

American Society of Civil Engineers

Contents

Message from the President	p.1
AGM and Annual Dinner	p.2
Section Function Review	p.4
Student Group Activities	p.10

Message from the President

It is my great honor and privilege to be elected as the President of the ASCE Hong Kong Section at our 14th Annual General Meeting held on 14 November 2012 and to serve our fellow members and community in Session 2012 - 2013. I am also very fortunate to have a group of capable and dedicated board directors to work closely with me this year.

The ASCE Hong Kong Section has an excellent tradition of providing essential value to our members and partners, advancing civil engineering, and serving the public, thanks to the dedicated and continuous efforts of our past presidents and board directors in the last 15 years. Building on this excellent tradition, the Section this year has worked closely with sister professional societies and successfully organized a one-day international conference on reclamation and rock cavern, a one-day continuing professional development workshop on seismic analysis and retrofit, 5 technical seminars on various topics, and 3 technical visits to Geopark or construction sites of infrastructure or building projects. The Section promotes active technical exchanges with civil engineering community in mainland China. The board had a pleasant and fruitful visit to Guangdong Society of Civil Engineering and Architecture and South China University of Technology in Guangzhou in June 2013.

The Section is committed to nurturing our future civil engineers and supporting various events of our ASCE



international student groups (ISG) in not only Hong Kong, but also the Greater China region, such as university of Macau in Macau, Tsinghua University in Beijing, Tongji University in Shanghai, and Chongqing University in Chongqing. The Section also offers Best Final Year Project Awards and Best Master Thesis Awards to civil engineering students in Hong Kong and Macau tertiary institutions.

Time flies! The Session 2012 – 2013 is approaching its end. This newsletter summarizes major functions and activities during this session, except the 15th Annual General Meeting and the 16th Annual Dinner that have been scheduled on 14 November 2013. The annual dinner is one of our society's most important events for local and Macau members, aiming to facilitate our members and guests to exchange views on current civil engineering or development related issues and strengthen partnership in a friendly atmosphere. I look forward to seeing you in the annual dinner in November 2013.

Yu WANG, PhD
President
Hong Kong Section 2012-2013

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Our 14th Annual General Meeting and 15th Annual Dinner

The Annual General Meeting

The 15th Annual General Meeting was held on 14 November 2012 at the World Trade Center Club. The retiring President (2011-2012), Dr Victor C.M. Wong delivered his report on the activities of the session. Highlights included well-responded Continuing Professional Development (CPD) courses, site visits and technical seminars. Special thanks were dedicated to the guest speakers and the Directors who were engaged in organizing these CPD functions. Victor also expressed sincere gratitude to Arup for the kind assistance to ASCE Hong Kong Section by offering meeting venue and other facilities for our Board meetings.

New officers of the Board of Direction for Session 2012-2013 were elected during the Meeting.



Members of the Board of Direction for Session 2012-2013 in the photo taken after the Annual General Meeting on 14 November 2012: (Start from the left) Mr Paul Cheung (Secretary), Mr Johnson Po (Vice President), Dr Kai Tai Wan (Director), Dr Victor Wong (Immediate Past President), Dr Barbara Siu (President-Elect), Dr Yu Wang (President), Dr Song Ye Zhu (Director), Dr Ryan Yan (Director), Dr Chao Li (Co-opted Director), Dr Patrick Cheung (Co-opted Director) and Mr Damon So (Honorary Legal Advisor).

The Annual Dinner

The guests and members had a warm mix and exchange of ideas. Our Guest of Honor, Dr Raymond Yau, Vice Chair, Technical Review Committee, BEAM Society, delivered a pleasant speech on the Zero Carbon Building and green buildings. During the dinner, the Section's biennial Best Master Thesis Awards and annual Best Final Year Project Awards were presented by Dr Albert T. Yeung, the ASCE Region 10 Director and Chair of the Region 10 Board of Governors.



Dr Raymond Yau delivered a keynote speech before the dinner.



Our honorable guests and fellow members in the annual dinner

Best Master Thesis Award 2012

Winner: Shuwen CAI

Institute: The Hong Kong University of Science and Technology

Thesis title: Centrifuge Modeling of System Performance of Bridge Foundations in Inland Waterways Subject to Vessel Collision.

Honourable Mention: Guiming ZHAI

Institute: The University of Hong Kong

Thesis title: Nanoparticle Transport in Porous Medium and Nanosized Zero-Valent Iron (nZVI) for Environmental Remediation.

Honourable Mention: Di HUANG

Institute: The Hong Kong Polytechnic University

Thesis title: Application of BOTDA Technology for Measurement of the Performance of Bored Piles.



Dr Victor Wong presented a souvenir to Dr Raymond Yau after the keynote speech



Dr Albert Yeung (the second from left), the Awardees of the Best Master Thesis Award 2012 and their supervisors

Best Final Year Project Award 2012

Student: CHENG Ka Man

Institute: The Hong Kong Polytechnic University
Project title: Blasting Vibrations and Their Effects on Structures

Student: CHEOK Meng Fai

Institute: University of Macau
Project title: Optimum Analysis of Outrigger-Braced Structures with Non-Uniform Sectional Properties of Core and Columns

Student: FU Shing Piu

Institute: The City University of Hong Kong
Project title: Nonlinear Free Vibration Analysis of Functionally Graded Plate in Thermal Environment by a Meshless Local Kringing

Student: NG Ka Ho

Institute: Chu Hai College of Higher Education
Project title: Accelerated Chloride Diffusion and Carbonation Tests of a Fiber Optic Corrosion Sensor for Reinforced Concrete Structures

Student: Ru Jiunn HON

Institute: The University of Hong Kong
Project title: Embodied Energy Evaluation for Sections of the MTR Projects

Student: TAM Pak On

Institute: The Hong Kong University of Science and Technology
Project title: Micro-scale Investigation on Kinematic Behaviour of Particulate Medium in Response to Shearing



A group photo of Best FYP Award winners with their supervisors and Dr Albert Yeung

Section Function Review

Seminar on Building Public Trust through Sustainability

(13 November 2012)

On 13 November 2012, a joint technical seminar with Engineers Australia Hong Kong Chapter on Building Public Trust through Sustainability was held at the Australian Consulate General, Hong Kong. Mr D. Michael Mucha, Chair of the ASCE Committee on Sustainability, delivered a seminar on how sustainability could be an effective resource to remove conflict in situations and have difficult problems unstuck. He shared tools and conceptual frameworks to deal with uncertainty, conflict and skepticism. More than 40 participants attended this technical seminar.



Dr Yu Wang presented a souvenir to Mr D. Michael Mucha after the talk

Half-day Symposium on Advances in Construction and Building Materials

(7 December 2012)

A half-day symposium on Advances in Construction and Building Materials has been jointly organised with Nano and Advanced Materials Institute Limited (NAMI) on 7 December 2012 at Hong Kong Convention and Exhibition Centre. The speakers were from learnt society, local university, government official and local research institute. Dr Jaime Yeung from the Hong Kong Concrete Institute delivered a speech about the use of Calcium Sulfoaluminate cement in concrete. Dr Wallace W.L. Lai from the Hong Kong Polytechnic University discussed the use of non-destructive evaluation for existing civil engineering and building structures. Mr Joseph Mak from the Hong Kong Housing

Authority introduced the use of ground granulated blast-furnace slag in Housing Authority projects. Dr K.T. Wan from Nano and Advanced Materials Institute Limited and also director of ASCE Hong Kong section demonstrated the applications of optical fibre sensors in civil engineering. About 80 participants attended this symposium.



Speakers and the CEO of NAMI in the Symposium on Advances in Construction and Building Materials. From left: Wallace Lai, Jaime Yeung, K.M. Ng, Joseph Mak and K.T. Wan

Professor Wilson Tang Memorial Symposium (15 December 2012)

To commemorate and honor the lifetime contributions of the late Professor Wilson H. Tang who passed away on January 5, 2012, the Department of Civil and Environmental Engineering of the Hong Kong University of Science and Technology organized a Professor Wilson Tang Memorial Symposium on December 15, 2012. The symposium convened a highly distinguished set of invited speakers, both local and international, to revisit and build upon Wilson's research areas. Professor Tang was the President of ASCE Hong Kong Section in 1999-2000 and a Distinguished Member of ASCE. The symposium was supported by ASCE Hong Kong Section. More than 100 participants attended the symposium.

Visit to ASCE Taiwan International Group (24 January 2013)

On 24 January 2013, immediate past president Dr Victor Wong visited ASCE Taiwan International Group in Taiwan.



Immediate past president Dr Victor Wong visited ASCE Taiwan International group.

International Conference on From Cavern to Reclamation: the Engineering Behind (28 February 2013)

On 28 February 2013, ASCE Hong Kong Section and Institute of Civil Engineers, Hong Kong Association jointly organised an annual conference entitled "From Cavern to Reclamation: The Engineering Behind" at Mira Hotel of Hong Kong. The conference invited Mr C.S. Wai, JP, Permanent Secretary for Development (Works), to deliver a welcoming address and Prof K.Y. Lo from the University of Western Ontario to deliver the keynote speech. In the conference, experts from local and overseas shared their experience and case studies on cavern construction and reclamation. More than 300 participants attended the international conference.



The audiences in the Joint conference with ICE-HKA on From Cavern to Reclamation: the Engineering Behind



Mr C.S. Wai, JP, Permeant Secretary for Development (Works), delivered a welcoming speech



Meeting with the ASCE Executive Director, Mr Patrick J. Natale

Visit to Tongji University

(16 March 2013)

On 16 March 2013, Dr Patrick Cheung invited the Institution of Structural Engineers' Mr Nick Russell, Senior Vice President, and Mr Darren Byrne, Director of Membership & Education Services, to visit Tongji University and meet its ASCE ISG members. After a guided tour of the campus and the civil engineering laboratories, the ISG students talked about their activities and preparation for the Mid-Pacific Student Conference to be held in California the following month. The visitors were impressed with the students' excellent work.

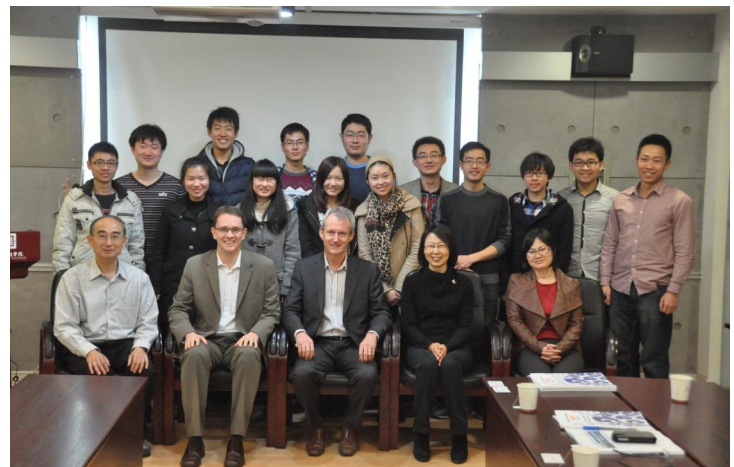


Speakers and the organizers from ASCE-HK and ICE-HKA in Joint conference on From Cavern to Reclamation: the Engineering Behind

Meeting with the Executive Director of ASCE Headquarters

(18 February 2013)

The ASCE Region 10 Director and Chair of the Region 10 Board of Governors Dr Albert Yeung, Hong Kong Section president Dr Yu Wang and other board directors Dr Songye Zhu, Dr Patrick Cheung, Dr Chao Li and Dr K.T. Wan met Mr Patrick J. Natale, the Executive Director of ASCE Headquarters at Shangri-La Hotel, Hong Kong on 18 February to discuss the future development of the section and how to establish better connection with the ASCE Headquarters.



Group photo at Tongji University

Seminar on Tunnel Dismantling Machine West Island Line

(25 March 2013)

On 25 March 2013, a joint seminar with Association of Geotechnical and Geoenvironmental Specialists (Hong Kong) entitled "Tunnel Dismantling Machine for West Island Line". The speaker Mr Stephane Polycarpe from Dragages Hong Kong delivered a seminar about the technical challenges of construction of shafts, tunnels and dismantling of the existing tunnel in a densely populated area with complex geology. He presented a number of innovative solutions included the special designed tunnel dismantling machine and the techniques of stabilizing the overrun tunnel. About 180 participants attended the seminar.



Mr Stephane Polycarpe in the seminar on Tunnel Dismantling Machine for West Island Line

Visit to Guangdong Society of Civil Engineering and Architecture and South China University of Technology in Guangzhou

(15 June 2013)

On 15 June 2013, an ASCE Hong Kong Section delegation visited the Guangdong Society of Civil Engineering and Architecture and South China University of Technology in Guangzhou. The delegation included Dr Yu Wang, Dr Barbara Siu, Dr Patrick Cheung, Mr Johnson Po, Dr Songye Zhu, Dr Chao Li and Dr K.T. Wan. The delegation also visited the laboratories of fire engineering, structural engineering, geotechnical engineering as well as the wind tunnel facility at South China University of Technology. The delegation and colleagues and friends in Guangzhou also discussed the situations and major challenges of construction industry and academia in Mainland China and Hong Kong as well as potential collaborations.



Group photo of Guangzhou visit



Laboratory tour in South China University of Technology

Seminar on Challenges in Environmental Sampling and Results Interpretation

(19 June 2013)

On 19 June 2013, a joint seminar with Association of Geotechnical and Geoenvironmental Specialists (Hong Kong) on Challenges in Environmental Sampling and Results Interpretation was held at City University of Hong Kong. The speakers Dr Paul Kau from Golder Associates (HK) Ltd and Dr Michael Neuhaus from Fugro Geotechnical Division, Germany delivered a seminar about how to combine skills and activities to understand the site hydrogeology, nature of contaminant, sampling methodology, laboratory analysis, risk assessment and contaminant concentration thresholds with suitable mitigation/remedial measures for managing contamination problems. More than 100 participants attended the seminar.

GeoPark Visit

(6 July 2013)

On 6 July 2013, Dr Gang Wang led a geology field trip to Lai Chi Chong, part of the Geopark in Hong Kong. More than 10 members, including section president Dr Yu Wang and board directors Paul Cheung and Dr K.T. Wan. Lai Chi Chong preserves varieties of different rock types formed during late Jurassic and early Cretaceous age, when volcanic eruptions were active in Hong Kong. During the visit, Dr Gang Wang introduced the history of volcanic activities in Hong Kong as well as the unique volcanoclastic sedimentary rock and geological structures such as the formation of planar folding in that area.



Dr Gang Wang introduced the geology of Lai Chi Chong to our group of visitors



Hong Kong Sections members at Lai Chi Chong

Technical visit to West Kowloon Terminus Approach Tunnels (North) Contract 811A

(13 July 2013)

On 13 July 2013, about 20 participants attended a technical visit to West Kowloon Terminus Approach Tunnels (North) under Contract 811A. The construction of the approach tunnel requires about 30 m deep excavation underground with dimensions of approximately 300m x 22m area. This excavation served as the access shaft for tunnel boring machine retrieval and subsequent construction of a cut and cover approach tunnel to the West Kowloon Terminus. The excavation and lateral support comprises a multi-level temporary steel and concrete struts and waling system to retain the earth pressure during excavation and support the temporary diaphragm wall.



The site of West Kowloon Terminus Approach Tunnels (North)



Dr Yu Wang presented a souvenir to the Project Engineer, Ms Samantha Roberts

Seminar on Managing Geotechnical Uncertainty into Effective Project Delivery

(24 July 2013)

On 24 July 2013, more than 100 participants attended a technical seminar jointly organized with the Hong Kong Institution of Engineers, Geotechnical Division and Association of Geotechnical and Geoenvironmental Specialists (Hong Kong) at the City University of Hong Kong. The speaker Mr Ray Wood from Fugro Consultants Inc, USA introduced various strategies for reducing the main sources of geotechnical risk and the use of integrated site investigation techniques for proper ground characterization.



One-Day Workshop on Seismic Analysis, Design and Retrofit for Buildings and Infrastructures: From Theory to Practice

(23 August 2013)

On 23 August 2013, more than 125 participants attended a one-day workshop jointly organized with Department of Civil and Environmental Engineering of the Hong Kong Polytechnic University on Seismic Analysis, Design and Retrofit for Buildings and Infrastructures: From Theory to Practice at the Hong Kong Polytechnic University. The main objectives were to (i) introduce fundamental knowledge of earthquakes hazard, ground motions and associated risks, (ii) discuss the geotechnical and structural design considerations, (iii) have better understanding through case studies in infrastructure, building and bridge projects and (iv) introduce latest developments in passive control technology and seismic retrofitting. Lectures on these topics were delivered by eight speakers, including Dr Gang Wang from the Hong Kong University of Science and Technology, Dr Jun Yang from the University of Hong Kong, Dr Chao Li from URS Benaim, Dr Yu Wang from the City University of Hong Kong, Mr Andrew Mole from ARUP, Prof You-lin Xu from the Hong Kong Polytechnic University, Dr Patrick Cheung from ARUP, Dr Goman Ho from ARUP and Dr Jian-guo Dai from the Hong Kong Polytechnic University.



More than 125 participants in the one-day workshop on Seismic Analysis, Design and Retrofit for Buildings and Infrastructures: From Theory to Practice



Dr Yu Wang presented a souvenir to a speaker Dr Goman Ho in the one-day workshop on Seismic Analysis, Design and Retrofit for Buildings and Infrastructures: From Theory to Practice

Technical Visit to Exchange Square Forum Redevelopment

(24 August 2013)

On 24 August 2013, about 20 participants joined the technical visit to Exchange Square Forum Redevelopment. During the visit, the participants visited the 5-storey forum building, which was approximately 35m x 35m on plan and sat on an existing reinforced concrete podium directly above a bus terminus. The cube-shaped building was vertically and laterally supported around its perimeter by an architecturally expressed steel steel diagrid structure. The rotated form resulted in one corner of the cube cantilevering out by 17m, leading to a striking addition to the high-density concrete jungle at Central.



Dr Patrick Cheung presented a souvenir to the senior project manager Mr Sammy Lai



Group photo under the Exchange Square Forum Redevelopment

Student Group Activities

HKUST-ASCE-ISG's Technical Visit to Science and Technology Park, Phase 3

In March 2013, the HKUST-ASCE-ISG organized a technical visit to the construction site of Science and Technology Park, Phase 3. During the visit, Mr George Cheng, a past president of the ASCE Hong Kong Section, introduced the construction phase, environment, materials, machineries and jargons. Also, he introduced the environmental friendly and energy saving technologies incorporated in the project, which had been received various international awards.



Group photo in Science and Technology Park, Phase 3

HKUST-ASCE-ISG's Academic Talk

In April 2013, an alumni of HKUST, Dr Ka Wai Lee delivered an academic talk about his experience of bridge construction around the world. Dr Lee also shared his personal career advices with students in the talk.



Dr Lee in the academic talk

HKUST-ASCE-ISG's Practitioner Mentorship Program

The HKUST-ASCE-ISG launched a Practitioner Mentorship Program that invited experienced practicing engineers to mentor the student members and share their experience with the student members. The mentors this year include Dr Raymond Leung, the founding president of the ASCE Hong Kong Section, Mr George Cheng and Dr Mark Chan, both past president of the ASCE Hong Kong Section. On 19 April 2013, a welcome dinner was organized to introduce the mentors to the student members and kicked off the program.



Group photo in the welcome dinner of Practitioner Mentorship Program

Tongji-ASCE-ISG in the ASCE Mid-Pacific Student Conference and Competition

The ASCE ISG at Tongji University attended the ASCE Mid-Pacific Student Conference and competition in California in April 2013.



ASCE-Tongji-ISG Concrete Canoe Team

More news from us...

- Professor Haibei Xiong from Tongji University received the 2013 ASCE Outstanding Faculty Advisor Award in Region 10.
- ASCE HKUST International Student Group and its faculty advisor Dr Gang Wang received Honorable Mention from ASCE Headquarters.
- The Hong Kong Section is pleased to receive announcement from ASCE Headquarters that Taizhou Bridge, which spans across the Yangtze River and connects several cities in Jiangsu Province, China, was selected as one of the five finalist of ASCE Outstanding Civil Engineering Achievement (OCEA) award in 2013.



Taizhou Bridge

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