

### Issue No. 15, December 2015

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### 2014 Annual General Meeting and Annual Dinner

The 16th Annual General Meeting and 17th Annual Diner were held in the evening of 4 November 2014 at the World Trade Centre Club. Immediate Past President Ms. Barbara Siu expressed great sincere gratitude and appreciation to all Board of Directors for their hard works and dedication during the 2013-2014 Session. New Board of Directors for the Session 2014-2015 were elected. Mr. Johnson Po as the newly-elected President for the Session 2014-2015 emphasized the



**Hong Kong Section** 

**Newsletter** 

mission of ASCE is to provide essential value to our members and partners, to advance civil engineering, and to serve the public good. ASCE Hong Kong Section is committed to the nurturing of future civil engineers. There are five international student groups (ISGs) at the Hong Kong University of Science and Technology, Tsinghua University, the University of Macau, Tongji University and Chongqing University. Apart from supporting the International Student Groups, ASCE Hong Kong section encourages excellence student research. The annual Best Final Year Project Award and biannual Best Master Thesis Award were presented during the Annual Dinner.

## Best Final Year Project Awards 2014

YUEN Kam Wa	Excel Spreadsheet for the Design of Reinforced		
	Concrete Structural Elements		
LAI Kei U	A Novel Approach to Select a Proper Linear		
	RegressionModel for Air Quality Predictions		
TSANG Hoi Ting	Feasible Use of Crushed Glass Powder as a Cement		
	Replacement Material in Concrete		
CHOW Jun Kang	Compost Characteristics and Greenhouse Gas		
	Emission of Food Waste Composting for Four Types of Food Waste Generated at HKUST		
LEE Ho Yin	Tolerance of Activated Sludge to Cadmium, Zinc and		
	Nickel		
MOK Man Hin	Probabilistic Characterization of Effective Friction		
	Angle and Its Application for Reliability Based Design		
	of Foundation		

# One-day Workshop on "Geotechnical Engineering in Problematic Grounds"

On 7 November 2014, over 140 participants attended a one-day workshop on "Geotechnical Engineering in Problematic Grounds", which was jointly organized with Department of Civil and Environmental Engineering of the Hong Kong Polytechnic University. The objectives of the workshop are to introduce construction and design of stone columns in soft soils, interdisciplinary training in geotechnical and environmental engineering leading to the effective remediation strategies, challenges of foundation design in difficult grounds, use of geosynthetics in solid waste landfills, design procedures and advanced numerical techniques for soil liquefaction assessment, ground improvement solutions to mitigate the hazard, etc. Six speakers delivered lectures to the participants, including Dr. Wilhelm Degen from Ground Improvement Solutions LLC, Dr. Chao Li from Lambeth Associates, Ir James Sze from ARUP, Ir John Cowland from Geosystems Ltd, Dr. Kaimin Shih from the University of Hong Kong, and Dr. Gang Wang from the Hong Kong University of Science and Technology.

## Technical Visit to Hong Kong GeoPark High Island Reservoir East Dam

High Island formation is most famous for its spectacular columnar jointed volcanic rock formed about 140 million years ago as a result of catastrophic volcanic eruption that shaped landscape in the surrounding area. The size and extent of those columnar joints exposed at High Island Reservoir can be rarely seen in other places of the world.

On 15 February 2015, a group of 11 engineers and ASCE Hong Kong Section board members visited the High Island Reservoir East Dam, led by Dr. Gang Wang. The visit team studied history of volcanic activities in Hong Kong, formation of columnar joints, mineral composition in volcanic rock and intrusive rock and other geological features around the site.

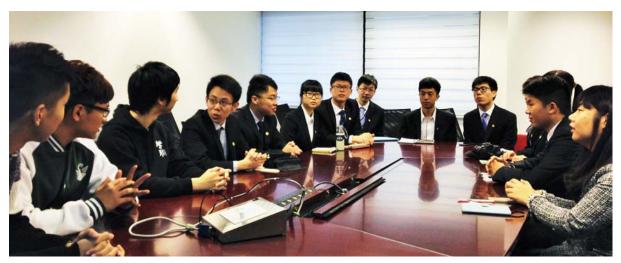


Group photo of the visit team

# ASCE ISG Zhejiang University Delegate Visited ASCE Hong Kong Section

From 28 February to 4 March 2015, a delegation of ASCE International Student Group (under preparation) at Zhejiang University visited Universities in Hong Kong and ASCE Hong Kong Section. The delegation is consisted of two faculty advisors and 10 students (9 UG/1 PG) from the School of Civil Engineering and Architectures, Zhejiang University. The event is coordinated by Dr. Gang Wang, Vice President of ASCE Hong Kong Section.

In the afternoon of 28 February, the delegation arrived at Hong Kong University of Science and Technology (HKUST). They met Executive Committee members of ASCE ISG at HKUST. Two parties discussed ISG activities, planning and future exchange. The delegation also visited Geotechnical Laboratory, Centrifuge Facility and Structural Laboratory on the campus. In the morning of 2 March, Prof. CM Chan, Associate Head of the Department of Civil and Environmental Engineering, introduced undergraduate curriculum and research activities at HKUST. After that, representatives from HKUST Student Union and The Civil and Environmental Engineering Students' Society met the delegation and discussed student activities on each side.



HKUST Student Union and Civil Engineering Students' Society met Zhejiang University students

In the afternoon of 2 March, the team visited the Department of Civil and Environmental Engineering at the Hong Kong Polytechnic University and toured the laboratory. Dr. Songye Zhu, Director of ASCE Hong Kong Section coordinated the visit.

In the morning of 3 March, the delegation visited the Department of Civil and Environmental Engineering at the University of Hong Kong. Past President of ASCE Hong Kong Section, Dr. Jun Yang, received the delegation and guided them to visit the laboratory.

In the afternoon of 3 March, the delegation visited Arup office at Festival Walk and met with Johnson Po, President of ASCE Hong Kong Section. Johnson showcased the works they had recently completed and share with the group about the recent engineering market and practice in Hong Kong as well as other areas in East Asia region. The guided tour around the Arup office gave delegation a valuable opportunity to see the work environment of an international engineering firm.

In the evening, a welcoming dinner has been arranged for the delegation with the current ASCE HK Board members as well as past presidents to exchange views and collaboration with student groups outside Hong Kong.

# One-day Workshop on "The State-of-the-practice of Tall Building Design and Construction"

On 22 May 2015, more than 80 participants attended a one-day workshop on "The State-of-thepractice of Tall Building Design and Construction", which was jointly organized with Department of Civil and Environmental Engineering of the Hong Kong Polytechnic University. The workshop introduced fundamental knowledge of tall building design and construction, building design optimization, building risk analysis, case studies of super-tall building projects, and emerging technology (such as BIM and monitoring) in tall building construction. Seven speakers delivered lectures to the participants, including Mr Chia Pan from Ronald Lu & Partners (Hong Kong) Ltd, Dr. Chun-Man Chan from the Hong Kong University of Science and Technology, Dr. Jun Liufu from RBS Associates, Dr. Goman Ho from Arup, Dr. Ray SU from the University of Hong Kong, Dr. Yong Xia from the Hong Kong Polytechnic University, and Dr. Jack Cheng, The Hong Kong University of Science and Technology.



Group photo of conference speakers and ASCE HK Section representatives (From left: Dr Songye Zhu, Dr. Jack Cheng, Dr. Yong Xia, Dr. Goman Ho, Dr. Ray Su, Dr. CM Chan, Dr. Patrick Cheung, Dr. Gang Wang).

## Construction Site Visit to Yoho Town Phase 3 Yuen Long Hong Kong

On 6 June 2015, a group of more than 20 engineers and ASCE Hong Kong Section board members (Johnson Po and Henry Kang) visited the Yoho Town Phase 3 development. The composite development comprises a number of high-rise residential towers with a large common podium. In view of project complexity and technical requirements, different types of foundation and structure design have been considered and the selected scheme was further developed and adopted. The contract aspect, site logistics, planning and construction management are the important challenges when delivering this mega project.

A very comprehensive presentation was delivered by the project team of SHK Properties Ltd. illustrating the planning & design background as well as the construction challenges encountered. A site walk focusing on footbridge construction, fitting out of retail areas and precast facade installation etc. were conducted after the presentation session.



Construction Site Visit to Yoho Town Phase 3 Yuen Long Hong Kong

# Visit to Guangzhou Society of Civil Engineering and Architecture & RBS Architectural Engineering Design Associates, Guangzhou

On 22 August 2015, the board visited Guangzhou Society of Civil Engineering and Architecture (GSCEA) and RBS Architectural Engineering Design Associates represented by President Johnson PO, Past President Patrick CHEUNG, Vice President WANG Gang and other 4 board members of ASCE HK Section. During the session Deputy Secretary of GSCEA Mr LI Hoi-Qiang and Executive Partner Mr LI ShengYong, Deputy General Manager Dr. Jun LIUFU & Chief and Deputy Chief Engineer of RBS shared with us the recent development in the engineering development and environment trend of Guangdong and South China. The exchange between GZ and the ASCE HK Section would develop closer academic and engineering link as well as knowledge sharing to achieve mutual understanding. It would promote more collaboration in engineering and academic. The meeting also touched on the recent projects and history of RBS as independent consulting engineer specialized in structural engineering for past ten years.



Group photo of representatives from GSCEA, RBS and ASCE HK Section

# The First Conference of ASCE International Student Groups in Greater China, Shanghai

The First Conference of ASCE International Student Groups in Greater China was held in Tongji University, Shanghai, China from 27 to 29 August 2015. A total of 34 students and faculty advisors of ASCE ISGs from Hong Kong University of Science & Technology, Tongji University, Zhejiang University and Hohai University attended the conference. Vice President Dr. Gang Wang attended the meeting on behalf of ASCE Hong Kong Section.

During the conference, student officers from four ASCE-ISGs shared their activities, discussed future plan and collaboration. Attendees visited laboratories facilities including shaking tables and wind tunnels on Tongji campus, as well as the workshop of Tongji Concrete Canoe team and its training center.

On the morning of 29 August 2015, all students visited Engineering Research Institute of Shanghai Construction No. 4 (Group) Co., Ltd. Mr Zhang, director of Building Information Technology Research Institute, introduced the practical application of BIM in engineering construction.



Group photo of conference attendees including students from HKUST, Tongji University, Zhengjiang University and Hohai University. Dr. Gang Wang (1st from left), Dr. Haibei Xiong (2nd from left), Mr Ming Zhao (2nd from right), Mr Hao Wu (1st from right) are faculty advisors of ASCE ISGs.

# Half-day Workshop on "Geotechnical Engineering: From Ground Investigation to Improvement"

On 19 September 2015, around 56 participants attended a half-day workshop on "Geotechnical Engineering: from ground investigation to improvement", which was jointly organized with Department of Civil and Environmental Engineering of the Hong Kong Polytechnic University. The workshop covered, but was not limited to, cone penetration testing for baseline characterization, ground improvement works in soft clay and loose sand, design of vertical drains, and application of vacuum preloading. Four speakers delivered lectures to the participants, including Ir. Carlton Hall from Fugro Group, Ir. Kin Ming Chan from Bachy Soletanche Group Ltd., Dr. Albert T. Yeung from the University of Hong Kong, and Ir Freda Chu from ARUP.



Dr. Ryan Yan presented souvenirs to Ir Hall and Dr. Yeung on behalf of ASCE Hong Kong Section

## **Best Final Year Project Awards 2015**

[Awards are to students in The University of Hong Kong (HKU), The Hong Kong University of Science and Technology (HKUST), The Hong Kong Polytechnic University (HKPU), The City University of Hong Kong (CITYU), The University of Macau (UMac) and The Chu Hai College of Higher Education (CHC)]

Mr. XIE Quanxing	CHC	Flow Reduction Induced by Bridge Pier Friction
Mr. NG Ka-Fai	UMAC	Correlation Analysis for Shear Wave Velocity of Macau Soils
Mr. CHU Hau Wa	HKPU	Strength and Durability Test of Alkali-activated Slag Mortar
Miss WANG Xueying	HKUST	Seismic Performance of Masonry-infilled RC Frame Structures:
		Reversed Cyclic Load Test
Mr. XING Bodong	HKU	Water Demand Assessment and Water Resources Management
		over the Pearl River and Hong Kong
Mr. WONG Hei Long	CITYU	The Behavior of FRP-Confined Short Concrete Columns
		Subjected to Eccentric Loading

Facts about us	Contacts Update:
Currently, there are 5 nos. of International	To stay in touch with the ASCE and the ASCE
Student Groups (ISG) under ASCE Hong	Hong Kong Section, please update your email and
Kong Section. They are among the most	mailing address with ASCE at :
prestigious universities in mainland China,	http://www.asce.org/membership
Hong Kong and Macau, including Hong Kong	
University of Science and Technology,	Our website:
University of Macau, Tsinghua University,	http://sections.asce.org/hongkong
Chongqing University, Tongji University. In	E-mail: asce@ust.hk
addition to the existing ISGs, Zhejiang	Mailing address:
University and Hohai University are also	P.O. Box 65269, Tseung Kwan O Post Office,
preparing to set up ISG in their colleague.	Hong Kong

Editors of this issue of Newsletter: Paul Cheung and Snow Deng