

Profile of Experts

Name:	Prof. Dr. Aminuddin Ab Ghani
Title/ Position:	Deputy Director
Organization:	River Engineering and Urban Drainage Research Centre (REDAC), Universiti Sains Malaysia
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Professional Data

Field of Research: <i>(Based on Malaysian R&D Classification System (MRDCS) – 6th edition)</i> <i>*Limited to 5 fields only</i>	F3010805 RIVER REHABILITATION
Professional Affiliations:	Executive Committee, Asia Pacific Division (APD), IAHR Editorial Board, International Journal of River Basin Management, IAHR
Academic Qualifications: <i>(Bachelor, Master, PhD)</i>	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
Main Research/ Programs:	<ul style="list-style-type: none"> • Hydraulics & Sediment Transport Engineering • Flood Risk Management • Sustainable Urban Drainage System

Significant Output of Research*(Limited to 3 inputs only)*

1. Publications:
2. Products:
3. IP:
4. Awards:

1. Publications:

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

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

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, ASCE*, Vol. 136, No. 4, pp. 251-261. ISSN 0733-9429

2. Products:

REDAC Gross Pollutant Trap

3. IP:**4. Awards:****High impact programs/ projects** *(Brief description of high impact programs/ projects)***Limited to 300 words only***STUDY ON RIVER SAND MINING CAPACITY IN MALAYSIA**

The study objective is to develop a sand mining planning and management tool such that DID shall be able to make effective and timely decisions on sand mining applications and operations based on the following:

- i) To assess the current state of river morphology based on on-site data and determine the capacity of the river to act as natural conveyance to carry both water and sediment;
- ii) To carry out hydraulic/sediment transport modeling study incorporating both the river and its capacity to sustain sediment extraction according to the sediment balance within the catchment;
- iii) To formulate a long term solution encompassing sand mining envelope along the river stretch in terms of both river morphology and hydraulic/sediment transport modeling;
- iv) To establish Geographical Information System for the study area with proper data entry and query features so that the system is useful and practical for planning and managing the morphology of the above said river system.

A new guideline for sand mining extraction was produced for use in Malaysia based on this study.

