

WORLD ASSOCIATION FOR SEDIMENTATION AND EROSION RESEARCH

World Association for Sedimentation & Erosion Research – WASER

NEWSLETTER

Reporting WASER news to you regularly 2018 No. 3 & 4

(Dec. 15, 2018)

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PRESIDENT'S MESSAGE



Dear WASER members,

As 2018 comes to an end, the Officers and Council Members of WASER would like to take this opportunity to thank you for your continuing support for the Association and wish all members a happy and prosperous New Year for 2019.

2018 has been a busy year for WASER and I would like to summarize the various activities of the Association during the last year as follows:

1. WASER sponsored the 6th International Conference on Estuaries and Coasts (ICEC-2018) held in Caen, France from August 20-23, 2018. About 150 participants from more than 20 countries and regions around the world participated in the Conference. The Secretary General of WASER Prof. Guangquan Liu and the Executive Secretary General of WASER Prof. Cheng Liu delivered speeches on behalf of IRTCES and WASER, respectively, in the Opening Ceremony.

2. WASER co-sponsored the UNESCO-International Sediment Initiative (ISI) International Training Workshop on Integrated Sediment Management in River Basins held in Beijing, China from November 5-10, 2018. About 50 participants, including 20 women, attended the training workshop. WASER President Prof. Zhaoyin Wang and WASER past President Prof. Des. Walling attended the workshop as lecturers.

3. WASER co-sponsored the 13th International Conference on Hydroscience & Engineering held in Chongqing, China from June 18-22, 2018. WASER President Prof. Zhaoyin Wang was invited to attend the conference and delivered a Keynote Presentation.

4. WASER co-sponsored FRIEND 2018 - International Conference on African Large River Basin Hydrology that was held in Staoueli, Algeria from May 6-9, 2018. WASER Council member Prof. Hongwei Fang was invited to attend the conference and delivered a Keynote Presentation.

5. WASER sponsored a Round-Table Meeting of Leaders of Water-related International Organizations which was organized by the China Institute of Water Resources and Hydropower Research (IWHR) in Beijing on October 17, 2018. WASER President Prof. Zhaoyin Wang attended the meeting and signed the Beijing Declaration on Sustainable Development of Water on behalf of WASER.

6. In preparation for the 14th International Symposium on River Sedimentation, WASER President Prof. Zhaoyin Wang, Secretary General Prof. Guangquan Liu and Executive Secretary General Prof. Cheng Liu visited Sichuan University from September 16-19, 2018. They checked the Symposium venue, hotel and site of the technical visit, and undertook discussions with the Symposium host and Local Organization Committee.

7. The Impact Factor of the International Journal of Sediment Research, the WASER official journal, increased to 1.659 for 2017. In the past years, the Impact Factor of IJSR has been increasing year on year: 0.718 in 2013, 1.036 in 2014, 1.388 in 2015 and 1.494 in 2016.

8. The WASER Webpages have been regularly updated. The servers used for the website were upgraded by the IWHR Information Center in October 2018, because the existing servers were outdated. All information held on the website has been moved to the new servers. Some minor problems resulting from the move are being resolved.

Looking forward to 2019, the WASER Triennial Assembly and Symposium, the 14th International Symposium on River Sedimentation (ISRS 2019), will be organized by Sichuan University in Chengdu, China from September 16-19, 2019. The Symposium theme will be "Integrated sediment management in rivers and coasts". You may submit your abstracts and obtain other detailed information about ISRS 2019 by visiting the Symposium website at: http://www.isrs2019.cn/.

WASER is co-sponsoring the International Conference on Silk-roads Disaster Risk Reduction and Sustainable Development which will be held in Beijing from May 11-12, 2019. WASER will organize a session on 'Sediment Transportation and Geo-hazard Mitigation' during this conference. Further details can be obtained by visiting the conference website at: http://www.sidtr.com. The Officers and Council members of WASER will do their best to promote the Association and its activities during 2019, but your support for our Association will be very important in ensuring its continuing success.

The Officers and Council members of WASER would like to take this opportunity to express their sincere thanks to IRTCES for its very important support in hosting and sustaining the Secretariat of our Association over the past year.

Zhaoyin Wang

Zhaoyin Wang, President of WASER



Prof. Des. Waling and Prof. Zhaoyin Wang participated in the UNESCO ISI International Training Workshop on Integrated Sediment Management in River Basins as lecturers.



Keynote presentation by Prof. Zhaoyin Wang at the 13th International Conference on Hydroscience & Engineering; Keynote presentation by Prof. Hongwei Fang at the FRIEND 2018 - International Conference on African Large River Basin Hydrology



Speeches by Prof. Guangquan Liu and Prof. Cheng Liu at the 6th International Conference on Estuaries and Coasts

NEWS

The Sixth International Conference on Estuaries and Coasts held in Caen, France



The Sixth International Conference on Estuaries and Coasts (ICEC-2018), organized by the University of Caen Normandy and the Group of Scientific Interests on Hydraulics for the Environment and for Sustainable Development (GIS HEDD), was successfully held in Caen, France from August 20-23, 2018. About 150 participants from more than 20 countries and regions around the world participated in the conference. The ICEC-2018 was sponsored by the International Research and Training Center on Erosion and Sedimentation (IRTCES) and cothe French sponsored Society by of (SHF), **HvdroTechnics** the International Association for Hydro-Environment Engineering and Research (IAHR), the World Association for Sedimentation and Erosion Research (WASER), the Chinese Hydraulic Engineering Society Estuary Regulation and Protection Commission (CHES-ERPC), and the city of Caen la mer.

The conference was opened on the morning of August 20, chaired by Prof. Dan Nguyen, the Chairman of the LOC. Speeches were delivered by following representatives:

- Mr. Pierre Denise, President of the University of Caen Normandie;
- Prof. Guangquan Liu, Deputy Director of IRTCES;
- Prof. Zhongmin Lu, Director of the CHES-ERPC;
- Prof. Cheng Liu, Executive Secretary General of WASER; and
- Mr. Jean-Michel Tanguy, President of GIS HEDD.

The conference included 8 keynote, 85 oral

and 16 poster presentations and extended over 4 days, including a one day technical visit to the Couesnon dam. Papers with the main theme "Estuaries and Coasts in times of Global Change" were presented and discussed. The keynote presentations included:

- Port and coastal structures' resilience and climate change: about some of the French and PIANC's experiences (by Prof. Geoffroy Caude);
- The Mississippi River Delta Plain as a basis for understanding low gradient coastal land margin systems and how we may engineer our response to climate change (by Prof. Scott Hagen);
- Towards understanding the dynamics of intertidal ecosystems in times of global change: towards linking fundamental and application (by Prof. Tjeerd Bouma);
- Challenges and opportunities of tidal energy conversion: tidal asymmetry and tidal phasing (by Prof. Neil Simon);
- Efficient modelling of complex coastal evolution at monthly to century time scales (by Prof. Roelvink Dano);
- Extreme waves: Their measurement, generation, modelling and impact (by Prof. Frédéric Dias);
- Coastal development under the threat of floods and climate change: risk assessment and sustainable decision making (by Prof. Barbara Zanuttigh); and
- Interactions of Waves, Current and Vegetation (by Prof. Weiming Wu).

The ICEC is a triennial technical event initiated by IRTCES and its Permanent Secretariat is hosted by IRTCES. The 7th ICEC will take place in 2021 and will be hosted by East China Normal University and held in Shanghai, China.



Technical visit to the Couesnon dam

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WASER Co-sponsored the UNESCO-ISI International Training Workshop on Integrated Sediment Management in River Basins held in Beijing



UNESCO-ISI International Training The Workshop on Integrated Sediment Management in River Basins, organized by the UNESCO International Sediment Initiative (ISI) and the International Research and Training Center on Erosion and Sedimentation (IRTCES), was held in Beijing, China from November 5-10, 2018. About 50 participants, including 20 women, attended the Training Workshop, including, lecturers, representatives from UNESCO, the International Centre for Water Resources and Global Change (ICWRGC), the International Association of Hydropower (IHA), the China Institute of Water Resources and Hydropower Research (IWHR), IRTCES, and trainees from Indonesia, Iran, Kenya, Malaysia, Mongolia, Morocco, Sudan, Uganda and China.

The opening ceremony of the Training Workshop was held in the morning of November 6. Chaired by the Deputy Director of IRTCES, Prof. Guangquan Liu, opening remarks were made by Prof. Manfred Spreafico, Chairperson of UNESCO-ISI Advisory Group; Dr. Anil Mishra and Dr. Hans Thulstrup, UNESCO Programme Specialists, Prof. Duihu Ning, Deputy Director of IRTCES, delivered a welcome speech, and this was followed by a brief introduction to the training workshop and the local arrangements made by Prof. Cheng Liu, Deputy Division Chief of IRTCES and a member of UNESCO-ISI Advisory Group.

The Training Workshop included lectures, seminars, and a one-day field visit. Lecture topics included river basin management, soil and water conservation technology, ecology and restoration in integrated river basin management, reservoir sedimentation and sediment management technology. Participants also contributed to a seminar involving guided discussion of national case studies presented by participants.

The lecture presentations included:

- The impact of Global Change on the sediment loads of the world's rivers (Prof. Des. Walling, member of ISI Advisory Group; Past President of WASER; Emeritus Professor of the University of Exeter, U.K.):
- Overview of Soil and Water Conservation in the World (Prof. Rui Li, WASWAC President; Professor of the Institute of Soil and Water Conservation, Chinese Academy of Sciences and Ministry of Water Resources, China); Soil and Water Conservation in China (Prof. Rui Li);
- Reservoir sedimentation and sediment management (Prof. Manfred Spreafico, Chairperson of ISI Advisory Group; Emeritus Professor of the University of Berne, Switzerland);
- Integrated Sediment Management –with the Yellow River as an example (Prof. Zhaoyin Wang, member of ISI Expert Group; WASER President; Professor of Tsinghua University, China); Vegetation-Erosion Dynamics and Application in China (Prof. Zhaoyin Wang);
- Sediment-related ecological problems and their control (Prof. Mengzhen Xu, (Ms.), Professor of Tsinghua University, China);
- Sediment monitoring in Germany: implications for managing sediment-related ecological problems in developing countries (Dr. Thomas Hoffmann, member of ISI Expert Group; Head of Sediment Laboratory, German Federal Institute of Hydrology, Koblenz, Germany); and
- The 2030 Development Agenda and the International Hydrological Program (IHP) (Dr. Anil Mishra, member of ISI Advisory Group; Programme Specialist, UNESCO Division of Water Sciences).

Coordinated by Prof. Des. Walling, a seminar of country presentations and discussions was held and 8 presentations were made by participants from Sudan, Morocco, Kenya, Uganda, Iran, Indonesia, Mongolia and China.

In the late afternoon of November 8, the closing ceremony was organized chaired by Prof. Cheng Liu. Prof. Manfred Spreafico, Prof. Des. Walling and Dr. Anil Mishra made brief closing remarks. The participants were awarded certificates by Prof. Manfred Spreafico, Prof. Des. Walling, Dr. Anil Mishra, Prof. Duihu Ning, Prof. Guangquan Liu, and Prof. Cheng Liu.



Awarding of certificates

On November 9, a study tour visited the Daxing Experimental Base of IWHR. Participants visited the laboratories for sediment research, hydraulics and hydraulic mechanisms and had discussions with engineers from IWHR.

The International Training Workshop on Integrated Sediment Management in River Basins was organized by the International Research and Training Center on Erosion and Sedimentation (IRTCES) and the International Sediment Initiative (ISI-IHP-UNESCO); sponsored by UNESCO, the Ministry of Water Resources, P.R. China, the UNESCO Offices in Beijing and Jakarta, and cosponsored by the China Institute of Water Resources and Hydropower Research (IWHR), the International Centre for Water Resources and Global Change (ICWRGC), the World Association for Sedimentation and Erosion Research (WASER), and the World Association of Soil and Water Conservation (WASWAC). It represented a major ISI activity for 2018 aimed at fulfilling the objectives of the new strategy of ISI, which in turn contributes to the 8th phase of the IHP (2014-"Water security: 2021) which focuses on responses to local, regional and global challenges", by addressing the wide-ranging social, economic and environmental impacts of erosion, sediment transport and sedimentation processes with due consideration of gender perspectives.

Round-Table Meeting of Leaders of Waterrelated International Organizations held in Beijing



The Round-Table Meeting of Leaders of Water-related International Organizations was held by the China Institute of Water Resources and Hydropower Research (IWHR) in Beijing on October 17, 2018. Leaders from over 10 important water-related international organizations and associations, such as the World Water Council. the Global Water Partnership, the International Association for Hydro-Environment Engineering and Research, the International Commission on Irrigation and Drainage, the International Commission on Large Dams, the International Conference on Flood International Hydropower Management, the Association. the World Association for Sedimentation and Erosion Research, and the World Association of Soil and Water Conservation, and about 60 Chinese and foreign representatives attended the meeting to discuss the sharing of global progress, consensus of water-related international organizations. promotion of actions plans, and pushing forward the realization of the water target in the UN sustainable development goals. Three topics, Topic 1 - Innovation R&D to support decisionmaking in water governance and promote sustainable development goals, Topic 2 - Role of International organizations in facilitating dialogues among stakeholders, and Topic 3 - International collaboration and capacity building, were discussed, and a Beijing Declaration on Sustainable Development of Water was signed.

The Vice Minister of Water Resources of China, Tian Xuebin attended the closing ceremony and delivered a speech.

WASER was one of 10 hosts for the meeting, WASER President Prof. Zhaoyin Wang attended the meeting and signed the Beijing Declaration on Sustainable Development of Water on behalf of WASER.



NEWS FROM THE SEDIMENT WORLD

IWHR organizes Forum on Modern Water Governance and Technological Innovation to celebrate its 60th anniversary



On October 18, 2018, the day of IWHR's 60th anniversary, the Institute organized the Forum on Modern Water Governance and Technological Innovation. This was attended by the Minister of Water Resources of China, Mr. E Jingping, who delivered a speech stressing the new Chinese water governance principles of "prioritizing water conservation, balancing spatial distribution, taking systematic approaches and giving full play to the roles of both government and market".

Minister E conveyed the comments from Mr. Hu Chunhua, vice premier of the State Council, who said that the fruitful achievements that IWHR had made in the past 60 years in scientific and technological research and human resources training have significantly pushed forward the leapfrog development of the water and hydropower sectors in China.

In his speech, Mr. E Jingping emphasized the importance of scientific and technological innovation, which he said is the main engine giving key impetus to the development of water resources. For a long time, Chinese researchers have focused on the national demands and have made tremendous progress in a variety of fields, including sedimentation research, damming technologies, water allocation, hydrological forecasting, etc. The rate of contribution of scientific and technological progress to water resources development has reached 53.5%. IWHR, as the leading and major force, has made enormous and untiring efforts. while evolving for 6 decades, significantly contributing to the progress and development of modern water governance.

Lu Guihua, Vice Minister of the Ministry of Water Resources, attended the meeting and read the speech of Qian Zhengying, former vice chairman of the National Committee of the Chinese People's Political Consultative Conference. Yan Zhiyong, Chairman of China Electric Power Construction Group, and Benedicto Braga, President of the World Water Council, also delivered speeches at the meeting.

Kuang Shangfu, President of the China Institute of Water Resources and Hydropower Research, comprehensively reviewed the development history of the Institute, and summarized the achievements in personnel training, discipline development, infrastructure and platform construction, scientific research, scientific and technological support, cooperation and exchanges, and the prospects for new achievements.

Keynote reports on "Smart Dam", "Water-Food-Energy Triology" and "Nature-Human Coupled Water Cycle: Theory, modelling and Regulation" were delivered by Zhong Denghua, Academician of the Chinese Academy of Engineering and President of Tianjin University; Felix Reinders, President of the International Irrigation and Drainage Committee (ICID); and Wang Hao, Academician of the Chinese Academy of Engineering and Director of the State Key Laboratory of Simulation and Regulation of Water Cycle in River Basin. (Source: IWHR)

The second International Youth Forum on Soil and Water Conservation held in Moscow



The second International Youth Forum on Soil and Water Conservation (2nd IYFSWC) with the title of Climate Change Impacts on Sediment Dynamics: Measurement, Modelling and Management was successfully held in beautiful Moscow during August 26-31, 2018.

This Forum was sponsored by the World Association of Soil and Water Conservation (WASWAC), and organized by the Lomonosov Moscow State University (MSU). It is the second Forum with this theme, following the first Forum held in Nanchang, China in October 2015. It is a global Forum focusing on young scientists and managers who are contributing to soil and water conservation. A total of 137 participants from 14 countries including China, Iran, Morocco, Russia, Austria, Egypt, Italy, Nigeria, Serbia, Belgium, Germany, Japan, Poland and Ukraine attended this forum. (Source: WASWAC) Global Soil Erosion Research Forum held in Yangling, China



The Global Soil Erosion Research Forum was successfully held in Yangling, China during September 12 to 14, 2018. This forum was jointly sponsored by the World Association of Soil and the Water Conservation, DesertNet International and Chinese Society of Soil and Water the Conservation, and organized by the Institute of Soil and Water Conservation of CAS & MWR and the State Key Laboratory of Soil Erosion and Dryland Farming on the Loess Plateau. 274 experts, young researchers, and students involved in soil erosion from 10 counties, including China, the United States, Australia, Switzerland, Spain, Italy, Czech Republic, Japan, Serbia and Ethiopia, attended this forum. (Source: WASWAC)

The Second International Symposium on Hydraulic Modelling and Measuring Technology held in Nanjing, China



The Second International Symposium on Hydraulic Modelling and Measuring Technology (ISHMMT 2018), jointly organized by Nanjing Hydraulic Research Institute (NHRI), the International Association for Hydro-Environment Engineering and Research (IAHR) and Hohai University (HHU), was successfully held from May 30 – June 1, 2018 in Nanjing, China. Focusing on the theme of the Important Role of Modelling and Measuring Technology in Water Science Research, more than 220 experts and scholars from home

and abroad discussed frontier science and technology issues in relation to physical modelling, numerical simulation, prototype observation, and measuring instruments for hydraulic engineering, river engineering and the water ecological environment. Prof. LI Yun, Chairman of the Organizing Committee and NHRI Vice President. delivered a welcome speech. James Ball, Vice President of IAHR and Professor of Sydney University of Technology, Australia, addressed the opening ceremony. Prof. WU Shiqiang, Vice Chairman of the Organizing Committee and NHRI Director of Hydraulic Engineering Department, presided over the opening ceremony.

On the morning of the 30th, five experts gave keynote presentations, covering The Importance of Field Monitoring Urban Catchments (James Ball), Innovative Technology of Island and Tunnel Engineering of Hongkong-Zhuhai-Macao Bridge Project (YIN Haiqing, Deputy Chief Engineer of Island and Tunnel Engineering Department of HongKong-Zhuhai-Macao Bridge Project), Seeing Sediment Through and Around the Bed: Applying the Refractive Index Matching Method to Unveil Complex Hydraulic and Hypothetic Processes (Prof. Ralph S. Budwig, University of Idaho, USA), Application and Practice of Large Scale Hydraulic Simulation Technology in Research on Flood Discharge and Energy Dissipation of High Dams (Prof. LI Yun), and The Role of Physical and Numerical Modeling in Experimental Hydraulics in Spain and Europe (Prof. Luis Balairon Perez, Polytechnic University of Madrid, Director of the Laboratory of Hydraulics of the Center of Hydrographic Studies of the CEDEX, Spain). The Chair of IAHR EMI Dr. Alessio Radice and the Vice President of Hohai University Prof. ZHENG Jinhai jointly chaired the morning plenary session.

During the afternoon of May 30th, another 7 experts gave keynote speeches. They are Prof. TANG Hongwu, Chairman of Hohai University Council, Dr. Alessio Radice, Associate Professor of the Politecnico di Milano, Italy, Prof. LIU Zhiping, Vice President of the China Institute of Water Resources and Hydropower Research, Dr. Sven Wurms, Deputy Head of the River Engineering Section, Federal Waterways Engineering and Research Institute, Germany, Prof. ZHANG Jianmin, Sichuan University, Dr. Jonas Person, Norconsult, Sweden, and Prof. XIA Yunfeng, Deputy Director of NHRI River and Harbor Engineering Department.

About 120 experts and researchers made presentations in 7 parallel sessions on May 31.

A Technical tour was arranged on June 1. Participants visited the Sluice Project of the Sanchahe Estuary and the NHRI Water Experiment Center at Tiexingiao.

PUBLICATIONS



PapersPublishedintheInternationalJournalofSedimentResearchVolume33,No. 3, 2018

Pages 221-370 (September 2018)

Towards a universal optimization of the performance of sand storage dams in arid and semi-arid areas by systematically minimizing vulnerability to siltation: A case study in Makueni, Kenya

Josep de Trincheria, Walter Filho Leal, Ralf Otterpohl Pages 221-233

Analytical approach for sheet flow transport in purely acceleration-skewed oscillatory flow Xin Chen, Fujun Wang, Xuelin Tang Pages 234-242

Effect of thickness of planar nozzles on erosion depth of levee soils subjected to plunging water Chung Rak Song, Jinwon Kim, James Tyler Kidd, Alexander Cheng, David Admiraal

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Phosphorus fractionation and release characteristics of sediment in the Saemangeum Reservoir for seasonal change

Dong-Heui Kwak, Young-Tae Jeon, Young Duck Hur Pages 250-261

Multigene genetic programming for sediment transport modeling in sewers for conditions of non-deposition with a bed deposit Mir Jafar Sadegh Safari, Ali Danandeh Mehr

Pages 262-270

Wide river or narrow river: Future river training strategy for Lower Yellow River under global change Xiaonan Li, Deyu Zhong, Y. Joseph Zhang, Yanjun Wang,

Hongwu Zhang Pages 271-284

An isotopic model for the origin of autochthonous organic matter contained in the bottom sediments of a reservoir Piotr Koszelnik, Renata Gruca-Rokosz, Lilianna Bartoszek Pages 285-293

Assessment of heavy metal pollution from the sediment of Tupilipalem Coast, southeast coast of India

Sreenivasulu Ganugapenta, Jayaraju Nadimikeri, Sundara Raja Reddy Balam Chinnapolla, Lakshmanna Ballari, Lakshmi Prasad Tella Pages 294-302

Characteristics and influencing factors of sediment deposition-scour in the Sanhuhekou-Toudaoguai Reach of the upper Yellow River, China Bo Yao, Qingquan Liu Pages 303-312

Sheet flow hydrodynamics over a non-uniform sand bed channel Anurag Sharma, Bimlesh Kumar Pages 313-326

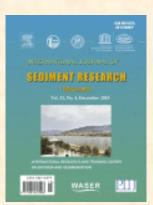
Enhanced bed load sediment transport by unsteady flows in a degrading channel Zhijing Li, Honglu Qian, Zhixian Cao, Huaihan Liu, Penghui Hu Pages 327-339

Soil and onsite nutrient conservation potential of aromatic grasses at field scale under a shifting cultivated, degraded catchment in Eastern Ghats, India

Partha Pratim Adhikary, Hunsur Chikkanarasimhaiah Hombegowda, Dhananjay Barman, Madegowda Madhu Pages 340-350

Flow fields and particle trajectories beneath a tidal bore: A numerical study Adrien Berchet, Bruno Simon, Anthony Beaudoin, Pierre Lubin, . Serge Huberson Pages 351-370

Full papers are available at ScienceDirect: https://www.sciencedirect.com/journal/internationaljournal-of-sediment-research with free access to the paper abstracts.



Papers Published in the International Journal of Sediment Research Volume 33, No. 4, 2018

Pages 371-524 (December 2018)

Water balance prediction in stormwater infiltration basins using 2-D modeling: An application to evaluate the clogging process

Patrice Cannavo, Anaïs Coulon, Sylvain Charpentier, Béatrice Béchet, Laure Vidal-Beaudet Pages 371-384 The quantity of sand fraction sediment in reservoirs as the basis of an assessment of the bedload transport from a reservoir catchment Szczepan Ludwik Dąbkowski, Łukasz Bąk Pages 385-394

Experimental study on blocking and self-cleaning behaviors of beam dam in debris flow hazard mitigation Hao Sun, Yong You, Jinfeng Liu Pages 395-405

Sediment geochemistry of the urban Lake Paulo Gorski Marcelo Bevilacqua Remor, Silvio César Sampaio, Sacha de Rijk, Marcio Antônio Vilas Boas, Fábio Augusto Schardong Pages 406-414

Linear and non-linear approaches to predict the Darcy-Weisbach friction factor of overland flow using the extreme learning machine approach

Kiyoumars Roushangar, Saba Mirza Alipour, Dominique Mouaze

Pages 415-432

Time-averaged sub-layer concentration profiles in oscillatory sheet flows

Yuhai Wang, Wenhong Cao, Wen Lu, Huifeng Liu, ... Fei Liu

Pages 433-440

Issues in Eulerian–Lagrangian modeling of sediment transport under saltation regime

Reza Barati, Seyed Ali Akbar Salehi Neyshabouri, Goodarz Ahmadi Pages 441-461

A depth-averaged two-phase model for debris flows over fixed beds

Ji Li, Zhixian Cao, Kaiheng Hu, Gareth Pender, Qingquan Liu

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Countermeasure of river bend scour using a combination of submerged vanes and riprap Piya Biswas, Abdul Karim Barbhuiya Pages 478-492

Hydrometeorological assessments and suspended sediment delivery from a central Himalayan glacier in the upper Ganga basin

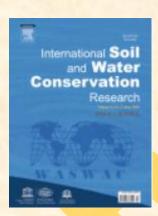
Amit Kumar, Akshaya Verma, Anupam Anand Gokhale, Rakesh Bhambri, ... Naval Kishore Pages 493-509

A study on zinc speciation of Tungabhadra River sediments, Kurnool, south India: A tool in metal pollution monitoring Madakka Mekapogu, Jayaraju Nadimikeri, Pramod Kumar Madri, Sowjanya Devi

Pages 510-517

Optimizing the dataset size of a topo-bathymetric survey for Hammam Debagh Dam, Algeria Djamel Bengora, Lotfi Khiari, Jacques Gallichand, Noureddine Dechemi, Silvio José Gumiere Pages 518-524

Full papers are available at ScienceDirect: <u>https://www.sciencedirect.com/journal/international-journal-of-sediment-research</u> with free access to the paper abstracts.



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Frederick Ayivi, Manoj K. Jha Pages 203-213

Effect of water conservation measures on soil moisture and maize yield under drought prone agro-ecological zones in Rwanda

Dieudonne Uwizeyimana, Stephen M. Mureithi, George Karuku, Geoffrey Kironchi Pages 214-221

Assessment of sediment inflow to a reservoir using the SWAT model under undammed conditions: A case study for the Somerville reservoir, Texas, USA Dagbegnon Clement Sohoulande Djebou Pages 222-229

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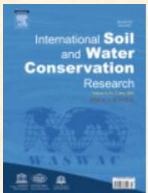
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COMING EVENTS

International Conference on Silk-roads Disaster Risk Reduction and Sustainable Development (Beijing, May 11-12, 2019)

Date: May 11-12, 2019 Venue: Beijing, China

Summary: The Silk Road, beginning in the Han Dynasty (207 BC-220 BC), crosses more than 70 countries and affects some 4.4 billion people (63% of the world). For centuries, the Silk Road has played an essential role in connecting the East and the West, through the exchange of trade, science technology and civilization. However, due to active underlying geological structures, including rapid tectonic uplift, climate change, and natural hazards (e.g., earthquakes, landslides, floods, typhoons, tsunamis, etc.) that occur frequently, these conditions place threats on both social development and livelihoods along the Silk Road. Furthermore, numerous challenges related to disaster risk reduction exist in this area, including a lack of background information and data sharing mechanism, as well as an absence of a scientific risk assessment method, and mitigation countermeasures, etc. As a result of this serious situation, and integrated with the Sendai Framework for Disaster Risk Reduction and the Sustainable Development Goals 2030, there is an urgent need to promote international cooperation in disaster risk reduction and sustainable development along the Silk Road. Resilience against natural hazards must be improved and an international platform for joint research and information sharing relevant to disaster risk reduction and sustainable development is needed. Therefore, an international research program for the disaster risk reduction along the Silk Roads is being implemented under the umbrella of SiDRR (Silk-roads Disaster Risk Reduction) by Chinese Academy of Sciences. The implementation of this program will enhance disaster prevention and will contribute to our ability to guarantee the security of livelihood of the affected countries. Based on this understanding, the Chinese Academy of Sciences (CAS), China Association for Science and Technology, and United Nations Environment Programme (UNEP) and International Scientific Partners will jointly host the International Conference on Silk-roads Disaster Risk Reduction and Sustainable Development in Beijing, on May 11-12, 2019.

Hosts: Chinese Academy of Sciences (CAS); China Association for Science and Technology; United Nations Environment Programme (UNEP)

Conference website: http://www.sidrr.com/ Contacts:

E-mail: sidrr@imde.ac.cn Contact persons: Dr. Xiaoqing Chen Email: xqchen@imde.ac.cn Tel:13008104468 Dr. Chaojun Ouyang Email: cjouyang@imde.ac.cn Tel:15928089209 Dr. Gordon G. D. Zhou Email: gordon@imde.ac.cn Tel:13980660182

2019 World Hydropower Congress (France, May 14 -16, 2019)

Date: 14-16 May 2019

Venue: Paris, France

Summary: The World Hydropower Congress brings together industry, government, finance, academia and civil society to set priorities for the future direction of the hydropower sector. The seventh Congress, organised by the International Hydropower Association (IHA), is to be hosted in partnership with UNESCO's International Hydrological Programme. With the theme of 'The Power of Water for a Sustainable World', the biennial event in May 2019 will focus on hydropower's role in delivering on the Paris Agreement and the Sustainable Development Goals. Up to 100 countries are expected to be represented at the Congress. Details on registration, the agenda and speakers will be announced in the coming months. Contact us to express your interest in participating in or sponsoring the Congress.

Conference

https://www.hydropower.org/congress/

website:

7th International Conference on Debris Flow Hazards Mitigation (USA, June 10 -13, 2019)

Date: 10 June 2019 - 13 June 2019 Venue: Golden, Colorado USA

Summary: We are pleased to announce that the 7th International Conference on Debris-Flow Hazards Mitigation will be held June 10 - 13, 2019 in Golden, Colorado, USA on the campus of Colorado School of Mines. With the beautiful Rocky Mountains covering half the state, Colorado shares the problem of debris-flow hazards with other mountainous areas of the world. Against this backdrop, scientists, engineers, and policy makers from around the world will be able to share new research and ideas in the field of debris flows. This website provides initial details of the conference and venue. Additional information will be added as the conference date approaches.

Conference website: http://dfhm7.csmspace.com/

38th IAHR World Congress (Panama, Sep. 1-6, 2019)

Date: 01 September 2019 - 06 September 2019 Venue: Panama City, Panama

Summary: Global interest in water has increased rapidly in recent years. Many water issues are high on the political agenda, whether it concerns the lack of access to safe water and sanitation or the increase in water - related disasters due to floods and droughts. This challenge must be addressed by management and policy decisions informed by science and engineering knowledge that is relevant, credible, legitimate and delivered in a timely manner. Therefore the discipline of hydro-environment engineering and research is more important than ever. The 38th IAHR World Congress will bring together the key players in the sector from around the globe in "Water – Connecting the World", from 1-6 September 2019 in Panama. We look forward to meeting you there! (Peter

Goodwin, IAHR President) Conference website: http://iahrworldcongress.org/

14th International Symposium on River Sedimentation (Chengdu, China, Sep. 16-19, 2019)

Date: September 16 – 19, 2019 Venue: Chengdu, China

Organizer: Sichuan University

Sponsors: International Research and Training Center on Erosion and Sediment Research (IRTCES); World

Association for Erosion and Sediment Research (WASER)

Co-sponsors: IHAR, IAHS, International Sediment Initiative (ISI)-IHP-UNESCO....(to be invited)

Summary: China's water-related infrastructure has developed by leaps and bounds leading to further advances in scientific and technical research. Consequently, the role of sediment research is becoming more challenging than ever before. In the midst of these advances, the International Symposium on River Sedimentation (ISRS) will return to China after the successful Yichang Symposium 12 years ago. On behalf of the 14th ISRS Organizers, we would like to warmly invite you to join us in Chengdu, China 14th International Symposium on River for the Sedimentation (ISRS-2019). The Symposium will be held with the theme of "Integrated Sediment Management in Rivers and Coasts". We look forward to welcoming you to Chengdu in September 2019 and we are confident that this symposium will be one of the most successful in the ISRS series. . (Weilin Xu, Chairperson of the LOC)

Symposium Theme and Topics:

The theme of the symposium is: Integrated Sediment Management in Rivers and Coasts

- Under this theme, the symposium topics include:
- A. Sediment yield and erosion processes;
- B. Sediment transport;
- C. Sedimentation in estuarine and coastal areas;
- D. Reservoir sedimentation;
- E. Erosion processes;
- F. Environmental and ecological sediment;
- G. Sediment related disasters;
- H. Modelling and measurement techniques;
- I. Integrated sediment management.

Technical Tours:

 Ancient Dujiangyan irrigation project, one of the oldest water projects in the world (2270 years old), which is stll working today for flood control and irrigation, due to its success in dealing with problems caused by sediment deposition and scour.

Post Symposium Tours:

Two post-symposium tours (3-5 days each) will be organized:

- Jiuzhaigou valley (UNESCO world heritage site);
- Three Gorges Project.

URL: http://www.isrs2019.cn/

Contacts:

Email: isrs2019@126.com Telephone: +86-28-85403957

Fax: +86-28-85401807

Mailing address: State Key Laboratory of Hydraulics and Mountain River Engineering, Sichuan University, No.24

10th International Conference on Asian and Pacific Coasts (Vietnam, September 25-28, 2019)

Date: September 25-28, 2019

Venue: Thuyloi University, Hanoi, Vietnam

Summary: The International Conference on Asian and Pacific Coasts (APAC) is an international conference to promote academic and technical exchange on coastal related studies that include coastal engineering and coastal environmental problems, among the Asian and Pacific countries/regions. A wide range of organizations from Asian and Pacific countries/regions are its active participants or sponsors. The Conference is held once every two years.

The 10th International Conference on Asian and Pacific Coasts (APAC2019) will extend the series of biennial conferences with the first one being held in Dalian, China in 2001 with the name of Asian and Pacific Coastal Engineering (APACE). To reflect a broader scope, the conference was renamed Asian and Pacific Coasts (APAC) and it was subsequently held every two years in different countries and regions including Japan (2004), Korea (2005), China (2007), Singapore (2009), HongKong SAR (2011), Indonesia (2013), India (2015), and the Philippines (2017). These conferences have acted as a welcome forum for reporting and discussing the latest advancements in Coastal, Ocean and Port Engineering and as such, have always been highly valued by all participants.

Organizers:

•The Chinese Ocean Engineering Society (COES)

•The Coastal Engineering Committee of the Japan Society of Civil Engineers (JSCE)

The Korean Society of Coastal and Ocean Engineers (KSCOE).

Theme of the Conference: Living with nature, coping with coastal changes

Topics of the Conference:

- 1. Ocean wave, tides, storm surge and tsunami
- 2. Beach erosion and coastal sediment transport
- 3. Coastal and estuarine hydrodynamics
- 4. Lowland development and reclamation
- 5. Beach development and coastal protection
- 6. Marine ecology and coastal environments
- 7. Marine and offshore renewable energy
- 8. Climate change and coastal adaptation
- 9. Coastal hazards and risk assessment

10. Mekong Delta, beach erosion and saltwater intrusion **Conference website:**

http://apac2019.tlu.edu.vn/

Contacts:

Assoc.Prof. Nguyen Cao Don Thuyloi University, 175 Tay Son Str., Dong Da, Hanoi,Vietnam Email: apac2019@tlu.edu.vn Phone: +84 24 3654 1053 Fax: +84 243 653 3351

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