

The 4th International Conference on Water Resource and Environment (WRE 2018)

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The 4th International Conference on Water Resource and Environment (WRE 2018)

Part I Conference Schedule

Tuesday, July 17, 2018

Time	Activity	Location
08:30-18:00	Registration	Lobby of I-Shou University International House I

Notes: Please take the name card, meal coupon and tourism ticket with you during the conference.

Wednesday, July 18, 2018

Time	Activity	Location: Room 60405, 4 th Floor, International College
08:50-09:00	Opening Ceremony	Conference Chair: Prof. Chih-Huang Weng
09:00-09:40	Keynote Speech 1: Subsurface Reactive Transport Modeling: Applications to Energy and Environment Problems <i>Prof. Tianfu Xu</i>	
09:40-10:20	Keynote Speech 2: A Systems Approach to Modelling Water-Energy-Food Nexus: ANEMI Model <i>Prof. Slobodan P. Simonovic</i>	
10:20-10:40	Pose for a Group Photo and Coffee Break	
10:40-11:20	Keynote Speech 3: Using Constructed Wetland and Aerated Gravel-packed Contact Bed System for Polluted River Water Purification <i>Prof. Jimmy (C.M.) Kao</i>	
11:20-12:00	Keynote Speech 4: Zero-Valent Iron Aggregates as an Eco-friendly Activator in Persulfate Oxidation Process for Degradation of Azo Dyes <i>Prof. Chih-Huang Weng</i>	

12:00-13:00	Buffet Lunch (A)	Location: Qingjing Restaurant, 5 th Floor, International College
12:30-13:30	Buffet Lunch (B)	Location: Qingjing Restaurant, 5 th Floor, International College

Time	Oral Presentation	Location
14:00-17:40	Oral Session_1: Water Quality and Environment Science (I)	Room 60403, 4 th Floor, International College
14:00-17:40	Oral Session_2: Water Resources and Hydrology (I)	Room 60404, 4 th Floor, International College
14:00-17:30	Oral Session_3: Water Pollution and Wastewater Treatment (I)	Room 60411, 4 th Floor, International College
14:00-17:35	Oral Session_4: Soil and Groundwater (I)	Room 60412, 4 th Floor, International College

Bus Departure Time (International College → E-Da Skylark Hotel): **17:30; 17:40; 17:50**

18:00-19:30	Buffet Dinner	Location: 1 st Floor, E-Da Skylark Hotel
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The 4th International Conference on Water Resource and Environment (WRE 2018)

Thursday, July 19, 2018

Time	Oral Presentation	Location
09:00-12:05	Oral Session_5: Water Quality and Environment Science (II)	Room 60403, 4 th Floor, International College
09:00-12:20	Oral Session_6: Water, Climate and Ecological Environment (I)	Room 60404, 4 th Floor, International College
09:00-12:05	Oral Session_7: Soil and Groundwater (II)	Room 60411, 4 th Floor, International College
09:00-12:15	Oral Session_8: Water Pollution and Wastewater Treatment (II)	Room 60412, 4 th Floor, International College

12:00-13:00	Buffet Lunch (A)	Location: Qingjing Restaurant, 5 th Floor, International College
12:30-13:30	Buffet Lunch (B)	Location: Qingjing Restaurant, 5 th Floor, International College

Time	Oral Presentation	Location
14:00-17:15	Oral Session_9: Water Quality and Environment Science (III)	Room 60403, 4 th Floor, International College
14:00-17:20	Oral Session_10: Water, Climate and Ecological Environment (II)	Room 60404, 4 th Floor, International College
14:00-17:20	Oral Session_11: Water Resources and Hydrology (II)	Room 60411, 4 th Floor, International College
14:00-17:15	Oral Session_12: Water and Environmental Chemistry	Room 60412, 4 th Floor, International College

Bus Departure Time (International College → E-Da Skylark Hotel): **17:30; 17:40; 17:50**

18:30-20:00	Awarding Ceremony and Round Table Dinner	Location: 1 st Floor, E-Da Skylark Hotel
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The 4th International Conference on Water Resource and Environment (WRE 2018)

Friday, July 20, 2018

Time	Activity	Location
09:00-11:30	Poster Presentation	4 th Floor, International College

11:30-12:30	Buffet Lunch	Location: Qingjing Restaurant, 5 th Floor, International College
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Time	Activity
12:45	Gathering at the Lobby (1 st Floor) of International College
13:00-18:30	Visit Fo Guang Shan Buddha Museum & Old Railroad Bridge Education Wetland Zone

Saturday, July 21, 2018

Time	Activity
08:10	Gathering at the Main Entrance of I-Shou University
08:30-17:30	One Day Tour in Kaohsiung

The 4th International Conference on Water Resource and Environment (WRE 2018)

大會日程

2018年7月17日，星期二

時間	活動	地點
08:30-18:00	註冊報到	義守大學國際學舍 1 館

注：会议期间，请随身佩戴胸牌，就餐请带好餐券，参加旅游请出示旅游券。

2018年7月18日，星期三

時間	活動	地點: 國際學院四樓，60405 室
08:50-09:00	開幕式	大會主席: Chih-Huang Weng 教授
09:00-09:40	主題報告 1: Subsurface Reactive Transport Modeling: Applications to Energy and Environment Problems 報告專家: Tianfu Xu 教授	
09:40-10:20	主題報告 2: A Systems Approach to Modelling Water-Energy-Food Nexus: ANEMI Model 報告專家: Slobodan P. Simonovic 教授	
10:20-10:40	與會代表集體合影及茶歇	
10:40-11:20	主題報告 3: Using Constructed Wetland and Aerated Gravel-packed Contact Bed System for Polluted River Water Purification 報告專家: Jimmy (C.M.) Kao 教授	
11:20-12:00	主題報告 4: Zero-Valent Iron Aggregates as an Eco-friendly Activator in Persulfate Oxidation Process for Degradation of Azo Dyes 報告專家: Chih-Huang Weng 教授	

12:00-13:00	自助午餐 (A)	地點: 國際學院五樓情境餐廳
12:30-13:30	自助午餐 (B)	地點: 國際學院五樓情境餐廳

時間	口頭報告	地點
14:00-17:40	口頭報告_1: 水質與環境科學 (1)	國際學院四樓 60403 室
14:00-17:40	口頭報告_2: 水資源與水文 (1)	國際學院四樓 60404 室
14:00-17:30	口頭報告_3: 水污染與廢水處理 (1)	國際學院四樓 60411 室
14:00-17:35	口頭報告_4: 土壤與地下水 (1)	國際學院四樓 60412 室

巴士發車時間 (國際學院→義大天悅飯店): 17:30; 17:40; 17:50

18:00-19:30	自助晚餐	地點: 義大天悅飯店 1 樓
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The 4th International Conference on Water Resource and Environment (WRE 2018)

2018年7月19日，星期四

時間	口頭報告	地點
09:00-12:05	口頭報告_5: 水質與環境科學 (2)	國際學院四樓 60403 室
09:00-12:20	口頭報告_6: 水、氣候與生態環境 (1)	國際學院四樓 60404 室
09:00-12:05	口頭報告_7: 土壤與地下水 (2)	國際學院四樓 60411 室
09:00-12:15	口頭報告_8: 水污染與廢水處理 (2)	國際學院四樓 60412 室

12:00-13:00	自助午餐 (A)	地點: 國際學院五樓情境餐廳
12:30-13:30	自助午餐 (B)	地點: 國際學院五樓情境餐廳

時間	口頭報告	地點
14:00-17:15	口頭報告_9: 水質與環境科學 (3)	國際學院四樓 60403 室
14:00-17:20	口頭報告_10: 水、氣候與生態環境 (2)	國際學院四樓 60404 室
14:00-17:20	口頭報告_11: 水資源與水文 (2)	國際學院四樓 60411 室
14:00-17:15	口頭報告_12: 水與環境化學	國際學院四樓 60412 室

巴士發車時間 (國際學院→義大天悅飯店) : 17:30; 17:40; 17:50

18:30-20:00	頒獎儀式和圓桌晚宴	地點: 義大天悅飯店 1 樓
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The 4th International Conference on Water Resource and Environment (WRE 2018)

2018年7月20日，星期五

時間	活動	地點
09:00-11:30	張貼報告	國際學院四樓

11:30-12:30	自助午餐	地點: 國際學院五樓情境餐廳
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時間	活動
12:45	國際學院一樓大廳集合
13:00-18:30	參觀佛光山佛陀紀念館和舊鐵橋濕地教育園區

2018年7月21日，星期六

時間	活動
08:10	義守大學大門口集合
08:30-17:30	高雄一日遊

The 4th International Conference on Water Resource and Environment (WRE 2018)

Part II Keynote Speeches

Keynote Speech 1: Subsurface Reactive Transport Modeling: Applications to Energy and Environment Problems

Speaker: Prof. Tianfu Xu

College of Environment and Resources, Jilin University, China



Tianfu Xu is currently a chair professor at Jilin University of China. He has been working at Lawrence Berkeley National Laboratory (LBNL) of USA for 16 years, in which he joined in 1996, initially as post-doctoral fellow, and then become a scientist, and staff scientist. He received a bachelor's degree in 1984 from Jilin University, an M.S. degree in 1993 from Delft University of Technology of The Netherlands, and a Ph.D. in 1996 from University of La Coruña, Spain. For the last 25 years, Tianfu has been working on developing new approaches to modeling multiphase non-isothermal fluid flow and chemical transport in unsaturated and saturated porous media and fractured rock systems. He is the chief developer of LBNL's multi-phase non-isothermal reactive flow and chemical transport simulator TOUGHREACT. The program is widely used internationally for geothermal energy development, CO₂ geological sequestration, nuclear waste disposal, environmental remediation, and increasingly for petroleum applications. Tianfu has authored and co-authored about 70 peer-reviewed journal papers. His papers have been cited by other researchers more than 4000 times (SCI citation).

Abstract of the speech: The assessment of waste disposals, the study of groundwater pollutions, and the understanding of natural groundwater quality patterns require reactive transport modeling (RTM) to consider both the transport of heat and dissolved species as well as their complex interactions with the solid (or other) phases of the engineering barriers and geological formation. The RTM is a necessary tool for analyzing, evaluating, and predicting subsurface coupled processes of physics, chemistry and microbiology in the shallow earth system. In the past several decades, a number of methods and techniques have been developed to address this complex issue. This talk will briefly review the theory and method of the RTM. Then, couples of examples regarding the groundwater quality occurrence, CO₂ geological storage, geothermal energy development, and submarine biogeochemical processes will be presented.

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Keynote Speech 2: A Systems Approach to Modelling Water-Energy-Food Nexus: ANEMI Model

Speaker: Prof. Slobodan P. Simonovic

Canadian Academy of Engineering, Canada

Department of Civil and Environmental Engineering, Institute for Catastrophic Loss Reduction, the University of Western Ontario, Canada



Slobodan P. Simonovic is globally recognized for his unique interdisciplinary research in Systems Analysis and the development of deterministic and stochastic simulation, optimization, multi criteria analysis, and other decision-making methodologies for addressing challenging system of systems problems lying at the confluence of society, technology and the environment, with applications in water resources management, hydrology, energy, climate change and public infrastructure, from a sustainable development perspective. His main contributions include modelling risk and resilience of complex systems. Professor Simonovic has influenced academia, industry and government via university teaching, publication of leading-edge research, mentoring of young people, delivering stimulating research seminars at institutions around the world, carrying out joint research projects, and consulting work. He has received awards for excellence in teaching, research and outreach. Dr. Simonovic has published over 500

professional publications (216 in peer reviewed Journals) and three major textbooks. He has been inducted to the Canadian Academy of Engineering in June of 2013.

Abstract of the speech: ANEMI simulates system dynamics to offer information on Earth's dynamic processes and the behaviours that instigate change. The main thrust of ANEMI is to explicitly integrate various sectors (natural, physical and socioeconomic) into a single model, providing effective consideration of the high level feedback relationships between climate and social adaptation. At lower levels this relationship ends in thousands of feedbacks between various model sectors and variables. The model includes nine sectors and approximately 600 state variables. An important characteristic of ANEMI is the consideration of the availability, demand and quality of water as a main connector between natural and socioeconomic domains. The model is able to differentiate between processes that occur on the global and regional scale and uses an original decomposition scheme to effectively provide the exchange of information between the two dimensions.

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Keynote Speech 3: Using Constructed Wetland and Aerated Gravel-packed Contact Bed System for Polluted River Water Purification

Speaker: Prof. Jimmy (C.M.) Kao

Institute of Environmental Engineering, National Sun Yat-Sen University, Taiwan



Jimmy (C.M.) Kao is a chair professor in the Institute of Environmental Engineering at National Sun Yat-Sen University, Taiwan. Prof. Kao was the former Coordinator of Environmental Engineering Program at Ministry of Science and Technology, former President of The Chinese Institute of Environmental Engineering, and former President of The Taiwan Association of Soil and Groundwater Environmental Protection. He received his MS and Ph.D. degrees in Environmental Engineering from North Carolina State University in 1989 and 1993, respectively. Prof. Kao has more than 27 years of experiences as a researcher and environmental engineer in constructed wetland design and operation, watershed management, and soil and groundwater remediation. He is a fellow member of several international associations including IWA, ASCE, EASA, AAAS, and EWRI. He is also a registered professional engineer in USA.

Abstract of the speech: The Ju-Liao stream is one of the most contaminated streams in Kaohsiung City, Taiwan. The Ju-Liao Stream contains high concentrations of organics and nutrients due to the discharges of domestic, industrial, and agricultural wastewaters from the upper catchments into the stream. A constructed wetland (CW) system was built in 2010 for polluted stream water purification and ecosystem improvement. To minimize the pollutant loading to the CW, an aerated gravel-packed contact bed (CB) system was built in 2012 and part of the stream water was treated by the CB before discharging to the CW. The influent rates of the CW and CB were approximately 900 and 5,568 m³/day, respectively. This studied CW and CB scheme has become a successful multi-function system, which is used for stream water purification, environmental education, and ecosystem restoration.

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Keynote Speech 4: Zero-Valent Iron Aggregates as an Eco-friendly Activator in Persulfate Oxidation Process for Degradation of Azo Dyes

Speaker: Prof. Chih-Huang Weng

Department of Civil Engineering, I-Shou University, Taiwan



Chih-Huang Weng received his Ph.D. degree and Master degree in Environmental Engineering from The University of Delaware, USA. Currently, he is a faculty member in the Department of Civil and Ecological Engineering at I-Shou University, Kaohsiung, Taiwan. He has published about 75 technical papers in SCI journal and 26 of them H-index. He is also serving as an editorial board member and guest editor of several academic journals. His research interests focus on using advanced oxidation processes, adsorption, and electrokinetic technologies for wastewater treatment and groundwater remediation.

Abstract of the Speech: Effluents from dyeing and textile industries are usually heavily colored with dyeing agents. Synthetic azo dyes are the largest category of industrial colorants, which are mostly non-biodegradable and persistent due to their synthetic origin and complex molecular structure. Conventional biological processes are usually inadequate for the treatment of these chemicals under the increasingly stringent effluent standards. Advanced oxidation processes have been shown to be promising in removing color from dye-laden wastewaters. Fe^0 aggregates have long been used commercially as a reducing agent, particularly in the remediation of groundwater. The price of commercialized Fe^0 aggregates is much lower than the nano-sized Fe^0 (500 USD/ton versus 80 USD/kg). Fe^0 aggregates are also easier to handle and apply than the micro-sized Fe^0 powders since the aggregates are relatively stable, easily separable, and reusable. Therefore, a closer examination on the oxidation behaviors of Fe^0 aggregates is of great interest. This presentation summarizes the indirection activation of persulfate (PS) via zero-valent iron (Fe^0) aggregates for degradation of azo dyes. The Fe^0 aggregates function as catalysts in the breakdown of synthetic dyes through the production of active radicals ($\text{SO}_4^{\cdot-}$) from persulfate reactions. Performances of the activator are compared with that of traditional activators such as ferrous iron. The use of ultrasound and heat as enhancement tools to improve the oxidative power of Fe^0/PS is discussed. Since the Fe^0 aggregates are commercially available, they have great potentials for application in the treatment of dye-laden textile wastewaters. The presentation can also bring about a new perspective on the use of Fe^0 aggregates in wastewater treatment.

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Part III Oral Sessions

Oral Presentation

Devices Provided by the Conference Organizer:

- Laptops (with MS-Office & Adobe Reader)
- Projectors & Screen
- Laser Sticks

Materials Provided by the Oral Presenters:

- PowerPoint (Note: Please show your paper ID as WRE***** in the last page)

Duration of Each Presentation:

- Invited speech: 15 minutes of presentation, 3-5 minutes of Q&A
- Regular oral presentation: 10 minutes of presentation, 3-5 minutes of Q&A

Location:

- 4th Floor, International College

The 4th International Conference on Water Resource and Environment (WRE 2018)

Oral Session_1 Water Quality and Environment Science (I)

Time: 14:00-17:40, July 18, 2018

Location: Room 60403, 4th Floor, International College

Session Chair: Prof. Evan K Paleologos, Abu Dhabi University, UAE

Time	Paper ID	Paper Title	Author
14:00-14:20	WRE2649	Atmospheric loading and deposition in Toronto, Canada and their effect on water quality in Lake Ontario	Julia Lu (Invited)
14:20-14:40	WRE3003	Seasonal variation and risk assessment of PPCPs in water bodies using offline solid-phase extraction coupled with reversed phase high-performance liquid chromatography	Anupama Kumar (Invited)
14:40-14:55	WRE2536	Sorption and desorption of selected phenyl urea herbicides in laboratory water-sediment systems	Guanghua Lu
14:55-15:10	WRE2972	Biosorption of lead and chromium in surface water using Philippine mud crab (<i>Scylla serrata</i>) and tahong (<i>Perna viridis</i>) shells	Mary Joy S. Esguerra
15:10-15:25	WRE2780	Removal of micropollutants from water by aluminum-iron alloy particles	Xiaojin Yang
15:25-15:40		Coffee Break	
15:40-15:55	WRE2676	Organic dyes removal by heterogeneous Fenton and Fenton-like processes using heat-treated iron oxide magnetic catalyst	Yean Ling Pang
15:55-16:10	WRE2741	Effect of different starting up modes on the performance of SR-DSR integrated process	Xue-Ting Wang
16:10-16:25	WRE2753	The simultaneous nitrogen removal and biogas purification by coupling autotrophic denitrification with DAMO process	Wei Wang
16:25-16:40	WRE2889	Organic transformation mechanism and characteristics of the products of sludge stabilization treatment	Xiaojie Mei
16:40-16:55	WRE3043	Assessing the toxicity of Pasig River sediments using an endemic benthic macroinvertebrate, chironomus species	Dahlia Apodaca
16:55-17:10	WRE2974	Risks and threats of desalination in the Arabian Gulf	Evan K Paleologos
17:10-17:25	WRE2927	Biodiversity of duckweeds in Eastern China and their potential for bioremediation of industrial and municipal wastewater	Yuzhen Zhou
17:25-17:40	WRE2979	Evaluation of mitigation effects on air pollutants for electric scooters in Taiwan with the energy flow analysis and system dynamics approach	Pei Ying Hsieh

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Oral Session_2 Water Resources and Hydrology (I)

Time: 14:00-17:40, July 18, 2018

Location: Room 60404, 4th Floor, International College

Session Chair: Prof. Chuanhui Gu, Appalachian State University, USA

Time	Paper ID	Paper Title	Author
14:00-14:20	WRE3076	Effects of low impact development on stormwater runoff and salt contamination	Chuanhui Gu (Invited)
14:20-14:40	WRE2713	Quantification of flood risk considering global climate change with flood risk impact factor (FRIF) in urban drainage areas	Masaru Morita (Invited)
14:40-14:55	WRE2591	A tightly coupling strategy between ArcGIS and hydrological models by custom data structures using COM technology	Xiaohua Xiang
14:55-15:10	WRE2650	Assessing the impact of Danjiangkou Reservoir on the hydrologic alterations in the middle reach of the Hanjiang River using the histogram comparison approach	Xunzhou Chunyu
15:10-15:25	WRE2731	Optimal hedging rules for reservoir operation of flood water conservation based on a multi objective stochastic programming model	Bin Xu
15:25-15:40		Coffee Break	
15:40-15:55	WRE2744	Water turbidity and sediment load monitoring for sustainable reservoir management: a case study in Taiwan	Chih-Chung Chung
15:55-16:10	WRE2776	Flood management of Dongting Lake after operation of Three Gorges Dam	Xi-jun Lai
16:10-16:25	WRE2803	Insights from negotiations models on water sharing conflicts in the development of water basin plans	Mohammad Al-Saidi
16:25-16:40	WRE2809	Integrated management of water resource: A pilot experience in Chile	Damaris Orphanopoulos
16:40-16:55	WRE2833	Sustainable use of water resource at North Kendeng Mountain, Central Java, Indonesia	Sudharto P. Hadi
16:55-17:10	WRE2837	Oxygen and hydrogen isotopes of precipitation in a rocky mountainous area of Beijing to distinguish and estimate spring recharge	Ziqiang Liu
17:10-17:25	WRE2842	Using recycled water: Community preference through conjoint analysis	Mousumi Roy
17:25-17:40	WRE2817	Trade-off analysis for marine recreation activities management along Tainan Gold Coast	Hao-Tang Jhan

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Oral Session_3 Water Pollution and Wastewater Treatment (I)

Time: 14:00-17:30, July 18, 2018

Location: Room 60411, 4th Floor, International College

Session Chair: Prof. Parimal Pal, National Institute of Technology Durgapur, India

Time	Paper ID	Paper Title	Author
14:00-14:20	WRE2102	The influence of operational temperature of a Modified Anaerobic Inclining-Baffled Reactor (MAI-BR) on the enhancement of solid fraction biodegradation from Recycled Paper Mill Effluent (RPME)	Haider M. Zwain (Invited)
14:20-14:40	WRE2542	Hydrothermally mediated MAP precipitation for resource recovery from wastewater: the effects of calcium and carbonate ions	Athanasius Priharyoto Bayuseno (Invited)
14:40-15:00	WRE2550	Swedish experience and excellence in wastewater treatment demonstrated especially in phosphorus removal	Stig Morling (Invited)
15:00-15:15	WRE2514	Turf soil enhanced treatment of phenolic wastewater using UASB system	Qinghong Wang
15:15-15:30	WRE2626	Occurrence, removal and risk of organic micropollutants in wastewater treatment plants across China: Comparison of wastewater treatment processes	Weiwei Ben
15:30-15:45		Coffee Break	
15:45-16:00	WRE2711	Photoelectrochemistry in concurrently decolorization of methylene blue and potentially hydrogen generation using hematite electrode in the presence of Mn(II)	Tsing-Hai Wang
16:00-16:15	WRE2808	Research progress of techniques for preparation of ceramsite material for water treatment and its application status	Tianpeng Li
16:15-16:30	WRE2841	Advanced hybrid treatment of refractory wastewater for recycle and reuse	Parimal Pal
16:30-16:45	WRE2917	Organoclay sorption method for the rapid collection and degradation of fenitrothion in water	Mako Oiwa
16:45-17:00	WRE2933	Recovery of mint aroma components through pressure-releasing distillation during subcritical water treatment	Tai-Ying Chiou
17:00-17:15	WRE2988	Concentration of iodide from thin film transistor liquid crystal display (TFT-LCD) wastewater using forward osmosis	Le Quang Huy
17:15-17:30	WRE2547	Industrial wastewater treatment using electrochemical process	D. Bhagawan

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Oral Session_4 Soil and Groundwater (I)

Time: 14:00-17:35, July 18, 2018

Location: Room 60412, 4th Floor, International College

Session Chair: Prof. Roger Saint-Fort, Mount Royal University, Canada

Time	Paper ID	Paper Title	Author
14:00-14:20	WRE2473	Innovative approach to remediation of groundwater impacted with NAPL	Roger Saint-Fort (Invited)
14:20-14:40	WRE2551	Recent understanding on the hydraulic erosion of vegetated HPTRM system	Yi Pan (Invited)
14:40-15:00	WRE2566	Bottom Velocity Calculation method for multi-scale simulation of flood flows and sediment transport in rivers	Tatsuhiko Uchida (Invited)
15:00-15:20	WRE2723	Mass-preserving domain decomposition algorithm in groundwater pollution simulation and protection	Dong Liang (Invited)
15:20-15:35	WRE2501	Impact of climate change on soil moisture under the high emission scenario in the 'Huang-Huai-Hai Plain' region of China	Guodong Sun
15:35-15:50		Coffee Break	
15:50-16:05	WRE2559	A model for coupled heat and moisture transfer in permafrost regions of three rivers source areas, Qinghai, China	Xiaoling Wu
16:05-16:20	WRE2672	Construction of technical index system for prevention and control of water disaster in coal seam Floor with pressure in pingdingshan coalfield	Mengjie Yao
16:20-16:35	WRE2689	Multicriteria analysis of irrigation via GIS: A case study in a water user association in a semi-arid region	Mehmet Ali Çullu
16:35-16:50	WRE2691	Limitations of GALDIT to map seawater intrusion vulnerability in a highly touristic coastal area	Nicolò Colombani
16:50-17:05	WRE2857	Spatial and temporal variation characteristics of soil moisture under typical artificial forestland in the Gully Region on the Loess Plateau, China	Guirong Hou
17:05-17:20	WRE2932	Evaluation of rain garden for infiltration capability and runoff reduction efficiency	Jinwook Lee
17:20-17:35	WRE2999	Elevated levels of Uranium (²³⁸ U) and Radon (²²² Rn) in the Groundwaters of Bangalore City, Karnataka, India	R.K. Somashekar

The 4th International Conference on Water Resource and Environment (WRE 2018)

Oral Session_5 Water Quality and Environment Science (II)

Time: 09:00-12:05, July 19, 2018

Location: Room 60403, 4th Floor, International College

Session Chair: Assoc. Prof. Can Xue, Nanyang Technological University, Singapore

Time	Paper ID	Paper Title	Author
09:00-09:20	WRE2685	Polymeric carbon nitride films for efficient photoelectrochemical water splitting	Can Xue (Invited)
09:20-09:35	WRE2754	Remediation of sediment deposited near sewage outlet with solar cell-combined sediment microbial fuel cells	Narong Touch
09:35-09:50	WRE2755	Granulated coal ash-used filter design for efficient removal of nutrient salts	Manaka Okabe
09:50-10:05	WRE2756	Improvement of sediment and water quality with solar cell-combined sediment microbial fuel cells in oyster farms	Kentaro Nagama
10:05-10:20	WRE3039	Effects of simultaneous supplementation of photosynthetic bacteria <i>Marichromatium purpuratum</i> RuA2 and <i>Rhodovulum sulfidophilum</i> on water quality parameters, nitrogen cycle and fish production of marine aquaculture systems	Iau-Iun Shiung
10:20-10:35	WRE3041	Estimation of river water quality using in situ UV-Vis spectrometer based on partial least squares regression method	Yanping Lyu
10:35-10:50		Coffee Break	
10:50-11:05	WRE2784	Biodegradation of micro-polyethylene particles by bacterial colonization with mixed microbial consortium isolated from a practical landfill site	Seon Yeong Park
11:05-11:20	WRE2673	Siltation load contribution of nickel laterite mining on the coastal water quality of Hinadkaban Bay, Surigao Provinces, Philippines	Dahlia Del Castillo Apodaca
11:20-11:35	WRE2588	Biosorption of MnO_4^- in Simulated Solutions Using <i>Pinus insularis</i>	Aileen D. Nieva
11:35-11:50	WRE2589	Simulated Biosorption of Cu^{2+} in Aqueous Solutions Using <i>Cucumis melo</i> VAR. <i>cantalupensis</i>	Aileen D. Nieva
11:50-12:05	WRE2703	Stacking of aquatic Plant-Microbial Fuel Cells growing water spinach (<i>Ipomoea 17quatic</i>) and water lettuce (<i>Pistia stratiotes</i>)	Kristopher Ray Pamintuan

The 4th International Conference on Water Resource and Environment (WRE 2018)

Oral Session_6 Water, Climate and Ecological Environment (I)

Time: 09:00-12:20, July 19, 2018

Location: Room 60404, 4th Floor, International College

Session Chair: Prof. Bruce Anderson, Queen's University, Canada / Tianjin University, China

Time	Paper ID	Paper Title	Author
09:00-09:20	WRE2509	Regional planning and public participation for successful green infrastructure and low impact development (LID) implementation	Bruce Anderson (Invited)
09:20-09:40	WRE2516	Analysis of historical trend of pollution sources of zinc in Tokyo Bay based on zinc isotope ratio in sediment core	Masahiro Sakata (Invited)
09:40-10:00	WRE2529	Potential impacts of climate change on storm intensities of central Alberta	Chun-Chao Kuo (Invited)
10:00-10:20	WRE2578	Temporal analysis of coupled driving factors of Hulun Lake environmental deterioration in Inner Mongolia, China	Yichun Xie (Invited)
10:20-10:35	WRE2567	Response of aquatic system to mining cessation: A case study from southern Poland	Dariusz Ciszewski
10:35-10:50		Coffee Break	
10:50-11:05	WRE2787	The new Central Business District in Abu Dhabi; high-rise buildings and sandstorms	Mohamed El Amrousi
11:05-11:20	WRE2874	Remediation of internal phosphorus loads with modified clays, influence of fluvial suspended particulate matter and response of the benthic macroinvertebrate community.	Hongbin Yin
11:20-11:35	WRE2893	Analysis of precipitation and temperature impact on the streamflow of the Urumqi River, Tianshan Mountain, China	Youcun Liu
11:35-11:50	WRE3065	Simulating the regulation effects of lowland polder on hydrological processes	Renhua Yan
11:50-12:05	WRE3069	Spatial-temporal patterns of methane dynamics in Lake Taihu	Lingling Li
12:05-12:20	WRE2798	Spatio-temporal Variability in Reciprocal Resource Subsidies across Adjacent Terrestrial and Aquatic Eastern Cape Ecosystems	Tiyisani Lincon Chavalala

The 4th International Conference on Water Resource and Environment (WRE 2018)

Oral Session_7 Soil and Groundwater (II)

Time: 09:00-12:05, July 19, 2018

Location: Room 60411, 4th Floor, International College

Session Chair: Prof. Chuen-Fa Ni, National Central University, Taiwan

Time	Paper ID	Paper Title	Author
09:00-09:20	WRE2663	Web-based workflow for groundwater modeling and data analyses	Chuen-Fa Ni (Invited)
09:20-09:40	WRE2785	Generalized semi-analytical solutions to multi-species transport equation coupled with sequential first order reaction network with distinct retardation coefficients using GITT	Heejun Suk (Invited)
09:40-10:00	WRE2821	Electrokinetic remediation of soil contaminated with benzene and copper in a three dimensional electrokinetic system coupled with Fe/Al oxidation electrode	Ching Yuan (Invited)
10:00-10:20	WRE2822	Adsorption of As(V) from contaminated groundwater with chitosan-coated bentonite: Isotherm, kinetics and thermodynamics	Meng-Wei Wan (Invited)
10:20-10:35	WRE3007	Numerical simulation of groundwater flow in Shendi Sub-Basin, Sudan	Adil Balla Magboul Abdalla
10:35-10:50		Coffee Break	
10:50-11:05	WRE2570	Reduction of water hardness from groundwater in Puerto Princesa City, Palawan, Philippines using electrocoagulation	Adonis P. Adornado
11:05-11:20	WRE2944	Adsorption properties of rare earth soils on ammonium nitrogen	Jun Zhang
11:20-11:35	WRE3061	The drop-wise condensation in the fabric moisture transmission and its justification by acoustic theory	Xin-an Zhang
11:35-11:50	WRE2968	Enhanced degradation of decabromodiphenyl ether by biodegradation combined with a Fenton reaction in the soil/water system	Yi-Tang Chang
11:50-12:05	WRE2948	Stabilization and transport of magnetite nanoparticles in natural porous media	Guansheng Liu

The 4th International Conference on Water Resource and Environment (WRE 2018)

Oral Session_8 Water Pollution and Wastewater Treatment (II)

Time: 09:00-12:15, July 19, 2018

Location: Room 60412, 4th Floor, International College

Session Chair: Prof. Liang-Ming Whang, National Cheng Kung University, Taiwan

Time	Paper ID	Paper Title	Author
09:00-09:20	WRE2738	Simultaneous COD and nutrients removal by aerobic granular sludge and the influence of C/N/P ratio	Joo Hwa Tay (Invited)
09:20-09:40	WRE2621	Biological treatment of DMSO-containing wastewater from semiconductor industry under aerobic and methanogenic conditions	Liang-Ming Whang (Invited)
09:40-10:00	WRE2648	Importance of sustainable adsorbent materials for the sequestration of chromium from waste water	N. Rajesh (Invited)
10:00-10:15	WRE2622	Study on plating wastewater treatment technology of chromium, nickel and copper	Xiyan Qin
10:15-10:30	WRE2790	Functionalized engineered iron based nanosorbents for the removal of heavy metal ions (Pb ²⁺ , Cr ⁶⁺) from water	Yana Bagbi
10:30-10:45		Coffee Break	
10:45-11:00	WRE3014	Adsorptive removal of lead (Pb ²⁺) ion from water using cellulose acetate/polycaprolactone reinforced nanostructured membrane	Ruth Aquino
11:00-11:15	WRE2980	Preparation of cellulose acetate blended with chitosan nanostructured membrane via electrospinning for Cd ²⁺ adsorption in artificial wastewater	Ruth Aquino
11:15-11:30	WRE2881	Copper recovery by fluidized-bed homogeneous crystallization of copper (II) phosphate	Lester Lee E. Bayon
11:30-11:45	WRE2928	Removal and recovery of zinc using phosphate by fluidized-bed homogeneous crystallization (FBHC) process	Andrian Cris Q. Cagas
11:45-12:00	WRE3023	Adsorption of Al, Cr and Zn from a wastewater effluent using basic oxygen furnace slag	Freeman Ntuli
12:00-12:15	WRE3040	Sulphate removal from acid rock drainage using steel slag	Freeman Ntuli

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Oral Session_9 Water Quality and Environment Science (III)

Time: 14:00-17:15, July 19, 2018

Location: Room 60403, 4th Floor, International College

Session Chair: Prof. Hsing-Cheng His, National Taiwan University, Taiwan

Time	Paper ID	Paper Title	Author
14:00-14:20	WRE2625	Spatial and temporal variations of heavy metal concentration in water and sediment of Houjing River, Taiwan	Chitsan Lin (Invited)
14:20-14:40	WRE2853	Synthesis of algal-silica-magnetite hybrids from red algae biomass as methylene blue adsorbent in aqueous solution	Buhani (Invited)
14:40-15:00	WRE2619	Removal of liquid-phase hg from actual seawater flue gas desulfurization wastewater of a coal-burning power plant by using sulfurized activated carbon	Hsing-Cheng His (Invited)
15:00-15:15	WRE2549	Temporal and spatial water quality assessment of Thay Cai – An Ha Canal System, Vietnam	Pham Anh Duc
15:15-15:30	WRE2580	Water quality assessment of main rivers and canals in Ben Tre Province, Mekong Delta Vietnam	Nguyen Thuy Lan Chi
15:30-15:45		Coffee Break	
15:45-16:00	WRE2921	As, Cd, Pb concentrations in organs of <i>Loligo edulis</i> from East China Sea	Yoshitaka Yamaguchi
16:00-16:15	WRE2910	Polymer-zeolite composite fiber absorbents for decontamination of water environment	Takaomi Kobayashi
16:15-16:30	WRE2916	Subdivision treatment of mint aroma compounds with subcritical water	Shiori Nomura
16:30-16:45	WRE2940	Simultaneous phytoremediation of Ni ²⁺ and bioelectricity generation in a Plant-Microbial Fuel Cell assembly using water hyacinth (<i>Eichhornia crassipes</i>)	Kristopher Ray Pamintuan
16:45-17:00	WRE2925	New method to estimate total elements of Chromium (VI), Nickel and Iron to analyze their mobility and spatial distribution from an open dump	María José Merizalde Mora
17:00-17:15	WRE2614	Biodegradation and detoxification of textile industry dye, Thiazole Yellow G by <i>Aspergillus niger</i>	Bankole Paul Olusegun

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Oral Session_10 Water, Climate and Ecological Environment (II)

Time: 14:00-17:20, July 19, 2018

Location: Room 60404, 4th Floor, International College

Session Chair: Prof. Nakai Satoshi, Hiroshima University, Japan

Time	Paper ID	Paper Title	Author
14:00-14:20	WRE2693	Settlement of short neck clam larvae onto steel making slags	Nakai Satoshi (Invited)
14:20-14:40	WRE2892	How results for the dispersion of contaminants in environmental flows can be used in assessing a dilution process in river plumes in estuaries	Roko Andricevic (Invited)
14:40-15:00	WRE2562	Evaluation of climate change impacts under emission scenarios based on representative concentration pathways	Mohammed Sharif (Invited)
15:00-15:20	WRE2654	Forests, soil, water, and their linkages through the biosphere	Juan A. Blanco (Invited)
15:20-15:35	WRE3080	Study of erosion and sedimentation in urban areas for river with meander pattern	Siti Murningsih
15:35-15:50		Coffee Break	
15:50-16:05	WRE2629	Assessment of ecological status of rivers using a microbial community-based index of biotic integrity (MC-IBI)	Lihua Niu
16:05-16:20	WRE2918	COI-Based DNA Barcoding in ichthyoplankton species in the Changjiang River Estuary	Shouhai Liu
16:20-16:35	WRE3008	Relationships among environmental attitudes, risk perceptions and preventive coping behavior: A case study of four sensitive townships in Yunlin County, Taiwan	Yung-Jaan Lee
16:35-16:50	WRE2565	The response of streamflow at the headwaters of the Urumqi River, Eastern Tianshan, Central Asia	Zhongqin Li
16:50-17:05	WRE2823	The properties of CO ₂ and CH ₄ Fluxes across water-air interface at the Three Gorges Reservoir, the mainstream of Yangtze River from Zhutuo to Wanzhou, China	Yu Qin
17:05-17:20	WRE2522	Research on water resources management and utilization in Henan province	Lijuan Li

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Oral Session_11 Water Resources and Hydrology (II)

Time: 14:00-17:20, July 19, 2018

Location: Room 60411, 4th Floor, International College

Session Chair: Dr. Kazuyoshi Suzuki, Japan Agency for Marine-Earth Science and Technology, Japan

Time	Paper ID	Paper Title	Author
14:00-14:20	WRE2839	An overview of hydrological variability and changes in the arctic circumpolar tundra and the three largest pan-arctic river basins from 2002 to 2016	Kazuyoshi Suzuki (Invited)
14:20-14:35	WRE2848	The characteristics of water vapor of extreme severe rain events in Beijing	Bo Yu
14:35-14:50	WRE2894	The isotopic measurements of oxygen and hydrogen in Dome-Fuji (Antarctica) ice core: Annually-resolved temperature reconstructions of the past 2000 years	Kazuya Takahashi
14:50-15:05	WRE2931	Estimation of wind-driven-rain amount on building facade using bivariate frequency analysis	Eunsaem Cho
15:05-15:20	WRE2958	A scheduling algorithm for multiple-buildings water supply to avoid big pressure drops in pipelines	Jiann Lin Chen
15:20-15:35	WRE3019	Analysis of temporal and spatial characteristics of precipitation in Henan Province Based on typical meteorological stations in 50 years	Jun-xia Jia
15:35-15:50		Coffee Break	
15:50-16:05	WRE3050	Assessment and quantification of uncertainty on urban flood resilience indicators under future climate change scenarios	Queen Suraajini Rajendran
16:05-16:20	WRE2556	Evaluation of potential evapotranspiration in the Weihe River basin based on statistical downscaling	Yinge Liu
16:20-16:35	WRE3054	Challenges of multi-level water governance at micro-watershed level – A case from Rio de Janeiro, Brazil	Renata Buriti
16:35-16:50	WRE2793	Sensitivity and uncertainty analyses of retention performance of green roofs considering aleatory and epistemic uncertainties	Lingwan You
16:50-17:05	WRE2794	Assessing curve number uncertainty for green roofs in a stochastic environment	Willsy SC Huang
17:05-17:20	WRE2962	Water resource management towards a sustainable water budget in the United Arab Emirates	Evan K Paleologos

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Oral Session_12 Water and Environmental Chemistry

Time: 14:00-17:15, July 19, 2018

Location: Room 60412, 4th Floor, International College

Session Chair: Prof. Hua Zhong, Wuhan University, China

Time	Paper ID	Paper Title	Author
14:00-14:20	WRE2624	Impact of humic acid on the degradation of levofloxacin by aqueous permanganate: Kinetics and mechanism	Zhimin Qiang (Invited)
14:20-14:40	WRE2826	Passivated co-doping approach to bandgap narrowing of titanium dioxide with enhanced photocatalytic activity	Sutassana Na Phattalung (Invited)
14:40-15:00	WRE2976	Sustainable activation of persulfate by magnetite nanoparticles for degradation of refractory organic compounds	Hua Zhong (Invited)
15:00-15:15	WRE2680	Electro-less deposition of nano-textured copper on nickel foam for electrochemical reduction of nitrate ion	Yu-Jen Shih
15:15-15:30	WRE2694	The tendency of linuron in microcosmic system and its response to hydrodynamic conditions	Jianchao Liu
15:30-15:45		Coffee Break	
15:45-16:00	WRE2831	Influence of reaction conditions on selectivity of nitrate reduction with formic acid over Pd-In catalyst	Ikko MIKAMI
16:00-16:15	WRE2905	Viscosities of diethylene glycol (deg) + 2-amino-2-methyl-1-propanol (amp) + water	Adonis P. Adornado
16:15-16:30	WRE2903	Simulated concentration profiling of liquid-phase products in the quaternary solvent system of (carbon dioxide + monoethanolamine / diethanolamine + triethanolamine + water)	Adonis P. Adornado
16:30-16:45	WRE2569	Estimation of diffusion coefficients of ascorbate-based ions at infinite dilution through electrolytic conductivity measurements	Allan N. Soriano
16:45-17:00	WRE2939	Prediction of self-diffusion coefficients of ions from various livestock antibiotics in water at infinite dilution	Allan N. Soriano
17:00-17:15	WRE2890	Elucidation of molybdosilicate complexes in the molybdate yellow method by ESI-MS	Miho Tanaka

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Part IV Poster Session

Poster Presentation

Materials Provided by the Conference Organizer:

- Display Boards (150 cm x 90 cm)
- Pushpin

Materials Provided by the Presenters:

- Home-made Posters

Requirement for the Posters:

- Material: not limited, can be posted on the display board;
- Horizontal Head: please make the conference name 'WRE 2018' and the paper number 'WRE****' as the head of the poster in order to make all the posters unified;
- Size of poster: **A0 size (118.9 cm long x 84.1 cm wide) or similar;**
- Content: please make sure the poster presentation is clear and easy to be understood, explanation with figures is good;

Remark:

- You can select the proper color you would like for the background color;
- Please pay attention to set aside enough space all around;

The 4th International Conference on Water Resource and Environment (WRE 2018)

Poster Session

Time: 09:00-11:30, July 20, 2018

Location: 4th Floor, International College

WRE2511	Kinetic modelling of Nitrogen doped TiO ₂ and Nitrogen tourmaline TiO ₂ inactivation of gram-positive and gram-negative bacteria	Yao-Tung Lin
WRE2882	Removal of algae via coagulation with magnetic MnFe ₂ O ₄ recycled from drinking-water treatment sludge	Chi-Chuan Kan
WRE2922	Modelling of the saturated water conductivity of the macroporous soil media	Krzysztof Lamorski
WRE2503	Hydrophobic surface enabled highly efficient and stable solar purification of high salinity water	Wenxiu Que
WRE2524	Study on the purification technology of greywater and biological stability of reclaimed water for toilet flushing	Xueli Ren
WRE2555	Association between the childhood diseases with water, sanitation, and hygiene (WASH) improving among Nigerian infants	Zhifei He
WRE2593	Rapid degradation of Malachite green using Mn ₃ O ₄ as catalyst in the presence of peroxydisulfate	Hui Liu
WRE2615	Biodiversity of freshwater mermithid nematodes, South Ural region, Russia	Irina Mashkova
WRE2616	Numerical simulation of oil spill transport under the effect of dredging projects in the north part of the Xiaogan Island of Zhoushan	Chenhao Mao
WRE2628	Optimization of nitrogen and phosphorus removal from saline wastewater using <i>Halomonas</i> sp. H12 strain	Xuwei Li
WRE2630	The determination of allowable exploiting yield for the groundwater in the deeply buried pores	Zhenhua Li
WRE2639	Identification of dissolved organic matter based on an improved fluorescence regional integral method	Xinyi Wang
WRE2686	Investigation of properties of stainless steel oxidizing slag asphalt concrete produced at mixing plant	Deng-Fong Lin
WRE2697	Mechanism investigation of catalytic ozonation of recalcitrant organic chemicals in aqueous solution over ZSM-5 zeolites	Shaohui Guo
WRE2699	Efficient catalytic ozonation of nitrobenzene in water by vanadium oxides loaded ZSM-5 zeolites	Gang Wang
WRE2716	Potential of refinery sludge-derived biochar assisted ozonation treatment of wastewater	Chunmao Chen
WRE2717	Pretreatment technology of the high-viscosity oil wastewater in the refinery	Min Li
WRE2724	Spatial and temporal characteristics of actual evapotranspiration over Haihe River basin in China	Ge Gao
WRE2727	Three dimensional structure of atmospheric water vapor transportation and its relationship with the summer flood/drought situations over Huaihe River Basin	Ying Li

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WRE2742	Evaluation of nonylphenol contamination and potential biological effects in Love River sediments, Taiwan	Cheng-Di Dong
WRE2743	Synthesis and characterization of PbO ₂ /Sn ₂ O ₃ -SnO ₂ /Ti electrocatalyst and its application on the naproxen electrooxidation	Cheng-Di Dong
WRE2748	Investigation of biodegradation of sulfonamides in fish culture pond sediment and associated microbial community	Chu-Wen Yang
WRE2761	Water supply eco-economic benefit evaluation of middle route of South-to-North Water Diversion Project in Hebei water-recipient area	Yanxia Wang
WRE2769	Immersion evaluation of Chenpingpu auxiliary dam section in Shifosi Reservoir based on the grey clustering evaluation method	Bin Yan
WRE2791	Copper-containing wastewater treatment and copper recovery by using a continuous flow microbial fuel cell	Weiping Liu
WRE2832	Study on ecosystem comprehensive treatment model of northern mountain river in China	Qingfeng Chen
WRE2855	Occurrence, transport and environmental risk assessment of perfluorinated chemicals in Taihu Lake (China)	Ying Li
WRE2856	The distribution characterization/sources and risk assessment of PAHsin different agriculture typical areas of Shandong Province	Changsheng Zhao
WRE2864	Cobalt(II)-based metal-organic nanotubes on stainless steel fibers for solid-phase microextraction of phenols from water samples	Ru-Song Zhao
WRE2865	Carboxylated carbon nanospheres as solid-phase extraction adsorbents for the determination of perfluorinated compounds in water samples	Xia Wang
WRE2878	Research on comprehensive quality management of PPP project in water conservancy projects	Jian-fen Zhou
WRE2886	Desalination using acrylic acid based hydrogels	Sameer Al-Asheh
WRE2909	N ₂ O microdistribution and emission in response to the benthic boundary oxidation layer sediments associated with rooted emergent macrophytes growing in wetlands	Xiaozhi Gu
WRE3036	Photosynthetic bacteria affect multiple parameters of marine aquaculture systems in southwestern Taiwan	Chingwen Ying
WRE3073	Application of index system of health reservoir evaluation and methods in Dong Zhen reservoir	Wenbin Pan
WRE2530	Systematically investigated the characteristics of dissolved organic matter in storm sewer sediments in four typical regions in Beijing, China	Haiyan Li
WRE2749	Removal of Tetrabromobisphenol A in biological wastewater treatment facilities and its enhancement by activated carbon adsorption	Mu Li
WRE2757	Biodegradation of tetrabromobisphenol-A in mangrove sediments	Bea-Ven Chang
WRE2885	Remediation of organic-contaminated groundwater using persulfate combined with biochar	Yu-Chen Chang
WRE2997	The construction of the legal system of international river information exchange	Shaoying Hao

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WRE2596	Hydrological regime assessment based on water security for Poyang Lake, China	Rongrong Wan
WRE2770	Study on optimal operation of reservoir in the electricity market transaction model	Guohua Fang
WRE2768	Optimal allocation model of water resources in tidal flat development of coastal areas	Xianfeng Huang
WRE2872	The model of underground river pollution in Karst Area of the Southwest China	Changsong Zhou
WRE2875	The work function reduction induced by dimethyl sulfide on gold gate	Xiang He
WRE2850	Degradation of 17 β -estradiol by a new <i>Gordonia</i> sp. R9 and <i>Comamonas</i> sp. G1 isolated from livestock leachate in Liaoning, China	Na Liu
WRE2739	Spatial and seasonal variations of phytoplankton composition in a Hypertrophied Harbor Region Southwestern Taiwan	Chiu-Wen Chen
WRE2740	Effect of water quality on abundance and survival of zooplankton in the coastal area	Chiu-Wen Chen
WRE2745	Application of anaerobic bioremediation to cleanup TCE-contaminated groundwater	C M Kao
WRE2746	Evaluation of AOC removal in an advanced water treatment plant	C M Kao
WRE2586	Response of macrobenthic communities to sediment pollution in the Inflow Rivers of Taihu basin	Yaner Yan
WRE2584	Early-life microbiome determines future plant health	Yi'an Gu
WRE2583	Toxicity of sulfadiazine and copper and their interaction to wheat (<i>Triticum aestivum</i> L.) seedlings	Yonggang Xu
WRE2963	The application of the ecological monitoring IoT network of Qilian Mountains	Jianwen Guo
WRE2762	Column leaching test on oxidized and non-oxidized tailings in northern Norway	Fuqing Yuan
WRE2925	New method to estimate total elements of Chromium (VI), Nickel and Iron to analyze their mobility and spatial distribution from an open dump	Ronny Mauricio Viera-Torres
WRE2907	Cadmium induces oxidative stress and damage of mitochondria isolated from <i>Bellamyia purificata</i>	Jianjun Hou
WRE2656	Characterization of dissolved organic matter in deep geothermal water from different buried depths based on three-dimensional fluorescence spectra	Weifang Qiao
WRE2845	Systematical studies on As-Fe relationship in sediments by well-established in-situ sampling technique: Field case and microcosm	Qin Sun
WRE2537	Evaluation of the cleaning process of groundwater following the establishment of a sewage system	Tamás Mester
WRE2966	Investigation of electrochemical methods for organic marine aquaculture effluent degradation	Linus Zhang
WRE3094	Groundwater arsenic contamination in Bengal-Delta Basin: A review of Health Impacts and abatement strategies	Shrabana Pal

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WRE3048	Velocity and time of concentration of a basin – a renewed approach applied in the Rio Grande Basin, Ecuador	Theofilos Toulkeridis
WRE3049	Ecological flows for Ecuadorian basins determined by the slope method of the mass-curve	Theofilos Toulkeridis
WRE3053	Sedimentological study of the reservoir of the Manduriacu hydroelectric project, northern Ecuador	Theofilos Toulkeridis

NOTE: If you want to make a poster presentation but your paper ID is not included in the list, please contact the organizing committee to arrange it.

The 4th International Conference on Water Resource and Environment (WRE 2018)

Part V Conference Venue and Hotel Information

1. Conference Venue

4th Floor, International College

I-Shou University (Main Campus)

Address: No.1, Sec.1, Syuecheng Rd., Dashu District, Kaohsiung City 84001, Taiwan



2. I-Shou University International House I

Located in Dashu District, Kaohsiung City, ISU International House I, a building with 6 stories above the ground and 2 stories underground, consists of 131 guest rooms, including 107 deluxe twin rooms and 24 deluxe double rooms. With elegant and simple decoration, the lobby makes the guests feel like home at the moment they walk in. Facilities, including a gym, a conference room, a business center, a billiards/table tennis room, and a self-service laundry room, are all available for the guests.

Address: No.6, Yi Da 7th St., Dashu District, Kaohsiung City, Taiwan

Contact Number: (07)-6568311~18

Website: <http://internationalhouse.isu.edu.tw/about.htm>

3. How to get to I-Shou University (Main Campus)/I-Shou University International House I

From Kaohsiung International Airport (Kaohsiung Siaogang Airport) to I-Shou University (Main Campus)/I-Shou University International House I

1) Directly take a taxi to I-Shou University (Main Campus)/I-Shou University International House I

Time: About 30 min drive

Fare: About NT\$ 500-700

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2) Kaohsiung International Airport (Kaohsiung Siaogang Airport) — Zuoying Station (THSR) — I-Shou University (Main Campus)/I-Shou University International House I

- First, take the Kaohsiung MRT Red Line (Siaogang - Gangshan South) from the Airport/Siaogang Station— Zuoying Station (THSR)

Time: About 30 min

Fare: About NT\$ 50

- Then, take the E-DA Shuttle Bus (No. 8501) from Zuoying Station — I-Shou University (Main Campus)/I-Shou University International House I

Get out from Exit 1 of Zuoying Station, and then walk to Bus No. 3 Platform to take the bus.

Time: About 30 min

Fare: About NT\$ 50-70

4. Download the following pictures if you need to take a taxi:

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Part VI Tourism

Fo Guang Shan Buddha Museum

The Fo Guang Shan Buddha Museum, previously known as the Buddha Memorial Center, is a Mahayana Buddhist cultural, religious and educational museum located in Dashi District, Kaohsiung, Taiwan. The museum is affiliated with Fo Guang Shan, one of Taiwan's largest Buddhist organizations. The museum purportedly houses one of the tooth relics of Sakyamuni Buddha, the founder of the Buddhist faith.



The Fo Guang Big Buddha behind the Main Hall towers 108 meters high, making it the tallest sitting bronze Buddha statue in the world. Other attractions here include the Three Acts of Goodness Children's Gallery, Cultural Square at the Four Givings Pagoda, House of Joy and Celebration at the Five Harmonies Pagoda, and sutra transcriptions, prayer service, and Tea Chan at the Twin Pavilions. The Main Hall is dedicated mainly to the holy relics of the Sakyamuni Buddha. In addition to the Main Hall, there is a permanent museum and exhibition hall. The museum is especially busy during the period from the Lunar New Year holiday to the Lantern Festival. At that time, the hillside is covered with lanterns, creating a festive mood.

Lotus Pond

Lotus Pond is a man-made lake and popular tourist destination on the east side of Zuoying District in Kaohsiung City in southern Taiwan. Opened in 1951, it is famous for the lotus plants on the lake and the numerous temples around the lake, including the Spring and Autumn Pavilions, the Dragon and Tiger Pagodas, and the Confucian Temple.

Spring and Autumn Pavilions. It was established in 1953, were two Chinese palace-style pavilions. Spring and

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Autumn Pavilions named from the Spring Pavilion and Autumn Pavilion. Each of these two is four stores and octagonal, green tiles and yellow walls, like an antique pagoda reflected in the water. And they communicate with each other by 9 Bend Bridge, also called ‘Spring and Autumn Royal Pavilion’, set up by commemorated ‘The Martial Saint, Lord Kua’. There is a Guanyin statue which is riding a dragon in the front end of the Spring and Autumn Pavilions. According to local legend, the Goddess of Mercy had rode the dragon appeared in the clouds and instruct followers to build icon as the form of its coming out between the Spring Pavilion and Autumn Pavilion; Therefore, now there is a Guanyin statue which is riding a dragon.

Dragon and Tiger Pagodas. About 700 meters to the south of the Spring and Autumn Pavilions are the Dragon and Tiger Pagodas. The dragon's throat is the entrance and the lion's mouth is the exit. Entering a dragon's throat and coming out a lion's mouth symbolizes turning bad luck to good fortune. Inside, paintings depict China's 24 most obedient sons as well as scenes of heaven and hell to inspire people to do good deeds during their lifetime, and to provide threatening examples of retribution for wrongdoing.



Pier-2 Art Center

The Pier-2 Art Center is an art center in Yancheng District, Kaohsiung, Taiwan. The arts center was originally an abandoned warehouse site due to Kaohsiung's shift from industrial city to service city. The warehouses were built in 1973. Due to the persistence of local artists, the area was finally released and remade to be an arts center. In 2006, the Bureau of Cultural Affairs of Kaohsiung City Government and under management of the Kaohsiung Pier-2 Art

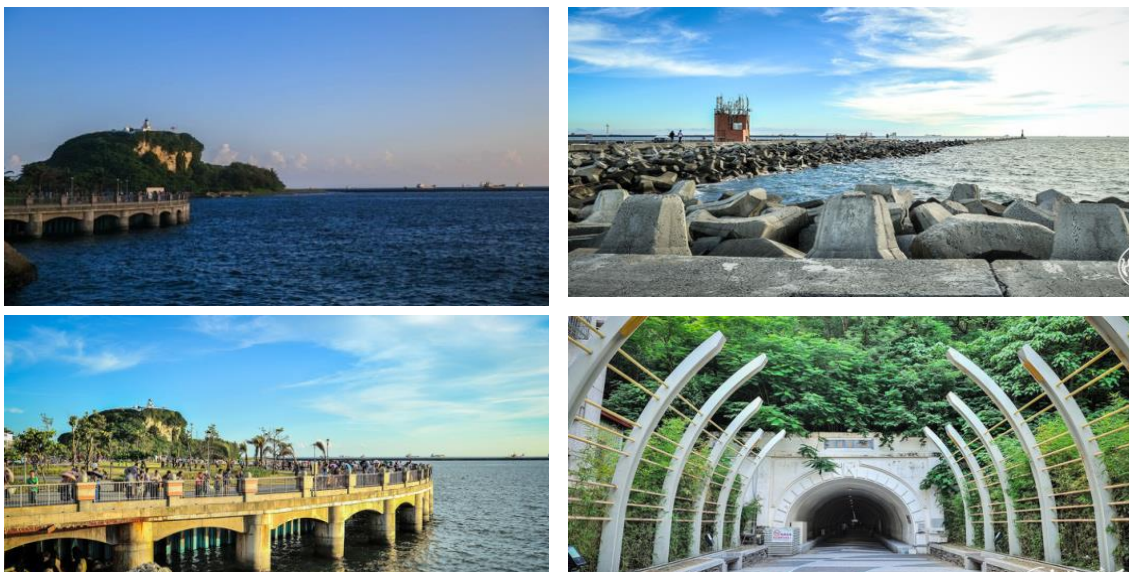
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Development Association and Shu-Te University's art development workshop took over the center, starting a series of exhibitions.



Xizi Bay

Xizi Bay is perched on the sea at the western edge of Kaohsiung City, just southwest of Mt. Longevity, with the Qijin Peninsula stretching southward. Its main feature is a swimming beach known for its clear blue water, the beauty of its sunsets, and its natural reef. The atmosphere and the scenery here change from morning to night; each time of the day has its special attraction, but the brilliant colors of the sunset are unparalleled in their beauty. The long breakwater here is the landmark of Xizi Bay, and basking in the sea breeze on the breakwater gives the most pleasant and comfortable sensation imaginable.



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Former British Consulate at Takao. It was built in 1865 with more than a hundred years of history. It is now the most antique western building preserved in Taiwan. It was the western building designed by a British engineer and built by Chinese craftsmen, and it is the most meaningful ancient building of Chinese modern history with graceful and elegant proportion. Semicircle arches are rhythmically arranged in order with considerably rhyming. At the corner, the circle arch is smaller and the wall pillar is bigger, which has reinforced function in dynamics. It is the Baroque typed building of the Renaissance era. It emphasizes on the stylish regular pattern and its hollow pattern railings were built with excellent bricks. Harmonious sense of beauty is shown at every turn. Among the existing western style buildings in Taiwan, it provides an excellent example of technique and style and that possesses the value of historical architecture study and conservation value. The building brick and mortar used all continue using the traditional method of Fukien and Taiwan. Some parts are even filled with clay and soil, while wooden truss is built with complete western style. It is the building that has double function, administrative and residential function, and its style also lies in between them. It is the portrayal illustration of modern Chinese and Western cultural communication, and also the first formal consulate built by foreigners in Taiwan. The occurrence of consulate opened up the development of western architecture for Taiwan in the future.

