Eng. in Civil - Hydraulics and Hydrology Tutor and further study in the field of Hydraulics and hydrology and involved in the project of predicting sediment transport in navigation channel for Penang Port, Malaysia.
Dynamic Quorum Consultant, KL (2002)	Engineer Working as a consultant engineer in mainly on structural design.

Professional Membership

Professional Engineer of Board of Engineer Malaysia (BEM) – (P.Eng: P120207)
Professional Technologist, of Malaysia Board of Technologist (MBOT) – (P.Tech: PT18040035)
Chartered Engineer of Engineering Council, UK (CEng: 647890)
Chartered Marine Engineer of Institute of Marine Engineering, Science & Technology, UK (CMarEng, MIMarEST: 8027748)
Certified Professional in Erosion and Sediment Control (CPESC: 8674)
Malaysia Stormwater Organisation (MSO: AB0458)
Malaysian Society for Engineering & Technology (MySET – 01670)

Research and Consultancy

As he worked as a lecturer in the university, he has been involved in **research** and obtained **grant** for (Selected grant);

- Experiment on drainage system using eco - composite in porous concrete for urban stormwater management (RM40,000.00) in 2019-2020; **Project Leader** (Contract Research)
 - Oil Spill Modelling at Coastal Waters of Johor Straits (RM 39,400.00) in 2017-2018; **Project Leader** (RUG)
 - Feasibility Study on Waterfront development at Pontian to become a tourist attraction area. (RM36,500) in 2016-2017; **Project Leader** (IISJ)
 - Estuary sedimentation of sungai Johor (RM30,000) in 2015-2016; **Project Leader** (RUG)
 - Control of turbidity currents to reduce reservoir sedimentation using obstacles (RM74,700) in 2015-2016; **Project Leader** (FRGS)
 - The Migration of Mangrove Shoreline in Response to Sea Level Rise (RM100,000) in 2015-2017; **Project Leader** (FRGS)
 - Density current dynamics over sloping bed (RM20,000) in 2014; **Project Leader** (RUG)
 - Erosion and accretion in the swash region (RM50,000) in 2013; **Project Leader** (RUG)
 - Modelling Thin-Walled Circular Orifice Flow Under Partially Submerged Conditions With Tailwater Effects (RM50,000) in 2018-2020; Member (RUG)
 - Investigation Of The 3-Dimensional Flow Field And Hydraulic Stability Of Seawater Intake Structure (RM 106,000) in 2017-2020; Member (FRGS)
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- Understanding Erosion Threat On Desaru Beach, Johor (RM91,000) in 2016-2018; Member (FRGS)
- Transference from Crime Scene to Forensic Evidence: Linking Land-use, Erosion, Sediment and Quantitative Evaluation of Erosion in Kelantan River Basin, Malaysia (RM476,970) in 2016-2020; Member (International Grant – Rasmussen Family Foundation)
- Assessment of mangrove habitat and river shoreline erosion due to boat generated wave and sea level rise (RM207,000) in 2016; Member (TRGS)
- Research Project On Hydrodynamic Simulation Within Port Limit Of Port Of Tanjung Pelepas And Establishment Of Johor Port Authority (Tanjung Pelepas)Marine Data Centre (Mdc)(Jpa)(Tp)(Mdc) (RM1,400,000.00) in 2015-2016; Member (Private Grant: Johor Port Authority)
- Long Term Analysis of Tidal Range, High Tides and Selected Estuarine Water Level in East Coast of Malaysia (RM70,000.00) in 2015-2016; Member (FRGS)
- Systematic rainfall estimation by the integration of ground- and satellite-based measurements (RM139,800.00) in 2015-2016; Member (FRGS)
- Influence of seasonal groundwater table level variation and monsoonal climate on swash-zone sediment transport (RM127,000) in 2014-2016; Member (FRGS)
- Coastal erosion studies of the east coast and vulnerable small island regions of peninsular Malaysia (RM199,800) in 2012-2013; Member (Science Fund)

He also involved in **consultancy** work such as;

- Hydraulic Study and Modelling Services to perform structure integrity check at south breakwater Tanjung Sulong Export Terminal, Kemaman – 2020/2021 – **Project Leader**
 - Physical Model Experiment for Breakwater System (Setiu and Merchang) – 2020 – **Project Leader**
 - Engineering Sub-Consultant for Integrated River Basin Management (IRBM) Sg Sedeli Besar, Johor – 2020/2021 – **Project Leader**
 - Engineering Sub-Consultant for Hydraulics Study Works: Pembinaan Operasi Hadapan (FOB) di Pulau Mabul, Semporna, Sabah – 2018 – **Project Leader**
 - Experiment on Float Range Pole (ASATEK LAB PLT) – 2018 – **Project Leader**
 - EIA - Report preparation sand concession area at Kuala Linggi Melaka – 2018 - Member
 - Independent Expert Review of Dredging and Disposal Works at Ringlet Reservoir In Cameron Highland – 2017-2019 – **Project Leader**
 - Subject matter expert for the upgrading of the johor bahru city centre district area drainage system – 2017/2018 - Member
 - Provide Data and Information for Breakwater system (submerged) – 2017 – **Project Leader**
 - Coastal Engineering and scour due to wave impact on coastal
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structure – 2016/2017 – **Project Leader**

- Hydrodynamic simulation within port limit of PTP and establishment of Johor Port Authority marine data centre – 2015/2016 - member
 - Study on soil investigation and fabricated design and analysis for beach protection product – 2015/2016 – **Project Leader**
 - Physical modelling of inlet control structure in sg. Segamat – sg. Genuang diversion works – 2015 – **Project Leader**
 - Marine Data and Analysis of Ship Wake (CFD) at Sg Kilim Geoforest, Langkawi – 2015 - Member
 - Design of Innovative Seawall Systems – 2015 – **Project Leader**
 - Environmental Impact Assessment (EIA) for Bandar Baru Kijal, Kemaman in 2013/14 - Member
 - Hydraulics study due to offshore tin mining at Melaka in 2011/12 - Member
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**Selected Recent
Indexed Publications &
Book chapters**

Tien Bui, D., Shahabi, H., Mohammadi, A., Bin Ahmad, B., Bin **Jamal, M.H.**, Noor Mohamed, R. B., Ahmadi, M., Shirzadi, A., Rahmani, H., Pham, B. T., Ahmad, A. (2019). Land cover change mapping using a combination of sentinel-1 data and multispectral satellite imagery: a case study of Sanandaj County, Kurdistan, Iran. *Applied Ecology and Environmental Research*. Vol. 17 (3), 5449-5463 (Q4)

Abdul Halim, M.K., Halid, N.H., Ahmad, A., Mohd Suhaimi, H., **Jamal, M.H.** (2019). Monitoring mangrove forest cover declination at Kilim Karst Geoforest Park, Langkawi from 2005 to 2017 using geospatial technology. *IOP Conf. Series: Earth and Environmental Science* 220 (2019) 012059.

Shukor Lim, A.H., Ismail, Z., **Jamal, M.H.**, Ibrahim, Z., Jumain, M. (2019). Depth-averaged Modelling of Vegetated Meandering Compound Channel. *IOP Conference Series: Earth and Environmental Science* 220. 12 p.

Mohamad, N., Khanan, M.F.A., Musliman, I.A., Khadir, W.H.W., Ahmad, A., Rahman, M.Z.A., **Jamal, M.H.**, Zabidi, M., Suaib, N.M., Zain, R.M. (2018). Spatio-temporal analysis of river morphological changes and erosion detection using very high-resolution satellite image. *IOP Conf. Series: Earth and Environmental Science* 169 (2018).

Shukor Lim, A.H., Ismail, Z., **Jamal, M.H.**, Jumain, M. (2018). Vertical profiles of stream wise velocity inside non-and vegetated meandering compound channel. *ARPN Journal of Engineering and Applied Sciences*. 13. 2374-2380.

Mohd Suhaimi, H., **Jamal, M.H.**, Ahmad, A., Othman, I.K., Abdullah Halim, M.K., Mat Amin, Z., Halid, N.H. (2018). Characteristics of saltwater intrusion during high and low waters along Sungai Kilim, Langkawi Kedah. *MATEC Web of Conferences* 250, 04006.

Mohamad, N.A., **Jamal, M.H.**, Annammala, K.V., Yusop, Z., Alias, N.E., Sugumaran, D. (2018). Impact of forest conversion to agricultural plantation on soil erosion. *The 12th International Civil Engineering Post Graduate Conference (Sepka) - The 3rd International Symposium on*

Expertise of Engineering Design (Iseed) (Sepka-Iseed 2018). MATEC Web of Conferences 250, 04004.

Suhaimi, H.M., **Jamal, M.H.**, Ahmad, A. (2018). Assessment Of River Bank Erosion At Kilim River, Langkawi Using Geospatial Technique. IOP Conf. Series: Earth and Environmental Science 169 (2018) 012012.

Rahim, N.S., **Jamal, M.H.**, Ahmad Kamal, N.I., Berahim, M. (2017). Sandy Beach Profile Erosion and Accretion. Experimental Studies on Erosion and Accretion. Book chapter 4 p. 79-96 (*Book Chapter*)

Rahim, N.S., **Jamal, M.H.**, Othman, N., Sa'ari, R. (2017). Groundwater and Beach Profile Change. Experimental Studies on Erosion and Accretion. Book chapter 5 p. 97-110 (*Book Chapter*)

Wahab, A., Ishak, D. S. M., **Jamal, M. H.** (2016) Coastal vulnerability index at a RAMSAR site: A case study of Kukup Mangrove Island. Engineering Challenges for Sustainable Future - Proceedings of the 3rd International Conference on Civil, offshore and Environmental Engineering, ICCOEE 2016. CRC Press/Balkema, p. 9-14 6 p.

Nasrollahpour, R., **Jamal, M. H.**, Ismail, Z. & Rusli, N. M. (2016). Experiments on the dynamics of density currents. In: Jurnal Teknologi. 78, 9-4, p. 71-76 6 p.

Ibrahim, Z., Ismail, Z., Harun, S., Shiono, K., Zuki, N. M., Makhtar, M. R., Jumain, M., Abd. Rahman, M. S. & **Jamal, M. H.** (2016) Flood hydraulics due to emergent vegetation along a riparian zone in meandering channels. In: Jurnal Teknologi. 78, 9-4, p. 99-107 9 p.

Md Din, M. F., Ponraj, M., Low, W. P., Fulazzaky, M. A., Iwao, K., Songip, A. R., Chelliapan S., Ismail Z., **Jamal, M. H.** (2016). Removal rate of organic matter using natural cellulose via adsorption isotherm and kinetic studies. Water Environment Research, 88(2), 118-130 13p. (Q4)

Jamal M.H., Simmonds D., Magar V. (2014). Modelling gravel beach dynamics with XBeach. Coastal Engineering, 89 (2014), p. 20–29. 10 p. DOI: 10.1016/j.coastaleng.2014.03.006 (Q1)
