

ICCAHE 2012

2012 年土木、建筑与水利工程

国际学术会议

2012 International Conference on
Civil, Architectural and Hydraulic Engineering

August 10-12, 2012

Zhangjiajie, China

Organized by:

Changsha University of Science and Technology, China

Co-organized by:

Hunan University, China

Xiangtan University, China

Nanhua University, China

Hunan University of Science and Technology, China

Hunan City University, China

Hong Kong Industrial Technology Research Centre

2012 International Conference on Civil, Architectural and Hydraulic Engineering (ICCAHE 2012)

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Academician Prof. Qiwei Han, China Institute of Water Resources and Hydropower Research, China; Changsha University of Science and Technology, China

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Prof. Tan Kiang Hwee, National University of Singapore

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Dr. Dar Hao Chen, Texas Department of Transportation, USA
Prof. Zhouhui Yang University of Alaska Anchorage, USA
Prof. Chunsheng Cai, Louisiana State University, USA
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Prof. Yibin He, Hunan University, China
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Prof. Chaohe Chen, South China University of Technology, China

Prof. Changyu Cui, Harbin Institute of Technology, China
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Prof. Xuejun Zhou, Shandong Jianzhu University, China

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Prof. Shuibo Xie, Nanhua University, China

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Conference Website

<http://www.iccahe.org>

Morning, August 11, 2012

Plenary Session (8:30 AM—12:00 AM)

International Conference Centre, 10/F (万泰国际会议中心)

Chairmen

Academician Prof. Qiwei Han, China Institute of Water Resources and Hydropower Research, China; Changsha University of Science and Technology, China

Academician Prof. Kejian Ma, Guizhou University, China

8:30—8:40 Opening Speech

8:40—9:20 Keynote Speech

Academician Prof. Kejian Ma, Guizhou University, China

9:20—10:00 Keynote Speech

Prof. Qiusheng Li, City University of Hong Kong

10:00—10:20 Tea Break

10:20—11:00 Keynote Speech

Prof. Zhenhua Huang, Nanyang Technological University, Singapore

11:00—11:40 Keynote Speech

Prof. Zhaohui Yang, University of Alaska Anchorage, USA

12:00—Lunch

Afternoon, August 11, 2012

14:00 PM—17:30 PM

Session A: Progress in Civil and Structural Engineering

2/F, Taihe Hall (2 楼泰和厅)

Chairman: Prof. Liangliang Zhang, Chongqing University, China

(12 minutes for each presentation, including 2-3 minutes of answering questions)

1. Shake Table Modeling of Laterally Loaded Piles in Liquefiable Soils with a Frozen Crust (H5524)
Zhaohui Yang, Xiaoyu Zhang, Runlin Yang
2. Bio-Mediated Soil Improvement under Various Concentrations of Cementation Reagent (H5672)
Lee Min Lee, Ng Wei Soon, Tan Chew Khun, Hii Siew Ling
3. Evaluation of the Fire Resistance of H-Section Steel Columns and Beams (H4794)
In-Kyu Kwon, Young-Bong Kwon
4. Heat Flux through Naturally Ventilated Building in Malaysian Climate (H6903)
Freda Morris, Nor Zaini Zakaria, Azni Zain Ahmed
5. An Analytical Study on Evaluation of Lap Splice Length of GFRP Rebar According to Reinforcement Ratio (H6926)
Hyo-Jin Yun, Hyun-Ki Choi, Chang-Sik Choi
6. Cyclic Testing of Bolted Flange Plate and Double Split Tee Type Weak-Axis Steel Moment Connections (H5840)
Kangmin Lee, Rui Li, Liuyi Chen
7. Effect of Fly Ash on Creep of High Performance Concrete Used in Bridge (H3977)
Liangliang Zhang, Liqun Wu, Kang Zhang, Jingyun Han
8. Cyclic Testing of Welded Free Flange Type and Welded Flange Plate Type Weak-Axis Steel Moment Connections (H5846)
Kangmin Lee, Liuyi Chen, Rui Li
9. The Site Effect Analysis of Semi-Cylindrical Canyons and Soft Alluvial Basins by H/V Spectral Ratio (H5159)
Cheng-Chih Chen, Wen-Shinn Shyu, Chau-Shiung Yeh, Cheh-Shyh Ting
10. Development and Application of Spatial Analysis and Management System of Dammed Lake Based on 3D GIS (H5501)
Fuxin Chai, Tao Sun, Xiaotao Li, Shifeng Hung
11. Bearing Performances of a Strengthened Chinese Ancient Beam By Simulation (H5961)
Qian Zhou, Weiming Yan

12. Study on China's Debris Flow Distribution and Occurrence Trend (H6366)
Na He, N.Sh.chen
13. Numerical Study of Wave Slamming on a Rectangular Slab (H6809)
Yamei Lan, Wenhua Guo, Yongguo Li
14. The Pre-Stressed Modal Calculation Method of Long-Span Suspension Bridge (H4143)
Junlong Zhou, Linan Li, Shigang Sun, Songbao Cai
15. Key Technologies of Whole Incremental Launching Construction Control for Inclined Continuous Box Girder with Steep Longitudinal Gradient (H5843)
Tianyong Jiang, Zhongchu Tian, Jinghua Xu
16. Research, Application and Promotion of New Isolation Layer (H5106)
Shou-ping Shang, Hao Zhou
17. Statistical Analysis of Domestic Web News Reported Burst Events on Municipal Water Distribution System in 2011 (H3759)
Lu Huang, Shuping Li, Yudong Hou, Weiwei Zhou, Jun Zou
18. Theoretical Study on Thaw Settlement of Saturated Frozen Soil (H4205)
Feng Ming, Dongqing Li, Kun Zhang
19. Analysis on the Energy Dissipation of the Composite Isolated Structure under the Near-Field Multi Pulse Ground Motion (H3606)
Hui Li, Di Liu, Yongfeng Du

Afternoon, August 11, 2012

14:00 PM—17:30 PM

Session B: Sustainable Architecture and Environment

4/F, conference room (4楼会议室)

Chairmen: Prof.Lun Ge, Beijing Institute of Civil Engineering and Architecture, China

Prof.Ta-Peng Chang, National Taiwan Univ. of Sci. and Tech., Taiwan

(12 minutes for each presentation, including 2-3 minutes of answering questions)

1. Comparative Assessment of Membrane Fouling Propensity Using Colloidal Silica as Foulant (H5187)
Chai Hoon Koo, Abdul Wahab Mohammad, Fatimah Suja', Meor Zainal Meor Talib
2. Thermal and Energy Performance of Pitch and Wall Insulation for Air-Conditioned Buildings in Malaysia (H6861)
Noor Hafizah Abdul Halim, Nor Zaini Zakaria, Azni Zain Ahmed
3. Tension Stiffening and Cracking Behavior of Ultra High Strength Strain-Hardening Cement Composite (UHS-SHCC) Ties in Monotonic and Cyclic tension (H6878)
YoungJae Song, Hyun Do Yun
4. Effects of Activating Solution and Liquid/Solid Ratio on Engineering Properties of Metakaolin-Based Geopolymer (H6631)
Tzong-Ruey Yang, Ta-Peng Chang, Chun-Tao Chen, Yuan-Kai Lee, Bo-Tsun Chen
5. The Relationship between Mechanical Properties and Shrinkage of the Concretes Used in Florida (H3222)
Yanjun Liu, Mang Tia
6. Organic Pollutants Removal of Polluted Water Body by a Hybrid Biofilm Reactor Using Filamentous Bamboo as Bio-Carrier (H3167)
Wenping Cao, Houhu Zhang, Yinmei Wang
7. Effect of Fly Ash on Thermal and Mechanical Properties of Expanded Perlite Insulation Product (H4933)
Zhanbibng Li, Xiuwen Wu, Xiaochao Chen
8. Analysis of Influences of Residential Energy Prices Change on Development of Residential Distributed Energy System (H5911)
Yongwen Yang, Renfei Yang, Jianxing Ren, Weijun Gao
9. A Domain in Combination of New Concept and Building Design---The Proposal of Building Design of Hospital in Bayan Nur City (H6601)
Lun Ge, Qing Han
10. Environmental Impacts Analysis for Affordable Housing (H4296)

Xiaomei Guo, Yuxing Lin, Fan Xiao

11. Synthesis and Characterization of Comb-Like Polycarboxylate Superplasticizer (H5346)
Yunhui Fang, Zhuojun Jiang, Yuliang Ke, Xiaolu Chen, Feilong Zheng, Zidong Lan , Mengqin Guan, Guangxing Lai , Tianxing Lin, Miaomiao Gui
12. Effect of Heat-Curing Procedure on Strength and Microstructure of Reactive Powder Concrete Having High Volume of Mineral Admixtures (H4084)
Yanzhou Peng, Wen Yang , Qiaosen Zhu
13. Synthesis and Performance Research of Ester Polycarboxylate Superplasticizer (H5550)
Xiaolu Chen, Yunhui Fang, Zidong Lan, Zhuojun Jiang, Yuliang Ke, Mengqin Guan
14. On Important Role of The View of Harmony between Man and Nature In Modern Art Designing--Taking Environmental Design as an Example (H6455)
Gang Lv
15. Effect of Bamboo Powder on Curing Behaviors of Liquefied Bamboo-Based Resol Resin (H4609)
Xiaohuan Liu, Shenyuan Fu, Chunpeng Wang
16. The Landscape Restoration Conception of Yuelu Academy Scenic Zone (H5195)
Libo He, Xingyao Xiong
17. Influence of Superplasticizer on Anti-Carbonation Property of Concrete (H4522)
Chongsheng Zeng, Mingzi Gong, Miaomiao Gui, Xinqi Guo, Junxiu Liu, Tianxing Lin
18. A Case Study on the Automatic Control of Chemical Dosing Processes for Full-Scale Drinking Water Treatment (H4321)
Dongsheng Wang, Xingpeng Zhou, Xiaoming Mo, Yi Wang
19. Research on Fort of Chinese Ancient Military Defense System (H4141)
Xuan Wang, Xin Hou

Morning, August 12, 2012

8:30 AM—12:00 AM

Session C: Progress in Civil and Structural Engineering

2/F, Taihe Hall (2 楼泰和厅)

Chairman: Prof. Chenghua Wang, Tianjin University, China

(12 minutes for each presentation, including 2-3 minutes of answering questions)

1. Some Results for the Davey-Stewartson System on a Circle (H6594)
Tsai-Jung Chen, Yung-Fu Fang, Ying-Ji Hong
2. The Influence of Chord Yield-to-Tensile Stress Ratio on the Static Strength of Unstiffened CHS K-Gap Joints under Static Axial Loading (H4173)
Chisanga Kaluba, M.M Tawana
3. Push-Down Analysis of RC Frame Structure with Damaged Column (H6851)
Soo-yeon Seo, Jeong-hun Kim, Jae-yeong Yeon, Hyung-joo Park, Ki-bong Choi
4. Effect of Cement Composite's Ductility on the Flexural and Cracking Behavior of Reinforced Cement Composite Beams (H6879)
Kim Junesu, Yun Hyundo
5. Nonlinear Buckling Behaviour of Imperfect Cylindrical Shells under Global Bending in the Elastic-Plastic Range (H4145)
Lei Chen, J.Michael Rotter, Yiliang Peng, Guang Yang
6. Structural Nonlinear Damage Detection Based on ARMA-GARCH Model (H6150)
Cong Cheng, Ling Yu, Liujie Chen
7. Stress Influence Factor Analysis of Gas Pipeline in The Tunnel (H3380)
Xiaonan Wu, Hongyan Ma, Ying Zhou, Meilin Hu, Yan Xian
8. Classification of the Sky in Shah Alam, Malaysia Using Measured Sky Radiance and Luminance (H5923)
Noorhasimah Yeop, Azni Zain Ahmed
9. The Application of Fuzzy Comprehensive Evaluation in Risk Assessment of Incremental Launching Bridge (H5841)
Zhongchu Tian, Lei Yang, Tianyong Jiang
10. Stability of Cable-Arch Structure (H3381)
Hou Jun Kang, Yue Yu Zhao, Hai Ping Zhu
11. A Settlement Compensation Method for Design of Settlement Controlled Piled Raft Foundations under Vertical Loadings (H5568)

Chenghua Wang, Junnan Cao, Liangliang Zhao

12. A Space-Time-Dependant Design Method and the Stability of Ice Wall for Deep Shafts (H6755)
Xiangsheng Chen
13. Integrated 3D Spatial Data Model of Object-Oriented Digital Landslide (H5467)
Daxi Ma, Xiaohong Liu, Liwei Ma
14. Parametric Reliability Analysis of the Seismic Bearing Capacity of Bottom Columns in Reinforced Concrete Frame Structure (H4748)
Youbao Jiang, Yulai Zhao, Weijun Yang, Zhiling Gong
15. ICA Spatiotemporal Filtering Method and Its Application in GPS Deformation Monitoring (H4519)
Dawei Huang, Wujiao Dai, Feixue Luo
16. Research of Forecasting Method for Horizontal Displacement of Deep-Seated Subgrade (H4625)
Yunkai Guo, Gang Cheng, Xiaoyong Le
17. Study on Hybrid Control Method of Mega-Sub Controlled Structure Subjected to Seismic Action (H5939)
Dongzhou Xia
18. Research Advance in Fluid Flow through a Single Rock Fracture (H6658)
Baohua Guo, Caixia Tian
19. Integrated Design of Control/Structural Systems Based on Genetic Algorithm (H5637)
Bin Xu, Yili Zhang, Shuxian Yao, Jiasheng Jiang

Morning, August 12, 2012

8:30 AM—12:00 AM

Session D: Advances in Hydraulic Engineering and Transportation

4/F, conference room (4楼会议室)

Chairman: Prof. Junmin Mou, Wuhan University of Technology, China

(12 minutes for each presentation, including 2-3 minutes of answering questions)

1. Impact of Climate Change on Kaoping River Water Quality (H5008)
Chou-Ping Yang, Yao-Ting Yu, Chih-Ming Kao
2. Long-Term Performance of Bridge Elements Using Integrated Deterioration Method Incorporating Elman Neural Network (H6186)
Guoping Bu, Jaeho Lee, Hong Guan, Yew-Chaye Loo, Michael Blumenstein
3. Locating of Salt and Fresh Water Interface in Coastal Zones Using 2D Resistivity Imageries (H4227)
N.D. Subasinghe, P. Jinadasa
4. On the Suspended Sediment Concentration Profile (H3854)
Chen Cheng, Zhi-yao Song, Yi-gang Wang, Jin-shan Zhang
5. Numerical Analysis of the Influence of Saltwater Intrusion on the Deepwater Channel in the Changjiang Estuary (H5298)
Jie Gu, Xin Qin, Wei Chen, Danqing Ma, Xiaoli Wang
6. Siltation of Approach Channel and Its Influence on Ship Grounding (H6533)
Yajun Li, Junmin Mou, Yalei Ren, Xuejun Lin
7. Study on the Formula of Settling Velocity of Sediment Particle Cloud in the Water (H5339)
Jie Gu, Danqing Ma, Wei Chen, Xin Qin, Xiaoli Wang
8. Numerical Analysis of the Influence of Saltwater Intrusion on Qingcaosha Reservoir (H5393)
Jie Gu, Jizhong Yang, Wei Chen, Xin Qin, Danqing Ma, Xiaoli Wang
9. Stability Experiment of Revetment Blocks for Regulation Project of Mulan Creek River (H5793)
Xiaodong Zhao, Xuesong Xu, Xiaoxiao Li, Xing Chen
10. Study on Characteristics and Risk Indicators of Agricultural Drought in Northwestern Liaoning Province, China (H4780)
Tao Sun, June Fu, Fuxin Chai
11. High-Resolution Integrated Detection of Underwater Topography and Geomorphology Based on Multibeam Interferometric Echo Sounder (H5891)
Haisen Li, Chao Xu, Tian Zhou

12. Simulation and Analysis of Ocean Wave in the Northwest Pacific Ocean (H6669)
Zhixia Zhu, Ke Zhou
13. Analysis on Influences of Nanshatou Passage on the Deepwater Navigation Channel of the Changjiang Estuary (H5175)
Jie Gu, Wei Chen, Xin Qin, Danqing Ma, Xiaoli Wang
14. A Study on the Watershed Chemical Weathering in the Water Source Area of the Central Guizhou Water Control Projects (H6813)
Shulin Jiao, Hong Liang, Rong Ding, Qingying Tian, Zhonghua He, Song Hu, Zhengji Dai
15. 3-D FEM Analysis of Large-Scale Prestressed Concrete Aqueduct in the Middle Route of South-to-North Water Diversion Project (H5128)
Chongyang Zheng, Hui Peng, Nanhui Li, Yating Kang
16. Field Tests of Guide Vanes and Runner Blades of a Large Bulb Turbine for Output Deficiency Diagnosis (H6606)
Zhong Liu, Zhuqing Huang, Shuyun Zou, Hongde Rao
17. Research and Development of Acoustic Emission Signal Monitoring System for Hydraulic Turbine Cavitation (H6857)
Zhong Liu, Shuyun Zou, Zhicong Xie
18. Experimental Investigation of the Effect of Flow Turbulence on the Adsorption of Phosphorus onto Sediment Particles (H5503)
Bo Xia, Qinghe Zhang, Jingsi Yang, Lu xia
19. A Simple and Effective Prediction Model of Saline Intrusion in the Modaomen Estuary, the Pearl River Delta, China (H6722)
Yuliang Zhu, Xiaolu Yan, Xiaoyu Lin

The image features a white background with light blue wavy lines at the top and bottom. The bottom section has a more prominent, layered blue wave graphic. Centered in the white space is the text 'ICCAHE 2012' in a bold, dark red font.

ICCAHE 2012

The 2012 International Conference on Civil, Architectural and Hydraulic Engineering (ICCAHE 2012) will take place in Zhangjiajie, China, August 10-12, 2012. A key aspect of this conference is the strong mixture of academia and industry. This allows for the free exchange of ideas and challenges faced by these two key stakeholders and encourage future collaboration between members of these groups.

After refereeing process, all accepted papers will be published on international journal **"Applied Mechanics and Materials"** and will be indexed in the major academic databases, including **EI Compendex, Thomson ISI (ISTP), and other indexing services** ([See TTP's Conference List](#)). **Trans Tech Publications** will provide [online camera-ready paper submission system](#) to save time and decrease the publishing cycle. The full text is online available via platform www.scientific.net. **About About 200 selected papers will be published on other EI journals and about 100 selected excellent papers will be published on SCI journal**