



**IAHR**  
2017

**37th IAHR**  
**WORLD CONGRESS**  
13-18 August, 2017  
Kuala Lumpur, Malaysia

# TWO DAYS WORKSHOP ON SUSTAINABLE URBAN STORMWATER MANAGEMENT



Organised By



**11-12 August 2017**  
(Friday - Saturday)

Universiti Teknologi Malaysia,  
City Campus, Kuala Lumpur

Sustainable Urban Drainage System (SuDS) is a concept that includes long term environmental and social factors in decisions about drainage. It takes account of the quantity and quality of runoff as well as adding to the amenity value of surface water in the urban environment. Many existing urban drainage systems can cause problems of flooding, pollution or damage to the environment and are not proving to be sustainable. SuDS effectively manages stormwater runoff and protects water quality by promoting techniques that mimic pre-development hydrology, such as designing practices that infiltrate, evaporate, and reuse runoff close to its source.

The two days workshop will be conducted by a group of professionals from HR Wallingford and REDAC, Universiti Sains Malaysia. They are experienced and have specialised in the field of stormwater management, river management

and SuDS. The main speakers have been involved in research and consultancy projects and they were contributors to both the original and updated UK SuDS Manuals (CIRIA C697 and C753). Speakers from REDAC are contributors to the 2nd Edition of Urban Stormwater Management Manual for Malaysia (MSMA).

Engineers, regulators, planners, designers and students who are involved in stormwater management would benefit from attending this workshop. Participants will be informed on both the theoretical and practical application of SuDS.



## Main Speakers

### Richard Kellagher

Richard is a Technical Director at HR Wallingford. He has been involved in drainage and SuDS research for over 30 years. Richard's experience in drainage ranges from research projects for UKWIR, sewerage and SuDS studies and expert witness work on flooding incidents.

He is the author of a number of guidance documents on drainage-related issues including being a co-author of both the original and updated SuDS Manuals (CIRIA C697 and C753). He is the author of the rainwater harvesting design method for stormwater management in BS8515 Rainwater harvesting Code of Practice. He is the creator of the [www.uksuds.com](http://www.uksuds.com) website and responsible for the research work which led to the current design criteria for stormwater management on development sites. He is also responsible for the creation of the TSRsim rainfall tool.

He was awarded the CIWEM 2015 WaPUG prize for "progressing the science of urban drainage".



### Prof. Dr. Nor Azazi Zakaria

Prof. Dr. Nor Azazi Zakaria has served in Universiti Sains Malaysia since 1994 and received his Msc. in 1990 and Ph.D. in December 1994. He then established the River Engineering and Urban Drainage Research Centre (REDAC) in 2001 and has since remained as the director. His main research interests are Sustainable Urban Drainage Systems, Environmental Impact Assessment and Environmental Management Plan, Soil Improvement Techniques, Soil Reinforcement and Site Investigation. Dr. Nor Azazi is the leading researcher in the innovation of Bio-ecological Drainage System (BIOECODS), and is now an established figure in the field of stormwater management at national and international levels. He has been invited to deliver keynote papers and presentations in local and international conferences and congress. As a main contributor for MSMA 2<sup>nd</sup> edition, he has actively participated at national level in promoting this new urban drainage manual.



**FEE:**

INTERNATIONAL

**110USD**

LOCAL

**RM400**

## Program

### DAY 1

- SuDS in Malaysia - Historical perspective
- SuDS - International perspective
- SuDS in the UK - the SuDS Manual (UK)
- SuDS in Malaysia - MSMA 2nd Edition
- SuDS in Malaysia - Water quantity control design criteria
- SuDS in the UK - Hydraulic design criteria
- SuDS in Malaysia - Water quality control design criteria
- SuDS in the UK - Water quality design criteria
- Interception analysis using Time Series Rainfall (river morphology protection and water resources)
- Tools for Planning - [www.Uksuds.com](http://www.Uksuds.com)
- Active management of surface water runoff (benefits for water resources and CSO spills)
- Tools for Design of SuDS - Infoworks ICM (Hydraulic analysis)
- Tools for Design of SuDS - MUSIC (water quality)

### DAY 2

- Site Visit - Kwasa Damansara Green Township Development
- Operation and maintenance of SuDS in the tropics
- Flood management and forecasting in Malaysia
- Designing for city resilience for extreme events
- Open Discussion
- Summary and close



Pre-Congress Event of the 37<sup>th</sup> IAHR World Congress  
Organise by:



#### CONTACT

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