IAHR 2017

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

CONGRESS HANDBOOK

37th IAHR WORLD CONGRESS

MANAGING WATER FOR SUSTAINABLE DEVELOPMENT

Learning from the Past for the Future

Organised by:

Ministry of Natural Resources and Environment (NRE)
Department of Irrigation and Drainage Malaysia (DID)
National Hydraulic Research Institute of Malaysia (NAHRIM)

USM UNIVERSITI SAINS MALAYSIA

REDAC RIVER ENGINEERING AND URBAN DRAINAGE RESEARCH CENTRE

13-18 August 2017
Putra World Trade Centre (PWTC)
• Kuala Lumpur • Malaysia

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FOREWORD

YAB DATO' SERI DR. AHMAD ZAHID HAMIDI,
DEPUTY PRIME MINISTER OF MALAYSIA

It is a great pleasure and honour for me to welcome all of you to the 37th International Association for Hydro-Environment Engineering and Research (IAHR) World Congress 2017.

Managing water is a dynamic matter, therefore, keeping abreast with the latest knowledge and technology in water management is crucial. It is just a matter time when water will become a commodity and many believe that it could be more precious than gold.

Hence, the theme "Managing Water for Sustainable Development - Learning from the Past for the Future" is timely especially when we have taken water for granted for so long.

Careful management and innovative solutions are required to deal with uncertainty in the natural world as well as the changing human world.

Focus must be given on the central roles of river and sediment management, flood management, environmental hydraulics and industrial flows, estuarine, lakes and coastal management, water resources management and urban water management.

I believe the 37th IAHR World Congress will deliberate the issues as it provides a unique platform for researchers from all over the world with interest in hydro-environmental sciences and the practical application to share and discuss latest scientific ideas and achievements.

I sincerely appreciate your assembling here in Kuala Lumpur, overcoming all difficulties to support this very prestigious congress.

I wish you a pleasant stay in Malaysia and fruitful deliberations at the Congress.

YAB DATO' SERI DR. AHMAD ZAHID HAMIDI
DEPUTY PRIME MINISTER OF MALAYSIA

WELCOMING NOTE

YB DATO' SRI DR. HAJI WAN JUNAIDI TUANKU JAAFAR
MINISTER OF NATURAL RESOURCES AND ENVIRONMENT

Distinguished Presenters and Participants,

First and foremost, allow me to bid our friends from abroad, a warm welcome or "Selamat Datang" to Malaysia. We are indeed proud to organise the inaugural 37th International Association for Hydro-Environment Engineering and Research (IAHR) World Congress 2017 with the theme "Managing Water for Sustainable Development - Learning from the Past for the Future" and honoured that all of you are here with us. Thank you for being here.

The objective of this international congress is to enhance understanding of complex issues in managing water for sustainable development. The congress serves as an excellent platform to expose local consultants, practitioners, scientists, researchers and NGO's to state-of-the-art know-how and technology, particularly on managing water for national development.

In the midst of your active intellectual discourse at this congress, I must urge all of you to also take in the sights, sounds and food that Malaysia has to offer during your stay here. Please enjoy the diversity and colours that this beautiful country has to offer.

YB DATO' SRI DR. HAJI WAN JUNAIDI TUANKU JAAFAR
MINISTER OF NATURAL RESOURCES AND ENVIRONMENT

WELCOMING NOTE

IAHR 2017
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Datuk Ir. Dr. Azuhan Mohamed
Chairman of Local Organizing Committee

Distinguished Presenters and Participants,

On behalf of the 37th International Association for Hydro-Environment Engineering and Research (IAHR) World Congress 2017 Local Organising Committee, we would like to welcome you to Kuala Lumpur, Malaysia for the IAHR World Congress 2017. The National Hydraulics Research Institute of Malaysia (NAHRIM), Department of Irrigation and Drainage Malaysia (DID) and the River Engineering and Urban Drainage Research Centre (REDAC), Universiti Sains Malaysia (USM) are collaborating with IAHR to organise the IAHR World Congress 2017.

The Congress theme "Managing Water for Sustainable Development - Learning from the Past for the Future" focuses on the central roles of river and sediment management; flood management; environmental hydraulics and industrial flows; coastal, estuarine and lakes management; urban water management; water resources management; and hydro informatics/ computational methods as well as experimental methods in our changing world, and how these roles link to the broader issues. Effective management and innovative solutions are required and to deal with uncertainty in the natural world as well as the changing human world.

Welcome to Kuala Lumpur and enjoy Malaysian Hospitality.

DATUK IR. DR. AZUHAN MOHAMED
CHAIRMAN OF LOCAL ORGANIZING COMMITTEE

WELCOMING NOTE

Peter Goodwin
President of IAHR

Dear Colleagues,

On behalf of IAHR I am delighted to welcome you to the 37th World Congress in this beautiful city of Kuala Lumpur and to be hosted so warmly by Malaysia. The global focus on water continues due to recent floods and droughts and the demand for improved technologies and predictive capacity to manage water. The biennial World Congress is the flagship event for bringing together the global IAHR community to share knowledge and network around common challenges.

The IAHR Council would like to acknowledge Professor Azazi and his local organizing committee for attracting many of the top researchers and practitioners from around the globe, while showcasing much of the creative thinking and innovations in water management underway across Asia. The Keynote speakers, starting with Dr. Tyler Erickson from Google, each bring unique perspectives and the ability to challenge our community with new ideas. These speakers, together with other eminent practitioners will be contributing to events throughout the week. I hope you enjoy the Congress, connect with old colleagues, make new friends and perpetuate the strong IAHR tradition of connecting early career researchers with the senior elite in our field. Please take advantage of the many special meetings taking place and reach out to network within our community.

Founded in 1935, IAHR is one of the oldest international associations dedicated to research that addresses the challenges of ensuring reliable water supplies while maintaining healthy river, estuarine and coastal systems. IAHR is a global independent member-based organization of engineers and water specialists working in fields related to the hydro-environmental sciences and their practical application. Activities range from river and maritime hydraulics to water resources development and eco-hydraulics, through to ice engineering, to hydroinformatics, and hydraulic machinery.

Please visit the IAHR stand and attend our open Committee meetings during the week and tell us how we can further our profession and association. I hope also that you will have time to take advantage of the wonderful Malaysian hospitality and I wish you a stimulating and rewarding Congress.

PETER GOODWIN
PRESIDENT OF IAHR

CONGRESS HOST ORGANISERS AND SPONSORS

ORGANISED BY:

Ministry of Natural Resources and Environment (NRE)
Department of Irrigation and Drainage Malaysia (DID)
National Hydraulic Research Institute of Malaysia (NAHRIM)

Universiti Sains Malaysia

REDAC River Engineering and Urban Drainage Research Centre

SUPPORTED BY:

Kementerian Sains, Teknologi dan Inovasi

Malaysia Convention & Exhibition Bureau

Perbadanan Putrajaya

CRC Press Taylor & Francis Group

Lenovo

UTM Universiti Teknologi Malaysia

Universiti Kebangsaan Malaysia

University of Malaya The Leader in Research & Innovation

UPM Universiti Putra Malaysia

Universiti Teknologi MARA

PLATINUM SPONSOR

Prince Sultan Bin Abdulaziz International Prize for Water

中国三峡 China Three Gorges Corporation

GOLD SPONSOR

DHI

SILVER SPONSOR

HR Wallingford Working with water

Adasfa Sdn. Bhd. (143356-X)

TCK SCADA

Kingdom of the Netherlands

LOCAL ORGANISING COMMITTEE

Patron: YB Dato' Sri Dr. Haji Wan Junaidi Tuanku Jaafar
Minister of Natural Resources and Environment (NRE)

Advisor: Dato' Sri Azizan Ahmad, *Secretary General, NRE*

Chairman: Datuk Ir. Dr. Azuhan Mohamed, *National Hydraulics Research Institute of Malaysia (NAHRIM)*

Co-Chairman: Dato' Sri Ir. Haji Zulkefli Hassan, *Department of Irrigation and Drainage Malaysia (DID)*

Deputy Chairman: Prof. Dr. Nor Azazi Zakaria, *River Engineering and Urban Drainage Research Centre, Universiti Sains Malaysia (REDAC, USM)*

Secretary: Ir. Hj. Mohd Fauzi Mohamad, *NAHRIM*

Deputy Secretary: Ir. Chun Kiat Chang, *REDAC, USM*

MEMBERS:

Dato' Ir. Dr. Hj. Md. Nasir Md. Noh, *DID*

Dato' Ir. Hj. Nor Hisham Mohd Ghazali, *DID*

Dato' Ir. Hj Mohd. Azmi Ismail, *DID*

Datin Ir. Rohani Ahmad, *DID*

Hjh. Zalilah Selamat, *DID*

Ir. Dr. Fang Yenn Teo, *DID*

Ir. Hj. Ahmad Darus, *DID*

Ir. Wan Hasitinaziah Mohd Hassan, *DID*

Ir. Hj. Mohd Yusof Ibrahim, *DID*

Dr. Norlida Mohd Dom, *DID*

Mr. Thayalam A/L Sekaran, *DID*

Dato' Ir. Chow Hock Lim, *IAHR Malaysia Chapter*

Dr. Saim Suratman, *IAHR Malaysia Chapter*

Datuk Zulkefli Haji Sharif, *MyCEB*

Ms. Tuty Elyanie Medali, *MyCEB*

Prof. Dr. Aminuddin Ab. Ghani, *REDAC, USM*

Dr. How Tion Puay, *REDAC, USM*

Dr. Keng Yuen Foo, *REDAC, USM*

Dr. Hui Weng Goh, *REDAC, USM*

Dr. Noor Aida Saad, *REDAC, USM*

Dr. Nasehir Khan E.M Yahaya, *NAHRIM*

Ir. Hj. Mohd Radzi Abdul Hamid, *NAHRIM*

Ir. Mohd Zaki Mat Amin, *NAHRIM*

Mr. Ismail Tawnie, *NAHRIM*

Mr. Muhammad Rizal Razali, *NAHRIM*

Mr. Wahadi Mohamed, *NAHRIM*

Mr. Mohd Kamarul Huda Samion, *NAHRIM*

Mr. Azman Mat Jusof, *NAHRIM*

Ms. Yuk San Liew, *NAHRIM*

Mr. Ahmad Farhan Hamzah, *NAHRIM*

Ms. Ernie Abd Manan, *NAHRIM*

Ms. Azizah Ariffin, *NRE*

Mr. Mohd Erwan Misran, *NRE*

Mr. Muhammad Haqim Lokman, *NRE*

Mr. Mohd. Fazly Yusof, *REDAC, USM*

Ms. Khairul Rahmah Ayub, *REDAC, USM*

Mr. Syafiq Shaharuddin, *REDAC, USM*

Ms. Azra Azreen Kamarjalman, *REDAC, USM*

Ms. Nor Zainah Bahari, *REDAC, USM*

37TH IAHR WORLD CONGRESS

The International Association for Hydro-Environment Engineering and Research (IAHR), founded in 1935, is a worldwide independent organisation of engineers and water specialists working in fields related to the hydro-environmental sciences and their practical application. Activities range from river and maritime hydraulics to water resources development and eco-hydraulics, through to ice engineering, hydroinformatics and continuing education and training. IAHR stimulates and promotes both research and it's application and by doing so it strives to contribute to sustainable development, the optimisation of world water resources management and industrial flow processes.

IAHR accomplishes its goals by a wide variety of member activities including working groups, research agenda, congresses, specialty conferences, workshops and short courses; journals, monographs and proceedings; by involvement in international programmes such as UNESCO, WMO, IDNDR, GWP, ICSU and by co-operation with other water-related (inter) national organisations.

IAHR SECRETARIAT

BEJING OFFICE
A-1 Fuxing Road, Haidian District
100038 Beijing, CHINA
tel +86 10 6878 1808
fax +86 10 6878 1890
e-mail iahr@iahr.org

MADRID OFFICE
Paseo Bajo Virgen del Puerto 3
28005 Madrid, SPAIN
tel +34 91 335 79 08
fax + 34 91 335 79 35
e-mail iahr@iahr.org

IAHR COUNCIL

President:	Executive Director (ex-oficio):
Prof. Peter Goodwin	Dr. Christopher B George
Vice Presidents:	
Prof. Arthur Mynett	Prof. James Ball
Prof. Arturo Marcano	Dr. Angelos Findikakis
Secretary General:	
Dr. Ramón Gutiérrez Serret	Dr. Jing Peng
Members:	
Prof. Subhasish Dey	Prof. Hitoshi Tanaka
Prof. Robert Ettema	Prof. Silke Wieprecht
Prof. Rafael Murillo-Muñoz	Prof. Corrado Gisonni
Prof. Stefano Pagliara	Prof. Hyoseop Woo
Dr. Jing Peng	Dr. José N. de Piérola
Prof. Anton Schleiss	Dr. David Stephenson

CONGRESS ORGANIZERS

Prof. Nor Azazi Zakaria, *Technical Advisor*
Ms. Norehan Mohd Basheer, *Financial Advisor*
Mr. Mazlifendirizan Rejab, *Information Technology Advisor*
Ir. Chun Kiat Chang, *Event Coordinator & Publication Manager*
Dr. Hui Weng Goh, *Event Manager*
Ms. Nor Zainah Bahari, *Financial Controller*
Ms. Azra Azreen Kamarjalman, *Information Technology Quality Assurance Manager*
Ms. Nurzalina Nordin, *Information Technology Director*
Mr. Mohd Kusairay Musa, *Database and Management System Developer*
Mr. Mohammad Kamal Mohammad Noordin, *Webmaster Content and Media Manager*

Secretariat		
Mr. Syafiq Shaharuddin	Ms. Nor Ariza Azizan	Ms. Siti Fairuz Juiani
Mr. Mohd. Fazly Yusof	Mr. Chee Hui Lai	Ms. Nurul Azfa Azizan
Mr. Muhammad Imran Kamarudin	Ms. Norlin Bain	Ms. Sumayyah Atiqah Ahmad

GENERAL INFORMATION

VENUE

The Congress will be held at Putra World Trade Centre (PWTC). It is situated next to Kuala Lumpur's Golden Triangle, and only 45 minutes from the Kuala Lumpur International Airport. The venue is highly accessible through road, light rail transit (LRT) and Keretapi Tanah Melayu (KTM) and is serviced by frequent bus and taxi services.You may check the geographical location of PWTC at P.117 and the floor plans at P.114

Address: 41, Jalan Tun Ismail, 50480 Kuala Lumpur, Malaysia. Tel: (603) 2614 6999 Fax: (603) 4043 3777 Email: pwtc@pwtc.com.my

REGISTRATION COUNTER P.114

The Congress Registration Counter is located at Level 2, Main Entrance beside Riverside Restaurant. The counter will be open on:

Sunday (August 13, 2017) from 14:00 to 18:00
Monday (August 14, 2017) from 08:00 to 17:30
Tuesday (August 15, 2017) from 08:00 to 17:30
Wednesday (August 16, 2017) from 08:00 to 17:30
Thursday (August 17, 2017) from 08:00 to 17:30
Friday (August 18, 2017) from 08:00 to 14:00

TECHNICAL VISITS DESK

If you are interested to join the technical visits, IAHR 2017 World Congress Secretariat is available to assist you with the technical visit programmes. For further details, please go to the website under Congress Event menu. The Technical Visit Desk is located next to the registration counter.

ACCOMPANYING PERSON DESK

If your accompanied person is interested in booking a tour, IAHR 2017 Secretariat are available to assist your accompanied person with a lot of programmes. You may choose the programme from the website. The Accompanying Person Desk is located next to the registration counter.

NAME BADGES

All delegates including speakers, presenters, participants, sponsors and exhibitors are required to wear the name badge. The Congress staff and/or security personnel will check and enquire those who does not wear the Congress name badge.

If you misplaced your name badge, please visit the Registration Counter to obtain a replacement badge. Please note that there will be a RM10/USD3 charge for reprinting.

ABSTRACT BOOK CONTENT (ELECTRONIC VERSIONS)

The electronic versions of the abstract books content is accessible on the IAHR World Congress website. Please visit http://www.iahrworldcongress.org, and click *ICON* as below.

COFFEE BREAKS AND LUNCH

Coffee Breaks and Lunch will be provided on Monday to Friday. Coffee Break will be provided at Legar Putra while Lunch will be provided at Mawar Room (Bilik Mawar). To access this area, you must be wearing your name badges. Times for breaks and lunch will be informed on each day of the Congress Programme.

SPECIAL DIETARY REQUIREMENTS

Arrangements for non-vegetarian and vegetarian meals will have been made for you provided you advised in advance on your registration form via the congress management system (CMS). Regrettably we may not be able to respond to any vegetarian meals that have not been advised in advance.

If you did provide advance notice, please make yourself known to food service staff at Congress lunches and events, they will then arrange service of the vegetarian meal that has been prepared for you.

MOBILE PHONES AND ELECTRONIC EQUIPMENT

Please ensure that your mobile phone or other electronic equipment is set to TURNED OFF or SILENT mode during all Congress sessions in order to give full attention to the speakers and presenters.

CERTIFICATE OF ATTENDANCE

A Certificate of Attendance will be available after August 22, 2017 through CMS. An announcement will be sent to you via email in the week after the congress. We kindly ask you to log in with your username and password obtain your certificate of attendance.

WIFI / INTERNET ACCESS

Free WIFI is available for delegates throughout PWTC, sufficient for basic email and web browsing, however it does not support large downloads or file transfers.

CAR PARK

PWTC provides 2,000 parking bays in a 4 multi-level car park which is accessible via 2 entrances. The car park is open 24 hours, 7 days a week. Parking can be paid at the automatic payment machines located at the car park access points.

MEDICAL EMERGENCY P.114

A medical team will be on standby at the Congress venue from Sunday to Friday. In case of an emergency, you may contact 999.

IAHR 2017 WORLD CONGRESS SECRETARIAT P.114

The IAHR 2017 World Congress Secretariat Room is located at Kenanga Room and open from 14:00 to 18:00 on Sunday (August 13, 2017) and from 08:00 to 17:30 on Monday to Friday.

IAHR SECRETARIAT OFFICE P.114

AHR Secretariat Office The IAHR Secretariat Office is located in Kenanga Room, and open from 14:00 to 18:00 on Sunday (August 13, 2017) and from 08:00 to 17:30 on Monday to Friday.

PRESENTATION GUIDES FOR ORAL PRESENTATION

1. PREPARE YOUR PRESENTATION

The length of presentation material should be in accordance with your time allotted. You are requested to upload your presentation files before the session starts.

2. DURATION OF PRESENTATION TIME

Keynote speaker: 30 minutes each
Oral presentation: 12 minutes each; 3 minutes Q & A
Special Session: 12 minutes each; 3 minutes Q & A

Please refer to the Congress Handbook for specific presentation time. You are kindly requested to arrive at the meeting room at least 15 minutes before the session starts, to meet the Session Chair and check that your presentation has been correctly loaded.

3. DETERMINE YOUR AUDIO-VISUAL NEEDS

Each room is equipped with a notebook, an LCD projector and a screen. PowerPoint is the standard presentation format. Notebook in the rooms operates on Windows platform with version Windows 10 and Microsoft Office 2013. If you have different requirements please inform the Secretariat in advance.

Embedded video clips in presentations : Please be aware that video clips should not be included in the PowerPoint file itself and the clips themselves must be copied separately to the memory stick or other media used. Please notify the technician of any video clips that are in your presentation so that these can be correctly embedded.

Apple computer: We prefer not to use your Apple computer due to delays this will cause. In any case if you have to bring your Apple computer, please make sure you bring the necessary cabling. We do however would like to encourage you to bring your presentation on a USB.

Copyright: Unless you specify otherwise you agree that IAHR can publish a PDF handout of your presentation(s) on the website.

Congress Secretariat
Email: iahr2017sec@usainsgroup.com / iahr2017kl@gmail.com

SPEAKER PREPARATION ROOM

All presenters are required to check in at the Speaker Preparation Room (Orkid Room) P.114. You may check your PowerPoint slides in the Speaker Preparation Room at any time, however your presentation files need to be pre-loaded at the Speaker Preparation Room at least one day prior to the session in which you are presenting.

Please always bring your backup presentation files in a USB memory stick.

INSTRUCTION FOR SESSIONS CHAIRS

The success of the Congress depends largely on the smooth running of the technical sessions, and on the atmosphere created by the session chairs:

- The session chair is expected to be present in the session room 15 minutes before the beginning of the session to meet the Speakers and to check the technical aspects of their session with the technical assistant in the room.

- The session chair is in charge of the schedule. The technical sessions are 90 minutes long. Depending on the number of presentations in their session, the Chairs should allot equal amount of time to all speakers for the session. The session chair should announce the time allotted to each paper for presentation and for discussion. If desired, the Chairs may also reserve a short time at the end of the session to make their closing remarks. At the beginning of the session, an announcement should also be made to invite the audience to switch off their cellular phones.

- Before presentation, the chair introduces the author presenting the paper using the speaker's biodata form.

- After each presentation, the chairs should encourage discussion. The Chair is expected to study the papers in their session ahead of time. The chair should be prepared to ask some question to initiate a healthy discussion if none arises from the audience.

- The Session Chairs should consult the announcements posted by the Secretariat on the pin board located at the registration area P.114 in order to be informed about the last minute changes concerning the scheduling of their session and the no-shows.

CONGRESS SOCIAL FUNCTION

The Congress includes a range of social functions to allow old friends to be made. We hope to see you there!

OPENING & WELCOMING ADDRESS *(OPEN TO ALL)*

Time : 09:00-10:30, Monday, August 14, 2017

Venue : Merdeka Hall P.116

PRESIDENT'S WELCOMING RECEPTION *(OPEN TO ALL)*

Time : 18:00-19:30, Monday, August 14, 2017

Venue : Legar Putra P.114

IAHR President Prof. Peter Goodwin will address and welcome the delegates.

RECEPTION TO CELEBRATE THE IAHR JOURNALS *(OPEN TO ALL)*

Time : 16:00-16:30, Tuesday, August 15, 2017

Venue : Legar Putra P.114

Join us for refreshments at the IAHR and Taylor & Francis Group exhibition booths #38 & #39 to celebrate the achievements of the IAHR journals.

YOUNG PROFESSIONALS NIGHT *(BY INVITATION ONLY)*

Time : 19:00-22:00, Wednesday, August 16, 2017

Venue : Marina Putrajaya

The participants can enjoy a special night view of Putrajaya by pool side with a social networking dinner at Marina Putrajaya. The dinner ended with sightseeing night cruise at Putrajaya Lake. P.17

IN-CONGRESS TECHNICAL VISIT *(BY INVITATION ONLY)*

Time : 14:00-18:00, Wednesday, August 16, 2017

Please refer to P.18 .

CONGRESS DINNER *(BY INVITATION ONLY)*

Time : 19:00-22:00, Thursday, August 17, 2017

Venue : Merdeka Hall P.116

The dinner will be served in Chinese Style, together with Malaysian Style Cultural Show and Entertainment Programmes.

CLOSING CEREMONY & CLOSING KEYNOTE *(OPEN TO ALL)*

Time : 11:30-13:00, Friday, August 18, 2017

Venue : DTHO P.114

After the Closing Keynote and a conclusion of the 37th World Congress, an introduction of next Congress will be made, and the host of 38th IAHR World Congress also be announced.

ACCOMPANYING PERSON PROGRAMME

DATE	TIME	ACTIVITY	MEETING POINT
Monday (Day 1) August 14, 2017	14:00 - 17:00 (Afternoon)	**EXCURSION OF CITY CENTRE:** • Visit iconic landscapes & structures throughout Kuala Lumpur • Visit at two of the world's tallest buildings, the impressive, iconic twin skyscrapers of the Petronas Towers.	13:00 in Sunway Putra Hotel (Grd Floor)
Tuesday (Day 2) August 15, 2017	08:30 - 17:00 (Whole Day)	**TOUR OF MELAKA HISTORICAL CITY:** • Exploration of the UNESCO-listed city, Melaka (morning session). • A Leisurely walk to the banks of the Malacca River & Melaka River Cruise (afternoon session).	08:00 in Sunway Putra Hotel (Grd Floor)
Wednesday (Day 3) August 16, 2017	08:30 - 17:00 (Whole Day)	**EXPLORATION OF FARM IN THE CITY & PUTRAJAYA:** • Journey through green & intelligent city of Putrajaya (morning session). • Visit the official residence of Malaysia's Prime Minister, Seri Perdana and Putra Bridge (morning session). • Exploration of Farm in the City (afternoon session).	08:00 in Sunway Putra Hotel (Grd Floor)
Thursday (Day 4) August 17, 2017	08:30 - 15:00 (Morning)	**EXPLORATION OF LOCAL STREETS:** • Retail therapy at local streets & marketplaces • Visit historic sites of Brickfields, Central Market & Chinatown	08:00 in Sunway Putra Hotel (Grd Floor)
Friday (Day 5) August 18, 2017	14:00 - 17:00 (Afternoon)	**SHOPPING TOURS:** • Visit Pavillion Kuala Lumpur Shopping Mall & Starhill Gallery Kuala Lumpur	13:00 in Sunway Putra Hotel (Grd Floor)

For more information on the sites listed above, please go to the Congress website at the below link:-
http://www.iahrworldcongress.org/index.php/congress-events/accompanying-persons-programme

YOUNG PROFESSIONAL NETWORK (YPN) PROGRAMME

IAHR Malaysia National Chapter will organized number of activities and benefits for students and young professionals. The programme includes:-

- YPN Technical Tour and Dinner (by invitation)
- YPN Newsletter
- YPN Social Corner
- YPN Chat/ Email Group
- YPN Hostel/Budget Hotel
- YPN Volunteer
- YPN Talk P.109

YPN TECHNICAL TOUR AND DINNER

Date : August 16, 2017 (Wednesday)
Venue : Putrajaya Lake Cruise and Marina Putrajaya

PROGRAMME (WEDNESDAY AUGUST 16, 2017)

2.00 pm - Depart from PWTC to Putrajaya
3.00 pm - Briefing at PPJ, Presint 2
4.00 pm - Putrajaya Wetlands Park
6.30 pm - Putrajaya Lake Cruise
7.30 pm - YPN Dinner, Marina Putrajaya
9.00 pm - Sightseeing Night Cruise
9.30 pm - Depart to PWTC

IN-CONGRESS TECHNICAL VISITS

1. STORM WATER MANAGEMENT AND ROAD TUNNEL (SMART)

- SMART is an acronym for Stormwater Management and Road Tunnel, a project under the Federal Government initiated to alleviate the flooding problem in the city centre of Kuala Lumpur.
- The water tight gates are installed and these gates are operated using a hydraulic system.
- Cross Passage between decks at 250m intervals: the passage acts as emergency exits during an emergency.
- Ventilation/ escape shafts at 1km intervals. These powerful air ventilators will constantly renew the air and maintain the air quality within the motorway. The feature also allows for smoke control in the event of a fire.
- Radio re-broadcasting is an audio (sound) broadcasting service, which the user able to receive the radio channel, hand phone and other maintenance communication reception without any interference.
- Equipped with Air Quality Monitoring Equipment (AQME) which enable to monitored carbon monoxide (CO), nitrogen monoxide (NO) and particulate.
- Smart Tunnel is equipped with more than 212 units of Closed Circuit Television and BARCO Wall is able to show 70 CCTVs screen at one time.
- Equipped with firefighting equipment, telephone and surveillance at 1 km interval.
- Design with The First Responder Vehicles for accessibility into SMART Highway and equipped to perform necessary fire and rescue emergencies in the dual purpose tunnel.
- Equipped with Medical Response Vehicle (MRV) that can transport the medical team or the Emergency Medical Specialist to the scene area. The MRV can be used on the wet, skidded and limited eye vision and also at the off road situation.

- Equipped with Alam Flora Road Sweeper, which is a vehicle which is capable of handling operations for SMART Tunnel cleanliness.

2. PUTRAJAYA WETLAND AND LAKE

- Putrajaya constructed wetland system comprises of six arms with 23 cells before the water flows down into the Putrajaya Lake which they differ in size, depths, plant communities and pollutant loads that it is designed to handle.
- The design features a multi-cell multi-stage system with flood retention capability to maximise the space available for colonisation by water plants.
- The Putrajaya Wetland cells and its structural components are the keys to the functioning of the wetlands for cleansing the river water.
- The lake has been planned to cater for multi-functional uses, including recreation, fishing, water sports and water transport.
- The lake has been planned to cater for multi-functional uses, including recreation, fishing, water sports and water transport.
- The lake and its foreshores also form Putrajaya's most popular resource for informal recreation as a waterfront city.
- The wetlands, which include providing a habitat for local fauna, primarily mammals, water birds, reptiles, amphibians, fish and invertebrates; hydrological modification.

3. RIVER OF LIFE (ROL) - KLANG RIVER

- The River of Life (ROL) is currently biggest river rehabilitation project by Malaysia government with aim to improve the water quality of Klang River (river that flow through our capital city of Kuala Lumpur).
- Main objectives of the project are 1) enhancing, rehabilitating and preserving the river and its environment and 2) provide adequate level of flood mitigation protection to the project area, in support of achieving the Greater Kuala Lumpur City status.
- The Project site covers the 10km stretch of Klang & Gombak River Corridor representing about 40.4 km^2 catchment area (from Klang Gates Dam to the confluence of Klang River and Gombak River).
- Aims to transform the Klang River into a vibrant and livable water front with high economic value. This transformation is divided into three main components: 1) River cleaning 2) River development and 3) River master planning and beautification.
- The goal is to bring the river from its current Class III - Class V water quality (not suitable for body-contact) to Class IIb (suitable for body-contact recreational usage) by year 2020.

4. NAHRIM HYDRAULIC LAB

- Hydraulic and Instrumentation Laboratory of NAHRIM was established to conduct basic and applied research and development (R&D) in physical modelling in various field including studies on dam, rivers, coastal and offshore.

- The Hydraulic Laboratory of NAHRIM has a total area of 12,000 square meters, equipped with various facilities for research in physical modelling.
- The facilities consist of

1. Coastal and estuarine facility: Study on the wave effect to the coastal area, sediment transport and changes, and built structure at the coastal areas.
2. Port and harbour facility: Physical model studies on coastal structures such as breakwaters, revetments, artificial reefs, groyne, wave/structure interactions, beach profile response as well as complex design layouts such as wave agitation in harbours and marinas, problems at estuaries such as sedimentations/erosions.

3. Tidal/River facility: To study flood event that may occur within the river catchments and flood mitigation scheme.
4. Tilting flume: Generate and test various frequencies and pattern of wave in small quantity and various continuous water discharge and flow pattern.

5. KWASA DAMANSARA GREEN TOWNSHIP DEVELOPMENT

- The proposed Kwasa Damansara new township is on-going master development projects carry out on approximately 2332 acres (943 hectares) of land in Petaling District. This project site is planned to become a showpiece of the new concept of drainage system.
- The key design objective for the proposed development is to create a new focal point that reflects the township of a 21st Century; one that is Green, Connected and has a sense of Place Making.
- In the effort to achieving a sustainable township that is green holistically, it is important to protect the sites' ecology and develop a sustainable stormwater master plan that shall contribute towards environmental quality, which includes protection and conservation of the existing river system.

• Emphasis has been stressed on the necessity of the use of Urban Stormwater management Manual for Malaysia (MSMA) by adopting the concepts of integration, control-at-source and sustainability in all drainage design and implementation in order to protect the environment of the surrounding areas.

• Through innovation in design, the designers introduced the Bio-Ecological Drainage System (BIOECODS) and bio-engineered solution for river restoration which consists of ecological swale, a dual layer conveyance system that minimize drainage footprint but provide additional water quantity and quality treatment. Other components such as bio-retention, on-site detention (OSD) and wet ponds are further evidences of the integration of stormwater facilities into surrounding landscape, adding significant values to otherwise worthless open spaces.

• The project also overturned the stigma of increased cost due to innovative drainage.

• Participants will take in a presentation at Kwasa Land Sdn Bhd for the overview of Kwasa Damansara green township development, followed by a tour of the on-going construction of BIOECODS and river Terrawall system at site.

6. RAINWATER HARVESTING SYSTEM (RWHS) AT PAYA INDAH WETLAND

• NAHRIM has implemented Rainwater Harvesting System (RWHS) in Paya Indah Wetland (PIW) using rainwater for the water playground by putting the concept of water balance into practice in an effort to utilise excess rainwater resources more efficiently.

• The installation of RWHS in PIW aims to prepare masterplan for the management of rainwater resources in urban areas as an alternative water source for water features to reduce floods from excess runoff.

- NAHRIM has been commissioned to conduct a small-scale pilot research project in Paya Indah Wetlands (PIW) in the Focus Group Meeting held in 2013. This study aims to optimize Rainwater Harvesting System (RWHS) for water features to harness the benefit of excess rainwater more efficiently.
- A suitable location has been identified for this project, in the area near Tasik Rusiga, which is able to utilize excess runoff from the car park as a catchment area for rainwater, before being channeled into underground water storage tank with the capacity of 250 m3. This water will then be channeled to another similar underground water storage tank after going through the Membrane Water Treatment System. The processed water will be reused as the source for the water features.
- Benefits from this study include reducing dependence on treated water, overcoming flash flood problems, reducing pollution into the lakes, maintaining ecosystems and environmental sustainability and promoting recreational activities in PIW. The outcome from this study will also be used in the Masterplan for City Level Rainwater Resources Management especially in the areas that experience flash floods. This study is a pilot project to prepare rainwater resources management plan for urban areas.

7. MELAKA RIVER REHABILITATION AND BEAUTIFICATION

- The project area refer to the stretch of Melaka River from the river mouth up to Jambatan Hang Jebat, which is 4.7 km (1st Phase) and 5.2 km (2nd Phase) towards upstream.
- The river passes through the historical part of Melaka where many of the old heritage buildings facing the river.
- The main objective of the project is to clean up the river by intercepting all direct sewer discharge into the river and to beautify the river embankment by the construction of landscape river walks.
- Melaka River has once again become a clean and living river with the introduction of sewer interceptor reticulation system. All raw sewage and water discharge would no longer end up in the river. Marine life such as fresh water, tiny mudskippers and giant water lizards flourish as they had years ago.
- The citizens and tourist visiting Melaka can enjoy a clean and beautify river with well-designed landscapes, proper jogging track, benches and pavilions for resting and recreation. Lightings enhance the ambience at night and also ensure safety of the users.
- With implementation of parcel 2 phase with additonal 5.2 km and aslo with river water quality treatment plant, the river will be enhanced from Class III to Class IIB water quality index.

- Melaka Historic City Council has received various award of this project including Winner Category 8 : Special Category Melaka River Rehabilitation and Beautification (PAM 2009 Awards For Excellence in Architecture) by Malaysia Architect Association.

AWARD & HONORARY MEMBERS

2017 IAHR HONORARY MEMBER AWARDS

The most prestigious honour conferred by the IAHR Council is Honorary Membership. This award is given to three distinguished IAHR Members and/or individuals and institutions from outside the IAHR community at the biennial IAHR World Congress.

Honorary Membership in 2017 is awarded to:

Prof. Roger Falconer, United Kingdom

Professor of Water Management (Part-time), Cardiff University and Director, Roger Falconer Water Consultancy Ltd

"In recognition of his outstanding contribution in promoting the development of computational modelling in hydro-environment engineering and research, and for his devoted service to IAHR in various capacities and, especially, as President of the Association during the period 2011 and 2015".

Prof. Jörg Imberger, Australia

Adjunct Professor RSMAS, Miami, USA

"In recognition of his outstanding contribution in establishing the field of physical limnology, and as a founder member of the IAHR ecohydraulics community".

Prof. Zhaoyin Wang

Tsinghua University, Beijing, China.

"In recognition of his outstanding contribution in the field of sediment transport and river dynamics, and for his devoted service to IAHR in various capacities including most recently service as Vice President during the period 2011-2015".

6TH M.SELIM YALIN LIFETIME ACHIEVEMENT AWARD

The M.Selim Yalin Award was established by the IAHR council in 2006 to honour the memory of Professor M. Selim Yalin, Honorary Member (1925 - 2007), and Fluvial Hydraulics Section Chairman (1986 - 1991). Professor Yalin is remembered for his prolific and pioneering research contributions in fluvial hydraulics and sediment transport, and for his inspirational mentoring of students and young researches.

The Award is made biennially by IAHR to one of its members whose experimental, theoretical or numerical research has resulted in significant and enduring contributions to the understanding of the physics of phenomena and/or processes in hydraulic science or engineering and who demonstrated outstanding skills in graduate teaching and supervision.

The winner of 6th M. Selim Yalin Award is Marcelo Horacio Garcia of University of Illinois Urbana-Champaign, USA

Prof. Marcelo Horacio García
Professor of Civil and Environmental Engineering
University of Illinois, Urbana Champaign, USA

"In recognition of his outstanding contribution in the field of sediment transport and river dynamics, and for his devoted service to IAHR in various capacities including most recently service as Vice President during the period 2011-2015".

20TH ARTHUR THOMAS IPPEN AWARD

The Ippen Award was established by the IAHR Council in 1977 to memorialise Professor Ippen, IAHR President (1959 -1963), IAHR honorary member, and for many decades an inspirational leader in fluids research, hydraulic engineering, and international co-operation and understanding.

The Award is made biennially by IAHR to one of its members who has demonstrated conspicuously outstanding ability, originality, and accomplishment in basic hydraulic research and/or applied hydraulic engineering, and who holds great promise for continuation of a high level of productivity in this profession.

Dr. Qiuewen Chen of Nanjing Hydraulic Research Institute, China is the 20th Ippen Award Winner and will deliver the Arthur Thomas Ippen Lecture at the Congress..

Dr. Qiuwen Chen
Center for Eco-environmental Research
Nanjing Hydraulic Research Institute, Nanjing, China

"In recognition of outstanding contributions in the field of environmental hydroinformatics and ecohydraulics".

20TH HAROLD J. SCHOEMAKER AWARD

The Schoemaker Award was established by the IAHR Council in 1980 to recognise the efforts made by Professor Schoemaker, Secretary (1960 -1979), in guiding the Journal of Hydraulic Research in its formative years. The Award is made biennially by the IAHR to the author(s) of the paper judged the most outstanding paper published in the Journal of Hydraulic Research in the two years preceding the World Congress.

The most outstanding paper published in the Journal of Hydraulic Research during the period 2014-2016 is Vowinckel, B., Jain, R., Kempe, T., & Fröhlich, J. (2016). Entrainment of single particles in a turbulent open-channel flow: A numerical study. Journal of Hydraulic Research, 54(2), 158-171.

Dr. Bernhard Vowinckel
UC Sant Barbara

for the most outstanding paper published in the Journal of Hydraulic Research during the period 2014-2016
"Entrainment of single particles in a turbulent open-channel flow: a numerical study" J. Hydraul. Res., 2016, 54(2), 1578-171

Ramandeep Jain
TU Dresden

for the most outstanding paper published in the Journal of Hydraulic Research during the period 2014-2016
"Entrainment of single particles in a turbulent open-channel flow: a numerical study" J. Hydraul. Res., 2016, 54(2), 1578-171

Tobias Kempe
TU Dresden

for the most outstanding paper published in the Journal of Hydraulic Research during the period 2014-2016
"Entrainment of single particles in a turbulent open-channel flow: a numerical study" J. Hydraul. Res., 2016, 54(2), 1578-171

Prof. Jochen Fröhlich
TU Dresden

for the most outstanding paper published in the Journal of Hydraulic Research during the period 2014-2016
"Entrainment of single particles in a turbulent open-channel flow: a numerical study" J. Hydraul. Res., 2016, 54(2), 1578-171

2017 WILLI H. HAGER JHR BEST REVIEWER AWARD

To be awarded during the Closing Ceremony (Friday, August 18).

Claudia Adduce
Università RomaTre

For outstanding reviews in the Journal of Hydraulic Research during the period 2015 - 2016

Koen Blanckaert
The Hong Kong University of Science and Technology

For outstanding reviews in the Journal of Hydraulic Research during the period 2015 - 2016

Sk Zeeshan Ali
Indian Institute of Technology Kharagpur

For outstanding reviews in the Journal of Hydraulic Research during the period 2015 - 2016

2017 IAHR HYDRO-ENVIRONMENT INDUSTRY INNOVATION AWARD

The Hydro-Environment Industry Innovation Award is conferred by IAHR during the World Congress on a recent local innovation in design of lasting and international importance. It has the purpose of giving international professional recognition to the work of local hydro-environment engineers. The winner of 2017 IAHR Hydro-Environment Industry Innovation Award is Stormwater Management and Road Tunnel (SMART).

2017 IAHR HYDRO-ENVIRONMENT WORLD HERITAGE AWARD

The IAHR Hydro-Environment World Heritage Award established in 2012 is conferred by IAHR during the World Congress on a local infrastructure of lasting and international importance. It has the purpose of giving international professional recognition to the work of local hydro-environment engineers, and should demonstrably have stood the test of time (and be at least one hundred years old) and be accepted and valued nationally. The winner of 2017 IAHR Hydro-Environment World Heritage Award is Wan Mat Saman Canal, Kedah, Malaysia.

JF KENNEDY STUDENT PAPER COMPETITION

The John F. Kennedy Student Paper Competition was established by the IAHR council in1992 to honour the memory of Professor John F. Kennedy, IAHR president (1979 - 1983) and Honorary Member (1989 - 1991). The competition is held at each IAHR World Congress. A panel of judges appointed by the Congress Organisation selects the winning paper on the basis of written and oral presentations. To be awarded during the Closing Ceremony (Friday, August 18).

THEMES AND SUB-THEMES

Main Theme:

"MANAGING WATER FOR SUSTAINABLE DEVELOPMENT - LEARNING FROM THE PAST FOR THE FUTURE"

THEME 1: RIVER AND SEDIMENT MANAGEMENT	
SUB-THEME	
1A	River Conservation and Restoration
1B	River Sediment Management and Morphodynamics
1C	Debris Flow and Reservoir Sedimentation
1D	Flow Interaction With Hydraulic Structure
1E	Dam Decommissioning

THEME 2: FLOOD MANAGEMENT	
SUB-THEME	
2A	Flood Risk Assessment
2B	Urban Flood Management
2C	Flood Mitigation and Control
2D	Flood Disaster and adaptation Measures
2E	Flood Recovery and Resiliency

THEME 3: ENVIRONMENTAL HYDRAULICS AND INDUSTRIAL FLOWS	
SUB-THEME	
3A	Ecohydraulics
3B	Sustainable Use of Terrestrial Ecosystem and Rehabilitation of Water Systems
3C	Sustainable (Renewable) Energy
3D	Industrial Flow Management
3E	Hydraulics Machinery

THEME 4: COASTAL, ESTUARIES AND LAKES MANAGEMENT	
SUB-THEME	
4A	Coastal and Estuary Morphodynamics
4B	Estuaries and Shore Protection
4C	Dynamics and Exchanges in Estuary-Coastal Zone
4D	Inland and Coastal Lake Management
4E	Coastal Structures (Ports and Harbours)

THEME 5: URBAN WATER MANAGEMENT	
SUB-THEME	
5A	Rainfall-Runoff Processes and Modelling
5B	Assessment of Stormwater and CSO Quality and Its Impacts
5C	Sewer Sediment
5D	Stormwater Management
5E	Combined Sewer Overflow (CSO) Control

THEME 6: WATER RESOURCES MANAGEMENT	
SUB-THEME	
6A	Water Resources Management under Increasing Uncertainty
6B	Alternative Water Resources
6C	Conflict Resolution in Water Management
6D	Advanced Water Resources Systems Analyses
6E	Groundwater Hydraulics

THEME 7: HYDROINFORMATICS/COMPUTATIONAL METHODS AND EXPERIMENTAL	
SUB-THEME	
7A	High Performance Computing and 5th Generation of Modelling Systems
7B	Impacts of Pollutants on the Environment
7C	Development and Application of Soft Computing Tools in Hydroinformatics
7D	Instrumentation and Experimental Methods
7E	Big Data and Data Acquisition Technologies

SPECIAL SESSION	
SPECIAL SESSION 1	Transients in Pipes
SPECIAL SESSION 2	Sustainable Water Resources Planning & Management under Climate Change
SPECIAL SESSION 3	Green Infra as Disaster Risk Reduction Measures in the Asian-Pacific Region
SPECIAL SESSION 4	The Path to Resiliency in Low Gradient Coastal Regions for Present and Future Conditions
SPECIAL SESSION 5	Function of Governance to River Restoration under the Climate Change
SPECIAL SESSION 6	Coastal Reservoir - A Technology that Can Develop Freshwater from the Sea Without Desalination

SPECIAL EVENTS (WORKSHOP/FORUM/MASTER CLASS)

Hands-on Introduction to Google Earth Engine P.107

Master Class on Hydroinformatics and Water Management P.107

Forum on Practice and Challenges on Integrated Operation of Hydropower Stations and Reservoirs P.108

Sustainable Development Goals (SDGs) Special Forum - The Contribution of IAHR and other Water Associations to the Sustainable Development Goals of Agenda 2030 P.108

7th Research Institutes Workshop on Managing Change P.108

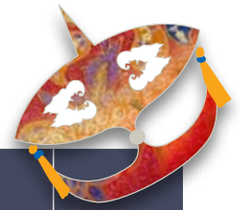
Forum on Environmental Decision support on Hydromet Cloud base system and LEADS® - Leading Environmental Analysis & Display System P.109

YPN Talk - How to write a Journal Paper P.109

IAHR TECHNICAL COMMITTEE MEETING SCHEDULE P.110

1. Hydraulic Structure
2. Experimental Methods
3. Flood risk management
4. Fluid mechanics
5. Fluvial hydraulics
6. Ecohydraulics
7. Coastal & Maritime Hydraulics
8. Water Resources
9. Hydroinformatics

PROGRAMME OVERVIEW



	Sunday 13th Aug 2017	Monday 14th Aug 2017	Tuesday 15th Aug 2017	Wednesday 16th Aug 2017	Thursday 17th Aug 2017	Friday 18th Aug 2017	
8:30-9:00			Keynote 3	Keynote 6	Keynote 8	Keynote 11	8:30-9:00
9:00-9:30		Opening Ceremony & Welcoming Address	Keynote 4	Keynote 7	Keynote 9	Keynote 12	9:00-9:30
9:30-10:00			Technical Session 3 *pg 53-58* / Special Session 1 *pg 100-101*	Technical Session 7 *pg 72-76* / Special Session 1 *pg 100-101* / Special Session 6 *pg 106*	Technical Session 9 *pg 81-85* / Special Session 3 *pg 102-103* / Special Session 5 *pg 105*	Technical Session 12 *pg 95-99* / Special Session 2 *Pg 102*	9:30-10:00
10:00-10:30		Exhibition/Break	Exhibition/Break	Exhibition/Break	Exhibition/Break	Exhibition/Break	10:00-10:30
10:30-11:00		Opening Ceremony					10:30-11:00
11:00-11:30		Opening Keynote 1					11:00-11:30
11:30-12:00			Technical Session 4 *pg 58-62* / Special Session 1 *pg 100-101*	Technical Session 8 *pg 76-80* / Special Session 1 *pg 100-101* / Special Session 6 *pg 106*	Technical Session 10 *pg 85-89* / Special Session 3 *pg 102-103* / Special Session 5 *pg 105*	Closing Ceremony & Closing Keynote	11:30-12:00
12:00-12:30		Opening Keynote 2					12:00-12:30
12:30-13:00		Exhibition/Break					12:30-13:00
13:00-13:30			Exhibition/Break	Exhibition/Break	Exhibition/Break	Exhibition/Break	13:00-13:30
13:30-14:00		Ippen Lecture					13:30-14:00
14:00-14:30	Congress Registration	Technical Session 1 *pg 43-47* / SDGs Special Forum *pg 108*	Keynote 5	Technical Visits / Forum on Environmental Decision support on Hydromet Cloud base system and LEADS® *pg 109*	Keynote 10		14:00-14:30
14:30-15:00			Technical Session 5 *pg 63-66* / Special Session 4 *pg 104*		Technical Session 11 *pg 90-94*		14:30-15:00
15:00-15:30							15:00-15:30
15:30-16:00		Exhibition/Break	Exhibition/Break		Exhibition/Break		15:30-16:00
16:00-16:30							16:00-16:30
16:30-17:00		Technical Session 2 *pg 48-53*	Technical Session 6 *pg 67-71* / Special Session 4 *pg 104*		IAHR Town Hall Meeting & General Members Assembly (GMA) / YPN Talk *pg 109*		16:30-17:00
17:00-17:30							17:00-17:30
17:30-18:00	IAHR Technical Committee Meetings						17:30-18:00
18:00-18:30		President's Welcoming Reception	IAHR APD Meeting / IAHR Technical Committee Meetings		IAHR Technical Committee Meetings		18:00-18:30
18:30-19:00							18:30-19:00
19:00-20:00				YPN's Night	Congress Dinner		19:00-20:00
20:00-21:00							20:00-21:00
21:00-22:00							21:00-22:00

Congress Registration (Sunday 13th Aug 2017 – 14:00-14:30)
Congress Registration (Monday 14th Aug 2017 – 8:30-9:00 to 13:30-14:00)
Congress Registration (Tuesday 15th Aug 2017 – 8:30-9:00 to 13:30-14:00)
Congress Registration (Wednesday 16th Aug 2017 – 8:30-9:00 to 13:30-14:00)
Congress Registration (Thursday 17th Aug 2017 – 8:30-9:00 to 13:30-14:00)
Congress Registration (Friday 18th Aug 2017 – 8:30-9:00 to 13:30-14:00)

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Kuala Lumpur, Malaysia

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OVERVIEW OF SPECIAL EVENTS

DAY	EVENTS	TIME	VENUE
SUNDAY (AUGUST, 13)	Hands-on Introduction to Google Earth Engine	09:00-17:00	Kedah - Johor Room
	Master Class on Hydroinformatics and Water Management	09:00-17:00	Kelantan Room
	Forum on Practice and Challenges on Integrated Operation of Hydropower Stations and Reservoirs	09:00-17:00	Melaka Room
	IAHR Technical Committee Leadership Briefing	12:30-14:00	Negeri Sembilan Room
	Technical Committee Meeting - Hydraulic Structure	15:00-16:30	Perak Room
	Technical Committee Meeting - Experimental Methods	15:00-16:30	Pahang Room
	Technical Committee Meeting - Flood Risk Management	15:00-16:30	Negeri Sembilan Room
	Technical Committee Meeting - Fluid Mechanics	17:00-18:30	Perak Room
MONDAY (AUGUST, 14)	Opening Ceremony & Welcoming Address	09:00-10:00	Merdeka Hall
	Opening Ceremony	10:30-11:00	Merdeka Hall
	Opening Keynotes (1 & 2)	11:00-12:30	Merdeka Hall
	Ippen Lecture (Dr. Qiuwen Chen)	13:30-14:00	Dewan Tun Hussin Onn (DTHO)
	Sustainable Development Goals (SDGs) Special Forum	14:00-15:30	Pulau Pinang Room
	President's Welcoming Reception	17:30-19:00	Legar Putra
TUESDAY (AUGUST, 15)	Keynote 3 (Prof. Shahbaz Khan)	08:30-09:00	Dewan Tun Hussin Onn (DTHO)
	Keynote 4 (Prof. Roger Falconer)	09:00-09:30	
	7th Research Institutes Workshop on Managing Change *(By invitation only)*	09:30-14:00	-
	Keynote 5 (Prof. Silke Wieprecht)	14:00-14:30	Dewan Tun Hussin Onn (DTHO)
	Reception to Celebrate The IAHR Journals *(Open to all)*	16:00-16:30	Legar Putra (Booths #38 & #39)
	Technical Committee Meeting - Fluvial Hydraulics	18:30-19:30	Perak Room
	Technical Committee Meeting - Ecohydraulics	18:30-19:30	Negeri Sembilan Room
	IAHR-APD Meeting *(By invitation only)*	18:30-19:30	Pahang Room

DAY	EVENTS	TIME	VENUE
WEDNESDAY (AUGUST, 16)	Keynote 6 (Prof. Lin Peng Zhi)	08:30-09:00	Dewan Tun Hussin Onn (DTHO)
	Keynote 7 (Prof. Stephen Monismith)	09:00-09:30	Dewan Tun Hussin Onn (DTHO)
	In-Congress Technical Tour	14:00-18:00	-
	Forum on Environmental Decision Support on Hydromet Cloud Base System and Leads®	14:00-17:00	Melaka Room
	YPN's Night *(By invitation only)*	19:00-22:00	Marina Putrajaya
THURSDAY (AUGUST, 17)	Keynote 8 (Prof. Dragan Savic)	08:30-09:00	Dewan Tun Hussin Onn (DTHO)
	Keynote 9 (Prof. Jorg Imberger)	09:00-09:30	Dewan Tun Hussin Onn (DTHO)
	Keynote 10 (Prof. Farhad Yazdandoost)	14:00-14:30	Dewan Tun Hussin Onn (DTHO)
	IAHR Town Hall Meeting & General Members Assembly (GMA)	16:30-18:00	Dewan Tun Hussin Onn (DTHO)
	YPN Talk	16:30-18:00	Johor/Kedah Room
	Technical Committee Meeting - Coastal & Maritime Hydraulics	18:00-19:00	Perak Room
	Technical Committee Meeting - Water Resources	18:00-19:00	Negeri Sembilan Room
	Technical Committee Meeting - Hydroinformatics	18:00-19:00	Pahang Room
	Congress Dinner *(By invitation only)*	19:00-22:00	Merdeka Hall
FRIDAY (AUGUST, 18)	Keynote 11 (Prof. Jun Xia)	08:30-09:00	Dewan Tun Hussin Onn (DTHO)
	Keynote 12 (Dr. Jae Young Ahn)	09:00-09:30	Dewan Tun Hussin Onn (DTHO)
	Closing Ceremony & Closing Keynote	11:30-13:00	Dewan Tun Hussin Onn (DTHO)

PROGRAMME IN DETAIL

KEYNOTES & IPPEN LECTURE ▶ P.39

TECHNICAL SESSIONS ▶ P.43

SPECIAL SESSIONS ▶ P.100

SPECIAL EVENTS (WORKSHOP/FORUM/MASTER CLASS) ▶ P.107

IAHR TECHNICAL COMMITTEE MEETING SCHEDULE ▶ P.110

KEYNOTES & IPPEN LECTURE

OPENING KEYNOTE SPEAKER

DR. TYLER A. ERICKSON
Senior Developer Advocate at Google

TITLE: Democratizing Access to Global Water Information with Cloud Technologies

Monday, August 14, 2017 11:00 AM - 11:45 AM

ROOM: **Merdeka Hall** CHAIR: **Prof. Peter Goodwin**

OPENING KEYNOTE SPEAKER

YB DATO' SRI DR. HAJI WAN JUNAIDI TUANKU JAAFAR
Minister of Natural Resources and Environment (NRE) Malaysia

TITLE: Managing Water for Sustainable Development - Learning from the past for the future

Monday, August 14, 2017 11:45 AM - 12:30 PM

ROOM: **Merdeka Hall** CHAIR: **Datuk Ir. Dr. Azuhan Mohamed**

KEYNOTE 3

PROF. SHAHBAZ KHAN
UNESCO Regional Science Bureau for Asia and the Pacific, Jakarta, Indonesia

TITLE: Evidence Based Policy, Planning and Management for Water Security in Asia-Pacific Region

Tuesday, August 15, 2017 8:30 AM - 9 AM

ROOM: **DTHO** CHAIR: **Prof. James E. Ball**

KEYNOTE 4

PROF. ROGER A. FALCONER
Professor of Water Management (Part-time), Cardiff University, UK
Director, Roger Falconer Water Consultancy Ltd

TITLE: Flood Modelling and Hazard Assessment for Extreme Events in River Basins

Tuesday, August 15, 2017 9 AM - 9:30 AM

ROOM: **DTHO** CHAIR: **Prof. Subhasish Dey**

KEYNOTE 5

PROF. ING. SILKE WIEPRECHT

Department Head, Department of Hydraulic Engineering and Water Resources Management
Managing Director, Institute for Water and Environmental System (IWS), University of Stuttgart

TITLE: Influence of Morphological Changes on Ecology: A Cascade of Scales

Tuesday, August 15, 2017 2:00 PM - 2:30 PM

ROOM: **DTHO** CHAIR: **Prof. Angelos Findikakis**

KEYNOTE 6

PROF. PENGZHI LIN

CJSP Chair Professor, Sichuan University, China

TITLE: Bed Shear Stress and Turbulence Characteristics Under Solitary Waves

Wednesday, August 16, 2017 8:30 AM - 9:00 AM

ROOM: **DTHO** CHAIR: **Prof. Dr. Robert Ettema**

KEYNOTE 7

PROF. STEPHEN MONISMITH

Professor, Dept. of Civil and Env. Eng., Stanford University, California, USA

TITLE: Some Like It Hot: Stratification, Circulation and Turbulence in A Shallow, Tropical Reservoir

Wednesday, August 16, 2017 9:00 AM - 9:30 AM

ROOM: **DTHO** CHAIR: **Prof. James E. Ball**

KEYNOTE 8

PROF. DRAGAN A. SAVIĆ FRENG

Professor of Hydroinformatics and Co-Director of the Centre for Water Systems, University of Exeter, UK
Director, EPSRC Centre for Doctoral Training in Water Informatics: Science and Engineering (WISE CDT), University of Exeter, UK

TITLE: A Smart City Without Smart Water is Only a Pipe Dream!

Thursday, August 17, 2017 8:30 AM - 9:00 AM

ROOM: **DTHO** CHAIR: **Prof. Arthur Mynett**

KEYNOTE 9

PROF. JORG IMBERGER

Professor (Adjunct), RSMAS, University of Miami, Florida, USA

TITLE: Real-time, Adaptive, Self-Learning Management of Lakes

Thursday, August 17, 2017 9:00 AM - 9:30 AM

ROOM: **DTHO** CHAIR: **Prof. Subhasish Dey**

KEYNOTE 10

PROF. FARHAD YAZDANDOOST

Vice Chancellor, K. N. Toosi University of Technology, Iran
Director of the Regional Centre on Urban Water Management, UNESCO

TITLE: Resilience, from Metaphor to Operational Indicators

Thursday, August 17, 2017 2:00 PM - 2:30 PM

ROOM: **DTHO** CHAIR: **Prof. Anton Schleiss**

KEYNOTE 11

PROF. JUN XIA

Chair Professor & Director, Research Institute for Water Security(RIWS), Wuhan University, China
Distinguished Professor, Key Lab. of Water Cycle & Related Land Surface Processes, Chinese Academy of Sciences(CAS)

TITLE: Water Security Issue and Adaptive Water Management of China for Changing Environment

Friday, August 18, 2017 8:30 AM - 9:00 AM

ROOM: **DTHO** CHAIR: **Prof. Peter Goodwin**

KEYNOTE 12

DR. JAE-YOUNG AHN

Principal Member of Research Staff in The Electronics and Telecommunications Research Institute (ETRI)

TITLE: Smart Water Management/Smart Platform with Hydroinformatics

Friday, August 18, 2017 9:00 AM - 9:30 AM

ROOM: **DTHO** CHAIR: **Prof. Roger A. Falconer**

IPPEN LECTURE

DR. QIUWEN CHEN
Center for Eco-environmental Research
Nanjing Hydraulic Research Institute, Nanjing, China

TITLE: Cellular Automata in Ecohydraulics Modeling: Principles, Scales and Applications

Monday, August 14, 2017 1:30 PM - 2:00 PM

ROOM: **DTHO** CHAIR: **Prof. Arthur Mynett**

CLOSING KEYNOTE

YB DATUK WIRA DR. ABU BAKAR MOHAMAD DIAH
Deputy Minister of Science, Technology and Innovation (MOSTI)
Malaysia

TITLE: Innovation for Water Security in Malaysia and Beyond

Friday, August 18, 2017 11:45 AM - 12:15 PM

ROOM: **DTHO** CHAIR: **Prof. Dr. Nor Azazi Zakaria**

TECHNICAL SESSIONS

TECHNICAL SESSION 1A

THEME 1: RIVER AND SEDIMENT MANAGEMENT

ROOM: **TDI-A** CHAIR: **Prof. Ing. Silke Wieprecht**

1b-1a	GRAVEL CAPPING FOR TURBIDITY CONTROL DURING SEDIMENT SLUICING UPSTREAM OF OOUCHIBARU DAM BY THE USE OF EJECTOR PUMP SYSTEM
	DAISUKE TSURUSAKI, MASAKI KIYOTA, KATSUYUKI ASAZAKI, YUJI NAKAMURA, TOSHIYUKI TEMMYO, MICHIHIRO MIZUNUMA, AHMAD MOUSSA, SAMEH A. KANTOUSH, TETSUYA SUMI
1b-1b	NUMERICAL STUDY ON FORMATION AND EVOLUTION OF GRAVEL TO SAND TRANSITION
	WEI HUANG, HUAI HAN LIU, BO JIANG, GUOPING LEI, ZUPENG GU, HONGWEI KUANG, FEI CHEN
1b-1c	3D VERSUS 2D CALIBRATION OF A 3D HYDRODYNAMIC MODEL
	PARNA PARSAPOUR-MOGHADDAM, COLIN D. RENNIE
1b-1d	CHANGE IN SEDIMENT CHARACTERISTICS AND SEDIMENT LOAD OF THE NAN RIVER DUE TO LARGE DAM CONSTRUCTION
	BUTSAWAN BIDORN, STEPHEN A. KISH, JOSEPH F. DONOGHUE, KOMKRIT BIDORN, RUETAITIP MAMA
1b-1e	WATER AND SEDIMENT VARIATIONS AND THEIR INFLUENCE FACTORS IN THE YELLOW RIVER BASIN
	YAN-GUI WANG, KANG CHEN, YIN CHEN
1b-1f	FORMATIVE PARAMETERS FOR STABLE ARMOR DEVELOPMENT
	STEPHANE BERTIN, HEIDE FRIEDRICH

TECHNICAL SESSION 1B

THEME 1: RIVER AND SEDIMENT MANAGEMENT

ROOM: **TDI-B** CHAIR: **Prof. Andreas Malcherek**

1d-1a	BUBBLE DYNAMICS AND PIV MEASUREMENTS IN A HYDRAULIC JUMP
	ADEL EMADZADEH, YEE-MENG CHIEW
1d-1b	SCOUR MORPHOLOGY DUE TO VERTICAL CROSSING JETS WITH DIFFERENT DIAMETERS
	MICHELE PALERMO, STEFANO PAGLIARA
1d-1c	CHARACTERISTICS OF TOTAL PHOSPHORUS TRANSPORT IN MIDDLE REACHES OF YARLUNG ZANGBO RIVER
	SHUQING NAN, JIA LI, LINLEI ZHANG
1d-1d	FREE SURFACE PROFILE MEASUREMENTS OF FLOW OVER SQUARE BARS USING AN IMAGE PROCESSING APPROACH
	SAAD MULAHASAN, THORSTEN STOESSER, SAFAA KH. AL-JUMAILI
1d-1e	STUDY ON EFFECT OF RADIUS OF CURVATURE ON LATERAL OVERFLOW IN CURVED CHANNEL
	KOJI ASAI, NOBUYUKI KAWAMOTO
1d-1f	MODELING SYSTEM EMPLOYED FOR THE OPTIMIZATION OF THE DESIGN OF THE FILLING/EMPTYING SYSTEM OF THE THIRD SET OF LOCKS OF PANAMA CANAL
	ANGEL N. MENÉNDEZ, EMILIO A. LECERTÚA, NICOLÁS D. BADANO

TECHNICAL SESSION 1C

THEME 3: ENVIRONMENTAL HYDRAULICS AND INDUSTRIAL FLOWS

ROOM: **DTHO** CHAIR: **Dr. Mengzhen Xu**

3a-1a	POTENTIAL SUITABLE HABITAT SIMULATION OF THE HOMONOIA RIPARIA LOUR IN YUNNAN, CHINA
	YUJUN YI, YANG ZHOU
3a-1b	INCEPTION POINT FOR DIFFERENT CONFIGURATION ON MODELING OF STEPPED SPILLWAYS
	DENIK SRI KRISNAYANTI, VERY DERMAWAN, MOH. SHOLICHIN, DIAN SISINGGIH
3a-1c	NUMERICAL SIMULATION STUDY ON EFFECTS OF WATER DEPTH ON TURBULENT IMPINGING JET DIFFUSION
	WANGRU WEI, JUN DENG
3a-1d	DETERMINATION OF ENVIRONMENTAL FLOW IN ARID AND SEMI-ARID REGIONS
	ELNAZ ZEHTABIAN, ARDALAN IZADI, FARHAD YAZDANDOOST
3a-1e	RELATIONSHIP INVESTIGATION BETWEEN THE DISSIPATION PROCESS OF SUPERSATURATED TOTAL DISSOLVED GAS AND WIND EFFECT IN FLOWING WATER
	JUPING HUANG, WEI WANG, LELE WANG, RAN LI, JINGJIE FENG
3a-1f	A TIME CHANGE OF OXYGEN CONSUMPTION RATE AT URBAN RIVER MOUTH
	KOUJI UNO, MISAKI KITAMURA, GOZO TSUJIMOTO, TETSUYA KAKINOKI

TECHNICAL SESSION 1D

THEME 6: WATER RESOURCES MANAGEMENT

ROOM: **Johor / Kedah** CHAIR: **Ir. Mohd Zaki Mat Amin**

6a-1a	ASSESSMENT OF CLIMATE CHANGE IMPACTS ON HYDROLOGICAL PROCESSES AND WATER RESOURCES BY WATER EVALUATION AND PLANNING (WEAP) MODEL: CASE STUDY IN THAC MO CATCHMENT, VIETNAM
	BAO QUOC PHAM, PAO-SHAN YU, TAO-CHANG YANG, CHEN-MIN KUO, HUNG-WEI TSENG
6a-1b	ANALYSIS OF THE RELATIONSHIP BETWEEN SNOW DEPTH AND TOPOGRAPHY IN A MOUNTAINOUS REGION USING AIRBORNE LASER SCANNING DATA
	TERUMASA NISHIHARA, ATSUSHI TANISE, KAZUYOSHI WATANABE
6a-1c	VALIDATION OF TRMM 3B43 MONTHLY PRECIPITATION PRODUCT WITH RAIN GAUGES DATA IN GANSU, CHINA DURING 2000-2013
	CHENG CHEN, QIU WEN CHEN, JIN ZHANG, YU QING LIN, SHU HE ZHAO, ZHENG DUAN, XIAO QI
6a-1d	ASSESSING THE VULNERABILITY OF A TROPICAL DRINKING WATER RESERVOIR TO CLIMATE CHANGE
	LAURA MELO VIEIRA SOARES, TALITA FERMANDA DAS GRAÇAS SILVA, BRIGITTE VINÇON-LEITE, JULIAN CARDOSO ELEUTÉRIO, NILO DE OLIVEIRA NASCIMENTO
6a-1e	DEVELOPMENT AND EVALUATION OF DAM INFLOW DROUGHT INDEX BASED ON DAM OPERATION RULE
	MINSUNG KWON, KYUNG SOO JUN
6a-1f	WATER RESOURCES DECREASE ISSUE AND COORDINATION STRATEGY OF GREEN WATER AND BULE WATER IN THE TAIHANG MOUNTAIN REGION
	YANGWEN JIA, JUNKAI DU, CHUNFENG HAO, CUNWEN NIU, YAQIN QIU

TECHNICAL SESSION 1E

THEME 2: FLOOD MANAGEMENT

ROOM: **Kelantan** CHAIR: **Dr. Xilin Xia**

2c-1a	GREEN WALL AS URBAN FLOOD MITIGATION
	DARRIEN YAU SENG MAH, JING TECK LAU, HAFIZAH MARIAH MOHD ABUSEMAN, FANG YENN TEO
2c-1b	EFFECT OF LINED CYLINDERS BEHIND EMBANKMENT ON THE ENERGY REDUCTION OF OVERFLOWING WATER
	YOSHIYA IGARASHI, NORIO TANAKA, TAKEHITO ZAHA
2c-1c	UNCERTAINTY IN DEBRIS FLOW HAZARD ESTIMATION USING X-MP RADAR RAINFALL FORECAST
	RATIH INDRI HAPSARI, SATORU OISHI, MAGFIRA SYARIFUDDIN, ROSA ANDRIE ASMARA
2c-1d	HYDRAULICS OF DENDATE FLIP BUCKET WITH AN AERATOR
	FEI MA, CHAO LUO, JIAN-HUA WU
2c-1e	OPTIMIZATION OF OPERATING AGRICURTUAL DIVERSION WEIRS TO MITIGATE FLOOD
	MITSUMASA ANAN, KOZUE YUGE, KOSUKE HAMADA
2c-1f	HEC-RAS FLOW ANALYSIS IN THE RIVER TAPI
	DARSHAN J. MEHTA, SANJAY M. YADAV, SAHITA I. WAIKHOM

TECHNICAL SESSION 1F

THEME 4: COASTAL, ESTUARIES AND LAKES MANAGEMENT

ROOM: **Melaka** CHAIR: **Assoc. Prof. Gregory Shahane De Costa**

4c-1a	EAST CHINA SEA WAVE HEIGHT TRENDS ANALYSIS USING 20CR REANALYSIS
	LINGLI WU, TENG WU, XING LI
4c-1b	APPLICATIONS OF NEAR- AND FAR-FIELD COUPLED MODELS FOR MARINE OUTFALLS
	JING FEN CHUA, CHI WEI CHENG, AAROUN LEIKING, EDGAR PETER DABBI, JACOB HJELMAGER JENSEN, JUAN CARLOS SAVIOLI
4c-1c	IMPACTS OF SEA LEVEL RISE ON A SEMI-ENCLOSED BAY INSIDE THE PEARL RIVER ESTUARY
	YE YANG, MAY TING FONG CHUI
4c-1d	BIOAVAILABILITY AND BIOACCESSIBILITY OF HEAVY METALS IN SURFACE AND SUB-SURFACE SEDIMENTS IN INTERNATIONAL WETLAND OF ZARIVAR, IRAN
	AMIR HAJNOROOZI, ABDOLREZA KARBASSI, SADEGH PARTANI, FATEMEH TORABI KACHOOSANGI
4c-1e	MAPPING TIDAL RESIDUAL CURRENTS AND SUSPENDED SEDIMENT PATTERN IN THE YONGJIANG ESTUARY, CHINA USING A NUMERICAL MODEL
	YU KUAI, JIANFENG TAO, QING ZHANG, WEIQIU CHEN, WEIQI DAI
4c-1f	NUMERICAL SIMULATION OF SEAWATER EXCHANGE AND PARTICLE TRANSPORT IN KANMON STRAIT
	ANDHITA TRIWAHYUNI, KOJI ASAI

TECHNICAL SESSION 1G

THEME 7: HYDROINFORMATICS / COMPUTATIONAL METHODS AND EXPERIMENTAL METHODS

ROOM: **Negeri Sembilan** CHAIR: **Dr. Charles Hin Joo Bong**

7d-1a	REMOTE MEASUREMENT OF SURFACE-WATER VELOCITY USING INFRARED VIDEOGRAPHY AND PIV: A PROOF-OF-CONCEPT FOR ALASKAN RIVERS
	PAUL J. KINZEL, CARL J. LEGLEITER, JONATHAN M. NELSON, JEFFREY S. CONAWAY
7d-1b	COMPARATIVE AND COMPLEMENTARY DISCHARGE MEASUREMENTS USING ADCP AND RADAR-TECHNOLOGY
	FABIAN NETZEL, CHRISTOPH MUDERSBACH, MARC SCHEIBEL
7d-1c	EXPERIMENTAL INVESTIGATION OF THE PERFORMANCE OF TILT CURRENT METERS IN WAVE-DOMINATED FLOWS
	ASGER BENDIX HANSEN, STEFAN CARSTENSEN
7d-1d	THE KINECT SENSOR AS A TOOL FOR REMOTE FLOW CHARACTERISATION
	YUN-HANG CHO, MATTEO RUBINATO, ANDY NICHOLS
7d-1e	UNSTEADY TURBULENT VELOCITY PROFILING USING AN ARRAY OF TWO VECTRINO II PROFILERS IN TIDAL BORES AND OPEN CHANNEL FLOWS
	XINQIAN LENG, HUBERT CHANSON
7d-1f	JET EROSION TEST FOR SOIL ERODIBILITY CHARACTERIZATION: ASSESSMENT OF THE UNDERLYING PHYSICS
	EDDY J. LANGENDOEN, JORGE D. ABAD

TECHNICAL SESSION 1H

THEME 1: RIVER AND SEDIMENT MANAGEMENT

ROOM: **Pahang** CHAIR: **Prof. Onyx Wai**

1a-1a	ICHTHYOPLANKTON STRUCTURE IN A DOWNSTREAM REACH AFFECTED BY THE THREE GORGES RESERVOIR ECOLOGICAL OPERATION, YANGTZE RIVER, CHINA
	WEI XU, XIAOJUAN CHEN, JIANGPING TAO, XIAOMING ZHANG, JIANBO CHANG
1a-1b	SENSITIVITY ANALYSIS OF THE HYDROMORPHOLOGICAL INDEX OF DIVERSITY USING NUMERICAL GENERATED DATA
	SEVERIN STÄHLY, PIERRE BOURQUI, CHRISTOPHER T. ROBINSON, ANTON J. SCHLEISS
1a-1c	COMPARISON OF DIFFERENT METHODS FOR PREDICTING ZONAL DISCHARGE OF STRAIGHT HETEROGENOUSLY ROUGHENED COMPOUND CHANNELS
	XIAONAN TANG
1a-1d	NUMERICAL MODELING OF TURBULENT SECONDARY FLOW IN A HIGH-AMPLITUDE MEANDERING CHANNEL
	JOONGCHEOL PAIK, SANG DEOG PARK
1a-1e	ECO-HYDROLOGICAL MODELLING OF A RESTORED RIPARIAN WETLAND
	BIRGITTE VON CHRISTIERSON, MICHAEL BUTTS, LAURA A. NIEUWENHOVEN, FLEMMING T. HANSEN, JANNICK K. JENSEN, JANE R. POULSEN
1a-1f	ESTIMATION OF OUTFLOW AND NUTRIENT LOAD BASED ON THE TURBIDITY FUNCTION IN RIVERS IN SANRIKU DISTRICT JAPAN
	KUNIHIKO HAMAGAMI, KEITA ORITO, RYU SUGAWARA

TECHNICAL SESSION 1I

THEME 5: URBAN WATER MANAGEMENT

ROOM: **Perak** CHAIR: **Dr. Amin Talei**

5a-1a	RAINFALL-RUNOFF MODEL ANALYSIS USING RADAR-BASED QUANTITATIVE PRECIPITATION ESTIMATION (QPE) AND GAUGE RAINFALL AT UPPER KLANG AMPANG RIVER BASIN
	SALWA RAMLY, WARDAH TAHIR, ASMADI AHMAD, NOOR HISHAM MOHD GHAZALI
5a-1b	VARIABILITY OF RAINFALL DURING THE PAST CENTURY AT YOM RIVER BASIN
	RUETAITIP MAMA, BUTSAWAN BIBORN, KWAN SUE JUNG, MATHARIT NAMSAI, METHAT YUENPRAPHAN
5a-1c	SENSITIVITY ANALYSIS OF SPATIAL INPUT PARAMETER IN DISTRIBUTED HYDROLOGICAL MODEL
	SITI HUMAIRA HARON, ISMAIL SAHID, NOR FAIZA ABD RAHMAN, KHAIRI KHALID, MUHAMMAD RADZALI MISPAN, LARIYAH MOHD SIDEK
5a-1d	SIMULATION OF STREAMFLOW IN LOWER MAHI BASIN USING ARCSWAT
	G.K. JIDHI, PRAVEEN RATHOD, VIVEK L. MANEKAR
5a-1e	INFILTRATION AND SURFACE RUNOFF PROCESSES ON SLOPE AND SOIL COMPACTION WITH RAINFALL SIMULATOR EXPERIMENT
	D NOORVY KHAERUDIN, AGUS SUHARYANTO, DONNY HARISUSENO, LILY MONTARCIH
5a-1f	MODELING OF TOTAL MAXIMUM DAILY LOAD FOR AN URBAN CATCHMENT
	NAZIRUL MUBIN ZAHARI, LARIYAH MOHD SIDEK, MING FAI CHOW, SITI HUMAIRA HARON, NUR ALIA NIZA, HIDAYAH BASRI

TECHNICAL SESSION 1J

THEME 5: URBAN WATER MANAGEMENT

ROOM: **Perlis** CHAIR: **Prof. Sobri Harun**

5d-1a	A FRAMEWORK FOR RISK ASSESSMENT OF STORM WATER DRAINAGE SYSTEMS UNDER UNCERTAINTIES
	ABBAS ROOZBAHANI, REYHANEH SHARIAT
5d-1b	OBTAINING REDUCTION FACTORS BY AREA FOR THE STATE OF SONORA IN NORTHERN MEXICO
	SINUHÉ ALEJANDRO SÁNCHEZ MARTÍNEZ, RAMÓN DOMÍNGUEZ MORA, MARITZA LILIANA ARGANIZ JUÁREZ
5d-1c	INTERCEPTOR SYSTEMS FOR IMPROVEMENT OF RIVER WATER QUALITY FOR RIVER OF LIFE (ROL) – DESIGN CRITERIA, ANALYSES AND CHALLENGES
	WAI SAM WONG, MOHD. AZMI ISMAIL, PEK SIANG CHENG, KOK WAI LOKE
5d-1d	HYDRAULIC RESPONSES ON STORMWATER TREATMENT FOR VARIATION OF FILTER MEDIA DEPTHS
	HUSNA TAKAIJUDIN, AMINUDDIN AB. GHANI, NOR AZAZI ZAKARIA, TZE LIANG LAU
5d-1e	COMPARISON OF FLOW HYDRAULICS IN DIFFERENT MANHOLE TYPES
	MD NAZMUL AZIM BEG, RITA F. CARVALHO, JORGE LEANDRO
5d-1f	EFFECT OF DESIGN CRITERIA FOR THE PERFORMANCE ON CONSTRUCTED WETLANDS
	NUR ASMALIZA MOHD NOOR, LARIYAH MOHD SIDEK, SIMON BEECHAM, AMINUDDIN AB. GHANI

TECHNICAL SESSION 2A

THEME 1: RIVER AND SEDIMENT MANAGEMENT

ROOM: **TDI-A** CHAIR: **Prof. Yee Meng Chiew**

1b-2a	ESTIMATE OF FRICTION FACTOR FOR FLOWS SUBJECT TO LARGE-SCALE ROUGHNESS
	NIAN-SHENG CHENG
1b-2b	EXPERIMENTAL AND NUMERICAL INVESTIGATION OF BED LOAD DUE TO TRIANGULAR FLOOD WAVE PROPAGATION
	GÖKÇEN BOMBAR, MEHMET ŞÜKRÜ GÜNEY
1b-2c	OBSERVATION OF BEDFORMS IN THE DOWNSTREAM REACH OF THE TOYOHIRA RIVER DURING FLOOD
	SATOMI YAMAGUCHI, RYOSUKE AKAHORI, HIROKI YABE
1b-2d	INVESTIGATION OF THE EFFECTS OF VEGETATION ON SEDIMENT DISTRIBUTION AND MORPHODYNAMICS EXPERIMENTALLY AND NUMERICALLY
	CHANG-LAE JANG, ELLIS PENNING, GI JUNG KIM, HYO HWANG, YONGUK RYU
1b-2e	LAGRANGIAN NUMERICAL MODELLING OF LOCAL SCOUR AROUND CIRCULAR PIPE
	EHSAN JAFARI NODOUSHAN, MOHANNA TAJNESAIE, AHMAD SHAKIBAEINIA
1b-2f	REAL-TIME MONITORING OF THE SCOURING DEPTH LOCATED INSIDE A GRAVEL-BED RIVER
	MARKO SHAO HUA HSU, YU-HUAN CHANG, CHONG YU SUN, PI FANG HUNG

TECHNICAL SESSION 2B

THEME 1: RIVER AND SEDIMENT MANAGEMENT

ROOM: **TDI-B** CHAIR: **Dr. Daisuke Nohara**

1d-2a	LARGE-SCALE MODELLING OF DOUBLE-STILLING BASIN ARRANGEMENT, PAKISTAN – CASE STUDY
	UBAID ULLAH, MUHAMMAD IQBAL, ERIC J. LESLEIGHTER, BRONSON MCPHERSON, UMAIR MANNAN
1d-2b	FLOW BEHAVIOR OVER OGEE AND STEPPED SPILLWAY UNDER DIFFERENT FLOW CONDITIONS: AN EMPIRICAL APPROACH
	SUMIT GANDHI, KIRTIKA SACHDEVA, MUDIT KHANDELWAL, RAJESH RAI, VIKRAM SINGH, SUDEEP SRIVASTAVA, SURYA PRATAP MEENA
1d-2c	EFFECT OF ADJUSTABLE FLAPS ON RIVER SURF WAVES AT ABRUPT DROPS
	HELGE FUCHS
1d-2d	THREE DIMENSIONAL NUMERICAL MODELLING OF FULL-SCALE HYDRAULIC STRUCTURES
	CATERINA TORRES, DUNCAN BORMAN, ANDY SLEIGH, DAVID NEEVE
1d-2e	COHERENT STRUCTURES IN A SHARPLY CURVED BEND WITH AND WITHOUT A SPUR DIKE
	METE KOKEN, EZGI BUDAK
1d-2f	CHARACTERISTICS OF HYDRAULIC JUMPS BELOW DROP STRUCTURES
	YOUICHI YASUDA

TECHNICAL SESSION 2C

THEME 3: ENVIRONMENTAL HYDRAULICS AND INDUSTRIAL FLOWS

ROOM: **DTHO** CHAIR: **Prof. Takashi Asaeda**

3a-2a	EFFECT OF UPSTREAM DISCHARGE REGULATION ON FISH HABITAT IN THE ANE RIVER, JAPAN
	SHU ISHIZAKI, SHIGEYA MAEDA, AKIKO MINAGAWA, KOJI NODA, HISASHI KOBAYASHI, KOSHI YOSHIDA, HISAO KURODA
3a-2b	ELECTRIFIED FLEXIBLE FISH FENCES
	MARKUS AUFLEGER, HEIDI BÖTTCHER, BARBARA BRINKMEIER, GÜENTHER UNFER, BERNHARD ZEIRINGER
3a-2c	EXPERIMENTAL STUDY OF TURBULENCE ON KILLING LIMNOPERNA FORTUNEI LARVAE IN PIPELINES
	CHENDI ZHANG, MENGZHEN XU, ZHAOYIN WANG
3a-2d	FISH GUIDANCE STRUCTURES: NEW HEAD LOSS FORMULA AND FISH GUIDANCE EFFICIENCIES
	ROBERT M. BOES, ISMAIL ALBAYRAK
3a-2e	EFFECTS OF THE POOL-AND-WEIR-FISHWAY WITH GRAVEL DEPOSIT ON MOVEMENT OF TORIBOLODON HAKONENSIS
	MUNEYUKI AOKI, KEITA SAITO
3a-2f	IS THERE ENOUGH EVIDENCE TO INFORM EFFECTIVE FISHWAY DESIGN IN THE TEMPERATE SOUTHERN HEMISPHERE?
	MARTIN A. WILKES, MORWENNA MCKENZIE, J. ANGUS WEBB

TECHNICAL SESSION 2D

THEME 6: WATER RESOURCES MANAGEMENT

ROOM: **Johor / Kedah** CHAIR: **Leonore Boelee**

6a-2a	COPING WITH MULTI-YEAR DROUGHTS IN SOUTH KOREA: LESSONS FROM THE 2014-2015 DROUGHT
	TAE-WOONG KIM, KYUNG-SOO JUN, JOO-HEON LEE, JAE-HYUN AHN, MINSUNG KWON, DONG-HYEOK PARK, HYUNGSUN CHA, YOUNG HO SHIN, YONGHO KANG, JISEON SONG
6a-2b	PROJECTING FUTURE HYDRO-CLIMATIC CHANGES OF THE JOHOR RIVER BASIN, MALAYSIA
	MOU LEONG TAN, VIVIEN P. CHUA, JUNENG LIEW, FREDOLIN T. TANGANG, NGAI WENG CHAN
6a-2c	ASSESSING UNCERTAINTY OF VARIABLE SOURCE AREA, HYDROLOGICAL MODEL IN HARANGI WATERSHED, KARNATAKA STATE, INDIA
	B. C. KUMAR RAJU, NANDAGIRI LAKSHMAN
6a-2d	STUDY ON THE TOTAL WATER AMOUNT CONTROL FOR DECREASING GROUNDWATER OVEREXPLOITATION IN THE HAIHE RIVER BASIN
	GUIYU YANG, HAO WANG, WEIWEI SHAO, YANGWEN JIA, LIN WANG
6a-2e	PREDICTING THE IMPACT OF CLIMATE CHANGE ON A WATER SUPPLY RESERVOIR
	ZATI SHARIP, ABD. JALIL HASSAN, MOHD ZAKI MAT AMIN, SAIM SURATMAN, AZUHAN MOHAMED
6a-2f	PREDICTING THE COMBINED EFFECT OF CLIMATE CHANGE AND RAPID URBANIZATION ON WATER QUALITY OF PASIG-MARIKINA RIVER, MANILA
	PANKAJ KUMAR, YOSHIFUMI MASAGO, BINAYA KUMAR MISHRA, AMMAR RAFIEIEMAM, KENSUKE FUKUSHI

TECHNICAL SESSION 2E

THEME 7: HYDROINFORMATICS / COMPUTATIONAL METHODS AND EXPERIMENTAL METHODS

ROOM: **Kelantan** CHAIR: **Prof. Hector Bravo**

7b-1a	NUMERICAL MODELING AND PRELIMINARY ANALYSIS ON DISPERSION OF LIQUID EFFLUENT FOR INLAND NUCLEAR POWER PLANTS
	HAIWEN ZHANG, PING JI, YIJUN ZHAO, JUE YUAN, XIAOLI CHEN, LI ZENG
7b-1b	PREDICTING DIFFUSE SOURCE POLLUTION FOR A NUTRIENT-SENSITIVE RIVER BASIN WITH THE SWAT MODEL
	ALPER ELÇI, SELMA AYAZ
7b-1c	EFFECT MECHANISM OF FLOW VELOCITY ON IRON RELEASE FROM PIPE SURFACES IN DRINKING WATER DISTRIBUTION SYSTEMS
	MANJIE LI, ZHAOWEI LIU, YONGCAN CHEN, YONGYAN WU
7b-1d	TRACKING OF FLOATING OBJECTS ON RIVER SURFACE BY NUMERICAL SIMULATION
	AKIHIKO NAKAYAMA, SEAK NI CHAI, HUAN TAO GOH, KHAI CHIN NG
7b-1e	TRANSIENT GROWTH OF PERTURBATIONS IN SHALLOW FLOWS
	YARZAR TUN, ABDOLMAJID MOHAMMADIAN
7b-1f	2D NUMERICAL APPROACH FOR EVALUATION OF WEIR OPERATION STRATEGIES ON HARMFUL ALGAL BLOOM CONTROL
	IL WON SEO, JUN SONG KIM

TECHNICAL SESSION 2F

THEME 2: FLOOD MANAGEMENT

ROOM: **Melaka** CHAIR: **Emma Brown**

2b-1a	EFFECTS OF VARYING UPSTREAM SIDE SLOPES ON DISCHARGE COEFFICIENT OF RECTANGULAR PROFILE SHORT-CRESTED WEIRS
	YUE JUN CHEN, ZONG FU FU, ZHEN CUI, SHAN WANG, GUANG GANG MA, WEN JIANG, YAO WANG, XUE HAN QIU
2b-1b	POTENTIALS AND CONSTRAINTS OF URBAN POLDER DEVELOPMENT IN JAKARTA, INDONESIA. CASE STUDY: RAWA BADAK POLDER
	HARYO ISTIANTO, FRANSISCUS XAVERIUS SURYADI, SUMI AMARIENA HAMIM
2b-1c	HYDRAULIC DESIGN OF HONG KONG WEST DRAINAGE TUNNEL
	ANIL KUMAR, WONG CHIN TO LOUIS, RAYMOND TAI
2b-1d	MODELLING TSUNAMI-GENERATED DEBRIS FLOW IN URBAN ENVIRONMENTS
	RICARDO B. CANELAS, DANIEL CONDE, ORLANDO GARCIA FEAL, RUI M.L. FERREIRA
2b-1e	DECENTRALIZED APPROACH FOR OPTIMAL EFFICIENCY OF MULTIPLE DETENTION RESERVOIRS IN URBAN AREA
	THI THUY NGO, DO GUEN YOO, JOONG HONG KIM
2b-1f	URBAN POLDER DEVELOPMENT RELATED TO FLOOD PROTECTION IN KOTA LAMA, SEMARANG AS PROPOSED UNESCO HERITAGE
	FAJAR BASKORO WICAKSONO, FRANSISCUS XAVERIUS SURYADI, ARIE SETIADI MOERWANTO

TECHNICAL SESSION 2G

THEME 2: FLOOD MANAGEMENT

ROOM: **Negeri Sembilan** CHAIR: **Ir. Chun Kiat Chang**

2d-1a	PROPOSITION OF FLASH FLOOD FRAMEWORK USING OBJECT ORIENTED BAYESIAN APPROACH
	QUAN LIU, BRAHIM BOUTKHAMOUINE, AYELEY TCHANGANI, HELENE ROUX, FRANÇOIS PERES
2d-1b	DEBRIS DYNAMICS AND ASSOCIATED LOADS IN EXTREME HYDRODYNAMIC CONDITIONS
	JACOB STOLLE, NILS GOSEBERG, CAREN DERSCHUM, IOAN NISTOR, EMIL PETRIU
2d-1c	TRADITIONAL TECHNIQUE IN JAPAN TO PREVENT BRIDGE BLOCKAGES CAUSED BY DRIFTWOOD USING STAKES
	NORIO HARADA, KANA NAKATANI, YOSHIFUMI SATOFUKA, TAKAHISA MIZUYAMA
2d-1d	PLANNING STRATEGIES FOR FLOOD DISASTER RISK PREVENTION WITH HUMAN BEHAVIOR MODELS
	NEILER MEDINA, ARLEX SANCHEZ, ZORAN VOJINOVIC
2d-1e	EVALUATION OF EMPIRICAL EQUATIONS FOR DAM BREACH PARAMETERS AND ITS APPLICATION IN INDIAN DAM FAILURE CASES
	SACHIN DHIMAN, KHANHU CHARAN PATRA
2d-1f	SUBWAY INUNDATION BY FLUVIAL FLOODING AND EVACUATION FROM SUBWAY STATIONS
	MITSUHIRO TERADA, TAISUKE ISHIGAKI, TAIRA OZAKI, YASUYUKI BABA, KEIICH TODA

TECHNICAL SESSION 2H

THEME 1: RIVER AND SEDIMENT MANAGEMENT

ROOM: **Pahang** CHAIR: **Dr. Wai Sam Wong**

1a-2a	SIMULATING GEOBAG REVETMENT FAILURE PROCESSES
	LEILA KHAJENOORI, GRANT WRIGHT, MARTIN CRAPPER
1a-2b	DEVELOPING A NEW STATISTICAL MODEL TO ESTIMATE THE RIVER QUALITY PERSPECTIVE FROM MACRO PARAMETERS IN RIVER BASINS, CASE STUDY: SIMINEHROOD RIVER BASIN, IRAN
	FARSHID BOSTANMANESHRAD, SADEGH PARTANI, ROOHOLLAH NOORI
1a-2c	FLOW STRUCTURE AT CONFLUENT MEANDER BEND CHANNEL
	SHEHUA HUANG, BIN SUI
1a-2d	INFORMAL SETTLEMENTS ENCROACHMENT ALONG THE MAJOR RIVERS AND CREEKS: A MAJOR OBSTACLE IN ADDRESSING DRAINAGE PROBLEM AND FLOODING IN THE CENTRAL CLUSTER OF METRO CEBU, PHILIPPINES
	JOAN ARCE JAQUE, MA. DOLORES V. LLENOS
1a-2e	AN ECOLOGICAL RESTORATION FRAMEWORK FOR LOWLAND FLOOD CHANNEL IN HONG KONG
	YAO WANG, ONYX W.H. WAI
1a-2f	THE ROOTS OF RIVER RESTORATION: ROLE OF VEGETATION RECOVER IN BED STABILIZATION
	ANDREA ANDREOLI, GIAN BATTISTA BISCHETTI, ENRICO CHIARADIA, ALESSIO CISLAGHI, FRANCESCO COMITI

TECHNICAL SESSION 2I

THEME 7: HYDROINFORMATICS / COMPUTATIONAL METHODS AND EXPERIMENTAL METHODS

ROOM: **Perak** CHAIR: **Prof. Dr. Adrian Lai**

7c-1a	PRESSURE MANAGEMENT OF WATER DISTRIBUTION NETWORKS FOR INCREASING WATER AVAILABILITY AND DECREASING WATER LOSS
	FARHAD YAZDANDOOST, ARDALAN IZADI
7c-1b	FLOWCV - AN OPEN-SOURCE TOOLBOX FOR COMPUTER VISION APPLICATIONS IN TURBULENT FLOWS
	DANIEL B. BUNG, DANIEL VALERO
7c-1c	WALL FUNCTIONS FOR BOUNDARY ROUGHNESS PREDICTION IN UNIFORM CHANNEL FLOWS
	ISMAIL AYDIN
7c-1d	COMPUTATIONAL FLUID DYNAMICS MODELLING OF A ROMAN DROP SHAFT
	HALLIE THORNBURROW, PAUL RODRIGUE, VINCENT H. CHU
7c-1e	EXPERT SYSTEM FOR CALIBRATION OF WATER SUPPLY NETWORK SIMULATION MODEL
	TOMASZ BOCZAR, DARIUSZ ZMARZLY, PAWEL FRACZ
7c-1f	DECISION-SUPPORT SYSTEM FOR UNDERPINNING COLLABORATIVE PLANNING FOR MULTI-HAZARD MITIGATION
	HAOWEN XU, HAIDER HAMEED, MARY WINDSOR, MARIAN MUSTE, IBRAHIM DEMIR, JASON SMITH, TOBY HUNEMULLER, MARYBETH STEVENSON

TECHNICAL SESSION 2J

THEME 6: WATER RESOURCES MANAGEMENT

ROOM: **Perlis** CHAIR: **Dr. Saim Suratman**

6e-1a	EVALUATION OF DIFFERENTIAL EVOLUTION AND PARTICLE SWARM OPTIMIZATION ALGORITHMS ON SOLVING THE CONSTRUCTION SITE DEWATERING PROBLEMS
	MUSTAFA TAMER AYVAZ
6e-1b	SURFACE WATER - GROUNDWATER INTERACTIONS
	TABEA BROECKER, JONAS SCHAPER, FATIMA EL-ATHMAN, MIKAEL GILLEFALK, SABINE HILT, REINHARD HINKELMANN
6e-1c	QUANTIFICATION OF IRRIGATION EFFECT ON THE GROUNDWATER RECHARGE IN CROP FIELDS OF THE SUBTROPICAL ISLAND, JAPAN
	KOZUE YUGE, MITSUMASA ANAN, KOSUKE HAMADA
6e-1d	SEASONAL GROUNDWATER LEVEL FLUCTUATIONS IN SUKHUMA DISTRICT OF SOUTHERN LAOS
	SINXAY VONGPHACHANH, WILLIAM MILNE-HOME, ASHIM DAS GUPTA, JAMES E. BALL
6e-1e	DELINEATION OF SULPHATE AND NITRATE SOURCE IN KUWAIT GROUNDWATER USING ENVIRONMENTAL ISOTOPES
	HARISH BHANDARY, MOHAMED AL-SENAFY
6e-1f	EVALUATION OF GROUNDWATER SUSTAINABILITY IN A MULTILAYER AQUIFER
	IMAN KARIMIRAD, KUMARS EBRAHIMI, SHAHAB ARAGHINEJAD

Monday, 14th August 2017
4 PM - 5.30 PM

TECHNICAL SESSION 2K

THEME 4: COASTAL, ESTUARIES AND LAKES MANAGEMENT

ROOM: **Pulau Pinang** CHAIR: **Ir. Dr. Fang Yenn Teo**

4a-1a	EFFECTS OF THE LARGE-SCALE RECLAMATION OF TIDAL FLATS ON THE HYDRODYNAMIC CHARACTERISTICS, SEDIMENT TRANSPORT AND TOPOGRAPHY IN THE JIAOJIANG ESTUARY, CHINA
	WEIQI DAI, JIANFENG TAO, KUN ZHAO, QIN ZHANG, YU KUAI
4a-1b	BED LOAD CHANGES IN ESTUARY DUE TO SEA LEVEL RISE AND HYDRODYNAMIC REACTION
	ANIZAWATI AHMAD, WAN HANNA MELINI WAN MOHTAR, NOR ASLINDA AWANG
4a-1c	STUDY AND MODELING OF CROSS-SHORE SEDIMENT TRANSPORT AT ZARABAD FISHERY PORT
	MOHAMMAD TABASI, MOHSEN SOLTANPOUR, MANTRIPATHI PRABATH RAVINDRA JAYARATNE
4a-1d	SATELLITE DERIVED NEAR-SHORE BATHYMETRY USING A MACHINE LEARNING APPROACH
	ANKITA MISRA, ZORAN VOJINOVIC, BALAJI RAMAKRISHNAN, ARJEN LUIJENDIJK, ROSHANKA RANASINGHE
4a-1e	INVESTIGATION OF EVOLUTION OF YELLOW RIVER DELTA (1976 TO 2014)
	SHASHA HAN, SHAN ZHENG, YUNXING SHI
4a-1f	EVALUATION OF LONGSHORE SEDIMENT TRANSPORT RATE ALONG THE THU BON RIVER DELTA COASTLINES IN VIET NAM
	HITOSHI TANAKA, DINH VAN DUY, NGUYEN TRUNG VIET

Tuesday, 15th August 2017
9.30 AM - 11 AM

TECHNICAL SESSION 3A

THEME 1: RIVER AND SEDIMENT MANAGEMENT

ROOM: **TDI-A** CHAIR: **Prof. Joseph H.W. Lee**

1b-3a	GENERATION MECHANISM OF DEEP SCOUR AROUND A NARROWED SECTION IN RIVERS
	YUJI HARA, AKIHIRO TOMINAGA, YUKA KUNO, NAOHIKO SASSA
1b-3b	ENHANCEMENT OF SEDIMENT TRANSPORTATION BY INCREASING SCOUR AROUND A SQUARE PIER WITH VANE ATTACHED ON ONE SIDE
	SUBHASISH DAS, RITAM MUKHERJEE, RAJIB DAS, ASIS MAZUMDAR
1b-3c	LARGE AND VERY LARGE SCALE MOTIONS IN ROUGH-BED OPEN-CHANNEL FLOW
	STUART CAMERON, VLADIMIR NIKORA, MARK STEWART
1b-3d	EFFECT OF POSITIVE STEP LOCATION ON SCOUR DOWNSTREAM THE BASIN OF MULTI-VENTS REGULATOR
	YASSER A. MOUSSA, MOHAMED A. AWAD
1b-3e	MORPHOLOGICAL ADJUSTMENT OF THE NORTH FORK TOUTLE RIVER, WASHINGTON STATE AND THE APPLICATION OF THE STREAM EVOLUTION MODEL
	SHAN ZHENG, COLIN R. THORNE, SHASHA HAN, BAOSHENG WU
1b-3f	EFFECT OF RIVER CURVATURE ON SCOUR PROCESS IN CORRESPONDENCE WITH ARCHED SILLS
	MICHELE PALERMO, STEFANO PAGLIARA

TECHNICAL SESSION 3B

THEME 1: RIVER AND SEDIMENT MANAGEMENT

ROOM: **TDI-B** CHAIR: **Dr. Stefan Felder**

1d-3a	A SPH SEDIMENT MODEL FOR SCOURING
	ALEX GHAITANELLIS, DAMIEN VIOLEAU, AGNES LEROY, MARTIN FERRAND, ANTOINE JOLY, KAMAL EL KADI ABDERREZZAK
1d-3b	SCOUR AROUND BRIDGE ABUTMENTS UNDER UNSTEADY FLOWS
	JIAN HAO HONG, RAJKUMAR V. RAIKAR, ANAND R. DESHMUKH, WEN DAR GUO
1d-3c	SCOUR AND HYDRODYNAMIC EFFECTS OF DEBRIS BLOCKAGE AT MASONRY BRIDGES: INSIGHTS FROM EXPERIMENTAL AND NUMERICAL MODELLING
	MOHSEN EBRAHIMI, RECEP KAHRAMAN, PRAKASH KRIPAKARAN, SLOBODAN DJORDJEVIĆ, GAVIN TABOR, DUŠAN M. PRODANOVIĆ, SCOTT ARTHUR, MATTHEW RIELLA
1d-3d	ON PERMEABILITY AND ROUGHNESS EFFECTS IN FLOW PAST A ROW OF CIRCULAR CYLINDERS ARRANGED ALONG THE CENTERLINE OF A STRAIGHT FLUME
	SATOSHI YOKOJIMA, RYOSUKE ASAOKA, KOUDAI YOSHINO, HIROSHI NODA, TAKASHI MIYAHARA
1d-3e	CONTROL OF LOCAL SCOUR AT VICINITY OF BRIDGE PIERS USING FLOW DIVERSION STRUCTURE
	MOHSEN RANJBAR ZAHEDANI, ALIREZA KESHAVARZI, HADI KHABBAZ
1d-3f	EXPERIMENTAL STUDY ON FLOW CHARACTERISTICS IN ADJUSTMENT AND WAKE REGION AROUND A MODEL PATCH OF VEGETATION
	DAN WANG, FENG LI, ZHI JIE LI, WEN QI LI, KE JUN YANG

TECHNICAL SESSION 3C

THEME 3: ENVIRONMENTAL HYDRAULICS AND INDUSTRIAL FLOWS

ROOM: **DTHO** CHAIR: **Prof. Panayotis Yannopoulos**

3a-3a	EXPERIMENTAL STUDY ON IMPACTS OF HYDRODYNAMIC CONDITION ON GROWTH OF MICROCYSTIS AERUGINOSA
	YANG SONG, LINGLEI ZHANG, JIA LI, MIN CHEN, YAOWEN ZHANG
3a-3b	CAN DAM MANAGEMENT OFFSET IMPACTS OF CLIMATIC VARIABILITY ON AQUATIC HABITAT?
	ROHAN BENJANKAR, DANIELE TONINA, MOHAMMAD M. SOHRABI, JAMES A. MCKEAN, QUIWEN CHEN, DMITRI VIDERGAR
3a-3c	FREE SURFACE TURBULENT FLOW AROUND SINGLE BOTTOM MOUNTED CUBE AT LOW RELATIVE SUBMERGENCE
	KEN VUI CHUA, RICHARD MCSHERRY, THORSTEN STOESSER
3a-3d	DRAG AND REYNOLDS STRESS DISTRIBUTION WITHIN SUBMERGED VEGETATION CANOPIES
	NINA NIKORA
3a-3e	3D HYDRODYNAMIC-HABITAT MODELLING FOR PREDICTION OF YELLOW PERCH HABITAT
	PARNA PARSAPOUR-MOGHADDAM, COLIN D. RENNIE, CHRIS K. ELVIDGE, STEVEN J. COOKE
3a-3f	DISCHARGE PREDICTION MODEL FOR SIMPLE CONICAL FLUMES IN TRAPEZOIDAL CANALS
	ANIRUDDHA D. GHARE, AVINASH D. VASUDEO, AVINASH M. BADAR

TECHNICAL SESSION 3D

THEME 6: WATER RESOURCES MANAGEMENT

ROOM: **Johor/Kedah** CHAIR: **Prof. Jorg Imberger**

6a-3a	CHALLENGE IN FLOOD FORECASTING USING RATING CURVE OF UNSTABLE RIVER SYSTEMS: THE BRAHMAPUTRA
	MD ATIKUL ISLAM, JAMES E. BALL, ASIF M. ZAMAN, S M MAHBUBUR RAHMAN
6a-3b	MALAYSIAN NATIONAL WATER BALANCE SYSTEM (NAWABS) FOR IMPROVED RIVER BASIN MANAGEMENT: CASE STUDY IN THE MUDA RIVER BASIN
	MOHD. RAZALI HUSAIN, ASNOR MUIZAN ISHAK, NURHAREZA REDZUAN, TERRY VAN KALKEN, KATHERINE BROWN
6a-3c	ENERGY CONSUMPTION RELATED WATER DEMAND MANAGEMENT IN WUXI CITY: A FORECAST
	YIHONG XIAO, JIANGYU DAI, SHIQIANG WU, XINGHUA XIE, BENYOU JIA, GUOYI HAN, WEINBERG JOSH
6a-3d	A MODEL BASED APPROACH FOR DEALING WITH UNCERTAINTIES IN URBAN WATER SECURITY
	FEBYA NURNADIATI, JOS TIMMERMANS , IWAN K. HADIHARDAJA, WIL THISSEN
6a-3e	ON THE INFLUENCE OF LATERAL FLOWS ON THE UNCERTAINTY OF UNSTEADY OPEN CHANNEL FLOWS IN MOUNTAINOUS RIVERS
	KEYUE CHEN, HUAN-FENG DUAN, XUFENG YAN, XIEKANG WANG, XINGNIAN LIU
6a-3f	A STUDY ON THE EFFECTS OF FUTURE CLIMATE CHANGE ON WATER RESOURCES IN THE TOYOHIRA RIVER BASIN BASED ON A STATISTICAL DOWNSCALING METHOD
	YOKO TANIGUCHI, MAKOTO NAKATSUGAWA, KEIGO OTANI

TECHNICAL SESSION 3E

THEME 2: FLOOD MANAGEMENT

ROOM: **Kelantan** CHAIR: **Datuk Ir. Hj Ahmad Jamalluddin Shaaban**

2c-2a	USING A MIXED SIMULATION-OPTIMIZATION METHOD FOR MULTI-RESERVOIR FLOOD CONTROL OPERATION
	XINYU WAN, YANGYANG ZHANG, YANDONG JING, MIAOYAN SUN, PING'AN ZHONG
2c-2b	REDUCING CALIBRATION DEPENDENCY IN RUNOFF ESTIMATION BY SYSTEMATIC DEVELOPMENT OF DISTRIBUTED HYDROLOGIC MODEL IN FLOOD MODELLING
	ABD JALIL HASSAN, NORHAN ABD RAHMAN, SOBRI HARON, TARMIZI ISMAIL
2c-2c	THE EFFECTIVENESS OF FLOOD DEFENSE FORESTS AS THE FLOOD CONTROL IN THE LOWER REACH OF GOUNOKAWA RIVER
	KENTARO AOKI, MASAHARU FUJITA
2c-2d	EXPERIMENTS STUDY OF THE FLOOD SUPERPOSITION EFFECT DUE TO CASCADE DAM BREAK
	HUO JIAN LIU, YUN LI, XIAO GANG WANG, GUO XIANG XUAN, LONG ZHU
2c-2e	EXPERIMENTAL STUDY OF HYDRAULIC JUMP CHARACTERISTICS IN DIVIDING FLOW OF URBAN STREETS
	QI ZHOU, CHUNBO JIANG, JIAN LIU, WANGYANG YU, ALBERT S. CHEN
2c-2f	FLOOD RISK MANAGEMENT IN PANAWA, SRI LANKA USING FLOOD MODELLING
	B.S.K. DE SILVA, P.S.D. ALUWIHARE, J. CHANDIMALA

TECHNICAL SESSION 3F

THEME 4: COASTAL, ESTUARIES AND LAKES MANAGEMENT

ROOM: **Melaka** CHAIR: **Prof. Ahmad Khairi Abd Wahab**

4c-2a	SEDIMENTARY AND HYDRODYNAMIC PROCESSES OF TIDAL BORES: SILTATION OF THE ARCINS CHANNEL, GARONNE RIVER (FRANCE)
	DAVID REUNGOAT, XINQIAN LENG, HUBERT CHANSON
4c-2b	PRELIMINARY ANALYSIS ON EVOLUTION OF PEARL RIVER ESTUARY
	JIA QUAN DENG, HUI DENG
4c-2c	EXAMINATION AND RECALIBRATION OF EMPIRICAL FORMULAS FOR COMPUTING SHOALING WAVE HEIGHTS
	WINYU RATTANAPITIKON, SUWIMOL KANOKRATTANANUKUL
4c-2d	CHANGING SALINITY INTRUSION DUE TO ESTUARINE WATERWAY DEEPENING - ANALYSIS BASED ON ARTIFICIAL NEURAL NETWORKS
	CORDULA BERKENBRINK, HANZ D. NIEMEYER
4c-2e	EVALUATION ON RELATIONSHIP BETWEEN PARTICULATE TOTAL MERCURY IN SEAWATER AND SUSPENDED SOLIDS PARTICLE SIZE DISTRIBUTION IN MINAMATA BAY, JAPAN
	SHINICHIRO YANO, TAKAAKI TANINAKA, EDISTRI NUR FATHYA, SATOSHI MATSUMOTO, AKITO MATSUYAMA, AKIHIDE TADA, HERAWATY RIOGILANG
4c-2f	HYDRODYNAMIC MODELLING OF SINGAPORE AND MALACCA STRAITS FOR OPERATIONAL FORECAST AND MANAGEMENT
	SERENE H. X. TAY, ALAMSYAH KURNIAWAN, SENG KEAT OOI, VLADAN BABOVIC

TECHNICAL SESSION 3G

THEME 7: HYDROINFORMATICS / COMPUTATIONAL METHODS AND EXPERIMENTAL METHODS

ROOM: **Negeri Sembilan** CHAIR: **Dr. Nils Goseberg**

7d-2a	SWING GATE GENERATED DAM-BREAK WAVES
	NILS GOSEBERG, JACOB STOLLE, CAREN DERSCHUM, IOAN NISTOR
7d-2b	WHY MOVING-BOAT ADCP STREAMFLOW MEASUREMENT DOES NOT REQUIRE A STRAIGHT-LINE PATH?
	HENING HUANG
7d-2c	SCOURING AT THE INTERFACE BETWEEN FIXED AND MOBILE BED IN STEEP SLOPED CHANNELS
	FABIAN FRANZINI, TZU YIN CHEN, HERVÉ CAPART, SANDRA SOARES-FRAZÃO
7d-2d	A REVIEW ON CLIMATE CHANGE IN WEATHER STATIONS OF GUILAN PROVINCE USING MANN-KENDAL METHOD AND GIS
	JALAL BEHZADI
7d-2e	FIELD MEASUREMENTS OF THE ABSOLUTE PRESSURE DISTRIBUTION ACTING ON BED MATERIAL
	RYOTA TSUBAKI, YUJI TODA, MASAYA MIYAMOTO
7d-2f	STRUCTURE FROM MOTION IN HYDRAULIC LABORATORIES: TOPOGRAPHICAL SURVEYS USING SUBMERGED IMAGE ACQUISITION
	MARKUS NOACK, RENÉ LORENZ, GERHARD SCHMID, SILKE WIEPRECHT

TECHNICAL SESSION 3H

THEME 6: WATER RESOURCES MANAGEMENT

ROOM: **Pahang** CHAIR: **Prof. Amir Hashim Mohd Kassim**

6b-1a	ECOLOGICAL COMPENSATION SYSTEM AND COMPENSATION EFFICIENCY MEASUREMENT OF RIVER BASIN: A CASE FROM CHINA
	ZHANG SHUANG, FENG SHI, YIN JING
6b-1b	RIVERBANK FILTRATION (RBF) INDEX AND EFFECTIVENESS OF RBF AT WEST MALAYSIA
	MOHD KHAIRUL NIZAR SHAMSUDDIN, WAN NUR AZMIN SULAIMAN, MOHAMMAD FIRUZ RAMLI, FARADIELLA MOHD KUSIN, ANUAR SEFIE, AZRUL NORMI, ISMAIL TAWNIE
6b-1c	WATER SUPPLY MANAGEMENT IN SMALL CITY DURING DRY SEASON
	AGUS SUHARYANTO
6b-1d	DESIGN OF OPTIMAL WATER DISTRIBUTION SYSTEMS USING WATERGEMS: A CASE STUDY OF SURAT CITY
	DARSHAN J. MEHTA, VIPIN YADAV, SAHITA I. WAIKHOM, KEYUR J. PRAJAPATI
6b-1e	CLARIFICATION OF WATER SOURCES THROUGH RIVERBED FILTRATION (RBEF) MODEL: TURBIDITY, COLOUR AND SUSPENDED SOLIDS REMOVAL
	NOOR AMIZA AB AZIZ, MOHAMAD FARED MURSHED, MOHD NORDIN ADLAN
6b-1f	RESEARCH ON THE HEALTH DIAGNOSE OF WATER CONSUMPTION AND THE REGULATING MODEL OF HIGH EFFICIENT WATER USE ON LARGE WATER SHORTAGE CITY IN BEIJING CITY
	LIZHEN WANG, YONG ZHAO, HAIHONG LI, YONGNAN ZHU, FAN HE, JIAQI ZHAI, GUOHUA HE

TECHNICAL SESSION 3I

THEME 3: ENVIRONMENTAL HYDRAULICS AND INDUSTRIAL FLOWS

ROOM: **Perak** CHAIR: **Prof. Van-thanh-van Nguyen**

3b-1a	INSTREAM FLOW ANALYSIS AND ECOLOGICAL FLOW PREDICTION AT THE DOWNSTREAM OF SUNGAI LEMOI INTAKE
	SHANKER KUMAR SINNAKAUDAN, AISAH MD SHUKOR, MOHD RIZAL SHUKOR, MAISARAH ABD GHANI, SHAHRIL MOD HUSIN
3b-1b	STUDY ON THE CONSTRUCTION TECHNOLOGY OF ARTIFICIAL ECOSYSTEM IN THE CONTROL OF CYANOBACTERIA IN THE VALLEY RESERVOIR
	LIQIANG XU, HAIXIA YU, HUAN LUO, FANG YANG
3b-1c	ASSESSING THE INFLUENCE OF TERRAIN CHARACTERISTICS ON SPATIAL DISTRIBUTION OF SATELLITE DERIVED LAND SURFACE PARAMETER IN MOUNTAINOUS AREAS
	TAOFEEQ SHOLAGBERU ABDULKADIR, MUHAMMAD RAZA UL MUSTAFA, WAN YUSOF KHAMARUZAMAN, AHMAD MUSTAFA HASHIM
3b-1d	EXPERIMENTAL STUDY ON A SUSTAINABLE SEAWATER PURIFICATION SYSTEM BUILT IN QUAYS USING PURIFYING FUNCTIONS OF MICROORGANISMS AND TIDAL ENERGY IN CLOSED SEA AREAS
	KAZUHIDE DAN, YURIE KOBAYASHI, MASAKI KAKITA
3b-1e	THE DISTRIBUTION OF PHOSPHORUS UPTAKE ON BED SEDIMENTS AT A 90-DEGREE CHANNEL CONFLUENCE
	YANG XIA, SAI-YU YUAN, YANG XIAO, HONG-WU TANG
3b-1f	A CASE STUDY OF WATER SYSTEM TO SUPPORT LAND RECLAMATION USING BIOENGINEERING METHOD ON COASTAL AREA IN BANTUL REGENCY, DIY
	HARYO JAYENG RONO, JOKO SUJONO, RACHMAD JAYADI, INTAN SUPRABA

TECHNICAL SESSION 3J

THEME 5: URBAN WATER MANAGEMENT

ROOM: **Perlis** CHAIR: **Dr. Amin Talei**

Tuesday, 15th August 2017
9.30 AM - 11 AM

5b-1a	THE EFFECT OF ENVIRONMENTAL CHARACTERISTICS ON THE QUALITY OF WATER IN THE BASIN CAPLINA - TACNA (PERU)
	PINO V. EDWIN, TACORA V. PRÍNCIPE, STEENKEN ANDRÉ, ALFARO R. LUIS, BEDOYA J. CONRADO, VALLE C. ANGELY
5b-1b	INVESTIGATION OF DESIGN FLOW IN SEPARATE SEWER SYSTEMS OF KUANTAN, PAHANG
	SU KONG NGIEN, HIEW THONG YAP, LIT KEN TAN, CHEE MING CHOO
5b-1c	HYDROLOGIC PERFORMANCE OF A BIORETENTION BASIN AFFECTED BY GROUNDWATER INTRUSION
	CARLOS OCAMPO, CAROLYN OLDHAM
5b-1d	QUALITY AND FIRST FLUSH ASSESSMENT OF URBAN HIGHWAY STORMWATER RUNOFF IN MALAYSIA
	MING FAI CHOW, SITI ANIEZA HASIM, CLINTON PAUL VUN PHAU, NAJIHASUHADA ABI JIHAT
5b-1e	DURATION OF HYDRAULIC FLUSHING AND ITS EFFECT ON SEDIMENT BED MOVEMENT
	CHARLES HIN JOO BONG, TZE LIANG LAU, AMINUDDIN AB. GHANI
5b-1f	PHYSICAL TEST METHOD RESEARCH ON COUNTERMEASURES FOR SEDIMENT DEPOSITION IN INTERCEPTING DRAINAGE CULVERT SYSTEM
	XIANG-YANG TU, XIAO-MING WU, MEN-WU WU, YONG HE, YU-GUI YANG, ZHENG ZHENG, SHI-YOU GAO, XIAO-LEI TONG

TECHNICAL SESSION 4A

THEME 1: RIVER AND SEDIMENT MANAGEMENT

ROOM: **TDI-A** CHAIR: **Prof. Sung-uk Choi**

Tuesday, 15th August 2017
11.30 AM - 1 PM

1b-4a	MORPHOLOGICAL SCALE EXPERIMENTS TO LINK RIVER BED STRUCTURE WITH RIVERINE VEGETATION
	JÜRGEN STAMM, NADINE MÜLLER, SARAH-CHRISTIN MIETZ
1b-4b	CALIBRATION AND DISCHARGE MEASUREMENT USING 0.127 METRE (5") PARSHALL FLUME
	ASIS MAZUMDAR, PRASUN DUTTA, MILAN NAYEK, SUBHASISH DAS, RAJIB DAS
1b-4c	PHYSICAL MODELLING OF THE FLUVIAL PROCESS OF THE YANGJIANAO-BEINIANZIWAN REACH IN THE MIDDLE YANGTZE RIVER DOWNSTREAM OF THE TGP
	YONGHUI ZHU, MING TAO, LI HUANG, LIHUA GU
1b-4d	INFLUENCE OF BED-LOAD TRANSPORT ON THE DESIGN OF FLOOD PROTECTION AND RETENTION MEASURES IN GRAVEL-BED RIVERS – APPLICATION OF HYDRO_FT-2D FOR THE TYROLEAN INN RIVER
	KATHARINA BAUMGARTNER, BERNHARD GEMS, STEFAN WALDER, MARKUS FEDERSPIEL, MARKUS AUFLEGER
1b-4e	APPLICATION OF ACOUSTIC DOPPLER TECHNOLOGY IN ESTIMATING SUSPENDED SEDIMENTS
	DANIEL WAGENAAR, XUE FAN
1b-4f	EULERIAN-LAGRANGIAN SIMULATION OF BED-MATERIAL LOAD TRANSPORT AROUND PERMEABLE AND IMPERMEABLE SPUR DYKES
	KAZUYUKI OTA, HAJIME NAKAGAWA, HAO ZHANG

TECHNICAL SESSION 4B

THEME 1: RIVER AND SEDIMENT MANAGEMENT

ROOM: **TDI-B** CHAIR: **Prof. Dr. Robert Ettema**

1d-4a	EFFECT OF INTERMITTENT TURBULENT BURSTS ON SEDIMENT RESUSPENSION IN LARGE SHALLOW LAKES
	YIPING LI, CHUNYAN TANG, KUMUD ACHARYA, WEI DU, JIN WEI
1d-4b	NUMERICAL INVESTIGATION OF STEP DIMENSIONS IMPACT OVER GABION STEPPED SPILLWAYS
	ALI ADEL ZUHAIRA, HARSHINIE KARUNARATHNA, DOMINIC E. REEVE
1d-4c	VELOCITY PROFILE IN A SEDIMENT-LADEN FLOW THROUGH MIXING LENGTH APPROACH
	KOELI GHOSHAL, MANOTOSH KUMBHAKAR
1d-4d	TYPE OF DAMAGE AND THE PROPOSED SOLUTION TO THE IRRIGATION WEIRS IN MADURA ISLAND, INDONESIA
	TATAS ., MUHAMMAD HAFIIZH IMAADUDDIIN, DIMAS P. DIBIANTARA
1d-4e	NUMERICAL MODELING OF THE FLOW ON A DAMAGED WEIR APPLICATION TO THE CAVAILLON RIVER, HAITI
	OLIVIER CARLIER D'ODEIGNE, YVES ZECH, SANDRA SOARES-FRAZÃO
1d-4f	SCALE MODEL MEASUREMENTS OF IMPACT FORCES ON OBSTACLES INDUCED BY BED-LOAD TRANSPORT PROCESSES
	MICHAEL STURM, BERNHARD GEMS, MARKUS AUFLEGER, BRUNO MAZZORANA, MARIA PAPATHOMA-KÖHLE, SVEN FUCHS

TECHNICAL SESSION 4C

THEME 3: ENVIRONMENTAL HYDRAULICS AND INDUSTRIAL FLOWS

ROOM: **DTHO** CHAIR: **Prof. Dongfang Liang**

3a-4a	A PARAMETER SENSITIVITY ANALYSIS OF MICROCYSTIS VERTICAL DISTRIBUTIONS
	QIAN YU, YONGCAN CHEN, ZHAOWEI LIU, NA LI
3a-4b	CHARACTERISTICS OF CONCRETE FILTER FOR DRINKING WATER
	RIZALDI MAADJI, RADIANTA TRIATMADJA, FATCHAN NURROCHMAD, SUNJOTO .
3a-4c	A STUDY ON CRITICAL HYDRODYNAMIC CONDITIONS FOR INDUCING SPAWNING BEHAVIOR OF FOUR MAJOR CHINESE CARPS
	LEI TANG, YU QING LIN, QIU WEN CHEN, WEI JIANG, YU XIN ZHANG
3a-4d	PREDICTION OF VERTICAL PROFILE OF STREAMWISE VELOCITY USING DOUBLE-AVERAGING METHOD
	RAHMA YANDA, MORIHIRO HARADA, ICHIRO TAMAGAWA
3a-4e	EXPERIMENTAL STUDY ON THE MULTI-LEVEL INTAKE STRUCTURE OF HYDROPOWER STATION
	CAIHUAN WANG, WENGANG DUAN, DONGMEI HOU
3a-4f	FIELD SURVEY OF MICROPLASTICS IN JAPANESE RIVERS
	KOUKI KUDOU, TOMOYA KATAOKA, YASUO NIHEI, HIROFUMI HINATA

TECHNICAL SESSION 4D

THEME 6: WATER RESOURCES MANAGEMENT

ROOM: **Johor/Kedah** CHAIR: **Prof. Haegyun Lee**

6a-4a	ESTIMATION OF DIRECT AND INDIRECT IMPACTS OF CLIMATE CHANGE ON GROUNDWATER LEVEL IN A GROUNDWATER DEPENDENT IRRIGATED REGION
	GOLAM SALEM AHMED SALEM, SO KAZAMA, SHAMSUDDIN SHAHID
6a-4b	SINGLE-RESERVOIR OPERATION OPTIMIZATION USING JAYA ALGORITHM FOR JAYAKWADI-1 DAM, INDIA
	VARTIKA PALIWAL, ANIRUDDHA D. GHARE, ASHWINI B. MIRAJKAR
6a-4c	DERIVATION OF AREAL REDUCTION FACTOR FOR STORM DESIGN APPLICATION IN MALAYSIA USING GRID-BASED APPROACHES
	KAHHOONG KOK, WANSIK YU, LARIYAH MOHD SIDEK, KWANSUE JUNG
6a-4d	A REVIEW FOR POLLUTION PROPAGATION MODELING IN RIVERS AND ITS SIGNIFICANCE FOR WATER RESOURCES MANAGEMENT
	DANIELI MARA FERREIRA, CRISTOVÃO VICENTE SCAPULATEMPO FERNANDES, ELOY KAVISKI
6a-4e	THROUGHPUT OF THE DONGTING LAKE INFLUENCED BY THE THREE GORGES RESERVOIR DURING THE PERIOD OF IMPOUNDMENT
	HUA GE, LINGLING ZHU
6a-4f	TOWARDS AN INTEGRATED MUNICIPAL WATER DEVELOPMENT: OCOTLAN DE MORELOS, OAXACA, MEXICO
	FERNANDO J. GONZÁLEZ VILLARREAL, JORGE ALBERTO ARRIAGA MEDINA, JORGE IVAN JUÁREZ DEHESA

TECHNICAL SESSION 4E

THEME 1: RIVER AND SEDIMENT MANAGEMENT

ROOM: **Kelantan** CHAIR: **Prof. Wan Ruslan Ismail**

1c-1a	EFFECTS OF CONSTITUTIVE RELATIONS ON TURBIDITY CURRENT EVOLUTIONS
	JING WANG
1c-1b	INVESTIGATION OF TURBIDITY CURRENT VENTING FOR TWO DIFFERENT RESERVOIR BED SLOPES
	SABINE CHAMOUN, GIOVANNI DE CESARE, ANTON J. SCHLEISS
1c-1c	2D NUMERICAL SIMULATION FOR EROSION BASED MORAINE DAM FAILURE AND MORPHOLOGICAL BED EVOLUTION
	SAZEDA BEGAM, DHRUBAJYOTI SEN, SUBHASISH DEY
1c-1d	ESTIMATION OF SEDIMENT INFLOW INTO A RESERVOIR USING COMBINED APPROACH OF RAINFALL – RUNOFF MODELLING AND SEDIMENT TRANSPORT ASSESSMENT
	AZWIN ABDUL RAZAD, LARIYAH MOHD SIDEK, JANSEN LUIS ALEXANDER, THAMER AHMED MOHAMED
1c-1e	SHORT-TERM RAINFALL FORECASTING FOR LAHAR EARLY WARNING SYSTEM IN MERAPI, INDONESIA
	MAGFIRA SYARIFUDDIN, SATORU OISHI, RATIH INDRI HAPSARI, YUKA ITO, DJOKO LEGONO
1c-1f	IMPLEMENTATION OF NON-NEWTONIAN RHEOLOGY FOR DEBRIS FLOW SIMULATION WITH REEF3D
	PETTER FORNES, HANS BIHS, VIKAS THAKUR, STEINAR NORDAL

TECHNICAL SESSION 4F

THEME 7: HYDROINFORMATICS / COMPUTATIONAL METHODS AND EXPERIMENTAL METHODS

ROOM: **Melaka** CHAIR: **Prof. Wenhong Dai**

7a-1a	A 3D NUMERICAL SCHEME FOR NON-HYDROSTATIC FLOWS
	FRANCESCO GALLERANO, GIOVANNI CANNATA, FRANCESCO LASAPONARA, CHIARA PETRELLI
7a-1b	DEVELOPMENT OF SMOOTHED PARTICLE HYDRODYNAMICS METHOD TO SIMULATE WATER FLOW IN A CURVED CHANNEL
	DWINANTI RIKA MARTHANTY
7a-1c	UTILIZING GOOGLE EARTH FEATURES FOR HYDRAULIC MODEL DEVELOPMENT
	KENNARD LAI, PIERRE Y. JULIEN
7a-1d	APPLYING OBJECT-ORIENTED DESIGN CONCEPTS FOR THE COUPLED NUMERICAL SIMULATION OF SHALLOW WATER FLOW AND RELATED PROCESSES
	ILHAN OZGEN, JIAHENG ZHAO, FINN AMANN, REINHARD HINKELMANN
7a-1e	NUMERICAL SIMULATION OF CAVITATING FLOW ON STEPPED BEDS
	REZA ESMAILI, SEYED ALI AKBAR SALEHI NEYSHABOURI, AMIR REZA ZARRATI
7a-1f	TURBULENCE CHARACTERISTICS OF A SHALLOW MIXING LAYER DEVELOPING OVER 2-D DUNES
	GOKHAN KIRKIL

TECHNICAL SESSION 4G

THEME 4: COASTAL, ESTUARIES AND LAKES MANAGEMENT

ROOM: **Negeri Sembilan** CHAIR: **Prof. Ramon Gutierrez**

4e-1a	STABILITY FORMULA FOR TETRAPODS USING MULTIGENE GENETIC PROGRAMMING (MGGP)
	JAE SUNG LEE, KYUNG-DUCK SUH
4e-1b	PULL OUT CAPACITY OF SUBMERGED GABIONS
	SRINEASH VIJAYA KUMAR, MURALI KANTHARAJ
4e-1c	EXPERIMENTAL STUDY ON STABLE THICKNESS OF CONCRETE SLAB REVETMENT ON INNER SLOPE OF DIKES
	WEI-QIU CHEN, DENG-TING WANG, TIAN-TING SUN, YU KUAI
4e-1d	AN ASSESSMENT OF OPTIMIZATION ON LAND RECLAMATION DESIGN BASED ON HYDRAULIC ASPECTS
	LIP SAN LEONG, CARLOS SAVIOLI JUAN, JACOB HJELMAGER JENSEN, KATHISTASAPATHY SHANMUGAPATHY, KOK SIN WOON
4e-1e	NUMERICAL STUDY ON THE SILTATION IN THE MAIN CHANNEL OF ZHUHAI GAOLAN HARBOR CAUSED BY DREDGING AND ENGINEERING
	SULAN LU, YU JIANG, XINFENG ZHANG, YUE LI
4e-1f	NUMERICAL MODELING OF BRAGG REFLECTION OVER SEMI-CIRCULAR SUBMERGED BREAKWATERS
	MOHAMMAD KAZEM SHARIFIAN, YOUSEF HASSANZADEH

TECHNICAL SESSION 4H

THEME 6: WATER RESOURCES MANAGEMENT

ROOM: **Pahang** CHAIR: **Prof. Subhasish Dey**

6d-1a	FORECASTING OF RIVER DISCHARGE BY USING ARTIFICIAL NEURAL NETWORK MODEL: CASE STUDY, LATYAN DAM BASIN, IRAN
	MOZAFAR ANSARI, FARIDAH OTHMAN, AHMED EL-SHAFIE
6d-1b	COMPARISON ANALYSIS OF APPLICABILITY OF RUNOFF DATA EXTRACTED FROM GLDAS AND GRACE TO YARLUNG ZANGBO RIVER BASIN
	HONG ZHANG, JIA LI, LINGLEI ZHANG, RUIDONG AN, YUN DENG
6d-1c	SUSTAINABLE WATER RESOURCE MANAGEMENT AND THE UNCERTAIN ROLE OF SURFACE WATER IN LESS DEVELOPED COUNTRIES
	MICHEL SOTO CHALHOUB
6d-1d	REMOTE SENSING BASED CROP IDENTIFICATION AND ESTIMATION OF DISTRIBUTED CROP EVAPOTRANSPIRATION IN A CANAL COMMAND
	DEEPAK KHARE, PRABHASH KUMAR MISHRA, ARUN MONDAL, SANANDA KUNDU
6d-1e	RESEARCH ON ICE CONDITIONS IN THE MIDDLE YARLUNG ZANGBO RIVER BASED ON LANDSAT IMAGES
	RUI CAO, YOUCAI TUO, YUN DENG, NAN LI, LINGLEI ZHANG
6d-1f	OPERATIONAL DECISION SUPPORT SYSTEM FOR SUSTAINABLE WATER RESOURCE MANAGEMENT FOR SUNGAI SELANGOR
	LEONORE BOELEE, RAZAK BAHROM, HASLINA AMIR, NOR ZAMRI SONDOR, EMMA BROWN, FAIZAH AHMAD, GEOFF WILSON

TECHNICAL SESSION 4I

THEME 3: ENVIRONMENTAL HYDRAULICS AND INDUSTRIAL FLOWS

ROOM: **Perak** CHAIR: **Dr. Jose Rodriguez**

3e-1a	EXPERIMENT STUDY OF GRAVELS STABILITY WITH BARELY SUBMERGED AND SUBMERGED FOLIAGE PLANTS
	MUXI BAO, JIANFENG TAO
3e-1b	PHYSICAL MODELLING TESTING FOR RAM PUMP PERFORMANCE
	NOOR AZME OMAR, ICAHRI CHATTA, MOHD BAHARUM MUHAMMAD DIN, MOHD FAUZI MOHAMAD, MOHD KAMARUL HUDA SAMION, AHMAD FARHAN HAMZAH, MOHD KHAIRUL NIZAR SHAMSUDDIN, MOHD RADZI ABD HAMID
3e-1c	CAVITATION EROSION WITH CONSIDERING VISCOSITY OF AERATED FLOW
	YU WANG, JIANHUA WU, FEI MA, KUNPENG SU
3e-1d	FLOW IN MORNING GLORY SPILLWAY OF ALBORZ DAM
	AMIR KHOSROJERDI, ATEFEH MOSAHEBI MOHAMMADI
3e-1e	A PRELIMINARY STUDY FOR A FLUID STRUCTURE INTERACTION MODEL BY SMOOTHED PARTICLE HYDRODYNAMICS AND CONTACT MECHANICS
	ABDULLAH DEMİR, ALİ ERSİN DİNÇER, CÜNEYT YAVUZ
3e-1f	STUDY ON CAVITATION AND VIBRATION CHARACTERISTICS AND ANTI-CAVITATION MEASURES OF HIGH HEAD INDUSTRIAL VALVES
	XIN WANG, YA-AN HU, XIU-JUN YAN, WEN-XUN QIAN, ZI-YANG LI, CHENG CHEN

TECHNICAL SESSION 5A

THEME 1: RIVER AND SEDIMENT MANAGEMENT

ROOM: **TDI-A** CHAIR: **Prof. Farhad Yazdandoost**

1b-5a	FLOW OVER A WATER-WORKED BED
	NADIA PENNA, ELLORA PADHI, SUBHASISH DEY, ROBERTO GAUDIO
1b-5b	NUMERICAL SIMULATION OF A DEEP-SCOUR HOLE IN A TIDAL RIVER CONFLUENCE USING DELFT 3D
	WENHONG DAI, AHMED BILAL, QIANCHENG XIE, YANYAN ZHAI
1b-5c	THE EFFECT OF PATCH SIZE ON GRAIN-SCALE ROUGHNESS PARAMETERIZATION IN FLUVIAL ENVIRONMENTS
	JANE GROOM, STEPHANE BERTIN, HEIDE FRIEDRICH
1b-5d	EFFECT OF RACK ANGLE OF TYROLEAN TYPE INTAKES ON SEDIMENT CAPTURE EFFICIENCY OF THE SYSTEM
	MUSTAFA GOGUS, ABIDDIN BERHAN MELEK, KUTAY YILMAZ
1b-5e	MODELING THE SEDIMENT DYNAMICS OF SUPPLIED SAND AND GRAVEL IN ARMORED RIVER DOWNSTREAM OF A DAM
	NORIO TANAKA, KOSUKE MATSUO
1b-5f	LARGE EDDY SIMULATIONS OF THREE DIMENSIONAL SEDIMENT DUNE EVOLUTIONS
	HONGWEI FANG, YAN LIU, THORSTEN STOESSER, CHENWEI ZHAO

TECHNICAL SESSION 5B

THEME 1: RIVER AND SEDIMENT MANAGEMENT

ROOM: **TDI-B** CHAIR: **Datin Prof. Ir. Dr. Lariyah Mohd Sidek**

1d-5a	COMPARISON OF SCOURING IN SHORT AND LONG CONTRACTIONS
	SEPEHR KARIMI, AMIR REZA ZARRATI, SADEGH ANVARI
1d-5b	APPLICATION OF RNG K–E TURBULENCE MODEL TO SUPERCRITICAL BEND FLOW
	BO WANG, YUNLIANG CHEN, CHAO WU, XIAO MA, JIAJUN SONG, ZHONG TIAN
1d-5c	UNDERSTANDING THE FORMATION OF WOODY DEBRIS JAMS AT BRIDGE PIERS
	DIEGO PANICI, GUSTAVO A. M. DE ALMEIDA
1d-5d	WATER SURFACE PROFILES AND ENERGY HEAD IN NON AERATED SKIMMING FLOWS ON STEPPED SPILLWAYS
	MASAYUKI TAKAHASHI, YUKI YAMAMOTO, IWAO OHTSU
1d-5e	STEREO-PARTICLE IMAGE VELOCIMETRY (S-PIV) STUDY OF FLOW AROUND A COMPLEX BRIDGE PIER (CBP)
	PRIYANKA GAUTAM, THEKKILAKKATTU IYPE ELDHO, BIJOY SINGHA MAZUMDER, MANASA RANJAN BEHERA
1d-5f	FLOW PROPERTIES AND SHEAR STRESS ON A FLAT-SLOPED SPILLWAY
	ARMAGHAN SEVERI, STEFAN FELDER

TECHNICAL SESSION 5C

THEME 3: ENVIRONMENTAL HYDRAULICS AND INDUSTRIAL FLOWS

ROOM: **DTHO** CHAIR: **Prof. Qiuwen Chen**

3a-5a	DYNAMICS CHARACTERISTICS OF NITROGEN IN EXPERIMENTAL ENCLOSURES IN THE PANJIAKOU RESERVOIR, HEBEI PROVINCE, CHINA
	SUILIANG HUANG, MIN WU, CHANGJUAN ZANG, SHENGLAN DU, WENWEN KONG, JOSEPH DOMAGALSKI, MAGDALENA GAJEWSKA, ADAM SZYMKIEWICZ, ROMUALD SZYMKIEWICZ
3a-5b	CHARACTERIZATION OF THE FLOW IN A VERTICAL SLOT FISHWAY WITH MACRO-ROUGHNESSES USING UNSTEADY (URANS AND LES) SIMULATIONS
	AURELIEN BALLU, GERARD PINEAU, DAMIEN CALLUAUD, LAURENT DAVID
3a-5c	EFFECT OF BUOYANT JETS MERGING ON MEAN KINETIC ENERGY FLUX
	PANAYOTIS C. YANNOPOULOS
3a-5d	COMPARATIVE STUDY ON WATER WAVES GENERATED BY SUBMERGED LANDSLIDE
	HAI-XIAO JING, WEN WANG, ZHEN-DONG YANG, GUO-DONG LI
3a-5e	FLOW RESISTANCE OF SUBMERGED RIGID VEGETATION: FOCUS AND VALIDATION ON TWO LAYER APPROACH
	VITTORIO PASQUINO, PAOLA GUALTIERI
3a-5f	TRANSVERSE MIXING COEFFICIENT IN RANDOM CYLINDER ARRAYS – A CFD VALIDATION STUDY
	MAHSHID GOLZAR, FRED SONNENWALD, IAN GUYMER, VIRGINIA STOVIN

TECHNICAL SESSION 5D

THEME 2: FLOOD MANAGEMENT

ROOM: **Johor/Kedah** CHAIR: **Prof. Ngai Weng Chan**

2a-1a	ASSESSMENT OF SPECIAL FLOOD RISK USING DISTRIBUTED HYDROLOGICAL MODEL IN LAOS
	SENGHPHRACHANH PHRAKONKHAM, SO KAZAMA, DAISUKE KOMORI
2a-1b	ASSESSING FLOOD DYNAMICS IN RIVERS AND RIPARIAN WETLANDS: AN INTEGRATED HYDROLOGICAL APPROACH
	MICHAEL BUTTS, BIRGITTE VON CHRISTIERSON, CRAIG MACKAY, TERRY VAN KALKEN, SÍLVIA LEIRIÃO
2a-1c	FLOOD FREQUENCY ANALYSIS AND CURVES OF EQUAL PREDICTED PEAK DISCHARGE
	THOTTUNGAL DRISSIA, VINAYAKAM JOTHIPRAKASH, ALAYIL BAHULEYAN ANITHA
2a-1d	HYDRODYNAMIC NUMERICAL MODELLING OF DAM FAILURE AND IMPACTS ASSESSMENT OF SUSU DAM WITH MIKE
	MOHD RASHID MOHD SHAH, LARIYAH MOHD SIDEK, MOHD RUZAIMEI YALIT, MOHANADOSS PONRAJ, HIDAYAH BASRI
2a-1e	IMPLEMENTATION OF A METHODOLOGY TO REVIEW HIGH HAZARD DAMS
	FERNANDO J. GONZÁLEZ VILLARREAL, JONATHAN BOLAÑOS CASTILLO, MIGUEL ANGEL BRIBIESCA RODRÍGUEZ, IRVING GARCÍA REYES
2a-1f	MODELING THE IMPACT OF CLIMATE CHANGE ON THE RUNOFF KELANTAN RIVER BASIN
	CHEE LOONG WONG, JUNENG LIEW, ZULKIFLI YUSOP

TECHNICAL SESSION 5E

THEME 4: COASTAL, ESTUARIES AND LAKES MANAGEMENT

ROOM: **Negeri Sembilan** CHAIR: **Prof. Ahmad Khairi Abd Wahab**

4e-2a	SPANISH BREAKWATER DEVELOPMENT IN THE XXI CENTURY
	RAMON M. GUTIERREZ, JOSE M. GRASSA
4e-2b	EFFECT OF DENSITY DIFFERENCES ON THE FORCES ACTING ON A VESSEL DURING LOCKING OPERATIONS
	HELENA I.S. NOGUEIRA, TOM O'MAHONEY, ARNE VAN DER HOUT, WIM KORTLEVER
4e-2c	EXPERIMENTAL INVESTIGATION OF TSUNAMI BORE IMPACT FORCE AND PRESSURE ON A BRIDGE STRUCTURE WITH WING WALL ABUTMENTS
	FARZAD FARVIZI, BRUCE W. MELVILLE, ASAAD Y. SHAMSELDIN, STUART E. NORRIS
4e-2d	OVERTOPPING EVENTS IN BREAKWATERS: COMPARISON OF 2D PHYSICAL EXPERIMENTS AND EMPIRICAL FORMULAE
	ANA MENDONÇA, RUTE LEMOS, MARIA TERESA REIS, JUANA FORTES, MARIA GRAÇA NEVES, ANDRÉ RAMOS, RUI CAPITÃO
4e-2e	IMPACT OF A DRY BED SURGE AGAINST STRUCTURES WITH AND WITHOUT OPENINGS
	DAVIDE WÜTHRICH
4e-2f	SCATTERING OF OBLIQUE WAVES BY A FLOATING ELASTIC PLATE OVER A POROUS BED
	HAREKRUSHNA BEHERA, CHIU-ON NG, TRILOCHAN SAHOO

TECHNICAL SESSION 5F

THEME 1: RIVER AND SEDIMENT MANAGEMENT

ROOM: **Pahang** CHAIR: **Ir. Hj. Ahmad Darus**

1a-3a	DRIVING FORCE ANALYSIS OF FISH COMMUNITIES AND HABITATS EVOLUTION IN THE LOWER YELLOW RIVER
	MIAO WU, ANG CHEN, PENGYUAN WANG, CHEN SHEN
1a-3b	RUNOFF SIMULATIONS OF MIXED LAND USE OF SKUDAI WATERSHED: SENSITIVE PARAMETERS
	KHAIRUL ANUAR MOHAMAD, NOORBAHARIM HASHIM, ILYA KHAIRANIS OTHMAN
1a-3c	APPLICATION OF HYDRAULIC ELEVATOR DAM IN WATER ECOLOGICAL CIVILIZATION CONSTRUCTION OF DUNHUA CITY
	YANYU CHEN, YUEFEN ZHAO, HAITAO WU, JIE LIU, YEHAN GENG, HONGBO WANG
1a-3d	WATER QUALITY ASSESSMENT IN KLANG RIVER BASIN, MALAYSIA
	NORHAFEZAH KASMURI, NORADILA ABDUL HADI, MEGAWATI OMAR, AZRIL HAFIZ AB RAHIM
1a-3e	BASIC STUDY ON APPLICABILITY OF SURFACE WAVE METHOD IN UNDERWATER RIVER CHANNELS
	TAISHI MORITA, SHUNZO KAWAJIRI, YASUHARU WATANABE, YUKI TANAKA
1a-3f	IMPROVED DISCHARGE PREDICTION OF STRAIGHT COMPOUND CHANNELS BASED ON ENERGY TRANSITION
	XIAONAN TANG

TECHNICAL SESSION 5G

THEME 5: URBAN WATER MANAGEMENT

ROOM: **Perak** CHAIR: **Prof. Sobri Harun**

5a-2a	APPLICATION OF SWMM AND MIKE 11 COUPLING MODEL IN URBAN TIDAL RIVER NETWORK
	YUAN YUAN, MIN WANG, YI HU
5a-2b	A DECISION SUPPORT TOOL FOR CONSTRUCTING RAINFALL INTENSITY-DURATION-FREQUENCY RELATIONS FOR URBAN HYDRAULIC STRUCTURE DESIGN IN A CHANGING CLIMATE
	VAN-THANH-VAN NGUYEN, MYEONG-HO YEO, TRUONG-HUY NGUYEN
5a-2c	CORRELATING HYDROLOGICAL AND METEOROLOGICAL PARAMETERS IN HYDROLOGICAL PROCESSES USING SOFT TOOL
	SHRIKANT CHARHATE, VIDYANAND SAYAGAVI, RAJENDRA MAGAR
5a-2d	RUNOFF ANALYSIS MODEL WITH A DEEP LEARNING
	TOMOKI IZUMI, NORIYUKI KOBAYASHI
5a-2e	IMPACT OF LANDUSE CHANGE ON URBAN RUNOFF: A CASE STUDY OF JAIPUR CITY, INDIA
	DEEPAK KHARE, LAKHWINDER SINGH, MAHESH KUMAR JAT
5a-2f	MECHANISM MODEL OF URBAN WATER CONSUMPTION
	JIAHONG LIU, JINJUN ZHOU, WEIWEI SHAO, HAO WANG, ZHENTAO CONG

TECHNICAL SESSION 5H

THEME 5: URBAN WATER MANAGEMENT

ROOM: **Perlis** CHAIR: **Richard Kellagher**

5d-2a	EXPERIMENTAL INVESTIGATION OF THE EFFECT OF TEMPERATURE DIFFERENTIALS ON HYDRAULIC PERFORMANCE OF A SEDIMENT RETENTION POND
	EHSAN HENDI, ASAAD SHAMSELDIN, BRUCE MELVILLE, STUART NORRIS
5d-2b	NUMERICAL SIMULATION OF INUNDATION DUE TO PROBABLE MAXIMUM PRECIPITATION IN HIROSHIMA CITY
	NAOKI HAYAMI, YOSHIHISA KAWAHARA
5d-2c	THE APPLICABILITY OF AGRICULTURE-BASED EQUATIONS FOR THE ESTIMATION OF EVAPOTRANSPIRATION FROM RAINGARDENS
	TINGTING HAO, ASAAD SHAMSELDIN, KEITH ADAMS, BRUCE MELVILLE
5d-2d	SUSTAINABLE URBAN STORMWATER MANAGEMENT TOWARDS ACHIEVING THE NEW URBAN AGENDA FOR SUSTAINABLE DEVELOPMENT
	MOHD LOTFY MOHD NOH, MOHD RADZMAN OTHMAN, NORLIZA HASHIM, HASLINA ABU HASHIM, NOR AZAZI ZAKARIA, CHUN KIAT CHANG
5d-2e	COMPARISON OF TWO APPROACHES FOR THE MODELLING OF GREEN STORMWATER INFRASTRUCTURES
	JULIEN LHOMME, JONATHAN KLARIC, DAVID FORTUNE
5d-2f	EMULATOR-AIDED OPTIMIZATION OF DETENTION TANKS FOR FLOOD REDUCTION
	WEI LU, XIAOSHENG QIN, JIANJUN YU

TECHNICAL SESSION 6A

THEME 1: RIVER AND SEDIMENT MANAGEMENT

ROOM: **TDI-A** CHAIR: **Prof. Marko Shaohua Hsu**

1b-6a	DAM BREAK FLOW OVER MOBILE BED: VELOCITY DISTRIBUTION
	ILARIA FENT
1b-6b	ADVANCES AND PRACTICE OF THE LOWER YELLOW RIVER CHANNEL AND FLOODPLAIN TREATMENT RESEARCH
	CUIHUA AN, SHENGYUN LIU, QIUSHI LUO, MOXI WU
1b-6c	NUMERICAL SIMULATION OF SEDIMENT ENTRAINMENT BY LOCK-EXCHANGE GRAVITY CURRENTS
	FOTEINI KYROUSI, ALESSANDRO LEONARDI, CARMELO JUEZ, JESSICA ZORDAN, FRANCESCA ZANELLO, FEDERICO ROMAN, VINCENZO ARMENIO, MÁRIO J. FRANCA
1b-6d	EXPERIMENTAL STUDY ON MIGRATION PATTERN OF FLUIDS IN POROUS MEDIA UNDER VIBRATION EFFECT
	KOK FOONG LOKE, NORHAN ABD RAHMAN, RAMLI NAZIR, RADZUAN SA'ARI
1b-6e	TURBULENT CHARACTERISTICS OF FLOW OVER NON UNIFORM SAND BED CHANNEL
	ANURAG SHARMA, BIMLESH KUMAR
1b-6f	INFLUENCE OF THE INITIAL VOLUME OF LOCK EXCHANGE GRAVITY CURRENTS ON THE SEDIMENT ENTRAINMENT CAPACITY
	JESSICA ZORDAN

TECHNICAL SESSION 6B

THEME 1: RIVER AND SEDIMENT MANAGEMENT

ROOM: **TDI-B** CHAIR: **Ir. Dr. Fang Yenn Teo**

1d-6a	EXPERIMENTAL INVESTIGATION OF FREE SURFACE DYNAMICS AND PRESSURE FLUCTUATIONS IN A CLOSED-CONDUIT HYDRAULIC JUMP
	YEE-MENG CHIEW, ADEL EMADZADEH
1d-6b	CRITICAL SUBMERGENCE FOR WATER INTAKES
	MUHAMMED HASHID, ZULFEQUAR AHMAD
1d-6c	NUMERICAL SIMULATION OF DIKE DEFORMATION DUE TO SEEPAGE FLOWS
	SHINICHIRO ONDA, YOSUKE HIGO, TAKASHI HOSODA
1d-6d	EFFECT OF BRIDGE PIER DIAMETER ON COLLAR EFFICIENCY
	MOJTABA KARIMAEI TABARESTANI, AMIR REZA ZARRATI, SEYED AMIN SALAMATIAN
1d-6e	THE STUDY ON HYDRAULICS CHARACTERISTICS OF TETRAHEDRON-LIKE PENETRATING FRAME DAM
	HONGWEI KUANG, JINGTAO ZHENG, BO JIANG, FANG YENN TEO
1d-6f	HYDRAULIC STUDY FOR BELIBIS RIVER PUMP SUMP THROUGH PHYSICAL MODELLING
	MOHD KAMARUL HUDA SAMION, MOHD FAUZI MOHAMAD, KHAIROL AZUAN ADAM

TECHNICAL SESSION 6C

THEME 3: ENVIRONMENTAL HYDRAULICS AND INDUSTRIAL FLOWS

ROOM: **DTHO** CHAIR: **Prof. Anton Schleiss**

3a-6a	THE DIFFERENCE IN RIPARIAN VEGETATION PATTERN BASED ON THE CHANNEL CHARACTERISTICS AND THE MECHANISM OF ITS FORMATION
	TAKASHI ASAEDA, KELUM SANJAYA
3a-6b	TURBULENT KINETIC ENERGY BUDGET IN OPEN CHANNEL FLOWS WITH FRACTAL BED ROUGHNESS
	RICHARD MCSHERRY, THORSTEN STOESSER, ROGER A. FALCONER
3a-6c	INFLUENCE OF WATER DIVERSION ON THE MICRO-ECOSYSTEM OF SHALLOW EUTROPHIC LAKE TAIHU, CHINA
	JIANGYU DAI, SHIQIANG WU, XIUFENG WU, DAN CHEN, WANYUN XUE, QIANQIAN YANG, FANGFANG WANG
3a-6d	DETERMINING CRITICAL VEGETATION CONDITIONS IN THE MACQUAIRE MARSHES USING AN ECO-HYDRAULIC APPROACH
	STEVEN G. SANDI, JOSE F. RODIGUEZ, PATRICIA SACO, LI WEN, NEIL SAINTILAN
3a-6e	SOME OBSERVATIONS ON THE MIXING OF TWO RIVERS WITH A DIFFERENCE IN DENSITY: THE CASE OF THE NEGRO/SOLIMÕES CONFLUENCE, BRAZIL
	CARLO GUALTIERI, MARCO IANNIRUBERTO, JIM BEST
3a-6f	FLOW IN THE COMPOUND OPEN CHANNEL WITH GROUP OF COLUMN AND CHARACTERISTICS OF FISH BEHAVIOR
	MUNEYUKI AOKI
3a-6g	A ONE-DIMENSIONAL TEMPERATURE MODEL FOR RIVERS UNDER CHANGING METEOROLOGICAL CONDITIONS
	YAFEI DUAN, ZHAN SHAN KANG, RUI HAN

TECHNICAL SESSION 6D

THEME 2: FLOOD MANAGEMENT

ROOM: **Johor/Kedah** CHAIR: **Dr. Kenji Kawaike**

2a-2a	DAM FLOOD RISK ASSESSMENT BASED ON SET PAIR ANALYSIS- VARIABLE FUZZY SETS (SPA-VFS) MODEL
	YU CHEN, PENG ZHI LIN
2a-2b	EFFECT OF DOWNSTREAM REVET TO THE EMBANKMENT ON TIME OF FAILURE DUE TO OVERTOPPING
	NURUDEEN TOMIWA AMO, JUNJI YAGISAWA, NORIO TANAKA
2a-2c	OUTBURST FLOODS TRIGGERED BY IMPULSE WAVES: INSIGHTS FROM HYDRAULIC EXPERIMENTATION
	FREDERIC M. EVERS, PIERRE-JACQUES FRANK, WILLI H. HAGER
2a-2d	A PHYSICALLY-BASED GLOBAL FLOOD HAZARD MAP
	YASIR KAHEIL, LORENZO BEGNUDELLI, JEFF MCCOLLUM, ZHAO LIU
2a-2e	ROBUSTNESS OF RISK-BASED OPTIMIZATION METHODOLOGY FOR FLOOD PROTECTION DECISIONS
	BALQIS MOHAMED REHAN
2a-2f	IMPROVING HYDROLOGICAL PREDICTION WITH GLOBAL DATASETS: EXPERIENCES WITH BRAHMAPUTRA, UPPER AWASH AND KAAP CATCHMENTS
	BISWA BHATTACHARYA, MD. TOHIDUL ISLAM, MD. SOHEL MASUD, SURAFEL MAMO, MJAWA SHENDULI, PRABIN ROKAYA, SCHALK JAN VAN ANDEL, ILYAS MASIH

TECHNICAL SESSION 6E

THEME 7: HYDROINFORMATICS / COMPUTATIONAL METHODS AND EXPERIMENTAL METHODS

ROOM: **Kelantan** CHAIR: **Prof. Willi H. Hager**

7b-2a	A GIS-BASED DRASTIC MODEL FOR ASSESSING GROUNDWATER VULNERABLE ZONES IN NAGPUR CITY, INDIA
	SAHAJPREET KAUR GAREWAL, AVINASH D. VASUDEO
7b-2b	DILUTION STRATEGY FOR DESALINATION EFFLUENT
	VINCENT H. CHU, WIHEL ALTAI
7b-2c	MODELING THE TRANSPORT AND FATE OF PHOSPHORUS FROM A POINT SOURCE IN THE LAKE MICHIGAN NEARSHORE ZONE
	HECTOR R BRAVO, HARVEY BOOTSMA, BAHRAM KHAZAEI
7b-2d	DYNAMICS OF SEDIMENT CLOUD AND CLUMP REGIMES
	JENN WEI ER
7b-2e	THE ANALOGIES BETWEEN PARTIAL DIFFERENTIAL EQUATIONS (PDE), CELLULAR AUTOMATA (CA) AND UNSTRUCTURED CELLULAR AUTOMATA (UCA)
	YU-QING LIN, QIU-WEN CHEN, ARTHUR MYNETT, CHENG CHEN, LEI TANG, GANG LI
7b-2f	THREE DIMENSIONAL NUMERICAL MODELING OF LATERALLY CONFINED VERTICAL BUOYANT JETS USING THE GGDH K-E TURBULENCE MODEL
	XIAOHUI YAN, ABDOLMAJID MOHAMMADIAN

TECHNICAL SESSION 6F

THEME 2: FLOOD MANAGEMENT

ROOM: **Melaka** CHAIR: **Prof. Weiming Wu**

2b-2a	EXPLORE THE HYDRODYNAMIC FORCE ON THE SURFACE OF FLOATING STRUCTURE IN FINITE FLOWING WATER
	ZHEN CUI, ZONG FU FU, YUE JUN CHEN, SHAN WANG, GUANG GANG MA, WEN JIANG
2b-2b	INFLUENCE OF URBAN PATTERNS ON FLOODING
	MARTIN BRUWIER, AHMED MUSTAFA, DANIEL G. ALIAGA, SÉBASTIAN ERPICUM, PIERRE ARCHAMBEAU, GEN NISHIDA, XIAO WEI ZHANG, MICHEL PIROTTON, JACQUES TELLER, BENJAMIN DEWALS
2b-2c	APPROPRIATE INTERVENTIONS TO METRO CEBU'S FLOODING PROBLEMS
	DANILO T. JAQUE, ANDRE-PAUL AMPONG, JOAN ARCE JAQUE, PRIMITIVO CAL
2b-2d	SUDS IN THE UK AND SPONGE CITIES IN CHINA – WHAT PROGRESS IS BEING ACHIEVED IN URBAN FLOOD RISK MANAGEMENT?
	RICHARD KELLAGHER, BRIDGET WOODS BALLARD, JUAN GUTIERREZ ANDRES, VIVIAN DOU
2b-2e	RESEARCH ON THE IMPACT OF BOUSSINESQ COEFFICIENT FOR NUMERICAL SCHEMES TO MODEL DAM-BREAK FLOODS
	FAN YANG, DONGFANG LIANG
2b-2f	COMMUNITY PERCEPTION OF SUSTAINABLE URBAN DRAINAGE SYSTEM: A CASE STUDY OF NHIEU LOC – THI NGHE BASIN, HO CHI MINH CITY, VIETNAM
	LAN HOANG MY NGUYEN, PHU LE VO, TRUNG VAN LE

TECHNICAL SESSION 6G

THEME 2: FLOOD MANAGEMENT

ROOM: **Negeri Sembilan** CHAIR: **Prof. Arthur Mynett**

2d-2a	ESTIMATION OF SPATIAL FLOOD DAMAGE COSTS IN JAKARTA, INDONESIA
	NURUL F. JANURIYADI, SOTEPHEN G. KAZAMA, IDHAM R. MOE, SHUICHI KURE
2d-2b	NUMERICAL SIMULATION FOR VARIATION OF FLOODWATER STAGE DUE TO BUILDINGS ON FLOOD PLAIN
	FONG-ZUO LEE, JIHN-SUNG LAI, TSUNG-HSIEN HUANG, CHENG-CHIA HUANG, ZHI-XIAN YANG, YONG-JUN LIN
2d-2c	FIELD SURVEY ON THE COMPOUND DISASTER DUE TO THE KUMAMOTO EARTHQUAKE AND THE FLOOD OF JUNE 2016
	TAKUYA SAKURABA, YASUO NIHEI, YUKI KURAKAMI
2d-2d	VARIATIONS IN MAGNITUDE AND FREQUENCY OF EXTREME FLOODS AND MAXIMUM PRECIPITATION EVENTS IN 24 HOURS IN THE OCCIDENTAL EDGE OF THE ANDES BETWEEN PARALLELS 30° 50´ AND 39° 40´ OF SOUTH LATITUDE
	JOSE VARGAS BAECHELER, FELIPE VÁSQUEZ CORDERO
2d-2e	DEVELOPMENT OF AN EMERGENCY FOOD AID PLAN: AN IMMEDIATE ACTION FOR FLOOD DISASTER MANAGEMENT
	BALACHANTHAR SATESH, NOR AZAZI ZAKARIA, LAI KUAN LEE
2d-2f	NUMERICAL PREDICTION OF LOCALIZED HEAVY RAIN BY WRF-ARW MODEL WITH X-BAND RADAR DATA ASSIMILATION
	MASATO KITA, YOSHIHISA KAWAHARA, CHO THANDA NYUNT
2d-2g	SOCIAL CAPITAL AND COMMUNITY RESILIENCE IN COPING WITH FLOOD DISASTERS IN MALAYSIA
	NGAI WENG CHAN

TECHNICAL SESSION 6H

THEME 1: RIVER AND SEDIMENT MANAGEMENT

ROOM: **Pahang** CHAIR: **Assoc. Prof. Adrian Wing-Keung Law**

1a-4a	CHARACTERIZATION OF SURFACE AND HYPORHEIC FLOWS ASSOCIATED WITH A GRAVEL BAR
	MOHAMMAD SAEID AHADI, SEYED HESSAM SEYED MIRZAEI, ANA MARIA FERREIRA DA SILVA
1a-4b	A COUPLED MODEL OF WATER-SEDIMENT-CONTAMINANT CONTROLLED BY SLUICES
	PENGJIE HU, LINGLING WANG, HONGWU TANG
1a-4c	INFLUENCE OF LATERAL RECTANGULAR EMBAYMENTS ON THE TRANSPORT OF SUSPENDED SEDIMENTS IN A FLUME
	CARMELO JUEZ, IRIA BUEHLMANN, GAETAN MAECHLER, ANTON J. SCHLEISS, MÁRIO J. FRANCA
1a-4d	IMPACT OF INNER-BANK VEGETATION ON THE MEAN FLOW AND TURBULENCE STATISTICS IN A CURVED CHANNEL
	SEONMIN LEE, SUNG-UK CHOI
1a-4e	DOES INVASIVE RIPARIAN TAMARISK AFFECT WATER AVAILABILITY IN THE LOWER COLORADO RIVER BASIN?
	KUMUD ACHARYA, SACHIKO SUEKI, JOHN HEALEY, YIPING LI
1a-4f	COMPARATIVE ANALYSIS OF WATER QUALITY INDICES
	SRI PUJI SARASWATI, - SUNJOTO, B. AGUS KIRONOTO, SUWARNO HADISUSANTO

TECHNICAL SESSION 6I

THEME 7: HYDROINFORMATICS / COMPUTATIONAL METHODS AND EXPERIMENTAL METHODS

ROOM: **Perak** CHAIR: **Dato' Prof. Othman A. Karim**

7c-2a	CFD ANALYSIS AND VALIDATION OF A CHLORINE DISINFECTION TANK
	PABLO OURO, BRUNO FRAGA, NICOLÒ VITI, ATHANASIOS ANGELOUDIS, CARLO GUALTIERI, THORSTEN STOESSER
7c-2b	EXPERIMENTAL ANALYSIS ON FISH SWIMMING ABILITIES AND NUMERICAL SIMULATION OF FISH SWIMMING TRAJECTORIES
	RUI HAN, LI ZENG, RUONAN LI, DUAN CHEN
7c-2c	CONSTRAINT SATISFACTION PROBLEM VS QUADRATIC OPTIMIZATION METHOD TO DEAL WITH THE EFFECTS OF CLIMATE CHANGE ON INLAND WATERWAYS
	ERIC DUVIELLA, ARNAUD DONIEC, HOUDA NOUASSE, FRANCK TEMPET
7c-2d	DEVELOPMENT OF THE STREAMFLOW AND FLOOD ANALYSIS SYSTEM USING R (SFASUR-TEC)
	MAIKEL MENDEZ, LUIS A. CALVO-VALVERDE
7c-2e	DETERMINING TIDAL MIXING ZONE USING NUMERICAL AND DATA-DRIVEN MODEL IN MALACCA STRAIT
	ALAMSYAH KURNIAWAN, SERENE H.X TAY, SENG KEAT OOI, VLADAN BABOVIC
7c-2f	DEVELOPMENT OF KU-STIV: SOFTWARE TO MEASURE SURFACE VELOCITY DISTRIBUTION AND DISCHARGE FROM RIVER SURFACE IMAGES
	ICHIRO FUJITA, TAKASHI DEGUCHI, KIYONORI DOI, DAISUKE OGINO, YUICHI NOTOYA, SAAYA TATEGUCHI

TECHNICAL SESSION 6J

THEME 6: WATER RESOURCES MANAGEMENT

ROOM: **Perlis** CHAIR: **Ismail Tawnie**

6e-2a	GROUNDWATER HYDROGEOCHEMISTRY OF THE SHALLOW AQUIFER IN LOWER KELANTAN BASIN
	ANUAR SEFIE, AHMAD ZAHARIN ARIS, TAHOORA SHEIKHY NARANY, MOHD KHAIRUL NIZAR SHAMSUDDIN, ISMAIL TAWNIE, AZRUL NORMI IDRIS, SYAIFUL BAHREN SAADUDIN, ARSHAD OSMAN
6e-2b	NEW EQUATIONS OF PARTIAL PENETRATION WELL
	SUNY SUNJOTO
6e-2c	UPDATED PARTICLE SWARM OPTIMIZATION (PSO) ALGORITHM IN CALIBRATING RESERVOIR RELEASE POLICY
	MD. SHABBIR HOSSAIN, LARIYAH MOHD SIDEK
6e-2d	WATER BALANCE STUDY FOR A WATERSHED IN GODAVARI RIVER BASIN USING SWAT MODEL
	AMEY BAGUL, VIJAYA S. PRADHAN, PRACHI BAGUL
6e-2e	PREPARATION OF POMEGRANATE PEELS DERIVED ACTIVATED CARBONS BY CHEMICAL AND PHYSIO-CHEMICAL ACTIVATION FOR THE SUCCESSIVE TREATMENT OF HAZARDOUS ACETAMINOPHEN
	ZARROUG MANEL, KENG YUEN FOO, SOUAD NAJAR SOUISSI, OUEDERNI ABDELMOTTALEB
6e-2f	HOMOGENEITY TESTING AND TRENDS ANALYSIS IN LONG TERM RAINFALL DATA FOR SUNGAI PAHANG RIVER BASIN OVER 40 YEARS RECORDS
	CHUN KIAT CHANG, AMINUDDIN AB. GHANI, HOW TION PUAY, MAZLINA ALANG OTHMAN

TECHNICAL SESSION 7A

THEME 1: RIVER AND SEDIMENT MANAGEMENT

ROOM: **TDI-A** CHAIR: **Dr. Heide Friedrich**

1b-7a	STUDIES ON THE PATTERN OF BANK COLLAPSE-RETREAT OF ALLUVIAL RIVERS
	YIN CHEN, YAN-GUI WANG
1b-7b	EFFECT OF PILE ARRANGEMENT ON LOCAL SCOUR DEPTH
	YASSER A. MOUSSA, MAHMOUD ATTA
1b-7c	EQUILIBRIUM SCOUR MORPHOLOGIES DOWNSTREAM OF BLOCK RAMPS LOCATED IN BOTH STRAIGHT AND CURVED CHANNELS
	STEFANO PAGLIARA, MICHELE PALERMO
1b-7d	RIVER SAND MINING CAPACITY IN MALAYSIA
	FANG YENN TEO, MD. NASIR MD. NOH, AMINUDDIN AB. GHANI, NOR AZAZI ZAKARIA, CHUN KIAT CHANG
1b-7e	SEDIMENT INCEPTION BY STREAM FLOW: A NOVEL MATHEMATICAL MODEL
	SUBHASISH DEY, SK ZEESHAN ALI
1b-7f	EFFECT OF THE BED LOAD GRADATION ON THE MORPHODYNAMICS OF DISCORDANT CONFLUENCES
	SEBASTIÁN GUILLÉN-LUDEÑA, MÁRIO J. FRANCA, ANTÓNIO H. CARDOSO, ANTON J. SCHLEISS

TECHNICAL SESSION 7B

THEME 1: RIVER AND SEDIMENT MANAGEMENT

ROOM: **TDI-B** CHAIR: **Prof. Wenhong Dai**

1d-7a	STUDY ON THE FLOW AND MORPHOLOGICAL CHANGES UTILIZES VEGETATED GROYNE
	PRATIWI AZIZ, AKIHIRO KADOTA
1d-7b	EXPERIMENTAL AND NUMERICAL MODELLING OF AERATED FLOWS OVER STEPPED SPILLWAYS
	JACOB VAN ALWON, DUNCAN BORMAN, ANDREW SLEIGH, NIK KAPUR
1d-7c	A NEW APPROACH TO HYDRAULICS BASED ON THE MOMENTUM BALANCE: SHARP EDGED OUTFLOWS AND SLUICES
	ANDREAS MALCHEREK
1d-7d	LARGE-SCALE FLUME TESTS ON FLOW DISLODGMENT OF ROCKS FORMING BENDWAY-WEIRS
	ROBERT ETTEMA, JONATHAN AUBUCHON, NATHAN HOLSTE, DAVID VARYU, DREW BAIRD, ROBERT PADILLA, CHRISTOPHER THORNTON
1d-7e	AN EXPERIMENTAL STUDY OF THE HYDRAULIC PERFORMANCE OF A BUOYANCY-AUTOMATED TIDAL GATE
	JAMES SIMPSON, WILLIAM GLAMORE, STEFAN FELDER
1d-7f	CFD STUDY OF A SPATIAL SUBMERGED HYDRAULIC JUMP
	VIMALDOSS JESUDHAS, RAM BALACHANDAR, TIRUPATI BOLISETTI

TECHNICAL SESSION 7C

THEME 2: FLOOD MANAGEMENT

ROOM: **DTHO** CHAIR: **Prof. Roger A. Falconer**

2c-3a	A REVIEW OF THE UNDERSTANDING OF UNCERTAINTY IN A FLOOD FORECASTING SYSTEM AND THE AVAILABLE METHODS OF DEALING WITH IT
	LEONORE BOELEE, DARREN LUMBROSO, PAUL SAMUELS, ELISABETH STEPHENS, HANNAH CLOKE
2c-3b	FLOATING DEBRIS RETENTION RACKS AT DAM SPILLWAYS
	LUKAS SCHMOCKER
2c-3c	ESTIMATION OF FLASH FLOOD GUIDANCE USING GEOMORPHIC UNIT WITH HYDROGRAPH METHOD
	DAWEI ZHANG, JIN QUAN, ZHIHAN YE, GUANGYUAN KAN
2c-3d	FLOOD FORECASTING AND WARNING FOR MUAR RIVER: NON-STRUCTURAL MEASURES FOR FLOOD MITIGATION
	WAN HAZDY AZAD WAN ABDUL MAJID, EMMA BROWN, SAZALI OSMAN, GAPAR ASAN, AB QAHAR OSMAN, ROSHAM KADIMAN SAMSUDIN, LEONORE BOELEE, FAIZAH AHMAD
2c-3e	DATA ASSIMILATION IN A HYDRODYNAMIC-HYDROLOGICAL MODELLING SYSTEM
	PETER GODIKSEN, MARC-ETIENNE RIDLER, HENRIK MADSEN
2c-3f	THE ABILITY OF MULTI-LINEAR REGRESSION MODELS TO FORECAST WATER LEVELS AT CALAMAR, COLOMBIA
	TJEERD DRIESSEN, BART-JAN VAN DER SPEK, MARIUS SOKOLEWICZ

TECHNICAL SESSION 7D

THEME 6: WATER RESOURCES MANAGEMENT

ROOM: **Johor / Kedah** CHAIR: **Prof. Van-thanh-van Nguyen**

6a-5a	INVESTIGATING RESERVOIR REGULATIONS UNDER CLIMATE CHANGE SCENARIOS
	CHO THANDA NYUNT, YOSHIHISA KAWAHARA
6a-5b	ANALYSIS ON REGIONAL SOCIO-ECONOMIC WATER CONSUMPTION REGULATION BASED ON MATHEMATICAL PROGRAMMING
	HONGYUAN FANG, CHENGLING LIU, CHEN CHEN
6a-5c	INTEGRATED WATER RESOURCES MANAGEMENT IN THE KISO RIVER SYSTEM
	YOSHINOBU SATO
6a-5d	SPATIAL WATER QUALITY VULNERABILITY ASSESSMENT OF HAN RIVER BASIN USING MULTI-CRITERIA DECISION MAKING METHOD
	PATRICIA JITTA ABDULAI, EUN-SUNG CHUNG, YEONJOO KIM
6a-5e	CLIMATE-SMART DECISION SUPPORT SYSTEM FOR IRRIGATION AND WATER RESOURCES MANAGEMENT FOR RICE PRODUCTION
	MD ROWSHON KAMAL, NKULULEKO SIMEON DLAMINI, MOHD AMIN MOHD SOOM
6a-5f	MULTI-OBJECTIVE RISK ANALYSIS OF RESERVOIR FLOOD CONTROL OPERATION BASED ON COPULA-MONTE CARLO METHOD
	YANG PENG, ZHIYI WU, KAI CHEN

TECHNICAL SESSION 7E

THEME 1: RIVER AND SEDIMENT MANAGEMENT

ROOM: **Kelantan** CHAIR: **Dr. Kumud Acharya**

1c-2a	DISCUSSION ON DESILTING MEASURES FOR RESERVOIR SEDIMENTATION
	HONG BIN LIU, CAI PING WU, WEN JIAO ZHANG
1c-2b	FIELD CALIBRATION OF BEDLOAD MONITORING SYSTEM IN A SEDIMENT BYPASS TUNNEL: SWISS PLATE GEOPHONE
	MICHELLE MUELLER-HAGMANN, ISMAIL ALBAYRAK, ROBERT MICHAEL BOES
1c-2c	SEDIMENT YIELD ESTIMATION ON A RESERVOIR IN SEVERELY ERODING RIVER BASIN
	DEVARAJA PATHIRAGE CHANAKA LAKNATH, THOTAPITIYA ARACHCHILLAGE JEEWANTHI J.G. SIRISENA
1c-2d	DETECTION OF DEBRIS FLOWS BY COMBINATION OF LVP AND WIRE SENSORS
	TAKAHIRO ITOH, TAKAHISA MIZUYAMA, MICHINOBU NONAKA, SATOSHI TAGATA, SATORU MATSUDA
1c-2e	DEBRIS AND MUDFLOW COMPUTER MODEL
	NORLIDA MOHD DOM, SANDRA LIGONG, A. RAZAK BAHAROM
1c-2f	NUMERICAL SIMULATION OF FLOW AND SEDIMENT TRANSPORT IN TANKS WITH THE INFLUENCE OF CAVITY
	ABDELLAH GHENAIM, YI LIU, ABDELALI TERFOUS, PIERRE-ANDRE GARAMBOIS

TECHNICAL SESSION 7F

THEME 4: COASTAL, ESTUARIES AND LAKES MANAGEMENT

ROOM: **Melaka** CHAIR: **Prof. Hubert Chanson**

4c-3a	MODELING OF COLLOIDAL SULFUR IN SALINITY-STRATIFIED URBAN STREAMS
	SHIN MIURA, TETSUO HATTA, HITOSHI NEGISHI, YASUSHI TSURUTA, TADAHARU ISHIKAWA
4c-3b	WATER EXCHANGE PHYSICAL MODEL TEST IN MONSOON AND OCEAN CURRENTS EFFECTS
	MENWU WU, LI YAN, GUOZHEN LIU, XIAOLEI TONG, XIAOMING WU
4c-3c	TIDAL BORE GENERATION AT THE EASTURIES OF THE EAST COAST OF SUMATRA
	ALAMSYAH KURNIAWAN, ULUNG JANTAMA WISHA, SEMEIDI HUSRIN, ENTIN A. KARJADI
4c-3d	THE RESPONSE OF SALTWATER INTRUSION TO THE RIVERBED DEGRADATION IN THE PEARL RIVER ESTUARY
	HUAZHI ZOU, SHUNCHAO YU, LIANGLIANG ZHANG
4c-3e	DIFFUSE BACTERIA LOADING FROM INTERTIDAL MARSHLAND AND IMPACTS TO ADJACENT ESTUARINE WATER QUALITY
	AMYRHUL ABU BAKAR, REZA AHMADIAN, ROGER A. FALCONER
4c-3f	VARIABILITY OF PHYTOPLANKTON IN ESTUARIES, A CASE STUDY IN THE NETHERLANDS
	LIXIA NIU

TECHNICAL SESSION 7G

THEME 7: HYDROINFORMATICS / COMPUTATIONAL METHODS AND EXPERIMENTAL METHODS

ROOM: **Negeri Sembilan** CHAIR: **Prof. Mohamed S. Ghidaoui**

7d-3a	RESEARCH ON DETECTION METHOD FOR LARGE-SCALE PARTICLE IMAGE VELOCIMETRY IN RIVER MODEL TEST
	CHENG CHEN, YUNFENG XIA, ZIYANG LI, XIN WANG
7d-3b	STUDY ON TSUNAMI ACTION FORM TO INFLUENCE THE SLIDE OF THE FUEL TANK BASED ON NUMERICAL COMPUTATION
	YUKI OHKI, NAOKI YOSHIDA, TARO ARIKAWA
7d-3c	EXPERIMENTAL INVESTIGATION ON CORRELATION BETWEEN THE BREAKDOWN VOLTAGE OF CAPACITANCE AND THE SIZE OF A SPARK-INDUCED CAVITATION BUBBLE
	YILAN LI
7d-3d	POST PROCESSING OF ULTRASONIC RANGING SYSTEM AND ACOUSTIC DOPPLER VELOCIMETER DATA FOR MORPHOLOGICAL STUDIES
	PASUPULETI LAXMI NARAYANA, PRAFUL VASHARAMBHAI TIMBADIYA, PREM LAI PATEL
7d-3e	EVALUATION OF SURFACE WATER QUALITY ASSESSMENT METHODS UNDER CLIMATE VARIABILITY
	DONYA DEZFOOLI, KUMARS EBRAHIMI, SHAHAB ARAGHINEJAD
7d-3f	OPTICAL MEASUREMENT SYSTEM FOR WAVE PROFILES USING MODIFIED SUZUKI-SUMINO METHOD
	KAZUHIDE DAN, ATSUSHI KISHI

TECHNICAL SESSION 7H

THEME 6: WATER RESOURCES MANAGEMENT

ROOM: **Pahang** CHAIR: **Dr. Michael Butts**

6c-1a	DYNAMICS OF ALGAL GROWTH IN EXPERIMENTAL ENCLOSURES IN THE PANJIAKOU RESERVOIR, HEBEI PROVINCE, CHINA
	SUILIANG HUANG, MIN WU, CHANGJUAN ZANG, SHENGLAN DU, WENWEN KONG, YAO XIAO, JOSEPH DOMAGALSKI, MAGDALENA GAJEWSKA, ADAM SZYMKIEWICZ, ROMUALD SZYMKIEWICZ
6c-1b	ECONOMIC VALUE OF WATER IN THE ACONCAGUA RIVER BASIN, A COMPARISON BETWEEN AGRICULTURE AND MINING SECTORS
	ERIC FIGUEROA, NEIL MCINTYRE, JIM SMART
6c-1c	SCENARIO ANALYSIS FOR INTEGRATED WATER RESOURCES PLANNING AND MANAGEMENT IN AN URBAN AREA
	XING CHEN, XUEZHEN XIONG, QIN XU, LI WANG
6c-1d	THE GENERATION POLICY OF HYDROPOWER OF THE BE RIVER BASIN TO MITIGATE THE WATER SHORTAGE
	FREDERICK N.-F CHOU, NGUYEN THI THUY LINH
6c-1e	EVALUATION OF ECOSYSTEM DEGRADATION RESPONSE TO WATER-SAVING MEASURES IN HETAO IRRIGATION AREA, CHINA
	GUOHUA HE, YONG ZHAO, JIAQI ZHAI
6c-1f	STUDY ON WATER QUANTITY REGULATION TECHNOLOGY BASED ON HIERARCHICAL WATER USE AND ECO-ENVIRONMENTAL FLOW
	NA WEI, YANGWEN JIA, JINJUN YOU, CUNWEN NIU, JIANCANG XIE, WEN WANG

Wednesday, 16th August 2017
9.30 AM - 11 AM

TECHNICAL SESSION 7I

THEME 3: ENVIRONMENTAL HYDRAULICS AND INDUSTRIAL FLOWS

ROOM: **Perak** CHAIR: **Prof. Chris Katopodis**

3c-1a	BUOYANT ENERGY – MULTIFUNCTIONAL OFFSHORE ENERGY STORAGE AND GRID BALANCING SYSTEM FOR FUTURE REQUIREMENTS
	BERND STEIDL, ROBERT KLAR, MARKUS AUFLEGER
3c-1b	IMPACTS OF GLACIER RECESSION ON THE HYDROENERGY PRODUCTION, SANTA AND PATIVILCA BASINS (PERU)
	MARISA SILVA DAVILA
3c-1c	A NOVEL FREE JET TURBINE FOR USING KINETIC ENERGY IN THE FIELD OF NANO-HYDROPOWER
	JENS METZGER, JÖRG WIELAND, JENS BENDER, JÜRGEN JENSEN, MD ABID HASAN
3c-1d	RESONANCE WAVE PUMPING: MEAN WAVE MASS FLUX
	REMI CARMIGNIANI, DAMIEN VIOLEAU, MORTEZA GHARIB
3c-1e	AIR DEMAND OF HIGH-HEAD BOTTOM OUTLETS
	BENJAMIN HOHERMUTH
3c-1f	UNDERGROUND PUMPED HYDROELECTRIC ENERGY STORAGE IN WALLONIA (BELGIUM) USING OLD MINES – HYDRAULIC MODELLING OF THE RESERVOIRS
	SEBASTIEN ERPICUM, PIERRE ARCHAMBEAU, BENJAMIN DEWALS, MICHEL PIROTTON

Wednesday, 16th August 2017
11.30 AM - 1 PM

TECHNICAL SESSION 8A

THEME 1: RIVER AND SEDIMENT MANAGEMENT

ROOM: **TDI-A** CHAIR: **Assoc. Prof. Nian Sheng Cheng**

1b-8a	MANAGEMENT PLAN FOR RIVER SAND MINING ACTIVITY IN SEGAMA RIVER, SABAH
	KOK HOU KU, CLAUS PEDERSEN, HANS CHRISTIAN AMMENTORP, YABI YANGKAT, VITALIS MODUYING
1b-8b	TURBULENT SHEAR FLOW OVER A SINUSOIDAL BED
	SK ZEESHAN ALI, SUBHASISH DEY
1b-8c	RESEARCH ON RELATIONSHIP BETWEEN FLOW AND SEDIMENT VARIATION AND TAIL CHANNEL EVOLUTION IN YELLOW RIVER ESTUARY
	YANJIE LIANG, CUIHUA AN, QIUSHI LUO
1b-8d	A NEW METHODOLOGY FOR PRESENTING HYDRODYNAMICS DATA FROM A LARGE RIVER CONFLUENCE
	FARHAD BAHMANPOURI, NAZIANO FILIZOLA, MARCO IANNIRUBERTO, CARLO GUALTIERI
1b-8e	EVALUATION OF SELECTED ROUGHNESS COEFFICIENT EQUATIONS FOR MOUNTAIN RIVERS IN MALAYSIA
	MOHD RIZAL SHUKOR, SHANKER KUMAR SINNAKAUDAN, MUNYATI MOHAMMED, SITI ISMA HANI ISMAIL, MOHD SOFIYAN SULAIMAN
1b-8f	EFFECT OF SKEWNESS ON CLEAR-WATER LOCAL SCOUR AT COMPLEX BRIDGE PIERS
	YIFAN YANG, BRUCE W. MELVILLE, ASAAD Y. SHAMSELDIN, HEIDE FRIEDRICH

TECHNICAL SESSION 8B

THEME 1: RIVER AND SEDIMENT MANAGEMENT

ROOM: **TDI-B** CHAIR: **Dr. Stefan Felder**

1d-8a	FLOW NEAR GROYNES: EXPERIMENTAL OR COMPUTATIONAL APPROACHES
	QUANG BINH NGUYEN, NGOC DUONG VO, PHILIPPE GOURBESVILLE
1d-8b	NUMERICAL AND EXPERIMENTAL OPTIMIZATION OF FLOW PATTERN THROUGH PIERS OF DAM SPILLWAYS
	JAHANI MATIN, JABBARI EBRAHIM, SARKARDEH HAMED, MAROSI MORTEZA
1d-8c	DESTRUCTION MECHANISM OF THE STEP BEHIND THE X-SHAPED FLARING GATE PIERS
	ZONGSHI DONG, JUNXING WANG, JUNRONG DA, ZIYI LIAN, WENCHUAN ZHANG
1d-8d	EXPERIMENTAL RESULTS ON SEDIMENT ENTRAINMENT BY GRAVITY CURRENTS
	JESSICA ZORDAN, CARMELO JUEZ, ANTON J. SCHLEISS, MÁRIO J. FRANCA
1d-8e	PHYSICAL MODELLING OF SCOUR AROUND BRIDGE PIERS CAUSED BY FLOOD WAVES
	OSCAR LINK, SEBASTIAN HENRÍQUEZ, BERND ETTMER
1d-8f	PLANNING OF LOWER MALWATHU OYA RESERVOIR PROJECT-COST BENEFIT ANALYSIS
	DON AJITH ROHANA DOLAGE, KITHSIRI WELIGEPOLAGE

TECHNICAL SESSION 8C

THEME 3: ENVIRONMENTAL HYDRAULICS AND INDUSTRIAL FLOWS

ROOM: **DTHO** CHAIR: **Assoc. Prof. Shanker Kumar Sinnakaudan**

3a-7a	A SELF-ADAPTING FISHWAY ENTRANCE FOR THE LARGE VARIATION OF DOWNSTREAM WATER LEVEL
	GUANGNING LI, SHUANGKE SUN
3a-7b	MICROHABITAT MODELLING FOR AN ENDANGERED FRESHWATER FISH, LUFUA ECHIGONIA, IN A SPRING-FED URBAN STREAM
	YUKI MATSUZAWA, MITSURU OHIRA, SHINJI FUKUDA
3a-7c	BAFFLE SYSTEMS TO FACILITATE UPSTREAM FISH PASSAGE IN STANDARD BOX CULVERTS: HOW ABOUT FISH-TURBULENCE INTERPLAY?
	HANG WANG, HUBERT CHANSON
3a-7d	SWIMMING FISH HABITAT EVALUATION CONCEPT FOCUSING ON FLOW CHARACTERISTICS AROUND THE ROUGHNESS LAYER IN STREAMS
	MORIHIRO HARADA, RAHMA YANDA, YUKIO ONODA, YUICHI KAYABA
3a-7e	SYDNEY DESALINATION SEAWATER CONCENTRATE OUTFALL LABORATORY AND FIELD INVESTIGATIONS
	BRETT M. MILLER, GRANLEY P. SMITH
3a-7f	A HIGH ORDER ELEMENT BASED METHOD TO ESTIMATE HYPORHEIC FLOW IN RIVERS USING THE BURGERS EQUATION
	ANTONIO PREZIOSI-RIBERO, EDWIN SAAVEDRA-CIFUENTES, JORGE ALBERTO ESCOBAR-VARGAS, LEONARDO DAVID DONADO

TECHNICAL SESSION 8D

THEME 2: FLOOD MANAGEMENT

ROOM: **Johor / Kedah** CHAIR: **Dr. Norlida Mohd Dom**

2a-3a	A FLOOD ANALYSIS MODEL FOR RIVERS IN LOW-LAYING AREAS THAT INTEGRATES INLAND WATER AND BACKWATER
	TAKEHIRO OKI, MAKOTO NAKATSUGAWA
2a-3b	LARGE WOOD ACCUMULATION PROBABILITY AT A SINGLE BRIDGE PIER
	ISABELLA SCHALKO
2a-3c	EXTREME FLOOD FLOW IN AN INCREASINGLY URBANIZED FLOODPLAIN: AN EXPERIMENTAL APPROACH
	SEBASTIÁN GUILLÉN-LUDEÑA, DIEGO LOPEZ, NICOLAS RIVIERE, EMMANUEL MIGNOT
2a-3d	A NEW APPROACH FOR IMPROVING FLOOD MODEL PREDICTIONS BASED ON THE SEQUENTIAL ASSIMILATION OF SAR-DERIVED FLOOD EXTENT MAPS
	RENAUD HOSTACHE, MARCO CHINI, LAURA GIUSTARINI, MELISSA WOOD, GIOVANNI CORATO, PATRICK MATGEN
2a-3e	FLASH FLOOD INUNDATION ANALYSIS CONSIDERING THE AGGRADATIONS OF RIVERBED IN GOWAIN RIVER, BANGLADESH
	MASAKAZU HASHIMOTO, KENJI KAWAIKE, YUJI HASEGAWA, TOMONORI DEGUCHI, SHAMMI HAQUE, ARPAN PAUL, MASHFIQUS SALEHIN, HAJIME NAKAGAWA
2a-3f	FLOODSS: CALL FOR COMMUNITY ACTION
	MARIAN MUSTE

TECHNICAL SESSION 8E

THEME 1: RIVER AND SEDIMENT MANAGEMENT

ROOM: **Kelantan** CHAIR: **Dr. Ismail Albayrak**

1c-3a	FEASIBILITY STUDY OF SEDIMENT FLUSHING FROM A MEXICAN RESERVOIR LOCATED IN THE VALLEY OF MEXICO BASIN; BY USING NUMERICAL MODELS IN 2D AND 3D
	MIGUEL ANGEL BRIBIESCA RODRÍGUEZ, JORGE IVAN JUÁREZ DEHESA, FERNANDO J. GONZÁLEZ VILLARREAL
1c-3b	ESTIMATION OF PEAK AND SURGE SHAPE OF DEBRIS FLOW USING CCTV CAMERA AND SEISMOMETER
	SATORU MATSUDA, YOTARO NISHI, TSUYOSHI IKESHIMA, TAKAHIRO ITOH, TAKAHISA MIZUYAMA
1c-3c	LABORATORY EXPERIMENTS OF PULSED SUBAQEOUS SEDIMENT DENSITY FLOWS: INTERNAL STRATIFICATION AND LAYERING
	MARIANGELA SFOUNI-GRIGORIADOU, CARMELO JUEZ, MARIO J. FRANCA, BENOIT SPINEWINE
1c-3d	INFLUENCE OF THE UPPER YANGTZE RIVER SEDIMENT DECREASING ON SEDIMENTATION IN THREE GORGES RESERVOIR
	WENJIE LI, SHENGFA YANG, PINGYI WANG, YI XIAO, JIANG HU, XUHUI FU
1c-3e	ASSESSMENT OF EFFICIENCY AND ENVIRONMENTAL IMPACT OF SEDIMENT FLUSHING FROM WLINGI AND LODOYO CASCADE RESERVOIRS, INDONESIA
	FAHMI HIDAYAT, PITOJO TRI JUWONO, AGUS SUHARYANTO, ALWAFI PUJIRAHARJO, DJOKO LEGONO, DIAN SISINGGIH, FIRMAN SARIFUDIN EFFENDI
1c-3f	DIRECT DEBRIS FLOW MONITORING USING LOAD CELL SYSTEMS IN SAKURAJIMA ISLAND
	TAKAHIRO ITOH, TAKAHISA MIZUYAMA, SATOSHI TAGATA

TECHNICAL SESSION 8F

THEME 7: HYDROINFORMATICS / COMPUTATIONAL METHODS AND EXPERIMENTAL METHODS

ROOM: **Melaka** CHAIR: **Prof. Hiroshi Hayakawa**

7a-2a	LATTICE BOLTZMANN SIMULATION OF SHALLOW WATER EQUATIONS IN CHARACTERISTIC GALERKIN FINITE ELEMENT FRAMEWORK
	HAEGYUN LEE, NAMJOO LEE
7a-2b	URBAN FLOOD SIMULATION USING CHRE2D MODEL
	JENNIFER G DUAN
7a-2c	SPH MODELING OF OSCILLATING CHARACTERISTICS OF HYDRAULIC JUMPS
	DIANA DE PADOVA, MICHELE MOSSA, STEFANO SIBILLA
7a-2d	COMPUTATIONAL HYDRODYNAMICS SIMULATIONS WITH UPC PARALLEL ARCHITECTURE
	TUNG T. VU, ALVIN W.Z. CHEW, ADRIAN WING-KEUNG LAW
7a-2e	A GPU MODEL FOR SIMULATING HYDRODYNAMIC HAZARDS: APPLICATION TO TSUNAMI BENCHMARKS
	FAHAD MOHAMMED
7a-2f	EXPERIMENTAL BENCHMARKING OF MESH SIZE AND TIME-STEP CONVERGENCE FOR A 1ST AND 2ND ORDER SWE FINITE VOLUME SCHEME
	GREG COLLECUTT, BILL SYME

TECHNICAL SESSION 8G

THEME 4: COASTAL, ESTUARIES AND LAKES MANAGEMENT

ROOM: **Negeri Sembilan** CHAIR: **Ir. Dr. Hin Lee Lee**

4d-1a	RESPONSES OF HYDRODYNAMIC AND WATER EXCHANGE TO THE TIDAL INLET WIDTH OF QILIHAI LAGOON WETLAND
	ZHI-CHAO DONG, CUI-PING KUANG, YUE MA, JIE GU
4d-1b	AN UPDATED CATEGORISATION OF COASTAL EROSION AND VULNERABILITY INDEX ALONG MELAKA STATE
	AHMAD KHAIRI ABD WAHAB, ROSITA SALAM, DAENG SITI MAIMUNAH ISHAK
4d-1c	ANALYSIS ON COMBINING LANDSCAPE PATTERN WITH HYDROLOGICAL ADJUSTING FUNCTION IN POYANG LAKE AREA
	CHENGLIN LIU, XIA HU, XINGDONG ZHANG, CHENJUN ZENG
4d-1d	3D WIND EFFECTS ON HYDRODYNAMICS AND TRANSPORT IN A BRAZILIAN BAY
	ELENA MATTA, FLORIAN SELGE, GÜNTER GUNKEL, REINHARD HINKELMANN
4d-1e	STUDY ON CONTROL MEASURES OF WATER QUALITY OF LAKE YINGHU
	CUICHAO PANG, JING TAO, XIAOHUI WU, WEI GONG, FANGFANG WANG

TECHNICAL SESSION 8H

THEME 6: WATER RESOURCES MANAGEMENT

ROOM: **Pahang** CHAIR: **Prof. Sung-uk Choi**

6d-2a	COMBINING AN IMPROVED SNOW MODEL WITH ABOVE-GROUND NEUTRON SENSING AND REMOTE SENSING
	PAUL SCHATTAN, GABRIELE BARONI, SASCHA E. OSWALD, JOHANNES SCHÖBER, CHRISTINE FEY, TILL FRANCKE, MATTHIAS HUTTENLAU, ROBERT KIRNBAUER, STEFAN ACHLEITNER
6d-2b	DEALING WITH UNCERTAINTY IN DRINKING WATER SUPPLY SYSTEMS MANAGEMENT IN CASE OF DISASTERS
	ALESSANDRO PAGANO, RAFFAELE GIORDANO, IRENE PLUCHINOTTA, ANNA BRUNA PETRANGELI, UMBERTO FRATINO, MICHELE VURRO
6d-2c	SEEKING THE OPTIMUM GROUNDWATER MONITORING NETWORK USING A GENETIC ALGORITHM APPROACH
	MUSTAFA TAMER AYVAZ, ALPER ELÇI
6d-2d	WATER ALLOCATION MODELLING: A COMPARISON OF RANKING AND PENALTY APPROACHES IN MIKE HYDRO BASIN
	BERTRAND RICHAUD, ROAR JENSEN, EDUARDO MUNOZ, KEIKO YAMAGATA, MICHAEL BUTTS
6d-2e	INTEGRATED HYDRO-ENVIRONMENT ASSESSMENT WITH LATITUDE (IHEAL): A FRAMEWORK FOR CONCEPTUALIZING AND QUANTIFYING WATER USE SUSTAINABILITY IN IWRM
	CARTER BORDEN, PETER GOODWIN, DARREN SWANSON
6d-2f	COPULA-BASED UNCERTAINTY ANALYSIS FOR THE IMPACT OF MULTI-WATER RESOURCES ON OPTIMAL ALLOCATION AND AGRICULTURAL SHORTAGE
	YINZHU LIU, XUEPING GAO, BOWEN SUN

TECHNICAL SESSION 8I

THEME 3: ENVIRONMENTAL HYDRAULICS AND INDUSTRIAL FLOWS

ROOM: **Perak** CHAIR: **Prof. Takashi Asaeda**

6d-2a	IMPROVEMENT OF FLOW PATTERN IN MULTI-UNIT PUMPING STATION WITH SIDE-INTAKE BASED ON CFD NUMERICAL SIMULATION
	LUO CAN, LIU CHAO
6d-2b	NUMERICAL STUDY OF TURBULENT OSCILLATIONS AROUND A CYLINDER: RANS CAPABILITIES AND SENSITIVITY ANALYSIS
	DANIEL VALERO, DANIEL B. BUNG, SEBASTIEN ERPICUM, BENJAMIN DEWALS
6d-2c	DIRECT EROSION PREDICTION USING SPH-FEM COUPLING
	WIEBKE BODEN, JORGE NUNEZ, GUILLAUME COUDOUEL, STEPHANE AUBERT, JEAN-CHRISTOPHE MARONGIU, ALAIN COMBESCURE, RICHARD PERKINS
6d-2d	LA COCHE PELTON ENHANCEMENT PROJECT SCALE MODEL
	GREGORY GUYOT, MATHIEU RODRIGUEZ
6d-2e	ANALYSIS OF THE HYDRAULIC PERFORMANCES OF PERFORATED PLATES BASED ON EXPERIMENTAL DATA
	ALESSANDRO PAGANO, UMBERTO FRATINO
6d-2f	EXPERIMENTAL INVESTIGATION OF THE EFFECTS OF INTAKE DESIGNS ON COMPACT TURBINES
	DANIEL INNERHOFER, MARKUS AUFLEGER

TECHNICAL SESSION 9A

THEME 1: RIVER AND SEDIMENT MANAGEMENT

ROOM: **TDI-A** CHAIR: **Prof. Yonghui Zhu**

1b-9a	EXPERIMENTAL STUDY ON TIDAL BASIN MANAGEMENT: A CASE STUDY OF BANGLADESH
	ROCKY TALCHABHADEL, HAJIME NAKAGAWA, KENJI KAWAIKE, NASSIM SAHBOUN
1b-9b	LONGITUDINAL CHANGES IN SUSPENDED SEDIMENT LOADING AND SEDIMENT BUDGET OF MERBOK RIVER CATCHMENT, KEDAH, MALAYSIA
	WAN RUSLAN ISMAIL, MOHD NAZRUL IBRAHIM, SUMAYYAH AIMI MOHD NAJIB
1b-9c	OPERATION OF XIAOLANGDI RESERVOIR AND EVOLUTION RESPONSE OF LOWER YELLOW RIVER
	JIAN FU, CUIXIA CHEN, SHITAO WEI, SHENG QIAN, ZENGHUI WANG
1b-9d	SIMULATION OF TRAP EFFICIENCY FOR SRIRAMSAGAR RESERVOIR USING ARTIFICIAL NEURAL NETWORK TECHNIQUES
	QAMAR SULTANA, M. GOPALNAIK
1b-9e	ASSESSMENT OF SEDIMENT RATING CURVES FOR MOUNTAIN RIVERS IN MALAYSIA
	SHANKER KUMAR SINNAKAUDAN, MOHD RIZAL SHUKOR, MUNYATI MOHAMMED, AZWIN ZAILITI ABDUL RAZAD
1b-9f	EXPERIMENTAL INVESTIGATION OF BEDLOAD SEDIMENT TRANSPORT AND BED EVOLUTION IN DOUBLE-PEAKED HYDROGRAPH
	LE WANG, ALAN J.S. CUTHBERTSON, DEYU ZHONG, GARETH PENDER, ZHIXIAN CAO

TECHNICAL SESSION 9B

THEME 1: RIVER AND SEDIMENT MANAGEMENT

ROOM: **TDI-B** CHAIR: **Dr. Helge Fuchs**

1d-9a	PRESSURE PROPERTIES AT THE BOTTOM OF A STILLING WELL
	JINGJING ZHAI, QINGYUAN YANG, TAO ZHU
1d-9b	ESTIMATION OF FAILURE TIME FOR EMBANKMENT DAMS
	SAAD SHAUKET SAMMEN, THAMER AHMEED MOHAMED, ABD ALHALIM GHAZALI, LARIYAH MOHD SIDEK, AZLAN ABDUL AZIZ
1d-9c	REDUCTION PULSATING WAVES WITH CASCADE ON THE DOWNSTREAM OF POSO I HYDROPOWER STATION'S ENERGY DISSIPATOR
	LINDA PRASETYORINI, DWI PRIYANTORO, NADJADJI ANWAR
1d-9d	PHYSICAL MODELING OF OVERTOPPING INDUCED FLUVIAL DIKE FAILURE: EFFECTS OF MAIN CHANNEL FLOW AND FLOODPLAIN INUNDATION
	ISMAIL RIFAI, SEBASTIEN ERPICUM, PIERRE ARCHAMBEAU, DAMIEN VIOLEAU, MICHEL PIROTTON, BENJAMIN DEWALS, KAMAL EL KADI ABDERREZZAK
1d-9e	NEW EQUATIONS FOR FLOW DRAG FORCE AND ITS APPLICATION
	SHU-QING YANG
1d-9f	SEEPAGE SIMULATION ON PUTRAJAYA EARTH FILL DAM
	MUHAMMAD RIZAL RAZALI, SAAD SH SAMMEN, AZZLIA MOHD UNAINI, THAMER AHMED MOHAMMED ALI

TECHNICAL SESSION 9C

THEME 3: ENVIRONMENTAL HYDRAULICS AND INDUSTRIAL FLOWS

ROOM: **DTHO** CHAIR: **Ir. Dato' Chow Hock Lim**

3a-8a	LARGE EDDY SIMULATION OF A ROUND THERMAL BUOYANT JET IN A CROSS FLOW
	YIZHOU XIAO, WENXIN HUAI, ZHONGHUA YANG, MENG GAO
3a-8b	IMPACT OF BOUNDARY CONDITIONS ON A NUMERICAL MODEL OF FLOW OVER A POROUS BED AS AN APPROACH OF A RIVER'S HYPORHEIC ZONE
	EDWIN SAAVEDRA-CIFUENTES, ANTONIO PREZIOSI-RIBERO, JORGE ALBERTO ESCOBAR-VARGAS, LEONARDO DAVID DONADO
3a-8c	EXPERIMENTAL STUDY ON THE IMPACT OF HYDRAULIC CHARACTERISTIC ON THE DISSIPATION PROCESS OF SUPERSATURATED TOTAL DISSOLVED GAS
	CHENJUN ZENG, QIUWEN CHEN, JIN ZHANG, YUQING LIN, XIA HU
3a-8d	MODELLING THE IMPACT OF MICROBIAL SOURCES ON WATER QUALITY: A STUDY ON THE DESIGNATED SAMPLING POINT IN SWANSEA BAY, UK
	JONATHAN KING, REZA AHMADIAN, AMYHRUL ABU BAKAR, ROGER A. FALCONER
3a-8e	FAECAL COLIFORM ATTACHMENT TO SETTLEABLE SUSPENDED SEDIMENT PARTICLES OF DIFFERENT SIZES
	DEJUN ZHU, LEI JIANG, YONGCAN CHEN, TAO WU
3a-8f	INFLUENCE OF LONGITUDINALLY DISCONTINUOUS VEGETATION ARRANGEMENT PATTERN ON TURBULENT STRUCTURE IN OPEN CHANNEL
	TAKAYUKI TANAKA, TERUNORI OHMOTO

TECHNICAL SESSION 9D

THEME 6: WATER RESOURCES MANAGEMENT

ROOM: **Johor / Kedah** CHAIR: **Assoc. Prof. Dawei Zhang**

6a-6a	SEASONAL FORECASTING OF RESERVOIR INFLOWS AND THEIR UNCERTAINTIES
	MICHAEL BUTTS, ROAR JENSEN, JACOB LARSEN, HENRIK MUELLER, BERTRAND RICHAUD, PETER LARSEN, MIGUEL ÁNGEL CORCUERA BARRERA, BASEL DRAW, ALEJANDRO E. LASARTE
6a-6b	WATER AVAILABILITY FOR HYBRID OFF-RIVER AUGMENTATION SYSTEM (HORAS) IN LANGAT RIVER
	MD MOBASSARUL HASAN, ZALIN AMIR, ABDULLAH AL-MAMUN
6a-6c	MANAGEMENT STRATEGY BASED ON JOINT PROBABILITY ANALYSIS OF WATER QUANTITY AND QUALITY FOR CHAO RIVER, NORTH CHINA
	XUAN WANG, NAN ZANG, PEI YU LIANG
6a-6d	SWAT-BASED OPTIMIZATION FOR AGRICULTURAL NONPOINT SOURCES POLLUTION CONTROL
	CHAO DAI, XIAOSHENG QIN, HUAI CHENG GUO
6a-6e	STATISTICAL CHARACTERISTICS OF EXTREME DROUGHT OF KOREA USING PALEOCLIMATIC DATA
	JOO-HEON LEE, HO-WON JANG, SEO-YEON PARK, HYUN-PYO HONG, TAE-WOON KIM
6a-6f	A FUNDAMENTAL STUDY FOR IMPACT ASSESSMENT OF CLIMATE CHANGE ON OPERATION OF RESERVOIR SYSTEMS FOR WATER SUPPLY IN JAPAN
	SHUNSUKE SUZUKI, DAISUKE NOHARA, TOMOHARU HORI, YOSHINOBU SATO

TECHNICAL SESSION 9E	
THEME 2: FLOOD MANAGEMENT	
ROOM: **Kelantan**	CHAIR: **Hjh. Zalilah Selamat**
2c-4a	STUDY ON THE DECISION-MAKING METHOD FOR RESERVOIR OPERATION SCHEME BASED ON BAYESIAN MODEL
	MINGLEI REN, XIAOYAN HE, HUI LI, XIAOMING JIANG
2c-4b	PERFORMANCE ON INFLOW FORECASTING INTO TEMENGOR DAM USING INTEGRATED FLOOD ANALYSIS SYSTEM
	MOHD IDHAM NAJID, LARIYAH MOHD SIDEK, HIDAYAH BASRI, AZWIN RAZAD, MAZLAN MOHD SOM
2c-4c	RESEARCH AND PRACTICE ON JOINT FLOOD CONTROL OPERATION FOR THE XILUODU-XIANGJIABA-THREE GORGES RESERVOIRS GROUP
	TING HU, HAI WANG, XING-E HU
2c-4d	FLOOD MITIGATION MEASURES TOWARDS ACHIEVING ZERO FLOOD FOR SUNGAI KERAYONG CATCHMENT, SUNGAI KLANG RIVER BASIN
	YUK SAN LIEW, NURFARESYA ZAINURIN, NORSYAMIRA HASSAN, AZMAN MAT JUSOH, NASEHIR KHAN E.M. YAHAYA, JAZURI ABDULLAH, MOHD FOZI ALI, AZMI IBRAHIM
2c-4e	HYDRAULICS OF A HYDRAULIC JUMP AERATION BASIN
	YU ZHOU, JIANHUA WU
2c-4f	ROAD INTERSECTION AS STORMWATER DETENTION BASIN
	DARRIEN YAU SENG MAH, SIEW LING LOH, GABRIELLA SABATINI POUL, WAN HASHIM WAN IBRAHIM

TECHNICAL SESSION 9F	
THEME 4: COASTAL, ESTUARIES AND LAKES MANAGEMENT	
ROOM: **Melaka**	CHAIR: **Prof. Pengzhi Lin**
4c-4a	LABORATORY STUDY OF WAVE-INDUCED SETUP OVER FRINGING REEFS UNDER THE EFFECT OF TIDAL CURRENT
	YU YAO, WENRUN HE, RUICHAO DU, CHANGBO JIANG
4c-4b	ESTIMATION OF WAVE PROPAGATION VELOCITY ON A CHANNEL WITH SMOOTH AND ROUGH BED
	DAVIDE WUTHRICH, MICHAEL PFISTER, IOAN NISTOR, ANTON J. SCHLEISS
4c-4c	HYDROLOGIC EVOLUTION DUE TO AN ARTIFICIAL CHANNEL AND CLIMATE CHANGE IN THE PEEL-HARVEY ESTUARY
	PEISHENG HUANG, MATTHEW HIPSEY, DYLAN PRITCHARD
4c-4d	MODELLING THE IMPACTS OF TIDAL RANGE ENERGY STRUCTURES IN THE SEVERN ESTUARY AND BRISTOL CHANNEL, UK
	NEJC ČOŽ, REZA AHMADIAN, ROGER A. FALCONER
4c-4e	TRACKING SEDIMENT TRACER IN AN EULERIAN MODEL
	HONGHAI LI, TANYA M. DECK, TAHIRIH C. LACKEY, HANS R. MORITZ, KATHARINE GROTH, TRAPIER PUCKETTE, JON MARSH
4c-4f	UNDERSTANDING THE CHANGING HYDRO-ENVIRONMENT AND ECOSYSTEM-BASED LIVELIHOODS IN COASTAL BANGLADESH
	ROBERT J. NICHOLLS, ATTILA N. LAZAR, CRAIG W. HUTTON, HELEN J. ADAMS, MASHFIQUS SALEHIN, ANISUL HAQUE, MUNSUR RAHMAN, DEREK CLARKE

TECHNICAL SESSION 9G

THEME 2: FLOOD MANAGEMENT

ROOM: **Negeri Sembilan** CHAIR: **Dr. Andrew Cornett**

2d-3a	RIVERBED INCISION DAMAGABLE TO HYDRAULIC STRUCTURE AND ITS COUNTERMEASURES
	CHANGHAI HAN, YU YANG, YANFU LI, GAOWEN TAN
2d-3b	FLOOD-INDUCED DEBRIS MOTION IN A BUILT-IN ENVIRONMENT
	IOAN NISTOR, NILS GOSEBERG, JACOB STOLLE
2d-3c	FLOOD PROCESS IN OTOMO DISTRICT, IWAIZUMI CITY, IWATE PREFECTURE DUETO TYPHOON NO.10, 2016
	HIROTAKA MORIYA, YASUO NIHEI, RIKITO MIZUNO, TOMOYA KATAOKA
2d-3d	DESIGNING WITH MULTIFUNCTIONALITY: GREEN INFRASTRUCTURE, FLOOD RESILIENCE AND COMMUNITY WELL-BEING
	ZORAN VOJINOVIC, WEERAYA KEERAKAMOLCHAI, ALIDA ALVES, ARLEX SANCHEZ, SUTAT WEESAKUL, MUKAND S. BABEL
2d-3e	BLOCKING PROBABILITY OF DRIFTWOOD AT OGEE CREST SPILLWAYS WITH PIERS: INFLUENCE OF WOODY DEBRIS CHARACTERISTICS
	PALOMA FURLAN, MICHAEL PFISTER, JORGE MATOS, ANTON J. SCHLEISS
2d-3f	ANALYSIS OF RAINFALL IN AN ARID ZONE OF SOUTH AMERICA
	JOSE VARGAS BAECHELER, PABLO VIDAL SALAZAR

TECHNICAL SESSION 9H

THEME 6: WATER RESOURCES MANAGEMENT

ROOM: **Pahang** CHAIR: **Prof. Amir Hashim Mohd Kassim**

6c-2a	BALANCING DEVELOPMENT OF COAL-ELECTRICITY POWER WITH AVAILABLE WATER RESOURCES IN MAJOR COAL BASES OF CHINA
	SHAN JIANG, QING MING WANG, JIAN HUA WANG, YONG ZHAO
6c-2b	DISCUSSION ON URBAN WATER RESOURCES ALLOCATION BASED ON MINIMUM ENERGY CONSUMPTION
	ZHAOHUI YANG, HAO WANG, XINMING XIE, HUAXIANG HE
6c-2c	ANALYTICAL STUDY ON THE WATER RESOURCES CARRYING CAPACITY OF LARGE SCALE ENERGY BASES ON THE MIDDLE-UPPER REACHES OF THE YELLOW RIVER
	FAN HE, JING YIN, YONG ZHAO, HAIHONG LI, JIANHUA WANG, JIAQI ZHAI, YONGNAN ZHU, SHI FENG
6c-2d	PHYTOTOXICITY EVALUATION AND PHYSIOLOGICAL RESPONSES OF VIGNA RADIATA SEEDLINGS GROWN IN THE LEAD-DOPED IRRIGATION WATER
	YUH NIEN CHOW, LAI KUAN LEE, NOR AZAZI ZAKARIA, KENG YUEN FOO
6c-2e	ANALYSIS OF THE IMPLEMENTATION OF THE TOTAL WATER USE CONTROL IN CHINA'S MOST STRINGENT WATER RESOURCES MANAGEMENT SYSTEM
	WEIWEI SHAO, DAN XU, JIAHONG LIU, GUIYU YANG, JIANHUA WANG, YONGQIANG CAO, HAIBING WU, SHUANG ZHENG
6c-2f	DISCUSSION ON THE CONNECTION OF THE LEGISLATIONS BETWEEN NATIONAL AND LOCAL WATER RESOURCE MANAGEMENT
	CHEN XIAN

Thursday, 17th August 2017
9.30 AM - 11 AM

TECHNICAL SESSION 9I

THEME 7: HYDROINFORMATICS / COMPUTATIONAL METHODS AND EXPERIMENTAL METHODS

ROOM: **Perak** CHAIR: **Assoc. Prof. Majid Mohammadian**

7c-3a	LASER-POSITIONING PIV MEASUREMENT IN THE FIELD USING ANDROID DEVICES
	WEN-YI CHANG, FRANCO LIN, WHEY-FONE TSAI, JIHN-SUNG LAI, CHIN-HSIUNG LOH, TAI-SHAN LIAO
7c-3b	DEVELOPMENT OF A LARGE-EDDY-SIMULATION FOR FREE SURFACE COMPLEX FLOWS
	ADRIEN BOURGOIN, SYLVAIN GUILLOU, JÉRÔME THIÉBOT, SOFIANE BENHAMADOUCHE, RIADH ATA
7c-3c	FORECASTING OF SIGNIFICANT WAVE HEIGHTS USING A HYBRID EOF-WAVELET-ANN APPROACH
	JIHEE OH, KYUNG DUCK SUH
7c-3d	EXPERIMENTAL AND NUMERICAL INVESTIGATION OF PIANO KEY WEIRS
	METE KOKEN, ISMAIL AYDIN, EMRE HASPOLAT, AHMET NAZIM SAHIN
7c-3e	PREDICTION OF TIDES OFF MITHIVIDI, GUJARAT – WEST COAST OF INDIA
	PRASHANTH JANARDHAN, HARISH NARAYAN, SUKOMAL MANDAL
7c-3f	NUMERICAL AND PHYSICAL MODELING OF WATER FLOW IN V-SHAPED STEPPED SPILLWAY
	ZHAOLIANG BAI, JIANMIN ZHANG

Thursday, 17th August 2017
11.30 AM - 1 PM

TECHNICAL SESSION 10A

THEME 1: RIVER AND SEDIMENT MANAGEMENT

ROOM: **TDI-A** CHAIR: **Dr. James Sutherland**

1b-10a	GEOMORPHIC IMPACTS OF THE OPERATION OF XIAOLANGDI RESERVOIR ON THE LOWER YELLOW RIVER
	JUNQIANG XIA, JIE LI, SHIYUAN ZHANG, TAO LI
1b-10b	COMBINING LOCAL 3-D FLOW INFORMATION WITH UNSTEADY FRACTIONAL SEDIMENT TRANSPORT TO ASSESS POOL-RIFFLE SELF-MAINTENANCE
	ESMAEEL BAYAT, ELHAM VAHIDI, JOSE F. RODRIGUEZ, PATRICIA M. SACO, GUSTAVO A.M. DE ALMEIDA
1b-10c	DETERMINATION OF GRAIN SIZE DISTRIBUTION ALONG AREAS OF SAND DEPOSITION: A CASE STUDY OF HIJI RIVER
	ITANI DALE NDWAMBI, AKIHIRO KADOTA, OMAR MAHMOUD SELEEM
1b-10d	COMPUTATION OF MORPHOLOGICAL CHANGE IN A CHANNEL BEND WITH NON-UNIFORM CURVATURE USING THE 2D SHALLOW WATER EQUATIONS
	SEONMIN LEE, CHAEWOONG BAN, SUNG-UK CHOI
1b-10e	SOIL EROSION IN A CHANGING LANDSCAPE OF PULAU PINANG, MALAYSIA
	SUMAYYAH AIMI MOHD NAJIB, ZULLYADINI A. RAHAMAN
1b-10f	CONVEX BANK VEGETATION SUCCESSION AND ITS EFFECT OF FORMING POINT BAR OF MEANDERING RIVER IN THE YELLOW RIVER SOURCE REGION
	HAILI ZHU, XIASONG HU, ZHIWEI LI, YANTING LI

TECHNICAL SESSION 10B

THEME 4: COASTAL, ESTUARIES AND LAKES MANAGEMENT

ROOM: **TDI-B** CHAIR: **Prof. Pengzhi Lin**

4b-1a	SIMPLIFIED MODEL TO ESTIMATE IMPACT ON COASTAL WATER RESOURCES AND LOSS OF SHORELINE LAND DUE TO CLIMATE CHANGE AND SEA LEVEL RISE
	ABI OGUNIMILUSI, GREGORY DE COSTA
4b-1b	PHYSICAL HYDRAULIC MODELLING FOR THE DEVELOPMENT OF INNOVATIVE COASTAL PROTECTION STRUCTURE IN A 2-D WAVE FLUME
	AHMAD HADI MOHAMED RASHIDI, MOHAMAD HIDAYAT JAMAL, MOHD RADZI ABD HAMID, SITI SALIHAH MOHD SENDEK
4b-1c	THE IMPACT OF SEA LEVEL RISE ON TIDES AND STORM SURGES AROUND COAST OF TAIWAN
	WEN-CHENG LIU, WEI-CHER HUANG, ZHE-YONG ZHOU
4b-1d	INTEGRATED NUMERICAL MODELING OF WAVE-POROUS STRUCTURE BY FINITE VOLUME METHOD (FVM)
	PARAN POURTEYMOURI, KOUROSH HEJAZI
4b-1e	SPH MODELING OF TSUNAMI PROPAGATION AND HIGHEST RUN-UP: CASE STUDY – OKUSHIRI ISLAND TSUNAMI
	AHMED M. ABDELRAZEK, ICHIRO KIMURA, YASUYUKI SHIMIZU
4b-1f	A PRELIMINARY STUDY ON THE IMPACTS OF THE THREE GORGES PROJECT ON SALTWATER INTRUSION IN THE YANGTZE ESTUARY
	XIN YAN, ZHAOHUA SUN, JUNQIANG XIA

TECHNICAL SESSION 10C

THEME 4: COASTAL, ESTUARIES AND LAKES MANAGEMENT

ROOM: **DTHO** CHAIR: **Prof. Stephen Monismith**

4c-5a	DEVELOPMENT OF THREE-DIMENSIONAL WATER QUALITY MODEL AND ITS APPLICATION TO A LONG-NARROW BAY
	SONGLIN HAN, SHUXIU LIANG, ZHAOCHEN SUN
4c-5b	INVESTIGATION OF WIND SPEED PROJECTIONS IN THE PERSIAN GULF USING DIFFERENT RESOURCES OF CMIP5 DATA
	TAHEREH ALINEJHAD-TABRIZI, NASSER HADJIZADEH-ZAKER, BAHAREH KAMRANZAD
4c-5c	A GEOCHEMICAL APPROACH TO VALIDATE HYDRODYNAMIC MODEL IN BOHAI BAY
	YUANYI LI, HUAN FENG, DEKUI YUAN, LEI GUO, JIANHUA TAO
4c-5d	MODELLING TSUNAMI FOR COASTAL RECLAMATION: INFLUENCE OF COASTLINE REFLECTIVITY, COASTAL CHANNEL GEOMETRY AND ONSHORE STORAGE
	JANET YI YEE LEE, JUAN CARLOS SAVIOLI, JACOB HJELMAGER JENSEN, CHI WEI CHENG, CLAUS PEDERSEN
4c-5e	APPROPRIATE WATER QUALITY ENVIRONMENT FOR PROTECTING THE COASTAL ECOSYSTEM IN THE ARIAKE SEA, JAPAN
	TOSHINORI TABATA, WATARU HAYASHI, EMI OTSUBO, KAZUAKI HIRAMATSU, MASAYOSHI HARADA
4c-5f	ADAPTIVE ENVIRONMENTAL MANAGEMENT INTO DREDGING PROJECTS
	ARMAN MOKHTAR, JUAN CARLOS SAVIOLI, ANUAR YAHYA, SITI AISHAH HASHIM

TECHNICAL SESSION 10D

THEME 2: FLOOD MANAGEMENT

ROOM: **Johor / Kedah** CHAIR: **Ir. Hj. Mohd Fauzi Mohamad**

2a-4a	COMPARISON BETWEEN DETERMINISTIC AND UNCERTAINTY APPROACHES IN SIMULATING DESIGN FLOOD PROFILE ON THE JOHOR RIVER, MALAYSIA
	ANUAR MD. ALI, GIULIANO DI BALDASSARRE, DIMITRI P. SOLOMATINE
2a-4b	STUDY ON PARAMETERS ESTIMATION OF THE XAJ MODEL BASED ON UNDERLYING SURFACE CHARACTERISTICS
	XING-NAN ZHANG, YUAN-HAO FANG, BO QU, LE-JUN MA, MIAO WU
2a-4c	IDENTIFYING URBAN FLOODING VULNERABILITY USING MCDM APPROACH
	GYUMIN LEE, JINWON CHOI, KYUNG SOO JUN
2a-4d	DEVELOPMENT OF CLIMATE HAZARDS INDICATORS BASED ON DRIVERS–PRESSURES–STATE–IMPACTS–RESPONSES (DPSIR) FRAMEWORK: CASE STUDY IN CAMERON HIGHLANDS, MALAYSIA
	KOK WENG TAN, PHUI NYING LOH
2a-4e	METHODOLOGY FOR FLOOD RISK MAP DEVELOPMENT. APPLICATION TO VU GIA THU BON CATCHMENT, VIETNAM
	NGOC DUONG VO, PHILIPPE GOURBESVILLE
2a-4f	EVALUATION OF DIFFERENCE MESH SIZE FOR OVERLAND ROUTING MODEL
	WAN HAZDY AZAD WAN ABDUL MAJID, LARIYAH MOHD SIDEK, HIDAYAH BASRI, SUHANI SAIDIN, ABD. JALIL HASSAN

TECHNICAL SESSION 10E

THEME 1: RIVER AND SEDIMENT MANAGEMENT

ROOM: **Kelantan** CHAIR: **Dr. How Tion Puay**

1c-4a	LABORATORY EXPERIMENTS ON DENSITY CURRENTS FLOWING OVER ARRAYS OF ROUGHNESS ELEMENTS
	REZA NASROLLAHPOUR, MOHAMAD HIDAYAT JAMAL, ZULHILMI ISMAIL
1c-4b	VENTING OF TURBIDITY CURRENTS: WHEN TO ACT?
	SABINE CHAMOUN
1c-4c	FIELD EXPERIMENT OF BEDLOAD TRANSPORT RATE MEASUREMENT AT SEDIMENT BYPASS TUNNEL
	TAKAHIRO KOSHIBA, SAMEH A. KANTOUSH, TETSUYA SUMI
1c-4d	ESTIMATION OF RESERVOIR SEDIMENTATION OF UKAI RESERVOIR USING SRS TECHNIQUE BETWEEN SPECIFIC WATER SURFACE ELEVATIONS
	GANESH D. KALE, RITESHKUMAR H. SHOBHAVAT, AMIT KUMAR SHARMA
1c-4e	USING THE TELEMAC 3D MODEL FOR ESTIMATING THE IMPACT OF BRIDGE CONSTRUCTION TO RIVER HYDRODYNAMIC REGIME
	NGOC DUONG VO, QUANG BINH NGUYEN, PHILIPPE GOURBESVILLE
1c-4f	PREDICTION OF COMPLEX PIER SCOUR USING GENE EXPRESSION PROGRAMMING
	REZA MOHAMMADPOUR, AMINUDDIN AB. GHANI

TECHNICAL SESSION 10F

THEME 7: HYDROINFORMATICS / COMPUTATIONAL METHODS AND EXPERIMENTAL METHODS

ROOM: **Melaka** CHAIR: **Prof. Haegyun Lee**

7a-3a	ROBUST PARAMETER SET SELECTION OF HYDRODYNAMIC MODEL FOR MULTI-SITES USING MINIMAX REGRET APPROACH
	LI LI, EUN-SUNG CHUNG, KYUNG SOO JUN
7a-3b	CFD MODELLING OF BREAKING AND UNDULAR TIDAL BORES WITH PHYSICAL VALIDATION
	XINQIAN LENG, PIERRE LUBIN, HUBERT CHANSON
7a-3c	PARALLEL COMPUTATION OF A DAM-BREAK FLOW MODEL USING OPENACC AND OPENMP APPLICATIONS
	SHANGHONG ZHANG, WENDA LI, ZHU JING
7a-3d	A NODAL DISCONTINUOUS GALERKIN MODEL WITH QUADRILATERAL MESH FOR 2D SHALLOW WATER EQUATIONS
	LONGXIANG LI, QINGHE ZHANG
7a-3e	NUMERICAL SIMULATION FOR TYPHOON AND WAVE OF QIONGZHOU STRAIT
	YANAN XU, HANBAO CHEN, CIHENG ZHANG, WENJUN SHEN
7a-3f	INVESTIGATION OF UNCERTAINTY EFFECTS ON HYDRAULIC PERFORMANCE OF WATER DISTRIBUTION NETWORKS USING THE FUZZY SETS THEORY
	ADELL MORADI SABZKOUHI, ALI HAGHIGHI, AMIN MINAEI

TECHNICAL SESSION 10G

THEME 4: COASTAL, ESTUARIES AND LAKES MANAGEMENT

ROOM: **Negeri Sembilan** CHAIR: **Prof. Ioan Nistor**

4e-3a	THREE-DIMENSIONAL SCOUR AROUND EMBEDDED SUBMARINE PIPELINE UNDER OBLIQUE WAVES
	YONGZHOU CHENG, DONGWEI YANG, WENSEN WANG, DIANQI LI
4e-3b	TECHNOLOGY OF ICE PIER CONSTRUCTION: STATE-OF-THE-ART AND FUTURE
	HERY RUSTANTO
4e-3c	WAVE RUN-UP FORECASTING MODEL USING ARTIFICIAL NEURAL NETWORK BETWEEN OFFSHORE WAVE DATA AND WAVE RUN-UP SCALE
	SEOK-BONG LEE, KYUNG-DUCK SUH
4e-3d	HYDRO-ENVIRONMENTAL MODELLING OF A SEVERN BARRAGE WITH VERY LOW HEAD TURBINES
	REZA AHMADIAN, ROGER FALCONER, BETTINA BOCKELMANN-EVANS
4e-3e	HYDRAULIC EFFICIENCY OF A FIXED FREE SURFACE H-TYPE BREAKWATER SUBJECTED TO REGULAR WAVES
	HEE MIN TEH, SYED SHUJA UL HASSAN, THINAGRAN SILAVARAJ
4e-3f	THE EFFECT OF SUBMERGED BREAKWATER SHAPE AND SIZE ON WAVE ENERGY DISSIPATION
	FATEMEH HAJIVALIE

TECHNICAL SESSION 10H

THEME 3: ENVIRONMENTAL HYDRAULICS AND INDUSTRIAL FLOWS

ROOM: **Pahang** CHAIR: **Dato' Ir. Haji Mohd. Azmi Ismail**

3d-1a	CHARACTERISTICS OF THE SHOCK WAVES AND WATER WING IN SLIT-TYPE ENERGY DISSIPATERS
	HAN HU, GUOBING HUANG, WEI YANG
3d-1b	SUPPRESSION OF VORTEX INDUCED VIBRATION USING VORTEX GENERATORS IN 2D COMPUTATIONAL FLUID DYNAMICS
	MOHD AZIM SAFWAN ABDUL WAHAB, SITI FATIN MOHD RAZALI
3d-1c	THE INFLUENCE OF WATERWAY REGULATION ON THE RARE FISHES IN UPPER REACHES OF YANGTZE RIVER AND PROTECTION STRATEGY
	XIANBING ZHANG, WEIWEI YU, SISI QUE, DUOYIN WANG, WENJIE LI, WEI YANG, CHENPENG SONG, HAIHONG JIANG
3d-1d	HEAD LOSSES AND INFLUENCE LENGTH OF SHARP-EDGED AND ROUNDED ORIFICES UNDER STEADY FLOW CONDITIONS
	NICOLAS ADAM, GIOVANNI DE CESARE, ANTON J. SCHLEISS
3d-1e	EXPERIMENTAL STUDY OF THE EFFECTS OF A HORIZONTAL AXIS TIDAL STREAM TURBINE ON HYDRODYNAMIC PROCESSES
	YALING CHEN, BINLIANG LIN, JIE LIN
3d-1f	RECENT PROGRESS ON THE SUSTAINABLE ENERGY SYSTEMS IN SMART CITIES
	HUI QIAN YOONG, LAI KUAN LEE, NOR AZAZI ZAKARIA, KENG YUEN FOO

TECHNICAL SESSION 10I

THEME 3: ENVIRONMENTAL HYDRAULICS AND INDUSTRIAL FLOWS

ROOM: **Perak** CHAIR: **Dr. Reza Ahmadian**

3e-3a	ANALYSIS OF THE CAVITATING FLOWS IN A LOW SPECIFIC SPEED AXIAL PUMP
	ZHE WANG, RENFANG HUANG, XIANWU LUO, JIAJIAN ZHOU, LIN WANG
3e-3b	PERFORMANCE CHARACTERISTIC STUDY OF ENERGY-RECOVERY PELTON TURBINE WITH DIFFERENT SIZES OF CASING
	YOUNG SOO KIM, JOO HOON PARK, YOUHWAN SHIN, JIN TAEK CHUNG
3e-3c	STUDY ON INTERNAL FLOW OF REVERSIBLE BULB TUBULAR PUMP WITH SYMMETRIC AEROFOIL
	YAN JIN, HONGCHENG CHEN, JUNXIN WU, CHAO LIU
3e-3d	SIMULATION OF STEADY AND UNSTEADY FLOWS THROUGH A SMALL HORIZONTAL FRANCIS TURBINE
	AHMED LAOUARI, ADEL GHENAIET
3e-3e	INTERNAL FLOW ANALYSIS AND DESIGN OPTIMIZATION FOR A LOW SPECIFIC SPEED AXIAL PUMP
	DANDAN YANG, ZHE WANG, XIANWU LUO, JIAJIAN ZHOU, HONGYUAN XU
3e-3f	CHARACTERISTICS OF THE FREE-SURFACE JET EMANATING DOWNSTREAM OF VORTEX INTAKE STRUCTURES: ANALYTICAL AND NUMERICAL APPROACHES
	SEAN MULLIGAN, EOGHAN CLIFFORD

TECHNICAL SESSION 11A

THEME 1: RIVER AND SEDIMENT MANAGEMENT

ROOM: **TDI-A** CHAIR: **Prof. Marko Shaohua Hsu**

1b-11a	INVESTIGATING THE IMPACT OF THE HEAVY RAINFALL OF 1999 AND LAND COVER CHANGES ON SOIL LOSS AND SEDIMENTATION OF FRASER HILL CATCHMENT IN MALAYSIA USING REMOTE SENSING AND GIS
	ZHOOBIN RAHIMI, FARIDAH OTHMAN
1b-11b	MATHEMATICAL MODEL FOR FLOW AND SUSPENDED SEDIMENT TRANSPORT WITH BIOFILMS
	HAOJIE LAI, GUOJIAN HE, WEI CHENG, LEI HUANG, HONGWEI FANG
1b-11c	SUSPENDED SEDIMENT FLOW CHARACTERISTICS IN NON-UNIFORM OPEN CHANNEL
	BAMBANG AGUS KIRONOTO, BAMBANG YULISTIYANTO, BUDI WIGNYOSUKARTO, BAMBANG TRIATMODJO, ERWIN NUR AFIATO, RAHMAT BANGUN GIARTO
1b-11d	EXPERIMENTAL EVALUATION FOR EFFECT OF SABO FACILITIES ON BED VARIATIONS IN DOWNSTREAM REACH
	HARUKI WATABE, KAZUHIKO KAITSUKA, MINORU SUGIYAMA, HIROHISA MURAMATSU, TAKAHIKO NAGAYAMA, HIROSHI OGAWA, TSUTOMU MIIKE, AYUMI MIYAMOTO, YUUCHI YAMADA, TAKAHIRO ITOH, TAKAHISA MIZUYAMA
1b-11e	DETERMINATION OF OPTIMUM RACK ANGLE OF TYROLEAN TYPE INTAKES TO INCREASE WATER CAPTURE EFFICIENCY
	MUSTAFA GOGUS, KUTAY YILMAZ, ABIDDIN BERHAN MELEK
1b-11f	EXPERIMENTAL INVESTIGATION OF THE INTERACTION BETWEEN FINE HEAVY PARTICLES AND ORGANIZED TURBULENT FLOWS IN OPEN CHANNEL
	YI LU, KIT MING LAM

TECHNICAL SESSION 11B

THEME 7: HYDROINFORMATICS / COMPUTATIONAL METHODS AND EXPERIMENTAL METHODS

ROOM: **TDI-B** CHAIR: **Dr. Jae-Young Ahn**

7e-1a	EXPERIMENTAL AIRBORNE ADVANCE RESEARCH LIDAR (EAARL) B: ACCURACY AND APPLICATION FOR AQUATIC HABITAT MAPPING
	DANIELE TONINA, JAMES A. MCKEAN, ROHAN BENJANKAR, WAYNE WRIGHT, JAIME G. GOODE, QIUWEN CHEN, WILLIAM J. REEDER, JODY WHITE
7e-1b	EFFICIENT HANDLING OF BIG DATA FOR TOPOBATHYMETRIC APPLICATIONS: EXAMPLES FROM LAKE CONSTANCE AND BAVARIA IN EUROPE
	FRANK STEINBACHER, WERNER BENGER, RAMONA BARAN, WOLFGANG DOBLER, MARKUS AUFLEGER
7e-1c	ANNUAL VARIATION OF FLOOD RISKS IN THE 109 PRIMARY WATER SYSTEMS IN JAPAN
	TOMOYA KATAOKA, YASUO NIHEI
7e-1d	OPEN DATA FROM PHYSICAL MODEL TESTS: LESSONS LEARNED FROM RELATED INITIATIVES
	JAMES SUTHERLAND, CHRIS AWRE, GONZALO MALVAREZ, ANNA VAN GILS, QUILLON HARPHAM
7e-1e	PERFORMANCE OF SATELLITE PRECIPITATION PRODUCTS FOR 2014/2015 EXTREME FLOOD EVENTS
	WAN ZURINA WAN JAAFAR, EUGENE ZHEN XIANG SOO, SAI HIN LAI, TANVIR ISLAM, PRASHANT K. SRIVASTAVA
7e-1f	USING UNMANNED AERIAL VEHICLES TO INSPECT SILTATION IN IRRIGATION CANALS
	ABUBAKR MUHAMMAD, ALI AHMAD, SAAD HASSAN, SYED M ABBAS, TALHA MANZOOR, KARSTEN BERNS

TECHNICAL SESSION 11C

THEME 7: HYDROINFORMATICS / COMPUTATIONAL METHODS AND EXPERIMENTAL METHODS

ROOM: **DTHO** CHAIR: **Prof. Yangwen Jia**

7d-4a	USING REMOTELY SENSED DATA TO ESTIMATE RIVER CHARACTERISTICS, INCLUDING WATER-SURFACE VELOCITY AND DISCHARGE
	JONATHAN M. NELSON, PAUL J. KINZEL, CARL J. LEGLEITER, RICHARD R. MCDONALD, BRANDON T. OVERSTREET, JEFFREY S. CONAWAY
7d-4b	RAINFALL SIMULATOR AS A NONPOINT SOURCE POLLUTION RESEARCH TOOL ON TROPICAL URBAN SEALED SURFACES
	MAHADI LAWAN YAKUBU, ZULKIFLI YUSOP, MUTTAQA UBA ZANGO, ABUBAKAR ABDULKARIM
7d-4c	MEASUREMENT OF TWO-DIMENSIONAL WATER SURFACE PROFILE OF ROUGH WALL TURBULENCE BY SAMPLING MOIRE METHOD
	KOJIRO TANI, ICHIRO FUJITA, HIDETO YOSHIMURA
7d-4d	LATERAL VARIATION OF TURBULENCE IN DEVELOPING NARROW OPEN CHANNEL FLOW
	MINAKSHEE MAHANANDA, PRASHANTH REDDY HANMAIAHGARI
7d-4e	DEVELOPMENT OF EVALUATION METHOD OF UPLIFT FORCES ON THE WAVE DISSIPATING CAISSON BY USING NUMERICAL SIMULATION
	HIROMU IGARASHI, KAZUKI NAMIKI, TARO ARIKAWA
7d-4f	HIGH SPATIO-TEMPORAL MEASUREMENTS OF EROSION RATES OF COHESIVE SEDIMENTS USING PHOTOGRAMMETRIC METHODS
	MARKUS NOACK, GERHARD SCHMID, ALINE SCHAEFER RODRIGUES SILVA, SILKE WIEPRECHT

TECHNICAL SESSION 11D

THEME 2: FLOOD MANAGEMENT

ROOM: **Johor / Kedah** CHAIR: **Prof. Marian Muste**

2a-5a	NUMERICAL SIMULATION OF FLOOD INUNDATION AND SEDIMENTATION CONSIDERING THE EFFECTS OF PADDY FIELDS
	KENJI KAWAIKE, MASAKAZU HASHIMOTO, HAJIME NAKAGAWA
2a-5b	SIMPLIFIED PHYSICALLY-BASED MODELING OF LEVEE BREACH ON SUTTER BYPASS CHANNEL
	WEIMING WU
2a-5c	ISSUES CONCERNING SPATIAL DATA COLLECTION AND PROCESSING FOR URBAN FLOOD MODELLING
	AHMAD FIKRI ABDULLAH, ZORAN VOJINOVIC, VORAWIT MEESUK
2a-5d	ADAPTING TO CLIMATE CHANGE THROUGH HOLISTIC RISK ASSESSMENT - THE PEARL APPROACH
	ZORAN VOJINOVIC, ARLEX SANCHEZ, ALIDA ALVES, YARED ABEBE, NEILER MEDINA, OLE MARK, NINA STO. DOMINGO, SLOBODAN DJORDJEVIĆ, ALBERT CHEN, KATYA PYATKOVA, MARK PELLING, ARABELLA FRASER, JOERN BIRKMANN, LINDA SORG, JAUME AMOROS, NATASA MANOJLOVIC, PETER FROHLE, AMINEH GHORBANI, IGOR NIKOLIC, DONG-JIING DOONG
2a-5e	EVALUATION ON THE PHYSICO-CHEMICAL AND BACTERIOLOGICAL CONTAMINATION OF THE FLOOD WATER AFTER THE HEAVILY FLOOD INCIDENCE AT THE PAHANG RIVER, MALAYSIA
	KAH YEE LIM, NOR AZAZI ZAKARIA, KENG YUEN FOO
2a-5f	NUMERICAL ANALYSIS OF INUNDATION FLOW DUE TO HEAVY RAINFALL IN THE SHIRAKAWA RIVER ON JULY, 2012
	XIANG CHEN, RYUICHI HIRAKAWA, TERUNORI OHMOTO

TECHNICAL SESSION 11E

THEME 7: HYDROINFORMATICS / COMPUTATIONAL METHODS AND EXPERIMENTAL METHODS

ROOM: **Kelantan** CHAIR: **Dr. Shinichiro Onda**

7b-3a	A PIPELINE OIL LEAKAGE MODEL FOR OILFIELDS IN SHALLOW WATER
	ZHIGANG LI, MEIRONG JIANG, JIANXING YU, KONGZHONG LIU, YING JIANG, CHANGTAO WANG
7b-3b	NUMERICAL SIMULATION OF SEDIMENT TRANSPORT AND SUSPENDED SOLID DISTRIBUTION DUE TO THE DAMAGE OF RECLAMATION WALL IN MINAMATA BAY
	EDISTRI NUR FATHYA, SHINICHIRO YANO, AKITO MATSUYAMA, AKIHIDE TADA
7b-3c	PRELIMINARY ENVIRONMENTAL PROFILE STUDY OF INANAM RIVER CATCHMENT, SABAH
	KOK HOU KU, TANIA GOLINGI, CHING SIN LIM, YABI YANGKAT, VITALIS MODUYING
7b-3d	MODELING AND MEASURING OF INTERFACES IN SEWER SYSTEMS
	KATHARINA TEUBER, MARIA GRÜNEBERGER, DANEISH DESPOT, DIETMAR STEPHAN, MATTHIAS BARJENBRUCH, REINHARD HINKELMANN
7b-3e	SECOND ORDER STATISTICS OF A JET IN AMBIENT TURBULENCE
	ADRIAN C.H. LAII, PENG LIU, ADRIA W.K. LAW, E. ERIC ADAMS
7b-3f	STUDY OF PRESSURE DISTRIBUTION AND VOLUME FRACTION OF AIR AND WATER ACROSS THE CHANNELS OF OXIDATION DITCH
	NOOR AIDA SAAD, HAMIDI ABDUL AZIZ, MOHD ZULKIFLY ABDULLAH, MOHAMED ZUBAIR

TECHNICAL SESSION 11F

THEME 2: FLOOD MANAGEMENT

ROOM: **Melaka** CHAIR: **Assoc. Prof. Stefan Achleitner**

2b-3a	OGEE WEIR CREST DEFINITION: HISTORICAL ADVANCE
	WILLI H. HAGER, OSCAR CASTRO-ORGAZ
2b-3b	AN OPEN-SOURCE MODELLING AND DATA SYSTEM FOR NEAR REAL-TIME FLOOD FORECASTING
	QIUHUA LIANG, YUN XING, XIADONG MING, XILIN XIA, HUILI CHEN, XUE TONG, GANG WANG, HAIBO YANG
2b-3c	MODELLING THE 1910 FLOOD IN THE BESANCON CENTRE
	ANDRÉ PAQUIER, ANTOINE CHIAVERINI
2b-3d	URBAN FLOOD MODELLING – PROCESS OR REGRESSION?
	JAMES E. BALL
2b-3e	FLOOD SIMULATION AND RISK ANALYSIS BASED ON SEMANTIC 3D CITY MODELS COUPLED WITH HYDRO NUMERICAL MODELS (FLORICIMO)
	TORSTEN HEYER, HELLEN HAMMOUDI, ROBERTO TATIS MUVDI, STEFAN TROMETER, ARNE SCHILLING, JUERGEN STAMM
2b-3f	A MODEL OF SELECTING OPTIMAL WALKING ROUTES FOR EVACUATION IN FLOOD-PRONE AREAS BASED ON MECHANICAL PROCESS
	PENG GUO, JUNQIANG XIA, ROGER A. FALCONER, QIAN CHEN

TECHNICAL SESSION 11G

THEME 4: COASTAL, ESTUARIES AND LAKES MANAGEMENT

ROOM: **Negeri Sembilan** CHAIR: **Ir. Mohd Radzi Abd Hamid**

4e-4a	DYNAMIC RESPONSE OF A VESSEL IN FIXED PIER AND FLOATING PIER
	SITHALAKSHMI SHANMUGAM, RAHUL DEV RAJU, PANNEER SELVAM RAJAMANICKAM, SUNDARAVADIVELU RANGANATHAN
4e-4b	WAVE SCATTERING FROM SUBMERGED T-TYPE BREAKWATER
	GUOYU WANG, XIN GUO, BING REN
4e-4c	GEOMETRY AND ALIGNMENT OPTIMIZATION OF BREAKWATERS USING A GENETIC ALGORITHM
	MAHSA JAHANGARD, KOUROSH HEJAZI
4e-4d	SHORE PROTECTION USING DOUBLE PLATE VERTICAL POROUS BREAKWATER
	LAMANTO T. SOMERVELL, SANTOSH G. THAMPI, AIKOT PALLIKKARA SHASHIKALA
4e-4e	STUDY ON MAINTENANCE DREDGING SCHEME FOR CHANNEL WITH A NUMERICAL MODEL
	XINFENG ZHANG, SULAN LU, YU JIANG, YAJU WU

TECHNICAL SESSION 11H

THEME 1: RIVER AND SEDIMENT MANAGEMENT

ROOM: **Pahang** CHAIR: **Prof. Yonghui Zhu**

1a-5a	SWITCHING OF BIFURCATION TO SINGLE CHANNEL: CASE OF A SAND BED BRAIDED RIVER
	SHAMPA, YUJI HASEGAWA, HAJIME NAKAGAWA, HIROSHI TAKEBAYASHI, KENJI KAWAIKE
1a-5b	STUDY ON HYDRAULIC CHARACTERISTICS OF NON - UNIFORM FLOW IN THREE GORGES RESERVOIR
	PENG ZHANG, SHENGFA YANG, JIANG HU, MI TIAN, SHUAISHUAI ZHANG, SICHEN TONG, XUELIAN LIU, YING SHEN, TAO WANG
1a-5c	RESEARCH ON SYNERGISTIC EVOLUTION BETWEEN THE RIVER CHANNEL AND FLOODPLAIN IN THE LOWER YELLOW RIVER
	QIUSHI LUO, MOXI WU, ZHANWEI WAN, YU QIAN
1a-5d	TEMPORAL CHANGE STUDY ON TAPI RIVER MEANDER USING REMOTE SENSING AND GIS
	KEYUR J. PRAJAPATI, SAHITA I. WAIKHOM, SANJAY M. YADAV
1a-5e	VARIATION IN BANKFULL GEOMETRY IN A GRAVEL-TO-SAND BED REACH UNDERGOING CHANNEL DEGRADATION
	MEIRONG ZHOU, JUNQIANG XIA, SHANSHAN DENG, FENFEN LIN
1a-5f	HISTORICAL EVOLUTION OF CHANNEL SHIFTING AND ITS RESPONSE TO TRADITIONAL BANK PROTECTION WORK ALONG A REACH OF THE SAND BED BRAIDED AT JAMUNA/BRAHMAPUTRA
	MD. MARUF DUSTEGIR, MD. RASHEDUL ISLAM, MD. MUNSUR RAHMAN, ANISUL HAQUE, REZAUL KARIM, GAZI RIASAT AMIN, LUTFOR RAHMAN, MOTAHAR HOSSAIN, HAJIME NAKAGAWA, YUJI HASEGAWA

TECHNICAL SESSION 11I

THEME 5: URBAN WATER MANAGEMENT

ROOM: **Perak** CHAIR: **Dr. Hui Weng Goh**

5a-3a	SIMULATION OF HYDROLOGIC BEHAVIOR OF LOWER TAPI BASIN USING HEC-HMS AND GEOSPATIAL TECHNOLOGY
	PAWAN BHAVSAR, JAYANTILAL N. PATEL
5a-3b	A COARSE GRID APPROACH-BASED MODEL CHAIN FOR FAST RAINFALL-RUNOFF PREDICTIONS IN NATURAL AND URBAN AREAS
	ILHAN ÖZGEN
5a-3c	A GPU BASED NUMERICAL MODEL EVALUATING SPONGE EFFECTS ON URBAN FLOOD FOR SPONGE CITY CONSTRUCTION IN CHINA
	RUN WANG, JINGMING HOU, ZHANBIN LI, JIAN ZHOU, QUAN QUAN, GUODONG LI, BINGQIAN WEI, WEN WANG, YUE MA
5a-3d	INTEGRATED ONE-DIMENSIONAL AND TWO-DIMENSIONAL FLOOD MODELLING FOR THE URBAN DRAINAGE STUDY ALONG JALAN SIBIYU, BINTULU SARAWAK
	JUDY JOO KHENG KUEH, SIN POH LIM
5a-3e	ESTIMATION OF ACTUAL EVAPOTRANSPIRATION USING GIS AND REMOTE SENSING (CASE STUDY: TAPI RIVER CATCHMENT, INDIA)
	KALPESH BORSE, PRAVEEN RATHOD, VIVEK L. MANEKAR, PRASIT G. AGNIHOTRI
5a-3f	COMPARISON AND ANALYSIS OF DIFFERENT METHODS FOR THE PEAK DISCHARGE ESTIMATION FROM DRAINAGE BASINS RUNOFF IN SAUDI ARABIA
	MATTEO VENTURA, FABRIZIO CABAS, GIOVANNI COSTANTINI, CHIARA CESALI

TECHNICAL SESSION 11J

THEME 4: COASTAL, ESTUARIES AND LAKES MANAGEMENT

ROOM: **Pulau Pinang** CHAIR: **Prof. Hitoshi Tanaka**

4a-2a	LONG TERM SHORELINE CHANGE AND FUTURE FORECAST DUE TO SEA LEVEL RISE IN SOUTH TAINAN COAST
	WEN-JUINN CHEN, JOU-HAN WANG
4a-2b	NUMERICAL INVESTIGATION OF NONLINEAR M4 OVERRIDE ON THE BACKWATER HYDRODYNAMICS IN TIDAL RIVERS
	HUAYANG CAI, PENG YAO, SUYING OU, QINGSHU YANG
4a-2c	THE SIGNIFICANCE OF HYDRODYNAMIC MODELLING FOR MANGROVE GROWTH AND SURVIVAL IN MALAYSIA
	IKMALZATUL ABDULLAH, NOR ASLINDA AWANG, ANIZAWATI AHMAD, SHIMATUN JUMANI IBRAHIM
4a-2d	MONITORING OF CONTINUOUS TIDAL CURRENT PATTERN IN ASYMMETRIC BIFURCATION CHANNEL NETWORK USING ACOUSTIC TOMOGRAPHY METHOD AND NUMERICAL MODELING
	MOCHAMMAD MEDDY DANIAL, KIYOSI KAWANISI, MASOUD BAHREINMOTLAGH, MOHAMAD BASEL AL-SAWAF, JUNYA KAGAMI
4a-2e	HYDRODYNAMIC MODELING OF SEA OF OMAN
	PRERANA CHITRAKAR, AHMAD SANA, MAHAD BAAWAIN
4a-2f	ICE FORMATION AND FLOW REGIMES IN REGULATED RIVERS, CENTRAL IDAHO, USA
	ANDREW W. TRANMER, PETER GOODWIN, MATTHEW G. TIEDEMANN, DANIELE TONINA, ROBERT ETTEMA

TECHNICAL SESSION 12A

THEME 1: RIVER AND SEDIMENT MANAGEMENT

ROOM: **TDI-A** CHAIR: **Prof. Hajime Nakagawa**

1b-12a	A ROBUST TWO-DIMENSIONAL COUPLED FLOW-SEDIMENT TRANSPORT MODEL BASED ON AN IMPROVED UNSTRUCTURED FINITE VOLUME ALGORITHM
	GANGFENG WU, KEFENG ZHANG
1b-12b	PROBLEMS IN SEDIMENT TRANSPORT FORMULAS AND ITS IMPROVEMENT
	SHU-QING YANG
1b-12c	EXPERIMENTAL STUDY OF SEDIMENT TRANSPORT OVER A NON-ERODIBLE ROUGH BED
	DAVID RAUS, FREDERIC MOULIN, OLIVIER EIFF
1b-12d	LINEAR STABILITY ANALYSIS ON BED CONFIGURATION OF SOFT ROCK PARTIALLY COVERED WITH SEDIMENT
	KEIGO IMORI, YASUHARU WATANEBE
1b-12e	A 1D NUMERICAL MODEL FOR AGGRADING CHANNEL OF NONUNIFORM SEDIMENT BED
	BHOOMI R. ANDHARIA, PREM LAL PATEL, VIVEK L. MANEKAR, PRAKASH D. POREY
1b-12f	RESEARCH ON THE METHOD OF RECOGNITION AND EXTRACTION FOR AUDIO SIGNAL OF THE GRAVEL MOVEMENT IN NATURAL RIVERS
	MI TIAN, SHENG FA YANG, QI GUO

TECHNICAL SESSION 12B

THEME 1: RIVER AND SEDIMENT MANAGEMENT

ROOM: **TDI-B** CHAIR: **Prof. Wenhong Dai**

1d-10a	AIR-WATER FLOW PROPERTIES IN HYDRAULIC JUMPS ON A POSITIVE SLOPE
	LAURA MONTANO, STEFAN FELDER
1d-10b	FURTHER STUDIES ON OPTIMAL HYDRAULIC SECTION OF STEADY UNIFORM FLOW IN RECTANGULAR OPEN CHANNELS
	MIN FAN, YUANLE ZHU, YAOZU JIANG, BOLE JIAO
1d-10c	EFFECT OF FLOW INTENSITY ON BRIDGE PIER SCOUR GEOMETRY FOR LOW BLOCKAGE RATIOS
	PRISCILLA WILLIAMS, RAM BALACHANDAR, TIRUPATI BOLISETTI
1d-10d	OPTIMIZING DISCHARGE COEFFICIENTS OF SPILLWAYS LABYRINTH IMPLEMENTING TWO HYDRODYNAMIC FORMS DEVICES IN THE UPSTREAM APEX
	DELGADO GUSTAVO, MONTENEGRO JULIO, ERICES FABIAN
1d-10e	MULTI-INDEX EVALUATION ON RIVER HEALTH ASSESSMENT: IWE METHOD
	HUIDONG SU, TIANTIAN JIN, SHI FENG, JUNQIANG LIN
1d-10f	PERFORMANCE EVALUATION OF NUMERICAL SIMULATION FOR TURBULENCE CHARACTERISTICS AROUND CIRCULAR BRIDGE PIER
	PRAVEEN RATHOD, VIVEK L. MANEKAR

TECHNICAL SESSION 12C

THEME 3: ENVIRONMENTAL HYDRAULICS AND INDUSTRIAL FLOWS

ROOM: **DTHO** CHAIR: **Prof. Markus Aufleger**

3a-9a	HYDRODYNAMIC INFLUENCE OF HEAD-HORN STRUCTURE OF CAVE FISH SINOCYCLOCHEILUS TILEIHORNES ON FLOW FIELD
	FAKAI LEI, MENGZHEN XU, ZIQING JI, ZHAOYIN WANG, MICHAEL ANDREW BISSET
3a-9b	LONGITUDINAL DISPERSION IN COMPOUND CHANNELS: THE ROLES OF FLOODPLAIN VEGETATION AND FLOW DEPTH
	HOSSEIN HAMIDIFAR, MARYAM ASKARI
3a-9c	OBSERVATIONS OF FLOATING SEED DISPERSAL IN VEGETATED OPEN CHANNEL FLOW
	XIAOGUANG LIU, YUHONG ZENG, XI ZHU
3a-9d	SMALL EAVES ON FISH PASSAGE FACILITIES IMPROVE STABILITY AND MIGRATION OF SCULPIN
	KEIKO MURAOKA, YUICHI KAYABA
3a-9e	THE EFFECT OF HYDRODYNAMIC CONDITION ON THE MORPHOLOGY, HYDRONAMICS AND PHOTOSYNTHESIS OF FOUR SUBMERGED PLANTS
	YI MIN ZHANG, FEI YANG, MENG JIE MA, YUE XIANG GAO, LONG MIAN WANG, MING KONG, YUEING ZHU
3a-9f	RESEARCH ON THE EVOLUTION CHARACTERISTICS OF ECO-HYDROLOGICAL PROCESS AND RESPONSES TO HUMAN ACTIVITIES IN SANJIANGYUAN REGION
	JIA-QI ZHAI, YONG ZHAO, HAI-HONG LI, WEN-QI FU, QING-MING WANG, FAN HE, LI-ZHEN WANG, YONG-NAN ZHU

TECHNICAL SESSION 12D

THEME 6: WATER RESOURCES MANAGEMENT

ROOM: **Johor / Kedah** CHAIR: **Dr. Balqis Mohamed Rehan**

6a-7a	RESEARCH ON CLIMATE CHANGES IN JINGHE RIVER BASIN AND ITS EFFECTION ON RUNOFF
	JING YIN, FAN HE, GUOYU QIU, SHI FENG, JUNJIE ZHANG, SHUANG ZHANG
6a-7b	REDUCING WATER LOSSES IN THE UPPER NILE RIVER BASIN
	NESMA ADWY, HAYTHAM AWAD, MOHAMED ABOUROHIM, ALAA ELDEEN YASSIN
6a-7c	PROTOTYPE OBSERVATION ON ICE IN WATER TRANSFER CANAL
	YAN HUA NIE, JIN BO YANG, GUO BING HUANG, MENG KAI LIU
6a-7d	ASSESSMENT OF WATER STORAGE VARIABILITY USING GRACE AND GLDAS DATA IN THE ARABIAN COUNTRIES CONSIDERING IMPLICATIONS FOR WATER RESOURCES MANAGEMENT
	MOHAMED SABER, SAMEH A. KANTOUSH, TETSUYA SUMI
6a-7e	ANALYSIS OF METEOROLOGICAL AND HYDROLOGICAL DROUGHT EVENTS IN PENINSULAR MALAYSIA
	MD MUNIR HAYET KHAN, NUR SHAZWANI MUHAMMAD, AHMED EL-SHAFIE
6a-7f	OPTIMIZING HYDROPOWER OPERATION OF RESERVOIR SYSTEM IN THE UPPER YELLOW RIVER
	YUAN SI, XIANG LI, DONGQIN YIN, JIAHUA WEI, YUEFEI HUANG, TIEJIAN LI, GUANGQIAN WANG

TECHNICAL SESSION 12E

THEME 2: FLOOD MANAGEMENT

ROOM: **Kelantan** CHAIR: **Prof. Weiming Wu**

2c-5a	ASSESSING THE FLOOD DYNAMICS OF THE SOMERSET LEVELS USING TELEMAC-2D
	DAVID GLOVER, SHUNQI PAN
2c-5b	INTERACTION OF TORRENTIAL AND URBAN CATCHMENTS - PROS AND CONS OF STORM SEWER RETENTIONS
	STEFAN ACHLEITNER, BENJAMIN KAMMERECK, BERNHARD KOHL, LEOPOLD STEPANEK, ROBERT SITZENFREI
2c-5c	NUMERICAL MODELING OF LANDSLIDE AND LANDSLIDE GENERATED WAVES IN RESERVOIR
	RADIANTA TRIATMADJA, NURUL AZIZAH, BENAZIR -
2c-5d	ASSESSMENT OF DEBRIS ISSUES IMPACTING DESIGN OF A FLOOD DIVERSION PROJECT IN A LARGE SCALE PHYSICAL MODEL
	ANDREW CORNETT, PAUL KNOX, JOHN MENNINGER, RICK LUX, MITCHEL PROVAN
2c-5e	THE IMPACT OF FLOODPLAIN DEGRADATION ON FLOODING IN THE UK
	GEORGE HERITAGE, NEIL ENTWISTLE
2c-5f	A HYDROLOGY AND HYDRAULIC CASE STUDY ON JANUARY 2015 FLASH FLOOD IN UNIGARDEN, KOTA SAMARAHAN, SARAWAK
	HAUZHI ER, LEONARD LIK PUEH LIM, CHARLES HIN JOO BONG

TECHNICAL SESSION 12F

THEME 4: COASTAL, ESTUARIES AND LAKES MANAGEMENT

ROOM: **Melaka** CHAIR: **Dr. Reza Ahmadian**

4c-6a	FREE-SURFACE AND VELOCITY CHARACTERISTICS OF TIDAL BORE PROPAGATION AGAINST A SLOPE: EXPERIMENTS ON DECELERATING BORES
	YOUKAI LI, HUBERT CHANSON
4c-6b	AN ITERATIVE NEUMANN BOUNDARY CONDITION METHOD AND ITS APPLICATION IN THE SIMULATION OF BREAKING INTERNAL SOLITARY WAVES
	HAI ZHU, LINGLING WANG, HONGWU TANG, QUNLIANG YANG, JOHN J. R. WILLIAMS
4c-6c	TWO-DIMENSIONAL OIL SPILL MODELLING FOR COASTAL WATERS
	LAVINE WONG, MOHAMAD HIDAYAT JAMAL, AHMAD KHAIRI ABD WAHAB
4c-6d	DETERMINING OBSERVATIONAL LOCATIONS IN THE GEUM RIVER ESTUARY
	NAM-HOON KIM, JIN HWAN HWANG
4c-6e	SEASONAL WATER QUALITY CHARACTERISTIC OF TROPICAL URBAN AMPANG HILIR LAKE, KUALA LUMPUR, MALAYSIA
	SHIN YING ANG, HIN LEE LEE

TECHNICAL SESSION 12G

THEME 7: HYDROINFORMATICS / COMPUTATIONAL METHODS AND EXPERIMENTAL METHODS

ROOM: **Negeri Sembilan** CHAIR: **Dr. Markus Noack**

7d-5a	A NOVEL HYDRO-ACOUSTIC SYSTEM FOR AUTOMATICALLY, PERMANENTLY COLLECTING REAL-TIME RIVER FLOW DATA
	KIYOSI KAWANISI, MOHAMAD BASEL AL SAWAF
7d-5b	THE ESTIMATION OF SPATIAL AND TEMPORAL DISTRIBUTION OF ACCIDENTALLY SPILLED POLLUTANT INTO RIVER
	IL WON SEO, DONGHAE BAEK
7d-5c	DYNAMIC MERGING OF CROWD-SOURCED, RAIN GAUGE, AND RADAR RAINFALL MEASUREMENTS FOR URBAN STORMWATER MODELING
	PAN YANG, TZE LING NG
7d-5d	BIG DATA ANALYTICS TOOLS ON MALAYSIA'S CLIMATE CHANGE PROJECTED DATA TO REINFORCE WATER RISK MANAGEMENT
	MOHD ZAKI MAT AMIN, MOHAMMAD FIKRY ABDULLAH, NURUL HUDA MD ADNAN, HARLISA ZULKIFLI, MARINI MOHAMAD IDERIS, ZURINA ZAINOL
7d-5e	FAST FOURIER TRANSFORM ANALYSIS OF PRECIPITATION DATA FOR THE COLORADO RIVER BASIN
	FERNANDO J. GONZÁLEZ VILLARREAL, VICTOR IGNACIO MASTACHE MENDOZA
7d-5f	BIG DATA TECHNOLOGY IMPLEMENTATION IN MANAGING WATER RELATED DISASTER: NAHRIM'S EXPERIENCE
	MOHAMMAD FIKRY ABDULLAH, MARDHIAH IBRAHIM, HARLISA ZULKIFLI

TECHNICAL SESSION 12H

THEME 6: WATER RESOURCES MANAGEMENT

ROOM: **Pahang** CHAIR: **Zahir Yahya**

6b-2a	GREY WATER USE AS AN ALTERNATE RESOURCE
	SARAOSH ALAM GHAUSI, MOHD MUZZAMMIL, JAVED ALAM
6b-2b	THE ROLE OF RAINWATER HARVESTING TECHNIQUES ON PREPARATION OF WATER REQUIRED FOR VEGETATION IN ARID AND SEMI-ARID REGIONS
	MOHAMMAD TAGHI DASTORANI, BANAFSHE KOUHZAD, ADEL SEPEHR, ALI TALEBI
6b-2c	PREPARATION OF A NEWLY FUNCTIONALIZED POLYMERIC ADSORBENT FOR THE ENHANCED TREATMENT OF TEXTILE CONTAMINANT
	SITI NURZAHIDAH RAMLI, KENG YUEN FOO, NOR AZAZI ZAKARIA
6b-2d	MOBILISING LOCAL COMMUNITIES TOWARDS INVOLVEMENT IN RIVER MANAGEMENT: LESSONS LEARNT FROM THE SUNGAI PINANG RIVER COMMUNITY ENGAGEMENT PROJECT IN PENANG, MALAYSIA
	CHEE HUI LAI, NGAI WENG CHAN, HUI WENG GOH, NOR AZAZI ZAKARIA
6b-2e	THE DISTRIBUTION OF FRESHWATER PHYTOPLANKTON IN THE STORMWATER RUNOFF TREATMENT CONSTRUCTED WETLAND
	SYAFIQ SHAHARUDDIN, AMINUDDIN AB. GHANI, NOR AZAZI ZAKARIA, WAN MAZNAH WAN OMAR
6b-2f	PERCENTILE ANALYSIS OF RAINFALL DEPTH ESTIMATION ON PERFORMANCE OF CONSTRUCTED WETLAND
	MAZLINA ALANG OTHMAN, AMINUDDIN AB. GHANI, KENG YUEN FOO, CHUN KIAT CHANG

TECHNICAL SESSION 12I

THEME 7: HYDROINFORMATICS / COMPUTATIONAL METHODS AND EXPERIMENTAL METHODS

ROOM: **Perak** CHAIR: **Prof. Willi H. Hager**

7c-4a	PREDICTION OF FECAL CONTAMINATION LEVEL IN NAKDONG RIVER USING DATA-DRIVEN MODEL
	IL WON SEO, SOO YEON CHOI
7c-4b	NUMERICAL STUDY OF THE HYDRAULIC BEHAVIOR IN A TUNNEL
	CECIA MILLAN BARRERA, GILBERTO SALGADO MALDONADO, VÍCTOR ARROYO CORREA
7c-4c	FORCE SIMULATION FOR GRAVEL AND ROCK TRANSPORT
	PEIWEI XIE, SHOOKA KARIMPOUR, VINCENT H. CHU
7c-4d	DEVELOPING NEW INDICES FOR ASSESING RESILIENCY IN WATER DISTRIBUTION NETWORKS
	ROZA RANJBAR, ARDALAN IZADI, FARHAD YAZDANDOOST
7c-4e	VERIFICATION OF HINDCASTING FOR HIGH WAVE AND STORM SURGE DUE TO EXPLOSIVE CYCLONE
	TAKUTO HAGA, KATSUMI SEKI, TARO ARIKAWA
7c-4f	THE NEW DEVELOPMENT OF FLUID-STRUCTURE INTERACTION IN STRUCTURE PHYSICAL BEHAVIOUR ANALYSIS
	YANG TANG, JIJIAN LIAN, CHUNLAI QU

TECHNICAL SESSION 12J

THEME 5: URBAN WATER MANAGEMENT

ROOM: **Perlis** CHAIR: **Dr. Ming Fai Chow**

5d-3a	RAPID ASSESSMENT OF HYDROLOGIC PERFORMANCE OF LOW IMPACT DEVELOPMENT PRACTICES AT DIFFERENT IMPLEMENTATION LEVELS
	YANG YANG, MAY TING FONG CHUI
5d-3b	IMPACT OF SUBMERGED ZONE DEPTH ON STORMWATER POLLUTANTS REMOVAL IN TROPICAL BIOFILTRATION SYSTEMS
	ANDREAS ADITYA HERMAWAN, MUHAMMAD IRFAN RAHMAN, AMIN TALEI, FANG YENN TEO
5d-3c	PERFORMANCE OF GROSS POLLUTANT TRAP IN URBAN RIVER CATCHMENT FOR KLANG RIVER BASIN
	NUR FARAZUIEN MD SAID, LARIYAH MOHD SIDEK, HIDAYAH BASRI, NAZIRUL MUBIN ZAHARI, MOHD AZMI ISMAIL, NORLIDA MOHD. DOM, LLYOD CHUA, SIMON BEECHAM
5d-3d	UTILIZATION OF NATURAL CLAY AS A RELIABLE SOLUTION FOR THE ADSORPTIVE TREATMENT OF METOLACHLOR CONTAMINATED STORMWATER
	SITI FAIROS AB SHATTAR, NOR AZAZI ZAKARIA, KENG YUEN FOO
5d-3e	DISCHARGE CAPACITY OF JUNCTION MANHOLES WITH BOTTOM DROPS OR TOP OFFSETS
	GAETANO CRISPINO, MICHAEL PFISTER, CORRADO GISONNI
5d-3f	A FINITE VOLUME APPROACH FOR TRANSIENT FLOW IN URBAN STORMWATER DRAINAGE SYSTEM CONTAINING TRAPPED AIR
	LING ZHOU, ALAIN JOËL ELONG, XU YANG, HUAN WANG, TIANWEN PAN

Tuesday, 15th August 2017
9.30 AM - 11 AM

SPECIAL SESSION 1A

TOPIC: TRANSIENTS IN PIPES

ROOM: **Pulau Pinang** CHAIR: **Silvia Meniconi and Moez Louati**

8a-1a	FAULT DETECTION IN A REAL TRANSMISSION MAIN BY THE PORTABLE PRESSURE WAVE MAKER (PPWM)
	SILVIA MENICONI, BRUNO BRUNONE, MATTEO FRISINGHELLI, CATERINA CAPPONI, ELISA MAZZETTI
8a-1b	DYNAMICS OF FRICTIONAL WATER HAMMER - THEORY AND FIELD TESTS
	JIM C. P. LIOU, BRUNO BRUNONE, SILVIA MENICONI
8a-1c	SOME INTRIGUING ASPECTS OF BOUNDARY CONDITIONS IN WATER HAMMER
	ARRIS S. TIJSSELING, ALAN E. VARDY
8a-1d	DEVELOPMENT AND EVALUATION OF MESHLESS PARTICLE METHODS FOR MODELLING AND ANALYSIS OF TRANSIENT PIPE FLOWS
	HUAN-FENG DUAN, HEXIANG YAN, FEI LI, QINGZHI HOU, TAO TAO, KUNLUN XIN, SHUPING LI
8a-1e	MONITORING OF PIPE LEAKAGE BASED ON EMPIRICAL MODE DECOMPOSITION AND AUTOMATIC SELECTION OF INTRINSIC MODE FUNCTION
	MUHAMMAD HANAFI YUSOP, MOHD FAIRUSHAM GHAZALI, MOHD FADHLAN MOHD YUSOF, MUHAMMAD AMINUDDIN PIREMLI
8a-1f	LEAK-INDUCED FREQUENCY SHIFTS IN TRANSIENT-BASED FREQUENCY DOMAIN METHOD FOR LEAKAGE DETECTION
	JINGRONG LIN, MOHAMED S. GHIDAOUI

Tuesday, 15th August 2017
11.30 AM - 1 PM

SPECIAL SESSION 1B

TOPIC: TRANSIENTS IN PIPES

ROOM: **Pulau Pinang** CHAIR: **Arturo S. Leon and Huang-Feng Duan**

8a-2a	SMART URBAN WATER SUPPLY SYSTEM (SMART UWSS)
	MOHAMED S. GHIDAOUI
8a-2b	EFFECT OF LEAK SIZE ON THE TRANSIENT BEHAVIOR OF A VISCOELASTIC PIPE
	SILVIA MENICONI, BRUNO BRUNONE, CATERINA CAPPONI
8a-2c	SINGLE EXTENDED BLOCKAGE IDENTIFICATION USING A MODEL-BASED MATCHED-FIELD PROCESSING APPROACH
	FEDI ZOUARI, XUN WANG, MOEZ LOUATI, MOHAMED S. GHIDAOUI
8a-2d	THEORETICAL ANALYSIS OF THE INFLUENCE OF BLOCKAGE IRREGULARITY ON TRANSIENT WAVES IN WATER SUPPLY PIPELINES
	TONG-CHUAN CHE, HUAN-FENG DUAN, PEDRO.J LEE, MOHAMED S. GHIDAOUI
8a-2e	SCATTERING BEHAVIOR OF HIGH FREQUENCY ACOUSTIC WAVES DUE TO BLOCKAGE IN PRESSURIZED WATER-FILLED PIPE
	MOEZ LOUATI, MOHAMED S. GHIDAOUI
8a-2f	UNIFIED EQUATION FOR ESTIMATION OF FRICTION FACTOR
	BALKRJSHNA SHANKAR CHAVAN

Wednesday, 16th August 2017
9.30 AM - 11 AM

SPECIAL SESSION 1C	
TOPIC: TRANSIENTS IN PIPES	
ROOM: **Pulau Pinang**	CHAIR: **Sanghyun Kim and Arris S. Tijsseling**
8a-3a	DAMPING RATE OF TRANSIENT OSCILLATIONS IN PRESSURIZED CLOSED CONDUITS
	SAHAD KHILQA, MOHAMED ELKHOLY, MOHAMED H. AL-TOFAN, JUAN M. CAICEDO, M. HANIF CHAUDHRY
8a-3b	INFLUENCE OF AIR CONTENT ON TRANSIENT FLOW BEHAVIORS IN VISCOELASTIC PIPES
	YAN ZHU, HUAN-FENG DUAN, FEI LI, CHEN-GUANG WU, YI-XING, YUAN, ZHEN-FENG SHI
8a-3c	TIME DOMAIN INVERSE TRANSIENT ANALYSIS FOR PIPELINE LEAK DETECTION IN A NOISY ENVIRONMENT
	ALIREZA KERAMAT, MOHAMED S. GHIDAOUI, XUN WANG
8a-3d	MATCHED-FIELD PROCESSING METHOD FOR LEAK DETECTION IN A PIPE
	XUN WANG, MOHAMED S. GHIDAOUI
8a-3e	INVERSE TRANSIENT ANALYSIS PARAMETER ESTIMATION ACCURACY FOR SYSTEMS SUBJECT TO HYDRAULIC NOISE AND SHORT DAMAGED SECTIONS
	CHI ZHANG, AARON ZECCHIN, JINZHE GONG, MARTIN LAMBERT, ANGUS SIMPSON
8a-3f	THE EFFECT OF WAVE SPEED AND PUMP SPECIFIC SPEED ON TRANSIENT PRESSURES SIMULATIONS
	RUBEN NERELLA, VENKATA RATHNAM ERVA

Wednesday, 16th August 2017
11.30 AM - 1 PM

SPECIAL SESSION 1D	
TOPIC: TRANSIENTS IN PIPES	
ROOM: **Pulau Pinang**	CHAIR: **Jim C. P. Liou and Bruno Brunone**
8a-4a	COMBINING OPTIMAL FILTERING WITH PUMP SCHEDULING FOR REAL-TIME ENERGY MANAGEMENT IN WATER DISTRIBUTION SYSTEMS
	ERNESTO ARANDIA, JOE NAOUM-SAWAYA
8a-4b	MECHANISMS THAT LEAD TO THE OCCURRENCE OF VIOLENT GEYSERS IN STORMWATER AND COMBINED SEWER SYSTEMS
	ARTURO S. LEON
8a-4c	ANALYSIS OF PIPE TRANSIENTS IN HYDROPOWER INSTALLATIONS
	GORAN PAVIC, FABIEN CHEVILLOTTE
8a-4d	DESIGN OF AIR CHAMBER FOR MITIGATING TRANSIENT PRESSURES IN A PUMPING MAIN
	NANGIGADDA MOWLALI, RUBEN NERELLA, VENKATA RATHNAM ERVA
8a-4e	OPTIMIZATION OF AFFECTING PARAMETERS OF PRESSURE RELIEF VALVE USING GENETIC ALGORITHM
	HYUNJUN KIM, DAWON BAEK, GEONJI KIM, EUNHYUNG LEE, MINJI CHO, XIAOYI DONG, SANGHYUN KIM
8a-4f	CFD ANALYSIS OF MULTI-SCALE TRANSIENT FLOWS ON THE FRANCIS TURBINE UNDER THE LOAD REDUCTION CONDITION
	DAQING ZHOU, JIE ZHANG

SPECIAL SESSION 2A

TOPIC: SUSTAINABLE WATER RESOURCES PLANNING & MANAGEMENT UNDER CLIMATE CHANGE

ROOM: **Pulau Pinang** CHAIR: **Prof. Young Oh-Kim**

8b-1a	COMPARATIVE STUDY ON EFFECT OF EXTREME WEATHER AND URBANIZATION TO FLOOD OF TYPICAL RIVERS IN JAPAN
	KENTARO YAMAMOTO, KENICHIRO KOBAYASHI, SATORU OISHI
8b-1b	IS "GREENING OF ECONOMY" THE ANSWER TO SUSTAINABLE WATER RESOURCES MANAGEMENT UNDER CLIMATE CHANGE?
	ELPIDA KOLOKYTHA
8b-1c	INSTITUTIONAL ANALYSIS OF WATER GOVERNANCE FOR ADAPTATION TO CLIMATE CHANGE
	ANA CRISTINA SOUZA SILVA, CARLOS OLIVEIRA GALVÃO, MÁRCIA MARIA RIOS RIBEIDRO, TAFNES SILVA ANDRADE
8b-1d	IMPACT OF CLIMATE AND LAND-USE CHANGE ON RUNOFF IN TYPICAL AREAS OF SANJIANG PLAIN
	YICHENG WANG, BAOQI LI, WEIHUA XIAO, HEJIA WANG, HANG FU
8b-1e	UNCERTAINTY FROM LAND USE AND CLIMATE CHANGE IN FUTURE STREAMFLOW SIMULATIONS
	ILA CHAWLA, PRADEEP P. MUJUMDAR
8b-1f	ASSESSMENT OF THE IMPACT OF CLIMATE CHANGE ON WATER RESOURCES IN THE NANLIUJIANG RIVER BASIN OF CHINA
	YICHENG WANG, HEJIA WANG, WEIHUA XIAO, BAOQI LI
8b-1g	WATER RESOURCE MANAGEMENT IN SUSTAINABLE PLANNING: EFFECT OF RIVER ANALYSIS METHODOLOGY ON PUBLIC POLICY DECISION-MAKING
	MICHEL SOTO CHALHOUB
8b-1h	INTEGRATED RESERVOIR OPERATION CONSIDERING REAL-TIME HYDROLOGICAL PREDICTION FOR ADAPTIVE WATER RESOURCES MANAGEMENT
	DAISUKE NOHARA, TOMOHARU HORI

Friday, 18th August 2017
9.30 AM - 11 AM

SPECIAL SESSION 3A

TOPIC: GREEN INFRA AS DISASTER RISK REDUCTION MEASURES IN THE ASIAN-PACIFIC REGION

ROOM: **Perlis** CHAIR: **Prof. Hyoseop Woo**

8c-1a	(INVITED) QUANTIFYING THE ROLE OF VEGETATION IN DISASTER RISK REDUCTION MEASURES, FROM ACADEMIC RESEARCH TO PRACTICAL IMPLEMENTATION OF GREEN INFRASTRUCTURES
	W. ELLIS PENNING
8c-1b	A SMALL MULTIPURPOSE RETARDING BASIN IN UGM CAMPUS AREA
	JOKO SUJONO, MUHAMMAD SULAIMAN, RACHMAD JAYADI
8c-1c	ESTIMATION OF TSUNAMI FORCE REDUCTION AND THE BREAKING MODE OF COASTAL TREES APPLICABLE TO COASTAL FOREST MANAGEMENT AS A BIOSHIELD
	NORIO TANAKA, HAJIME SATO, YUTA AKASAKI, HIROYUKI TORITA
8c-1d	PREPAREDNESS FOR DISASTER RISK MANAGEMENT (DRM), CASE STUDIES: KELANTAN FLOOD 2014
	MOHD SAYUTI HASSAN, NOR AZAZI ZAKARIA, KAMARULAZIZI IBRAHIM, MURSHIDAH ABDUL JAFFAR, SHAHAD KHALDOON ABDULAMEER
8c-1e	GREEN INFRASTRUCTRUE IN CONSTRUCTION OF SPONGE CITY - A CASE STUDY IN XIAMEN, CHINA
	CHENYAO XIANG, JIAHONG LIU, WEIWEI SHAO, JINJUN ZHOU, CHAO MEI, LIN XIA

Thursday, 17th August 2017
9.30 AM - 11 AM

Thursday, 17th August 2017
11.30 AM - 1 PM

SPECIAL SESSION 3B	
TOPIC: GREEN INFRA AS DISASTER RISK REDUCTION MEASURES IN THE ASIAN-PACIFIC REGION	
ROOM: **Perlis**	CHAIR: **Dr. Mahito Kamada**
8c-2a	GREEN INFRA FOR NATURAL DISASTER RISK REDUCTION REVIVED FROM OLD WISDOM OF TRADITIONAL ECOLOGICAL PRACTICES IN KOREA – FOCUSED ON RESTORATION OF ECOLOGICAL FUNCTIONS OF RIVER
	HYOSEOP WOO, JIN CHUL JOO, HONG-GU YEO, JONG-MIN OH
8c-2b	PADDY FIELDS AS GREEN INFRASTRUCTURE
	MAHITO KAMADA, YASUNORI MUTO, YOTA IMAI
8c-2c	FLOOD CONTROL MANAGEMENT IN STEEP RIVERS USING DIKES
	OMAR SELEEM, AKIHIRO KADOTA, ITANI DALE NDWAMBI
8c-2d	RESEARCH ON THE HYDROLOGICAL PROCESSES OF LID-TYPE ROAD: THE CASE OF SHIYANG ROAD
	YANFEN GENG, JIANDONG MAO, ZHAOWEI WANG
8c-2e	DISASTER REDUCTION CHARACTERISTICS BY A LAGOON AT THE GREAT EAST JAPAN TSUNAMI
	YUTA AKASAKI, YOSHIYA IGARASHI, NORIO TANAKA

Thursday, 17th August 2017
2.30 PM - 4 PM

SPECIAL SESSION 3C	
TOPIC: GREEN INFRA AS DISASTER RISK REDUCTION MEASURES IN THE ASIAN-PACIFIC REGION	
ROOM: **Perlis**	CHAIR: **Dr. Norio Tanaka**
8c-3a	RETARDING EFFECT EVALUATION OF PADDY FIELDS AND THEIR LAND-USE CHANGE
	MUTO YASUNORI, MURATA YUKI, MIYOSHI MANABU, TAMURA TAKAO
8c-3b	A METHOD TO ASSESS GREEN INFRASTRUCTURE COSTS AND BENEFITS FOR URBAN HEAT ISLAND REDUCTION
	KYEON J. WOO, SANG R. KIM, JIN Y. SHIN, JAE S. PARK, WOO B. BAE, YUN M. PARK, YONG G. KIM
8c-3c	HYDRAULIC PERFORMANCE OF SUBSURFACE DRAINAGE MODULE
	MUHAMMAD MUJAHID MUHAMMAD, KHAMARUZAMAN WAN YUSOF, MUHAMMAD RAZA UL MUSTAFA, NOR AZAZI ZAKARIA, AMINUDDIN AB. GHANI
8c-3d	ADVANCED RESEARCH ON KOREA GREEN INFRASTRUCTURE AND LOW IMPACT DEVELOPMENT CENTER
	HYUN-SUK SHIN, JONGBIN PARK, JAEHYUK LEE, JAEHUN AHN, SOONCHUL KWON
8c-3e	THE CONCEPT OF DIRECTLY CONNECTED IMPERVIOUS AREAS AND ITS IMPLICATION ON MITIGATION OF PEAK FLOWS IN URBAN CATCHMENTS
	YONGWON SEO, JUNSHIK HWANG, YOUJEONG KWON

SPECIAL SESSION 4A

TOPIC: THE PATH TO RESILIENCY IN LOW GRADIENT COASTAL REGIONS FOR PRESENT AND FUTURE CONDITIONS

ROOM: **Pulau Pinang** CHAIR: **Prof. Scott C. Hagen**

Tuesday, 15th August 2017
2.30 PM - 4 PM

8d-1a	(INVITED) INTEGRATED ASSESSMENT OF COASTAL AREAS
	ROBERT JAMES NICHOLLS
8d-1b	PATHWAYS TO RESILIENCY THROUGH ECONOMIC ASSESSMENTS OF DYNAMIC SEA LEVEL RISE IMPACTS
	SCOTT C. HAGEN, RENEE COLLINI, DENISE E. DELORME, STEPHEN C. MEDEIROS, JAMES T. MORRIS, DAVID YOSKOWITZ
8d-1c	ESTABLISHING AND PROMOTING AN INTERDISCIPLINARY CENTER FOR COASTAL RESILIENCY IN LOUISIANA, U.S.A.
	DENISE E. DELORME, SCOTT C. HAGEN
8d-1d	MANGROVES FOR COASTAL RESILIENCE: OPTIMAL GREEN BELT WIDTH AND RESTORATION METHODS
	BREGJE K. VAN WESENBEECK, ALEJANDRA GIJÓN MANCHEÑO, CELINE VAN BIJSTERVELDT, SILKE A. J. TAS, MERIJN JANSSEN, J. C. WINTERWERP
8d-1e	THE RESILIENCE OF COASTAL DELTAIC FLOODPLAINS IN CARBON AND NITROGEN MITIGATION AT CONTINENTAL MARGINS
	ROBERT R. TWILLEY, AZURE BEVINGTON, ALEXANDRA CHRISTENSEN, ANNABETH MCCALL, ANIKA AARONS, EDWARD CASTAÑEDA-MOYA

SPECIAL SESSION 4B

TOPIC: THE PATH TO RESILIENCY IN LOW GRADIENT COASTAL REGIONS FOR PRESENT AND FUTURE CONDITIONS

ROOM: **Pulau Pinang** CHAIR: **Prof. Scott C. Hagen**

Tuesday, 15th August 2017
4.30 PM - 6 PM

8d-2a	THE IOWA WATERSHED APPROACH
	LARRY WEBER, ANTONIO ARENAS, ALLEN BRADLEY, CRAIG JUST, NATHAN YOUNG
8d-2b	THE RESILIENCY OF COASTAL MARSH SYSTEMS UNDER SEA LEVEL RISE
	KARIM ALIZAD, SCOTT C. HAGEN, MATTHEW V. BILSKIE
8d-2c	CAN WE IMPROVE THE RESILIENCE OF LARGE RIVER DELTAS? A MISSISSIPPI RIVER CASE STUDY
	SAMUEL J. BENTLEY, CLINTON S. WILLSON, SCOTT C. HAGEN, ROBERT R. TWILLEY
8d-2d	MANAGEMENT AND MIXED COASTAL PROTECTION MEASURES IN HIGHLY VULNERABLE AND EDGE RISK AREAS. COSTA DA CAPARICA CASE STUDY
	FERNANDO VELOSO-GOMES

Thursday, 17th August 2017
9.30 AM - 11 AM

SPECIAL SESSION 5A

TOPIC: FUNCTION OF GOVERNANCE TO RIVER RESTORATION UNDER THE CLIMATE CHANGE

ROOM: **Pulau Pinang** CHAIR: **Prof. Suk Hwan Jang**

8e-1a	A NONSTATIONARY TRIVARIATE DROUGHT FREQUENCY MODEL FOR ESTIMATING DROUGHT RISK IN A CHANGING CLIMATE
	JIN-YOUNG KIM, HYUN-HAN KWON, JIN-GUK KIM, SUK-HWAN JANG
8e-1b	TEMPORAL STREAMATE CHARACTERISTICS OF WATER LEVELS AND RIVER STORAGE EFFECT IN A RIVER HAVING SUDDEN CONTRACTION
	ICHIU KOISHI, TADASHI YAMADA
8e-1c	PROGRESS OF RIVER RESTORATION TECHNOLOGIES AND PRACTICES IN CHINA
	JINYONG ZHAO, ZHEREN DONG, WENQI PENG, BAOLIGAO BAIYIN, JING ZHANG
8e-1d	STUDY ON WATER QUALITY COUNTERMEASURES IN CONSIDERATION OF UNCERTAINTY IN LAKE AND RESERVOIR
	DAIKI KAKINUMA, TADASHI YAMADA
8e-1e	ASSESSMENT OF ACUTE IMPACT OF HIGH SEDIMENT CONCENTRATION ON YELLOW RIVER CARP
	FENGRAN XU, BAOLIGAO BAIYIN, XINGRU CHEN, HUANHUAN DENG

Thursday, 17th August 2017
11.30 AM - 1 PM

SPECIAL SESSION 5B

TOPIC: FUNCTION OF GOVERNANCE TO RIVER RESTORATION UNDER THE CLIMATE CHANGE

ROOM: **Pulau Pinang** CHAIR: **Prof. Suk Hwan Jang**

8e-2a	RUNOFF ANALYSIS CONSIDERING THE UNCERTAINTY OF RAINFALL INTENSITY BASED ON STOCHASTIC DIFFERENTIAL EQUATION
	DAIWEI CHENG, TADASHI YAMADA
8e-2b	HEIGHT DIFFERENCE FROM REGULAR WATER LEVEL AS INDICATOR FORECASTING VEGETATION AFTER CHANNEL EXCAVATION
	DAISUKE NAITO, KENICHI KANENAWA, KAZUHISA FUKUNAGA, FUMIKO IMAMURA, YUICHI KAYABA

Wednesday, 16th August 2017
9.30 AM - 11 AM

SPECIAL SESSION 6A

TOPIC: COASTAL RESERVOIR - A TECHNOLOGY THAT CAN DEVELOP FRESHWATER FROM THE SEA WITHOUT DESALINATION

ROOM: **Perlis** CHAIR: **Prof. Shu-Qing Yang**

8f-1a	INNOVATIVE SEA BASED FRESH WATER RESERVOIR TO IMPOUND RIVER FLOOD WATERS: AN INITIATIVE FOR INDIA'S WATER SHORTAGE
	T. G. SITHARAM, R. SUBBA RAO, KUSHAL SHETTY
8f-1b	RESEARCH ON SEASONAL STRATIFICATION OF IRON AND MANGANESE IN RESERVOIR IN THE KARST WATER SHORTAGE AREA
	YISI ZHUGE, QIAN ZHANG, HONGWU TAN, XIAO YU
8f-1c	REVIEW OF THE HISTORICAL DEVELOPMENT OF COASTAL RESERVOIRS IN THE WORLD
	SHU-QING YANG, MUTTUCUMARU SIVAKUMAR
8f-1d	ALTERNATIVES ANALYSIS FOR REDUCING ENVIRONMENTAL RISKS IN BURULUS LAKE
	HAYTHAM AWAD
8f-1e	COASTAL RESERVOIR AS AN INNOVATIVE AND SUSTAINABLE SOLUTION TO RAW WATER RESOURCES DEVELOPMENT IN MALAYSIA
	MICHAEL JIN CHOONG TEH, SIN POH LIM
8f-1f	THE KEY DESIGN CONCEPTS AND TECHNOLOGIES OF QINGCAOSHA RESERVOIR IN YANGTZE ESTUARY
	CAI E WU, JIAN ZHONG YUAN, QING FU WEI
8f-1g	STUDY ON ABATEMENT OF SILTATION IN PORT AND CHANNEL BUILT ON SILT-SANDY BEACH
	JINQUAN WU, SHIHONG ZHANG, LINYUN SUN, LIXIN JIA

Wednesday, 16th August 2017
11.30 AM - 1 PM

SPECIAL SESSION 6B

TOPIC: COASTAL RESERVOIR - A TECHNOLOGY THAT CAN DEVELOP FRESHWATER FROM THE SEA WITHOUT DESALINATION

ROOM: **Perlis** CHAIR: **Prof. Shu-Qing Yang**

8f-2a	SEA DIKE CONSTRUCTION CHALLENGES IN COASTAL WATERS FOR STORAGE OF RIVER FLOOD WATERS: SUSTAINABLE STRATEGY FOR WATER RESOURCE DEVELOPMENT USING COASTAL RESERVOIRS
	T. G. SITHARAM
8f-2b	RESEARCH OF THE INFLUENCE OF SALINITY INTRUSION ON QINGCAOSHA WATER SOURCE
	LEI DING, XIANG-YU GAO, XI-PING DOU, JIAN JIAO, XIANG LI
8f-2c	COASTAL RESERVOIR IN LAKE ALEXANDRINA CAN QUENCH ADELAIDE'S THIRST
	SHU-QING YANG, MUTTUCUMARU SIVAKUMAR, BRIAN G. JONES, JIANLI LIU
8f-2d	JINGTANT PORT SITE SELECTION AND PLANNING
	JIANQUAN WU, WENCAI DONG
8f-2e	DISCUSSION ON COASTAL ENGINEERING RELATED TO COASTAL RESERVOIR
	JIN-QUAN WU, BO WU, LI-SHA YUAN, MEI LI, XUE-FENG CHANG, SHOU-YUAN WU, QING-HUA SONG
8f-2f	STUDY ON RESERVOIR WATER AND SEDIMENT DISPATCHING OPERATION SYSTEM FOR THE PRE-CONTROL OF THE EUTROPHICATION
	HONG-YAN JI, CAI-E WU, JIAN-ZHONG YUAN
8f-2g	ANALYSIS ON RESPONSE CHARACTERISTICS OF WATER QUALITY TO THERMAL STRATIFICATION IN DAHUOFANG RESERVOIR
	XIAO YU, QIAN ZHANG, YISI ZHU GE, QIANG DU, GUOQIANG LI

SPECIAL EVENTS (WORKSHOP/FORUM/MASTER CLASS)

HANDS-ON INTRODUCTION TO GOOGLE EARTH ENGINE

Speaker: **DR. TYLER A. ERICKSON**
SENIOR DEVELOPER ADVOCATE AT GOOGLE, WATER CYCLE ANALYSIS LEAD FOR GOOGLE EARTH ENGINE
VENUE: **JOHOR/KEDAH ROOM**

This hands-on workshop will provide an introduction to Earth Engine, Google's cloud-based platform for geospatial data analysis of massive Earth observation datasets and models. An overview of the Earth Engine project, capabilities of the system, and significant outcomes will be presented. The majority of time will be hands-on, with attendees learning how to access and manipulate 1000's of satellite images for local, national and global analysis.

Requirement: Participants must provide their own laptop with the Google Chrome browser installed.

MASTER CLASS ON HYDROINFORMATICS AND WATER MANAGEMENT

Speaker: **PROF. ROGER A. FALCONER** *(CARDIFF UNIVERSITY)*
PROF. WENHONG DAI *(HOHAI UNIVERSITY)*
PROF. DONGFANG LIANG *(SHANGHAI JIAO TONG UNIVERSITY)*
PROF. JUNQIANG XIA *(WUHAN UNIVERSITY)*
PROF. SOON THIAM KHU *(MONASH UNIVERSITY)*
IR. DR. FANG YENN TEO *DEPARTMENT OF IRRIGATION AND DRAINAGE MALAYSIA (DID)*
Venue: **KELANTAN ROOM**

Master Class on Hydroinformatics and Water Management is conducted to address on the world-wide application of advanced information and communication technologies (ICTs) in the management and problem solution related to water. Hydroinformatics technologies and tools draw on and integrate many disciplines in water management which support for decision making at all levels included governance and policy.

There is a growing need for the subject matter experts and professionals to appreciate with the subjects on hydroinformatics and water management. Managers, engineers, modelers, planners, designers and students who are involved in hydroinformatics and water management would benefit from attending this workshop.

FORUM ON "PRACTICE AND CHALLENGES ON INTEGRATED OPERATION OF HYDROPOWER STATIONS AND RESERVOIRS" BY CHINA THREE GORGES DAM

13th August 2017
09:00-17:00

Speaker: **PROF LIU CHANGDONG**
CHINA THREE GORGES POWER OPERATION INT'L CO., LIMITED
VENUE: **MELAKA ROOM**

Nowadays, the society has been developing with more and more utilization of water resources and clean energy. As important hydraulic facilities, hydropower stations, jointly operating with reservoirs, are capable of coordination of flood control, power generation, navigation, irrigation, water supply and sediment reduction etc. with considering relevant constraints. Countries around the world are facing different challenges in management of basin water resources and operation practice of hydropower stations. On the one hand, based on meteorological and hydrological forecast and optimization of demand plans, water resource management and coordination among reservoirs have been achieved between upstream and downstream, and among trunk river and tributaries to guarantee flood control, water supply, ecological safety, on the other hand, for hydropower stations, full life cycle management of equipment has been realized through equipment diagnostic operation, real-time state assessment and condition maintenance, to meet the goals of safe and efficient operation. Both aspects of management above will jointly achieve multi-objective and optimized utilization of basin 'water value'.

SUSTAINABLE DEVELOPMENT GOALS (SDGS) SPECIAL FORUM

14th August 2017
14:00-15:00

Theme: **THE CONTRIBUTION OF IAHR AND OTHER WATER ASSOCIATIONS TO THE SUSTAINABLE DEVELOPMENT GOALS OF AGENDA 2030**
Venue: **PULAU PINANG ROOM**

The purpose of this session is to solicit and discuss ideas on how IAHR working with other water associations can contribute to achieving the Sustainable Development Goals (SDGs). The intent is to go beyond general declarations of principles that IAHR and other associations embrace, and explore suggestions for specific actions that could bring tangible and measurable results.

The session will start with 5-minute statements on the subject by the members of the panel, and will be followed by discussion with the audience.

7TH RESEARCH INSTITUTES WORKSHOP ON MANAGING CHANGE

15th August 2017
09:30-14:00

The objective of the Workshop - which is organised bi-ennially as part of the IAHR World Congress - is to provide a networking platform for a small group of leaders of professional water research and development institutions to meet and discuss the challenges facing the Science, Technology and Knowledge community and identify how we can collaborate to best apply science for resolving water issues specifically relating to better water ecosystem management including resarch and policy directions and IT visioning which influiences future planning.

** By invitation only.*

FORUM ON ENVIRONMENTAL DECISION SUPPORT ON HYDROMET CLOUD BASE SYSTEM AND LEADS® – LEADING ENVIRONMENTAL ANALYSIS & DISPLAY SYSTEM

16th August 2017
14:00-17:00

Speaker: **MR. ASHISH RAVAL** *(VICE PRESIDENT FROM OTT HYDROMET, GERMANY)*
MR. CALEB AW *(OTT HYDROMET, GERMANY)*
Venue: **MELAKA ROOM**

- Forum on consideration and processes for quality data management. Moving into various data to support decision making in events such as flood, pollutions, dam management.

- Today people live in an era of incredibly ***rapid technological*** revolution where technology seems to be advancing rapidly thus providing more and ***better data for rigorous analysis.***

- Hydromet Cloud provides secure real-time data access from almost anywhere in the world via HydrometCloud.com and the Hydromet Cloud Mobile App. This includes the backend infrastructure to receive, ingest, decode, process, display, and store measurement data from nearly any remote Hydromet monitoring station via a cloud-based data hosting platform. Hydromet Cloud provides a secure web-page for users to view their data graphically, on a map or in tabular and report forms. Conversely, if you prefer to do your own processing, Hydromet Cloud delivers raw data (as it is transmitted by the station) using a dedicated, secure download page, updated immediately as your data arrives.

- LEADS ® is a cutting-edge weather toolkit, which allows for the ingest, integration, processing, storage, and visualization of virtually any type of meteorological/environmental data. LEADS ® provides scalable, versatile weather solutions for forecasters, decision-makers and overall support applications within your business or country. LEADS ® can be configured to run on a variety of hardware and operating system set-ups, allowing for the ingest and database of all available meteorological data, fusing of data, and automatic creation of a web-based product database of defined forecast products. These products can then be distributed with the full LEADS ® Forecaster Workstation or using LEADS ® On-Line to users and forecasters.

YPN TALK - HOW TO WRITE A JOURNAL PAPER

17th August 2017
16:30-17:30

Speaker: **PROF. MOHAMED S B H GHIDAOUI**
(HONG KONG UNIVERSITY OF SCIENCE AND TECHNOLOGY)
EDITOR OF THE JOURNAL OF HYDRAULIC RESEARCH, IAHR
Venue: **JOHOR/KEDAH ROOM**

IAHR as a community of Engineering Professionals has a desire, as one its goals, to enhance communication between Hydro-environmental Engineers and Researchers. Journal papers are one mechanism for this communication. Hence IAHR has a desire of enhancing the papers submitted to Journals and particularly those Journals published as part of its service to its members. This presentation by Prof Mohamed Ghidaoui from Hong Kong to the YPN attendees will provide background information on how to write a Journal paper. Prof Mohamed Ghidaoui is currently the Editor of the Journal of Hydraulic Research which is one of IAHR's premier journals. From the perspective of an Editor he will be able to provide unique guidance on the development of a journal paper for publication.

IAHR TECHNICAL COMMITTEE MEETING SCHEDULE

DAY	TIME	MEETINGS	VENUE
SUNDAY (AUGUST, 13)	15:00-16:30	Hydraulic Structure Chair: Prof. Blake P. Tullis and Prof.Daniel Bung	Perak Room
	15:00-16:30	Experimental Methods Chair: Prof. Rui Ferreira	Pahang Room
	15:00-16:30	Flood Risk Management Chair: Prof. Marian Muste	Negeri Sembilan Room
	17:00-1830	Fluid Mechanics Chair: Prof. Mohamed Salah Ghidaoui	Perak Room
MONDAY (AUGUST, 14)	18:30-19:30	Fluvial Hydraulics Chair: Dr. José F. Rodríguez	Perak Room
	18:30-19:30	Ecohydraulics Chair: Prof. Peter Goodwin	Negeri Sembilan Room
THURSDAY (AUGUST, 17)	18:00-19:00	Coastal & Maritime Hydraulics Chair: Dr. Ioan Nistor	Perak Room
	18:00-19:00	Water Resources Chair: Prof. Young-Oh Kim	Negeri Sembilan Room
	18:00-19:00	Hydroinformatics Chair: Prof. Dragan Savic	Pahang Room

+603 4266 5398 | +603 4266 7398
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TCK Technology (M) Sdn Bhd, founded in 1993, is one the most established local IT companies in Malaysia. We have two fundamental missions:

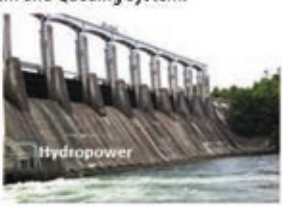
1) We strive to lead in the creation and development of the industry's most advanced information technologies including electronics, telecommunications, software development, project management and CAD-CAM.

2) We translate these advanced technologies into value for our customers through our professional solutions.

TCK has been actively involved in the business of Electronics and Telecommunications Technology for more than 20 years. TCK can play an important role in helping Malaysia achieve her vision and goals. We will continue to introduce new technology to the marketplace and ensure their optimum application.

TCK offers a wide range of electronics-related products and services where water is concerned. TCK is involved in Hydrological, Meteorological, Early Warning Systems and other monitoring and control solutions in Malaysia. We constantly evolve and invest in our product research & development (R&D) to ensure better product enhancement, system stability and the development of new products. In the field of IT, any idea can be turned into reality, andwe at TCK firmly believe that we can turn your idea to reality.

Other cutting edge products that we offer are our Event Data Logger, Telemetry Controller, Programmable Logic Controller, Weather Station System, Electronic Score Board, Automatic Kiosk System and Queuing System.



TCK has worked hard to become one of the main SCADA and Telemetry providers in Malaysia. Compared to larger, international brands, TCK has the competitive advantage of being a local company with a thorough understanding of the geographical, and societal elements particular to Malaysia. Thus, TCK is able to offer the flexibility of designing products and solutions that are customised to our local customers' specific needs.

With the continual changes to the climate and environment in our region and around the world, our Telemetry and SCADA solutions allow our customers to monitor, access and analyse real time data, evaluate ongoing situations, make informed decisions, and respond with appropriate action. TCK is committed and strives to provide excellent service, products, and workmanship, as well as build good relationships with suppliers and customers to stay relevant in this fast paced industry. TCK is a proud local company where local R&D and solutions are available.

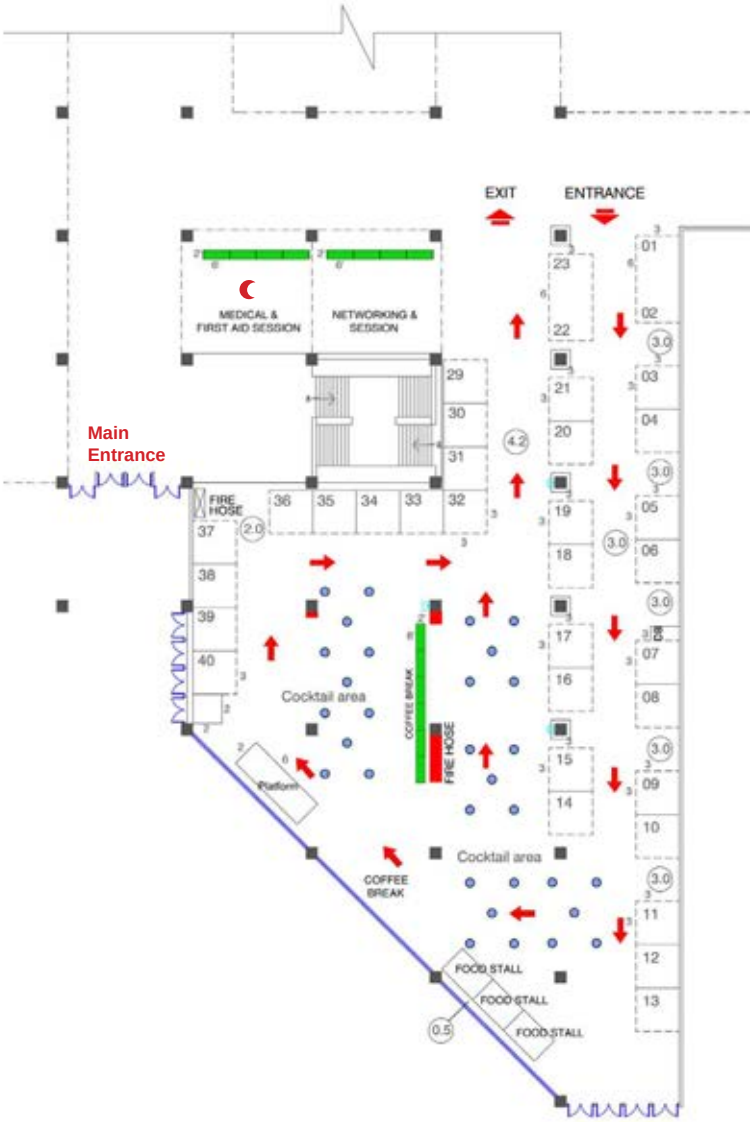
EXHIBITORS

BOOTH NUMBER	COMPANY/ INSTITUTION
01	River Engineering and Urban Drainage Research Centre (REDAC)
02	Water Watch Penang
03	Ministry of Natural Resources and Environment (NRE)
04	Ministry of Energy, Green Technology and Water (KeTTHA) Malaysia
05	Department of Irrigation and Drainage (DID) Malaysia
06	National Hydraulic Research Institute of Malaysia (NAHRIM)
07	National Water Services Commission (SPAN)
08	Malaysia National Committee on Irrigation and Drainage (MANCID)
09	Malaysia Stormwater Organization (MSO)
10	Humid Tropics Centre (HTC) Kuala Lumpur
11	Selangor Water Management Authority (LUAS)
12	Department of Environment (DOE) Malaysia
13	Ministry of Science, Technology and Innovation (MOSTI) Malaysia
14	TCK E-Solutions Sdn Bhd
15	TCK E-Solutions Sdn Bhd

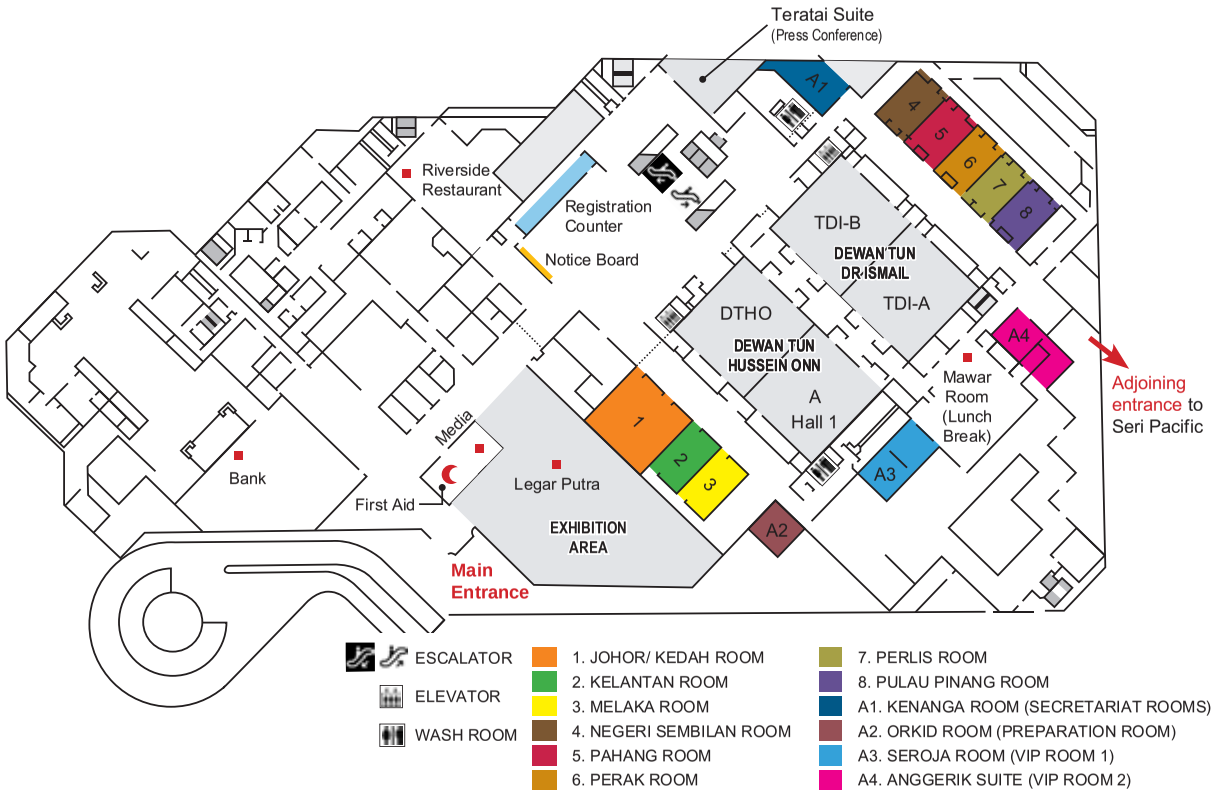
BOOTH NUMBER	COMPANY/ INSTITUTION
16	Maccaferri Asia (Bumi Gagah)
17	DHI
18	Tencate Geosynthetics Asia Sdn Bhd
19	Sea and Land Technologies Sdn Bhd
20	Adasfa Sdn Bhd
21	Embassy of The Kingdom of The Netherlands
22	China Yangtze Power Co.
23	China Yangtze Power Co.
29	Hohai University (HHU)
30	INNOVYZE
31	HR WALLINGFORD
32	ARACHEM (M) Sdn Bhd
33	IHE DELFT/Centre for Water Engineering Technology (UNIKL)
34	Local Enterprise
35	RAINSMART Solutions
36	AQUAVEO, LLC
37	Local Enterprise
38	IAHR 2019 (Panama)
39	Taylor & Francis Group
40	IAHR & IAHR APD

Subject to change without notification

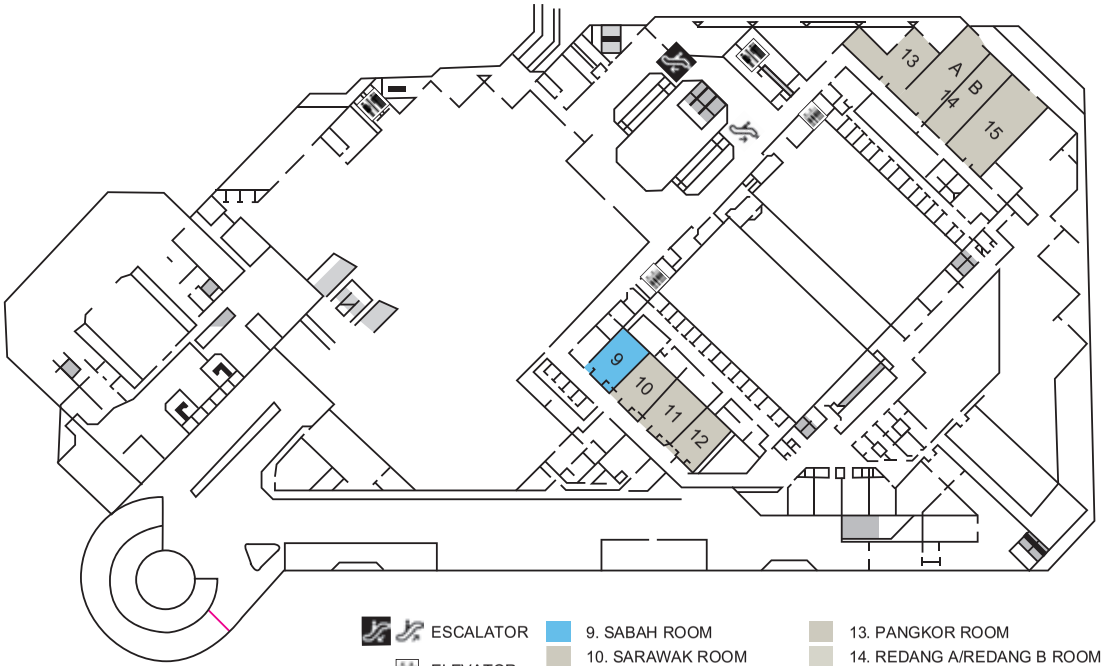
EXHIBITION FLOOR PLAN



PWTC LEVEL 2 FLOOR PLANS



PWTC LEVEL 3 FLOOR PLANS



PWTC LEVEL 4 FLOOR PLANS

MAPS OF PWTC

Titiwangsa
Lake Gardens
PEKELILING
Jalan Kuching
PUTRA WORLD TRADE CENTRE
(PWTC)
Jalan Tun Razak
Jalan Tuanku Abdul Halim
Lebuhraya Sultan Iskandar
Jalan Sultan Ismail
Istana
Nergara
CHOW KIT
KLCC Park
Petronas
Towers
Aquaria
KLCC
KL Tower
National
Monument
Merdeka Square
Central Market
BUKIT BINTANG
Flea Market
Petaling Street
National
Mosque

KUALA LUMPUR TRAIN MAP

ABOUT KUALA LUMPUR

In KL, you'll get to experience modern sophistication and nostalgic old-world charm in a single destination. Tour the city to see stunning skyscrapers standing alongside charming pre-war heritage buildings. The city abounds with architectural marvels, themed attractions and places of worship. Most spots can be easily accessed via KL's well-developed transport network.

AQUARIA KLCC

Aquaria KLCC is a state-of-the-art oceanarium showcasing over 5,000 different exhibits of aquatic and land-bound creatures over a sprawling 60,000 square-foot space in the Concourse Level of the Kuala Lumpur Convention Centre.

PETRONAS TWIN TOWER

The Twin towers are about 452 meters above the ground, and together have 88 floors which are the most used as offices apace with large shopping mall, the Suria KLCC at the bottom. The towers are linked at level 41 and 42 with a double-decker sky bridgewhich is about 175 meters above ground and 192 feet long.

KL TOWER

Standing at 421 metres, this formidable landmark is the 4th tallest tower in the world. At its foundation, the structure is surrounded by the Bukit Nenas Tropical Rainforest Reserve. Aside from being a telecommunications tower, the Kuala Lumpur Tower also houses a variety of souvenir shops and restaurants at its base, and an observation deck and revolving restaurant on the upper decks

TITIWANGSA PARK

Located in the north-eastern fringe of Kuala Lumpur, Taman Tasik Titiwangsa is a recreational park with a large lake as its main attraction. This 95 hectares park is a vast area that consists of a 57 hectares lake. Other facilities at the park include a Remote Control car track, a cycling track, a football field, a boathouse and aquatic activities, a viewing tower, playground and pavilion.

NATIONAL MOSQUE

The National Mosque of Malaysia is located in Kuala Lumpur. It has a capacity of 15,000 people and is situated among 13 acres of beautiful gardens. The mosque is a bold and modern approach in reinforced concrete, symbolic of the aspirations of a then newly-independent Malaysia. Its key features are a 73-metre-high minaret and an 16-pointed star concrete main roof. The umbrella, synonymous with the tropics, is featured conspicuously - the main roof is reminiscent of an open umbrella, the minaret's cap a folded one. The folded plates of the concrete main roof is a creative solution to achieving the larger spans required in the main gathering hall. Reflecting pools and fountains spread throughout the compound.

NATIONAL PALACE

Istana Negara (National Palace) is the official residence of the Yang DiPertuan Agong who is the head of state of Malaysia. The New palace which was opened in 2011 is located at Jalan Duta, replaces the old Istana Negara. It occupies a complex of an area 0f 97.65 hectares with 22 domes, and is split into three main portions consisting of the formal component, royal component and administration component.

SULTAN ABDUL SAMAD BUILDING

The Sultan Abdul Samad Building (named after the 4th Sulatan of Selangor - Sultan Abdul Samad ibni Raja Abdullah (1857-1898)) was built in 1897, and design by the architect A.C. Norman. Stretching 400 feet along Jalan Raja, the building was originally constructed to house the Secretariat offices of Selangor. It is now converted into the office of the Ministry of Infomation, Communication and Culture.

CENTRAL MARKET

Built in 1888 the Central Market was designed to be a wet market for the traders and tin miners of the time. The wet market was convenient for the earlier settlers of the Klang Valley. In 1985, the market was renovated into vibrant and colorful new style and on April 1986 is was officially known as Pasar Budaya (Culture Market), an art and craft shopping centre. A variety of goods are sold here, including handicrafts, souvenirs and batiks.

NATIONAL MUSEUM

The National Museum is located in a striking building that features traditional Malay and Minangkabau architecture. It houses collections on natural history, local culture and customs, and outdoor exhibits of artefacts recording the country's past. If you'd like to find out more about the museum, prior to your visit, go to www.muziumnegara.gov.my .

PERDANA BOTANICAL GARDENS

Formerly known as the Perdana Lake Gardens, this lush green park was originally built in the 1880s making it the oldest and most popular public recreational park in Kuala Lumpur. Exploring the Perdana Botanical Gardens, visitors will be amazed by the variety of flora that includes everything from colourful flowering plants to shrubs to palms and exotic trees of local as well as foreign origin. Among these unique natural wonders are the Bottle tree, the Sausage tree, the Cannonball tree and the Baobab tree just to name a few.

NATIONAL ART GALLERY

A huge four-story gallery houses the works of some of Malaysia's leading artists with a number of touring exhibitions as well.

KUALA LUMPUR OLD RAILWAY STATION

One of the most charming building found in Kuala Lumpur. Completed in 1910, the railway station has stood the passage of time with its fine architecture drawn from the Neo Moorish period influenced by Indian, Turkish and of Moroccan styles. Its is heavily influenced by Islamic architecture of arches, domes and geometric patterns. The old railway station is now one of the stops of the commuter rail service operates by KTMB.

BUKIT BINTANG STREET

Bukit Bintang tylized as Bintang Walk or Starhill. The area has long been Kuala Lumpur's most prominent retail belt that is home to many landmark shopping centres This area is popular among tourists and locals, especially among the youths.

Source : http://www.visitkl.gov.my

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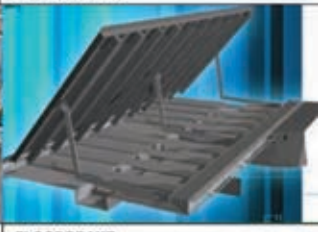

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B-2-11, 101 Boulevard,
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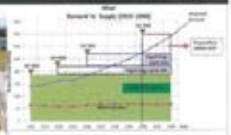

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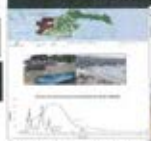

IFFW for Dungun River Basin

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The Netherlands - living with water

Water has shaped the Netherlands and its history. From the early Middle Ages onwards, the Netherlands reclaimed and defended land from the sea. In their long history with the water, the Dutch had to adapt and develop skills in the field of water management, spatial planning, water supply and water quality.

Nowadays, people from all over the world come to see the Dutch windmills, once used to pump out excess water, our dikes and "polders" and of course the famous Delta works shielding the southwest of the country against high water from the sea. There is also wide international interest in the Maasvlakte (Meuse Plain) 1 and 2, land reclamations extending the Port of Rotterdam out into the sea.

Innovative and cooperative

The Netherlands is home to the world's best engineering firms in the field of water and to world leaders in land reclamation, dredging and coastal construction. In water technology, innovative companies lead the way in the purification and re-use of water. A large network of smaller companies offers specialists and cost effective solutions. Skilled NGOs operate worldwide in the field of water and international cooperation. Research institutes, universities and (local) government maintain a high standard of knowledge and management. If necessary, Dutch organizations will form alliances to deliver tailor-made solutions.

Your global partner for water

The world is changing. And we need to adapt again to form a new, sustainable relationship with water in the Netherlands and abroad. Water does not stop at borders. The major water challenges of today require the best international solutions. We need to cooperate, to exchange knowledge and expertise. We invite you to team up with us, to find the best solutions for a changing world. We look for partnership and sustainable, long-term solutions.
We invite you to join us.

Let's work together!

For support, questions or comments, please contact the Embassy of the Kingdom of the Netherlands in Malaysia:

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