



**Name:** Professor Dato' Dr. Aminuddin Ab. Ghani  
*Professor in River Engineering*

**Date & Place of Birth:** 4<sup>th</sup> November 1966;  
Tanjong Gemok, Kuala Rompin,  
Pahang



**Present Occupation:** Deputy Director (2001 - 2018)  
River Engineering & Urban Drainage Research Centre (REDAC)

**USM Senate Member** representing **Centre of Excellence** (2017 – 2020)

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**Academic Qualifications:**

- 1989 B.Sc. (Civil Engineering), Columbia University, New York City, USA
- 1990 M.Sc. (Hydraulic Engineering), University of Newcastle upon Tyne, UK
- 1993 PhD (Sediment Transport), University of Newcastle upon Tyne, UK

**Working Experience:**

- 1994 Lecturer, School of Civil Engineering, Universiti Sains Malaysia
- 2002 Associate Professor, REDAC, Universiti Sains Malaysia
- 2007 Professor (VK7), REDAC, Universiti Sains Malaysia
- 2015 Senior Professor (VK6), REDAC, Universiti Sains Malaysia

### **Teaching Experience:**

Undergraduate: Fluid Mechanics, Hydraulics, Hydrology, River Engineering,  
Advanced Water Resources Engineering, Hydraulic Design,  
River Conservation & Rehabilitation

Postgraduate: Sediment Transport Engineering, Sustainable Drainage System,  
River Management

### **Research and Consultancy Areas**

- Sediment Transport
- Flood Risk Management
- Sustainable Urban Stormwater Management

### **Membership of Professional Organizations:**

1995	Graduate Member, Board of Engineers ( <b>BEM</b> ), Malaysia
1998	Graduate Member, Institution of Engineers ( <b>IEM</b> ), Malaysia
1996	Associate Member, Malaysian National Chapter on Irrigation and Drainage ( <b>MANCID</b> )
1991	Member, International Association for Hydro-Environment Engineering and Research ( <b>IAHR</b> )
1997	Member, International Association of Hydrological Sciences ( <b>IAHS</b> )

### **Professional Contributions**

2020	Member, International Scientific Committee, 8 <sup>th</sup> International Conference on Flood Management, August 17-19, 2020, Iowa City, Iowa, U.S.A
2019	Member, International Scientific Committee, 38 <sup>th</sup> <b>IAHR</b> World Congress 2017, 1 <sup>st</sup> – 6 <sup>th</sup> September 2019, Panama City, Panama,
2019	Member, Organizing Committee, 3rd International Conference on Geology & Earth Science, April 10-12, 2019, Valencia, Spain
2018	Member, International Scientific Committee, 4 <sup>th</sup> International Symposium on Flash Floods in Wadi Systems, 4 – 6 December 2018, Casablanca, Morocco
2017/2019	Co-Opted Leadership Team Member, <b>IAHR</b> Flood Risk Management Committee
2016/2017	Chair, Scientific Committee, 37 <sup>th</sup> <b>IAHR</b> World Congress 2017, Kuala Lumpur, 13 <sup>th</sup> -18 <sup>th</sup> August 2017
2015	Associate Editor, Water Science and Technology Journal, International Water Association ( <b>IWA</b> )

- 2014 2013 Outstanding Reviewer Recognition Award for the Journal of Pipeline Systems Engineering and Practice, American Society of Civil Engineers (**ASCE**)
- 2014 Invited Speaker, Workshop on Urban Stormwater Management Manual for Malaysia (MSMA), 2<sup>nd</sup> Edition
- 2014 Contributor, Malaysian Standard MS 2526-11:2014 Urban Stormwater Management - Part 11: Water Quality Ponds and Wetlands
- 2014 Contributor, Malaysian Standard MS 2526-12:2014 Urban Stormwater Management - Part 12: Erosion and Sediment Control
- 2012 Contributor, Urban Stormwater Management Manual for Malaysia (MSMA), 2<sup>nd</sup> Edition, Department of Irrigation and Drainage (**DID**) Malaysia
- 2012 Guest Editor, International Journal of River Basin Management: Special Issue on Sustainable Solutions for Global Issues of Flooding, Pollution and Water Scarcity, **Vol. 10 (2)**
- 2012 - 2017 Expert Evaluator Panel, Research, Development & Commercialization Fund, Ministry of Science, Technology and Innovation (**MOSTI**), Malaysia
- 2011- Editorial Board, International Journal of River Basin Management, **IAHR**
- 2009-2014 Executive Committee Member, Asia Pacific Division (APD), **IAHR**
- 2003-2011 Advisory Board, International Journal of River Basin Management, **IAHR**
- 1996-2016 Committee Member, Sewer Systems and Processes Working Group (SS&PWG) of **IWA/IAHR** Joint Committee on Urban Drainage
- 2009 - Associate Editor, Malaysian Journal of Civil Engineering
- 2009 Guest Editor, Water Management Journal: Special Issue on River Modelling and Flood Mitigation: Malaysian Perspectives, **Vol. 162 (1)**
- 2010 Contributor, Erosion and Sediment Control Guideline, **DID** Malaysia
- 2009 Contributor, River Sand Mining Management Guideline, **DID** Malaysia
- 2005 Guest Editor, International Journal of River Basin Management: Special Issue on Managing Rivers in the 21<sup>st</sup> Century, **Vol. 3 (3)**
- 2004 Guidelines for Design and Construction of Bio-Ecological Drainage System (**BIOECODS**), **DID** Malaysia
- 2003 Contributor, River Sediment Transport Measurement and Analysis Guideline, **DID** Malaysia
- 2000 Invited Speaker, Workshop on Urban Stormwater Management Manual for Malaysia (MSMA), 1<sup>st</sup> Edition

## Research Grants

No.	Project Title	Sponsor	Amount (RM)	Duration
1.	Development of HEC – Series Program to Predict Sediment Movement for Rivers in Malaysia.	IRPA RM-7	497, 400.00	1/04/1997 - 1/10/2000
2.	Peak Flow Attenuation Study Using Infiltration Engineering System and Storage Tanks at USM Tronoh Engineering Campus	Department of Irrigation & Drainage (DID)Malaysia	800,000.00	1/12/1998- 31/12/2000
3.	Feasibility Study and Drainage Improvement Study for Taman Sentul, Taman Sentul Jaya, Taman Pinang, Taman Mangga, Juru, Seberang Perai Tengah, Pulau Pinang	MPSP	128,000.00	15/12/1999- 15/05/2000
4.	Application of Bio-Ecological Drainage Systems (BIOECODS) for Malaysia	DID Malaysia	2,900,000.00	1/08/2000- 1/03/2003
5.	Experimental Work For Atlantis Ecological Drainage Component	Tai Hoe Trading Sdn. Bhd.	53,000.00	15/09/2000- 15/12/2000
6.	River Sediment Data Collection And Analysis	DID Malaysia	412,000.00	1/11/2000- 1/04/2002
7.	Development Of A Rainfall-Runoff Model For Malaysia Incorporating Infiltration Capacity	IRPA RM-7	163, 000.00	1/10/2000- 30/09/2003
8.	Flood Risk Mapping For Rivers in Malaysia Incorporating Sediment Transport in River Channel: Case Study of Pari River, Ipoh, Perak	IRPA RM-8	126, 000.00	1/04/2002- 31/03/2005
9.	Development of Engineered Sediment Trap for Conventional Drainage System	IRPA RM-8	147, 000.00	1/04/2002- 31/03/2005
10.	Hydraulic Capacity of Ecological Drainage System	IRPA RM-8	143, 900.00	1/04/2002- 31/03/2005
11.	Development of Soil Classification With Respect to Infiltration Capacity for Major Cities in Malaysia	IRPA RM-8	172, 100.00	1/04/2002- 31/03/2005
12.	Feasibility Study and Detailed Design of Flood Mitigation and Drainage Improvement in Perai Industrial Complex	MPSP	149,128.75	1/08/04- 1/05/04
13.	Feasibility Study on Flood Mitigation and Drainage for Kampung Tersusun, Juru.	MPSP	86,030.50	1/08/04- 1/01/04
14.	Ecological Drainage System for Forensic Ward at Bahagia Hospital, Ulu Kinta, Ipoh.	Public Work Department	30, 000.00	1/06/02 – 1/09/03

15.	Rehabilitation of Existing Wetlands and Mining Ponds as an Ecological Park at DID's Mechanical Section, Ipoh	DID Malaysia	209,000.00	14/03/05-14/07/05
16.	Ecological Drainage System for Taiping Town Clinic, Perak	Public Work Department	168,000.00	2005
17.	Accredit Checker for Urban Drainage System Design, Kolej Sains Kesihatan Bersekutu, Johor Bahru	Public Work Department	220,000.00	2005
18.	Drainage Master Plan for Tanjung Malim	Majlis Daerah Tanjung Malim	430,548.70	2006
19.	Design Options of the Flood Mitigation Plan of River Muda, Kedah	DID Malaysia	200,000.00	2006
20.	Evaluate the Proposed Flood Preventive Works to be Taken Subsequent to the Dec2006 – Jan 2007 Floods	EPU, JPM	205,717.47	2006
21.	Stormwater Management and Drainage Master plan Study for the Town of Tanah Merah, Kelantan	DID Malaysia	1,000,000.00	2007
22.	Study on River Sand Mining Capacity in Malaysia	DID Malaysia	947,000.00	2007
23.	Preparation of Design Guides for Erosion and Sediment Control in Malaysia	DID Malaysia	1,000,000.00	2008
24.	River Inventory and Monitoring Program (RIMP)	Sarawak Rivers Board (SRB)	300,000.00	2008
25.	Digital Flood Mapping: Case Study of 2007 Sungai Pahang Flood	USM	92,000.00	2009
26.	Urban Water Cycle Processes, Management and Societal Interactions: Crossing from Crisis to Sustainability	Ministry of Higher Education	6,000,000.00	2011
27.	Stormwater Management and Drainage Master plan for Daerah Barat Daya, Pulau Pinang	DID Penang	450,000.00	2012
28.	Hydraulic Assessment Of Bioengineering Techniques For Stable Stormwater Drainage System	USM	165,628.00	2014
29.	Integrated Assessment of Extreme Rainfall-Runoff on Flood Hazard, Water Quality and Microbial Variability, and Enhancement of SOP for Flood Disaster Awareness: Case Study of Sg Pahang River Basin	KPM TRGS Flood Disaster Management 2015	660,360.00	2015
30.	Model-Based Morphological Prediction for Large Scale River Basin in Raising Flood Protection Level for Sg Pahang	KPM TRGS Flood Disaster Management 2015	150,000.00	2015

## Postgraduate Research Supervisions

### (a) PhD (USM Candidates)

No.	Candidate	Year Completed	Main Supervisor	Co-Supervisor	Thesis Title
1.	Shanker Kumar a/l Sinnakaudan	2003	<b>Prof. Dr. Aminuddin Ab. Ghani</b>	Assoc. Prof. Dr. Mohd Sanusi S. Ahamad	Sediment Transport Modeling and Flood Risk Mapping in GIS
2.	Junaidah Ariffin	2004	<b>Prof. Dr. Aminuddin Ab. Ghani</b>	Prof. Nor Azazi Zakaria	Development of Sediment Transport Models for Selected Rivers in Malaysia Using Regression Analysis and ANN
3.	Rabie A A. Hussein	2010	<b>Prof. Dr. Aminuddin Ab. Ghani</b>	Prof. Nor Azazi Zakaria Assoc. Prof. Dr. Mohd Sanusi S. Ahamad	Flood Hazard and Risk Assessment through Incorporating GIS with Hydrodynamic Modeling: Case Study of Muda River
4.	Reza Mohammadpour Ghalati	2013	<b>Prof. Dr. Aminuddin Ab. Ghani</b>	Dr Md H. Azmathullah	Effect of Foundation Geometry on Short Abutment Scour
5.	Zahra Zangeneh Sirdari	2013	<b>Prof. Dr. Aminuddin Ab. Ghani</b>	Zorkeflee Abu Hasan	Bed Load Transport of Small Rivers in Malaysia
6.	Charles Bong Hin Joo	2014	<b>Prof. Dr. Aminuddin Ab. Ghani</b>	Dr. Lau Tze Liang	Self-Cleansing Urban Drain Using Sediment Flushing Gate Based on Incipient Motion
7.	Husna Takaijudin	2017	<b>Prof. Dr. Aminuddin Ab. Ghani</b>	Dr. Lau Tze Liang Prof. Nor Azazi Zakaria	Hydraulic Conductivity Study in Engineered Soil Media for Stormwater Runoff Treatment in Bioretention Facility
8.	Mazlina Alang Othman	2018	<b>Prof. Dr. Aminuddin Ab. Ghani</b>	Dr. Foo Keng Yuen	Determination of Water Quality Volume in Stormwater Facilities
9.	Chang Chun Kiat	2018	<b>Prof. Dr. Aminuddin Ab. Ghani</b>	Dr. Puay How Tion	Simulation of Flood Inundation Map associated with Sediment Transport for Sungai Pahang
10.	Ahmad Bakri Abdul Ghaffar	2018	<b>Prof. Dr. Aminuddin Ab. Ghani</b>	Dr. Lau Tze Liang	Determination of Flow Resistance Coefficient using Genetic Programming and Genetic Programming
11.	Khairul Rahmah Ayub	On-Going	<b>Prof. Dr. Aminuddin Ab. Ghani</b>	Dr. Foo Keng Yuen	Feasibility and Practicality of Green Roof for Stormwater Management in Malaysia
13.	Muhammad Kashfy Zainalfikry	On-Going	<b>Prof. Dr. Aminuddin Ab. Ghani</b>	Dr. Puay Huay Tion	Urban Flood Risk and Hydrodynamic Modelling in Selected Urban Areas in Malaysia
14.	Mohd Afiq Harun	On-Going	<b>Prof. Dr. Aminuddin Ab. Ghani</b>	Prof Chan Ngai Weng	Development of Stable Channel Methods for Rivers in Malaysia

**(b) PhD (Other Candidates)**

No.	Candidate	Year Completed	Main Supervisor	Co-Supervisor	Thesis Title
1.	Lariyah Mohd Sidek	2005	Prof. Kaoru Takara (Kyoto University, Japan)	<b>Prof. Dr. Aminuddin Ab. Ghani</b>  Prof. Dr. Mohd Nor Desa	Bio-Ecological Drainage System (BIOECODS) for Effective Storm water Control in the Tropics
2.	Nur Asmaliza Mohd Noor	2014	Prof. Lariyah Mohd Sidek (UNITEN)	<b>Prof. Dr. Aminuddin Ab. Ghani</b>	Evaluation on Hydrologic and Environmental Performance of Three Constructed Wetlands in Malaysia
3.	Muhammad Mujahid Muhammad	2017	Assoc. Prof. Khamaruzaman. Yusof (UTP)	<b>Prof. Dr. Aminuddin Ab. Ghani</b>	Hydraulic Modelling of Flow Through Bioengineering Channels: Applications to Urban Stormwater Drainage Systems
4.	Mena Ahmed	2018	Assoc. Prof. Abdul Halim Ghazali (UPM)	<b>Prof. Dr. Aminuddin Ab. Ghani</b>	Impacts of Spur Dikes on Hydraulics and Morphology of Anabranching Channels
5.	Abdurrasheed Sa'id Abdurrasheed	On-Going	Assoc. Prof. Khamaruzaman. Yusof (UTP)	<b>Prof. Dr. Aminuddin Ab. Ghani</b>	CFD and Experimental Modelling of Flow Drainage Module Pattern and Structure.

**(c) MSc**

No	Candidate	Year Completed	Main Supervisor	Co-Supervisor	Thesis Title
1.	Zorkeflee Abu Hasan	1998	<b>Prof. Dr. Aminuddin Ab. Ghani</b>	Assoc. Prof. Dr. Rozi Abdullah	Evaluation of Scour and Deposition in Malaysian Rivers Undergoing Training Works: Case Studies of Pari and Kerayong Rivers
2.	Ahmeda M. Saleem	1998	<b>Prof. Dr. Aminuddin Ab. Ghani</b>	Assoc. Prof. Dr. Rozi Abdullah	Incipient Motion of Sediment Particles Over Loose Deposited Beds in A Rectangular Channel
3.	Nasehir Khan E. M Yahaya	1999	<b>Prof. Dr. Aminuddin Ab. Ghani</b>	Assoc. Prof. Dr. Rozi Abdullah	Development of Total Bed Material Transport Rating Curves for Rivers in Malaysia: Case Studies of Pari River, Kerayong River and Kulim River
4.	Noor Azman Ibrahim	2002	<b>Prof. Dr. Aminuddin Ab. Ghani</b>	Prof. Nor Azazi Zakaria	Evaluation & Development of Sediment Transport Equations for Kinta River, Kulim River, and Kerayong River Basins
5.	Ahmad Darus	2002	<b>Prof. Dr. Aminuddin Ab. Ghani</b>	Prof. Nor Azazi Zakaria	Conservation and Restoration of Urban Rivers: Case Studies of Raia River and Pari River
6.	Sharifah Abdullah	2002	<b>Prof. Dr. Aminuddin Ab. Ghani</b>	Prof. Nor Azazi Zakaria	Simulation of Muda River Bed Changes Undergoing Sand Mining Operations
7.	Yip Hing Wai	2002	Assoc. Prof. Dr. Rozi Abdullah	<b>Prof. Dr. Aminuddin Ab. Ghani</b>	Flood Runoff Estimation of Ungauged Catchments Using Soil Conservation Service (SCS) Method

8.	Anita Ainan	2003	<b>Prof. Dr. Aminuddin Ab. Ghani</b>	Prof. Nor Azazi Zakaria	An Evaluation of Bio-Ecological Drainage System (BIOECODS) As An Application of Urban Storm Water Management in Malaysia
9.	Ahmad Bakri Abdul Ghaffar	2003	<b>Prof. Dr. Aminuddin Ab. Ghani</b>	Prof. Nor Azazi Zakaria	Determination of Manning's Flow Resistance Coefficient for Kinta River Basin
10.	Mahadzir Kassim	2005	<b>Prof. Dr. Aminuddin Ab. Ghani</b>	Prof. Nor Azazi Zakaria	Sediment Deposition in A Rigid Monsoon Drain: A Case Study of Raja River, Alor Setar
11.	Abdul Jalil Hassan	2006	<b>Prof. Dr. Aminuddin Ab. Ghani</b>	Prof. Nor Azazi Zakaria	River and Floodplain Modelling for the Development of Flood Risk Map: A Case Study of Sg. Selangor
12.	Chang Chun Kiat	2006	<b>Prof. Dr. Aminuddin Ab. Ghani</b>	Assoc. Prof. Dr. Rozi Abdullah	Sediment Transport in Kulim River
13.	Baharuddin Ahmad Nasir	2009	<b>Prof. Dr. Aminuddin Ab. Ghani</b>	Assoc. Prof. Dr. Rozi Abdullah	Peak Flow Attenuation using Dry Pond for Existing Housing Schemes
14.	Asnol Adzhan Abd Manap	2009	<b>Prof. Dr. Aminuddin Ab. Ghani</b>	Prof. Nor Azazi Zakaria	Efficiency of Swale and Dry Pond for Storm water Management
15.	Liew Yuk San	2010	<b>Prof. Dr. Aminuddin Ab. Ghani</b>	Prof. Nor Azazi Zakaria	Performance of Urban Stormwater Drainage System Through Dry Detention Pond: Case Study of Kota Damansara
16.	Nur Asmaliza Mohd Noor	2010	Assoc. Prof. Dr. Rozi Abdullah	<b>Prof. Dr. Aminuddin Ab. Ghani</b>	Water Quality Modeling of Constructed Wetlands in Malaysia
17.	Zahra Zangeneh Sirdari	2010	<b>Prof. Dr. Aminuddin Ab. Ghani</b>		Effect of Channelization on the Stability of Sg. Kulim
18.	Arniza Fitri	2011	Zorkelfee Abu Hasan	<b>Prof. Dr. Aminuddin Ab. Ghani</b>	Determining the Effectiveness of Harapan and Aman Lakes as Flood Ponds at USM
19.	Beh Chun How	2014	<b>Prof. Dr. Aminuddin Ab. Ghani</b>	Prof. Nor Azazi Zakaria	Water quantity and quality assessments of stormwater purification in BIOECODS
20.	Rayhana Sarento Pangilan	2014	Dr Lau Tze Liang	<b>Prof. Dr. Aminuddin Ab. Ghani</b>	Flood Mitigation Assessment of Sungai Maka, Tanah Merah, Kelantan
21.	Nor Azura Ishak	2018	Assoc. Prof. Dr Mohd Sanusi S. Ahamad	<b>Prof. Dr. Aminuddin Ab. Ghani</b>	Effects of DEMs from Different Resolutions in Deriving Stream Networks Threshold Values and Morphometric Analysis
22.	Lim Jia Jun	2018	Dr Puay How Tion	<b>Prof. Dr. Aminuddin Ab. Ghani</b>	Numerical Simulation of Supercritical Flow at Abrupt Expansion Structure
22.	Syafiq Shaharuddin	On-Going	<b>Prof. Dr. Aminuddin Ab. Ghani</b>	Prof. Wan Maznah Wan Omar	Evaluation of Biodiversity Performance in the New Design of Stormwater Constructed Wetland



## **Selected Research Publications**

***H-index (SCOPUS): 20***

### **Invited Presentation, Guidelines & Books**

**Ab. Ghani, A.** (2017) Managing Water for Sustainable Development – Learning from the Past for the Future, Chief Editor, Proceedings of the 37<sup>th</sup> IAHR World Congress, 13 – 18 August, Kuala Lumpur, ISSN 2521-7119 (Print); 2521-716X (Online).

**Ab. Ghani, A.,** Chun Kiat, C., Puay, H. T., & Ismail, W.R. (2016). Flood Inundation Analysis for Large Scale River using Hydrodynamic and Sediment Transport Model – Case Study of Sungai Pahang's December 2014 Flood, *2014 Flood Study Conference*, Putrajaya, Malaysia, 4<sup>th</sup> – 6<sup>th</sup> April

**Ab. Ghani, A.** (2015). Sediment Management and Control Plan in River Basin, National Hydraulic Research Institute Malaysia (NAHRIM), 7<sup>th</sup> May 2015

**Ab. Ghani, A.** Charles, B.H.J. & Liang, T.L. (2013) Sediment Flushing using Tipping Flush Gate in an Open Storm Concrete Drain – A Case Study in Nibong Tebal, Penang, Malaysia. 35<sup>th</sup> IAHR World Congress, Chengdu, China, 8 – 13 September

**Ab. Ghani, A.,** Zakaria, N.A., Abdullah, R., & Mohd Sidek, L., Editors. (2003). *River Sediment Transport Measurement and Analysis Guideline*, Department of Irrigation and Drainage Malaysia, Kuala Lumpur, 35 pp. ISBN: 9833067034

Zakaria, N.A., **Ab. Ghani, A.,** Abdullah, R., Lau, T.L., Sinnakaudan, S.K. & Mohd Sidek, L. Editors. (2003). *Guidelines for Design of Infiltration Tank System*, Department of Irrigation and Drainage Malaysia, Kuala Lumpur, 14 pp. ISBN: 9833067069

**Ab. Ghani, A.,** Zakaria, N.A., Abdullah, R., Mohd Sidek, L., Lau, T.L., Wong, L.P. & Chang, C.K. (2004). *Guidelines for Design and Construction of Bio-Ecological Drainage System (BIOECODS)*, Department of Irrigation and Drainage, 82 pp. ISBN 9833067158

**Ab. Ghani, A. & Zakaria, N.A.** (2005). Case Study: The Bio-Ecological Drainage System Project, Malaysia, in: J. Parkinson and O. Mark, *Urban Storm water Management in Developing Countries*, pp. 116-120, IWA. ISBN: 1843390574

**Ab. Ghani, A.** (2008). *Sustainable River Management: from the sediment transport and river equilibrium perspectives*, USM Professorial Talk Series, ISBN: 9789838613828 (*In Malay*)

**Ab. Ghani, A.,** Zakaria, N.A., Chang, C. K., Abu Hasan, Z., Lai S.H., & Azamathullah, H.Md. (2009). *River Sand Mining Management Guideline*. Department of Irrigation and Drainage Malaysia, Kuala Lumpur, 50 pp. ISBN: 978-983-3067-34-3

Chun Kiat, C. & **Ab. Ghani, A.** (2011). Sediment Transport in Kulim River, Kedah, Malaysia, *Sediment transport*, Silvia Susana Ginsberg (Ed.), ISBN: 978-953-307-189-3, <http://www.intechopen.com/articles/show/title/sediment-transport-in-kulim-river-kedah-malaysia> (Chapter 9)

Johari, N.E., Abdul-Talib, S., Ab. Wahid, M. & **Ab. Ghani, A.** (2016). Trend of Total Phosphorus on Total Suspended Solid Reduction in Constructed Wetland under Tropical Climate, *ISFRAM 2015*, Chapter 22, ISBN: 978-981-10-0499-5

## **International Journal**

1. Nalluri, C., **Ab. Ghani, A.**, & El-Zaemey, A.K.S. (1994). Sediment Transport over Deposited Beds in Sewers. *Water Science and Technology*, Vol. 29, No. 1-2, pp. 125-133. ISSN 0273-1223, **(2017 JCR Q3: IF 1.247)**
2. Nalluri, C. & **Ab. Ghani, A.** (1996). Design Options For Self-Cleansing Storm Sewers. *Water Science and Technology*, Vol. 33, No. 9, pp. 215-220. ISSN 0273-1223, **(2017 JCR Q3: IF 1.247)**
3. **Ab. Ghani, A.**, Zakaria, N.Z., Kassim, M., & Ahmad Nasir, B.(2000). Sediment Size Characteristics of Urban Drains in Malaysian Cities, *Urban Water Journal*, Vol. 2, No.4, pp. 335-341.ISSN 1573-062X, **(2017 JCR Q1: IF 2.744)**
4. Sinnakaudan, S., **Ab Ghani, A.**, S. Ahmad, M. S., & Zakaria, N, A. (2003). Flood Risk Mapping for Pari River Incorporating Sediment Transport. *Journal of Environmental Modeling and Software*, Vol. 18, No. 2, pp. 119-130. ISSN 1364-8152, **(2017 JCR Q1: IF 4.177)**
5. Zakaria, N.A., **Ab. Ghani, A.**, Abdullah, R., Mohd Sidek, L. & Ainan, A. (2003). Bio-Ecological Drainage System (BIOECODS) For Water Quantity And Quality Control, *International Journal of River Basin Management*, Vol. 1, No. 3, pp. 237-251. ISSN 1571-5124, **(SCOPUS/ISI)**
6. **Ab. Ghani, A.**, Zakaria, N.A., Abdullah, R. & Ahamad, M.S.S. (2005). *Managing Rivers in the 21<sup>st</sup> Century - Issues and Challenges*, *International Journal of River Basin Management*, Vol. 3, No.3, pp. 145-146, ISSN: 1571-5124, **(SCOPUS/ISI)**
7. Chang, C. K., **Ab. Ghani, A.**, Zakaria, N. A., Abu Hasan, Z. & Abdullah, R. (2005). Sediment Transport Equation Assessment for Selected Rivers in Malaysia, *International Journal of River Basin Management*, Vol. 3, No.3, pp. 203-208. ISSN 1571-5124, **(SCOPUS/ISI)**
8. Ayub, K. R., Mohd Sidek, L., Ainan, A., Zakaria, N. A., **Ab. Ghani, A.** & Abdullah, R. (2005). Storm water Treatment using Bio-Ecological Drainage System, *International Journal of River Basin Management*, Vol. 3, No.3, pp. 215-221. ISSN 1571-5124, **(SCOPUS/ISI)**
9. Sinnakaudan, S. K., **Ab. Ghani, A.**, Ahmad, M. S. S., & Zakaria, N.A.(2006). Multiple Linear Regression Model for Total Bed Material Load Prediction, *Journal of Hydraulic Engineering*, American Society of Civil Engineers, Vol. 132, No. 5, May, pp. 521-528. ISSN 0733-9429, **(2017 JCR Q2: IF 2.080)**
10. **Ab. Ghani, A.**, Zakaria, N.A., Chang, C.K., Ariffin, J., Abu Hasan, Z. & Abdul Ghaffar, A.B. (2007). Revised Equations for Manning's Coefficient for Sand-Bed Rivers, *International Journal of River Basin Management*, Vol. 5, No.4, pp. 329-346. ISSN 1571-5124, **(SCOPUS/ISI)**
11. **Ab. Ghani, A.**, Zakaria, N.A. & Kassim, M. (2008). Sediment Deposition in a Rigid Monsoon Drain, *International Journal of River Basin Management*, Vol. 6, No.1, pp. 23-30, ISSN 1571-5124, **(SCOPUS/ISI)**
12. Azamathullah, H.Md., Lai, S.H., **Ab. Ghani, A.**, Zakaria, N.A., Chang, C.K. & Leow, C.S. (2008). Genetic Programming to Predict Ski-Jump Bucket Spillway Scour. *Journal of Hydrodynamics*, Vol. 20, No. 4, pp. 477-484. ISSN: 1001-6058, **(2017 JCR Q3: IF 1.563)**
13. Chang, C. K., **Ab. Ghani, A.**, Abdullah, R. & Zakaria, N.A. (2008).Sediment Transport Modeling for Kulim River: A Case Study. *Journal of Hydro-Environment Research*, Vol. 2, No.1, pp. 47-59, ISSN: 1570-6443, **(2017 JCR Q2: IF 2.087)**
14. Lai S.H., Bessaih N., Law P.L., **Ab. Ghani, A.**, & Mah, Y.S. (2008). Determination of Apparent and Composite Friction Factor for Flooded Equatorial Natural Rivers, *International Journal of River Basin Management*, IAHR. Vol. 6, No.1, pp. 3-12, ISSN 1571-5124, **(SCOPUS/ISI)**
15. Lai S.H., Bessaih N., Law P.L., **Ab. Ghani, A.**, Zakaria, N.A.& Mah, Y.S. (2008). Discharge Estimation for Equatorial Natural Rivers with Overbank Flow. *International Journal of River Basin Management*, IAHR. Vol. 6, No.1, pp. 13-21. ISSN 1571-5124, **(SCOPUS/ISI)**

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17. **Ab. Ghani, A.**, Zakaria, N.A. & Falconer, R.A. (2009). *River Modeling and Flood Mitigation: Malaysian Perspectives*, *Proceedings of the Institution of Civil Engineers-Water Management*, Vol. 162, No.1, pp. 1-2, ISSN 1741-7589, **(2017 JCR Q4: IF 0.431)**
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## **National Conference Proceedings**

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- Abdullah, R., Zakaria, N.A., **Ab. Ghani, A.**, Mohd Sidek, L., & Abustan, I. (2001). Evaluation of Ecological Drainage System In Malaysia, *National Seminar on World Day for Water'2001*, MANCID, Batu Pahat, 23-24 March.
- Lau, T.L., **Ab. Ghani, A.**, Zakaria, N.A., & Abdullah, R., Mohd Sidek, L. & Kean, S.T.B. (2001). Comparison of Two Subsurface Storage Tank Systems to Attenuate Peak Flow – Case Study in USM Tronoh Campus. *Seminar & Exhibition on Urban Stormwater Management Manual: Principles and Applications*, Kuala Lumpur, 21 – 22 August.
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- Ab. Ghani, A.**, Zakaria, N.A., Darus, A., Abdullah, S., Mohd Sidek, L., & Abdullah, R. (2001). Scour and Deposition in Rivers: Malaysian Perspectives. *National Conference on Hydrology, Hydraulics and Sustainable Water Resources Management – Advances in Research and Management*, 24-26 September
- Mohd Sidek, L., Zakaria, N. A., **Ab. Ghani, A.**, & Abdullah, R. (2001). Application of Bio-Ecological Drainage Systems (BIOECODS). *National Conference on Hydrology, Hydraulics and Sustainable Water Resources Management – Advances in Research and Management*, 24-26 September
- Mohd Sidek, L., Zakaria, N. A., **Ab. Ghani, A.**, & Abdullah, R. (2001). Sustainable Urban Drainage Systems: BIOECODS Experience at USM Engineering Campus, *9<sup>th</sup> MANCID Annual Conference*, Cameron Highlands, 12-13 November.
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- Zakaria, N.A., **Ab. Ghani, A.**, Abdullah, R., Mohd Sidek, L., Kassim, A.H, & Ainan, A. (2002). Nature Friendly Urban Drainage System as A Part of New Development Landscape: BIOECODS Case Study, *National Seminar on World Day for Water'2002*, MANCID, Kuantan, 25-26 March
- Zakaria, N.A., **Ab. Ghani, A.**, Abdullah, R. & Ainan, A. (2002). Water Purification Based On Bio-Ecological Drainage System, *10<sup>th</sup> MANCID Annual Conference on Irrigation & Drainage*, Kangar, Perlis, 16 – 17 December,
- Zakaria, N.A., **Ab. Ghani, A.**, Abdullah, R., Ainan, A. & Peng, W.L. (2003). Performance of Sustainable Urban Drainage System in Malaysia – A Case Study of Bio-Ecological Drainage System in USM Engineering Campus, *Seminar on Urban Stormwater Management Practices*, Shah Alam, 29 July.
- Zakaria, N.A., **Ab. Ghani, A.** & Chang, C.K. (2014). MSMA 2<sup>nd</sup> Edition – Application of Green Infrastructures for Solving Sustainable Urban Stormwater Management Challenges. *National Water Conference 2014 (PAM 2014)*, 4<sup>th</sup> - 6<sup>th</sup> November 2014, Alor Setar, Kedah

## **Awards**

- 2018 Gold Award for BIOECODS Module, ITEX
- 2017 Silver Award for BIOECODS, PECIPTA.
- 2015 Bronze Award for UNIMAS R&D Expo 2015 (Self-CleANsing Design of Open Storm Sewer (SCANDOSS) Application).
- 2014 2013 Outstanding Reviewer Recognition Award for the Journal of Pipeline Systems Engineering and Practice, American Society of Civil Engineers (**ASCE**)
- 2013 Universiti Sains Malaysia Hall of Fame (Special Award – HICoE Service)
- 2011 Universiti Sains Malaysia Hall of Fame (Journal Publication)
- 2010 Universiti Sains Malaysia Hall of Fame (Journal Publication)
- 2009 Universiti Sains Malaysia Hall of Fame (Journal Publication)
- 2009 Best Poster Award, 8<sup>th</sup> International Conference on Urban Drainage Modelling, Tokyo, Japan (Dry Pond Modelling).
- 2004 Perak State Foundation Excellence in Engineering Research Award (Flood Risk)
- 2003 Universiti Sains Malaysia Excellence Service Award
- 2002 Universiti Sains Malaysia Excellence Service Award
- 2002 Universiti Sains Malaysia Hall of Fame (Innovation)
- 2002 Silver Medal Award, I-TEX 2002 (BIOECODS)
- 2001 Universiti Sains Malaysia Hall of Fame (Innovation)
- 2001 Perak State Foundation Excellence in Engineering Research Award (BIOECODS)
- 2001 CIDB Construction Innovation and Invention Award (BIOECODS)

### **Seminar, Workshop, Short Course and Conference organized:**

- 2017 37<sup>th</sup> IAHR World Congress, Kuala Lumpur, 13<sup>th</sup> – 18<sup>th</sup> August
- 2014 13<sup>th</sup> International Conference on Urban Drainage, Kuching, 7<sup>th</sup> – 12<sup>th</sup> September
- 2011 3<sup>rd</sup> International Conference on Managing Rivers in the 21<sup>st</sup> Century (Rivers 2011), Penang, Malaysia, 6<sup>th</sup> – 9<sup>th</sup> December
- 2009 Sediment Transport Modeling Workshop(RiverM-2), 28<sup>th</sup> - 30<sup>th</sup> July
- 2007 2<sup>nd</sup> International Conference on Managing Rivers in the 21<sup>st</sup> Century (Rivers'07), Kuching, Sarawak, Malaysia, 6<sup>th</sup> – 8<sup>th</sup> June
- 2007 Stormwater Quality Management Seminar, Penang, 9<sup>th</sup>-11<sup>th</sup> January
- 2005 River Rehabilitation Seminar (RiverM-1), Penang, Malaysia, 24<sup>th</sup> – 26<sup>th</sup> May
- 2005 Urban Storm Water Management Short Course (USWM-2), 26<sup>th</sup> – 28<sup>th</sup> April
- 2004 1<sup>st</sup> International Conference on Managing Rivers in the 21<sup>st</sup> Century (Rivers'04), Penang, Malaysia, 21<sup>st</sup> – 23<sup>rd</sup> September
- 2004 Urban Storm Water Management Short Course (USWM-1), 30 November – 2 December
- 2004 Special Session on Bio-Ecological Drainage System (BIOECODS), 6<sup>th</sup> International Conference on Hydroscience and Engineering (ICHE), Brisbane, Australia, 31<sup>st</sup> May-3<sup>rd</sup> June.
- 2002 Seminar “Hydro-Environmental Modeling of River and Coastal Waters”, 13 August
- 2002 Seminar “Sediment Transport & Recent Development”, 10 August
- 2001 9<sup>th</sup> MANCID National Conference (MANCO), Cameron Highlands, 12-13 November.
- 2001 R & D Colloquium on River Engineering & Urban Drainage, Pulau Pinang, 14-15 August
- 1999 Workshop on River Modeling: Case Studies of Pari and Kerayong Rivers, 16-18 April.
- 1998 International Conf. On Hydrology and Water Resources of Humid Tropic, Ipoh, Malaysia, 24-26 November.
- 1998 Short course “Sediment Transport: Theory and Practice”, 29-30 April.
- 1997 Short course “Urban Drainage: Sedimentation and Best Management Practice”, 1 - 3 April.
- 1996 Short course “Recent Developments in River Engineering”, 24-25 April.
- 1995 Seminar “River Basin Management”, 17 August.