



Name: Professor Dr. Aminuddin Ab. Ghani

Date & Place of Birth: 4th November 1966;
Pekan, Pahang

Hometown Address: BT 15, Kampung Baru, Nenasi Darat, **26680 PEKAN**, Pahang

Present Occupation: Deputy Director (2001 - 2018)
River Engineering & Urban Drainage Research Centre (REDAC)
Higher Institution Centre of Excellence (HICoE) for Services

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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 (**BEM**), Malaysia

1998 Graduate Member, Institution of Engineers (**IEM**), Malaysia

1996 Associate Member, Malaysian National Chapter on Irrigation and Drainage (**MANCID**)

1991 Member, International Association for Hydro-Environment Engineering and Research (**IAHR**)

1997 Member, International Association of Hydrological Sciences (**IAHS**)

Professional Contributions

2016/2017 Chair, Scientific Committee, 37th **IAHR** World Congress 2017, Kuala Lumpur, 13th-18th August 2017

2015 Associate Editor, Water Science and Technology Journal, International Water Association (**IWA**)

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**), 2nd 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), 2nd 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 - 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 21st 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), 1st 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 |

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|-----|---|---|--------------|-------------------|
| 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 | Prof .Dr. Aminuddin Ab. Ghani | Assoc. Prof. Dr. Mohd Sanusi S. Ahamad | Sediment Transport Modeling and Flood Risk Mapping in GIS |
| 2. | Junaidah Ariffin | 2004 | Prof .Dr. Aminuddin Ab. Ghani | 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 | Prof .Dr. Aminuddin Ab. Ghani | 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 | Prof .Dr. Aminuddin Ab. Ghani | Dr Md H. Azmathullah | Effect of Foundation Geometry on Short Abutment Scour |
| 5. | Zahra Zangeneh Sirdari | 2013 | Prof .Dr. Aminuddin Ab. Ghani | Zorkeflee Abu Hasan | Bed Load Transport of Small Rivers in Malaysia |
| 6. | Charles Bong Hin Joo | 2014 | Prof .Dr. Aminuddin Ab. Ghani | Dr Lau Tze Liang | Self-Cleansing Urban Drain Using Sediment Flushing Gate Based on Incipient Motion |
| 7. | Husna Takaijudin | 2016 | Prof .Dr. Aminuddin Ab. Ghani | Dr Lau Tze Liang Prof. Nor Azazi Zakaria | Hydraulic Conductivity Study in Engineered Soil Media for Stormwater Runoff Treatment in Bioretention Facility |
| 8. | Chang Chun Kiat | 2017 | Prof .Dr. Aminuddin Ab. Ghani | Dr Puay How Tion | Prediction of Inundation Areas with or without Sediment Transport for Sg Pahang River Basin |
| 9. | Ahmad Bakri Abdul Ghaffar | On-Going | Prof .Dr. Aminuddin Ab. Ghani | Dr Lau Tze Liang | Determination of Flow Resistance Coefficient Through Genetic Programming |
| 10. | Khairul Rahmah Ayub | On-Going | Prof .Dr. Aminuddin Ab. Ghani | Dr. Foo Keng Yuen | Feasibility and Practicality of Green Roof for Stormwater Management in Malaysia |
| 11. | Mazlina Alang Othman | On-Going | Prof .Dr. Aminuddin Ab. Ghani | Dr. Foo Keng Yuen | Determination of Water Quality Volume in Stormwater Facilities |
| 12. | Muhammad Faiz Bin Abdullah @ Hashim | On-Going | Dr Puay Huay Tion | Prof .Dr. Aminuddin Ab. Ghani | Substrate Selection Studied For Constructed Wetland |
| 13. | Muhammad Kashfy Zainalfikry | On-Going | Prof .Dr. Aminuddin Ab. Ghani | Dr Puay Huay Tion | Urban Flood Risk and Hydrodynamic Modelling in Selected Urban Areas 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) | Prof .Dr. Aminuddin Ab. Ghani 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) | Prof .Dr. Aminuddin Ab. Ghani | Evaluation on Hydrologic and Environmental Performance of Three Constructed Wetlands in Malaysia |
| 3. | Muhammad Mujahid Muhammad | 2017 | Assoc. Prof. Khamaruzaman. Yusof (UTP) | Prof .Dr. Aminuddin Ab. Ghani | Hydraulic Modelling of Flow Through Bioengineering Channels: Applications to Urban Stormwater Drainage Systems |
| 4. | Nur Emylia Johari | On-Going | Prof. Dr. Suhaimi Abdul Talib (UiTM) | Prof .Dr. Aminuddin Ab. Ghani | Nutrient Removal through Plant Uptake in Constructed Wetlands |

(c) MSc

| No | Candidate | Year Completed | Main Supervisor | Co-Supervisor | Thesis Title |
|----|--------------------------|----------------|--|--|--|
| 1. | Zorkeflee Abu Hasan | 1998 | Prof .Dr. Aminuddin Ab. Ghani | 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 | Prof .Dr. Aminuddin Ab. Ghani | 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 | Prof .Dr. Aminuddin Ab. Ghani | 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 | Prof .Dr. Aminuddin Ab. Ghani | Prof. Nor Azazi Zakaria | Evaluation & Development of Sediment Transport Equations for Kinta River, Kulim River, and Kerayong River Basins |
| 5. | Ahmad Darus | 2002 | Prof .Dr. Aminuddin Ab. Ghani | Prof. Nor Azazi Zakaria | Conservation and Restoration of Urban Rivers: Case Studies of Raia River and Pari River |
| 6. | Sharifah Abdullah | 2002 | Prof .Dr. Aminuddin Ab. Ghani | Prof. Nor Azazi Zakaria | Simulation of Muda River Bed Changes Undergoing Sand Mining Operations |
| 7. | Yip Hing Wai | 2002 | Assoc. Prof .Dr. Rozi Abdullah | Prof .Dr. Aminuddin Ab. Ghani | Flood Runoff Estimation of Ungauged Catchments Using Soil Conservation Service (SCS) Method |
| 8. | Anita Ainan | 2003 | Prof .Dr. Aminuddin Ab. Ghani | Prof. Nor Azazi Zakaria | An Evaluation of Bio-Ecological Drainage System (BIOECODS) As An Application of Urban Storm Water Management in Malaysia |

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|-----|------------------------------|----------|--|--|---|
| 9. | Ahmad Bakri Abdul Ghaffar | 2003 | Prof .Dr. Aminuddin Ab. Ghani | Prof. Nor Azazi Zakaria | Determination of Manning's Flow Resistance Coefficient for Kinta River Basin |
| 10. | Mahadzir Kassim | 2005 | Prof .Dr. Aminuddin Ab. Ghani | Prof. Nor Azazi Zakaria | Sediment Deposition in A Rigid Monsoon Drain: A Case Study of Raja River, Alor Setar |
| 11. | Abdul Jalil Hassan | 2006 | Prof .Dr. Aminuddin Ab. Ghani | 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 | Prof .Dr. Aminuddin Ab. Ghani | Assoc. Prof .Dr. Rozi Abdullah | Sediment Transport in Kulim River |
| 13. | Baharuddin Ahmad Nasir | 2009 | Prof .Dr. Aminuddin Ab. Ghani | Assoc. Prof .Dr. Rozi Abdullah | Peak Flow Attenuation using Dry Pond for Existing Housing Schemes |
| 14. | Asnol Adzhan Abd Manap | 2009 | Prof .Dr. Aminuddin Ab. Ghani | Prof. Nor Azazi Zakaria | Efficiency of Swale and Dry Pond for Storm water Management |
| 15. | Liew Yuk San | 2010 | Prof .Dr. Aminuddin Ab. Ghani | 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 | Prof .Dr. Aminuddin Ab. Ghani | Water Quality Modeling of Constructed Wetlands in Malaysia: Case Study BIOECODS, USM |
| 17. | Zahra Zangeneh Sirdari | 2010 | Prof .Dr. Aminuddin Ab. Ghani | | Effect of Channelization on the Stability of Sg. Kulim |
| 18. | Arniza Fitri | 2011 | Zorkeflee Abu Hasan | Prof .Dr. Aminuddin Ab. Ghani | Determining the Effectiveness of Harapan and Aman Lakes as Flood Ponds at USM |
| 19. | Beh Chun How | 2014 | Prof .Dr. Aminuddin Ab. Ghani | Prof. Nor Azazi Zakaria | Water quantity and quality assessments of stormwater purification in BIOECODS |
| 20. | Rayhana Sarento Pangilan | 2014 | Dr Lau Tze Liang | Prof .Dr. Aminuddin Ab. Ghani | Flood Mitigation Assessment of Sungai Maka, Tanah Merah, Kelantan |
| 21. | Nor Azura Ishak | 2016 | Assoc. Prof. Dr Mohd Sanusi S. Ahamad | Prof .Dr. Aminuddin Ab. Ghani | Study on Influence and Sensitivity of Multiple Criteria Decisions Towards Flood Hazard and Risk Mapping Model |
| 22. | Syafiq Shaharuddin | On-Going | Prof .Dr. Aminuddin Ab. Ghani | Prof. Wan Maznah Wan Omar | Evaluation of Biodiversity Performance in the New Design of Stormwater Constructed Wetland: Case Study of Universiti Sains Malaysia |

Selected Research Publications

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 37th IAHR World Congress, 13 – 18 August, Kuala Lumpur

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, 4th – 6th April

Ab. Ghani, A. (2015). Sediment Management and Control Plan in River Basin, National Hydraulic Research Institute Malaysia (NAHRIM), 7th 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. 35th 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. and **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.**, and 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 (2016 ISI Impact Factor: 1.197)
2. Nalluri, C. and **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 (2016 ISI Impact Factor: 1.197)
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 (2016 ISI Impact Factor: 2.658)
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 (2016 ISI Impact Factor: 4.404)
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 21st 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. 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 (2016 ISI Impact Factor: 2.183)
9. **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)
10. **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)
11. 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 (2016 ISI Impact Factor: 1.429)
12. Lai S.H., Bessaih N., Law P.L., **Ab. Ghani, A.**, Zakaria, N.A & Mah Y.S. (2008). A Study of Overbank Flow Hydraulic Characteristics in Equatorial Natural Rivers, *International Journal of River Basin Management*, Vol. 6, No.3, pp. 213-223. ISSN 1571-5124 (SCOPUS/ISI)
13. **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 (2016 ISI Impact Factor: 0.547)
14. Leow, C.S., Abdullah, R., Zakaria, N.A., **Ab. Ghani, A.** & Chang, C.K. (2009). Modelling Urban River Catchment: A Case Study in Malaysia. *Proceedings of the Institution of Civil Engineers-Water Management*, Vol. 162, No.1, pp. 25-34. ISSN 1741-7589 (2016 ISI Impact Factor: 0.547)
15. Azamathulla, H.Md., **Ab. Ghani, A.** & Zakaria, N.A. (2009). ANFIS-Based Approach to Predicting Scour Location of Spillway, *Proceedings of the Institution of Civil Engineers-Water Management*, Vol. 162, No. 6, pp. 399-407. ISSN 1741-7589 (2016 ISI Impact Factor: 0.547)

16. Azamathullah, H.Md., Chang, C.K. **Ab Ghani, A.**, Ariffin, J., Zakaria, N.A., & Abu Hasan, Z. (2009). An ANFIS-Based Approach for Predicting the Bed Load for Moderately-Sized Rivers. *Journal of Hydro-Environment Research*, Vol. 3, No. 1, pp. 35-44. ISSN 1570-6443 (2016 ISI Impact Factor: 1.429)
17. **Ab. Ghani, A.**, Ali, R., Zakaria, N.A., Abu Hasan, Z., Chang, C.K. & S. Ahmad, M. S. (2010). A Temporal Change Study of the Muda River System over 22 Years, *International Journal of River Basin Management*, Vol. 8, No.1, pp. 25-37, ISSN 1571-5124 (SCOPUS/ISI)
18. Julien, P., **Ab. Ghani, A.**, Zakaria, N.A., Abdullah, R. & Chang, C. K. (2010). Case Study: Flood Mitigation of the Muda River, Malaysia, *Journal of Hydraulic Engineering*, Vol. 136, No. 4, pp. 251-261. ISSN 0733-9429 (2016 ISI Impact Factor: 2.183)
19. Azamathullah, H.Md. & **Ab. Ghani, A.** (2010). Genetic Programming to Predict River Pipeline Scour, *Journal of Pipeline Systems Engineering and Practice*, ASCE, Vol. 1, No. 3, pp. 127-132. ISSN 1949-1190 (2016 ISI Impact Factor: 1.170)
20. Roshan, R., Azamathullah, H.Md; Marosi, M., Pahlavan, H., Sarkardeh, H. and **Ab. Ghani, A.** (2010). Hydraulics of Stepped Spillways with Different Numbers of Steps. *Dams and Reservoirs Journal*, ICE, UK. Vol. 20, No. 3, pp. 131 –136, ISSN 1346-213X (SCOPUS)
21. **Ab. Ghani, A.** , Azamathulla, H. Md., Lau, T.L., Ravikanth, CH., Zakaria, N.A. Leow, C.S. & Mohd Yusof, M.A. (2011). Flow Pattern and Hydraulic Performance of the REDAC Gross Pollutant Trap, *Journal of Flow Measurement and Instrumentation*, Vol. 22, No. 3, pp. 215-224, ISSN 0955-5986 (2016 ISI Impact Factor: 1.203)
22. **Ab Ghani, A.**, Azamathulla, H.Md., Chang, C.K., Zakaria, N. A., & Abu Hasan, Z.(2011). Prediction of Total Bed Material Load for Rivers in Malaysia: A Case Study of Langat, Muda and Kurau Rivers, *Journal of Environmental Fluid Mechanics*, Vol. 11, No. 3, pp. 307-318, ISSN 1567-7419 (2016 ISI Impact Factor: 1.603)
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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.
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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, *10th 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 2nd Edition – Application of Green Infrastructures for Solving Sustainable Urban Stormwater Management Challenges. *National Water Conference 2014 (PAM 2014)*, 4th - 6th November 2014, Alor Setar, Kedah

Awards

- 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, 8th 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 37th IAHR World Congress, Kuala Lumpur, 13th – 18th August
- 2014 13th International Conference on Urban Drainage, Kuching, 7th – 12th September
- 2011 3rd International Conference on Managing Rivers in the 21st Century (Rivers 2011), Penang, Malaysia, 6th – 9th December
- 2009 Sediment Transport Modeling Workshop (RiverM-2), 28th - 30th July
- 2007 2nd International Conference on Managing Rivers in the 21st Century (Rivers'07), Kuching, Sarawak, Malaysia, 6th – 8th June
- 2007 Stormwater Quality Management Seminar, Penang, 9th -11th January
- 2005 River Rehabilitation Seminar (RiverM-1), Penang, Malaysia, 24th – 26th May
- 2005 Urban Storm Water Management Short Course (USWM-2), 26th – 28th April
- 2004 1st International Conference on Managing Rivers in the 21st Century (Rivers'04), Penang, Malaysia, 21st – 23rd September
- 2004 Urban Storm Water Management Short Course (USWM-1), 30 November – 2 December
- 2004 Special Session on Bio-Ecological Drainage System (BIOECODS), 6th International Conference on Hydroscience and Engineering (ICHE), Brisbane, Australia, 31st May-3rd June.
- 2002 Seminar “Hydro-Environmental Modeling of River and Coastal Waters”, 13 August
- 2002 Seminar “Sediment Transport & Recent Development”, 10 August
- 2001 9th 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.