Knowledge Transfer with a “SMILE” from SMILE-SMC and SMILE-NET for Construction Industry Development

SMILE-SMC
- developed as a one-stop website for construction organizations
- to improve competitiveness and performance levels
- funded by SME Development Fund
- completed in 2006
http://smile.hku.hk/

SMILE-NET
- 2nd Phase from 2008, through an ‘Academic Industry Partnership’ with China Trend Building Press – updating and disseminating more knowledge through wider networks, including in Mainland China and overseas
http://www.smile-net.hk/

SMILE-NET eBulletin
- circulated every month to 30,000 readers/users
- Also, 78 Contractors and 450 Suppliers have listings in SMILE-NET

Increasing efficiencies and performance levels in Infrastructure Development

CONTRIBUTING TO CONSTRUCTION INDUSTRY DEVELOPMENTS....
... in Infrastructure Project Management; Construction Technologies; Sustaining Built Assets ...
Departmental Events

The 7th International Conference on Tall Buildings

The 7th International Conference on Tall Buildings, which was organised by the Department of Civil Engineering, The University of Hong Kong, was successfully held on October 29-30, 2009 at the Intercontinental Grand Stanford Hotel, Kowloon, Hong Kong. The conference was co-organised by The Hong Kong Institution of Engineers (HKIE) and The Hong Kong Institute of Architects (HKIA). The welcoming speech was delivered by Professor W.C. Chew, Dean of Engineering, The University of Hong Kong, and the opening address was delivered by Professor Patrick Lau, LegCo member (Architectural, Surveying and Planning Functional Constituency). Over 90 technical papers were presented by overseas and local academics, researchers, engineers and architects on the latest development and technology on tall buildings. The conference was well attended by over 200 participants.

The Third Y.K. Cheung Lecture

Professor Lee Seng Lip, Emeritus Professor of Department of Civil Engineering, National University of Singapore, delivered the Third Y.K. Cheung Lecture on November 9, 2009 at the Rayson Huang Theatre, HKU. The title of the Lecture was “Vibration and Performance of a Subway Track System” and the event was well attended by engineers, academics and students. The full paper of the Lecture will be published in the HKIE “Transaction” magazine shortly.

The Y.K. Cheung Lecture was established in 2004 to recognise Professor Y.K. Cheung’s contributions to the engineering profession and education and the Lecture is jointly organised by the Department of Civil Engineering, The University of Hong Kong and the Structural Division of the Hong Kong Institution of Engineers biennially.

The 6th International Symposium on Environmental Anaerobic Technologies

The 6th International Symposium on Environmental Anaerobic Technologies was organised by Professor H.H.P. Fang on November 12-13, 2009. This Symposium was attended by over 220 participants from 12 countries.

Anaerobic processes have the intrinsic advantages of energy saving, sludge reduction, and production of biofuel, and have gradually become the favoured treatment technology for the
sustainable environment for years to come. This is evidenced by the thousands of full-scale installations worldwide in the past decade.

The subjects of this Symposium covered full-scale application experiences and information related to the new development of this technology, including pre-treatment of cellulosic wastes, biogas production, system modelling, two-stage process, molecular technique and granulation. The keynote speech was delivered by Professor Gatze Lettinga, laureate of the Tyler Prize (2007) and Lee Kuan Yew Water Prize (2009).

Croucher Advanced Study Institute

With financial support from The Croucher Foundation, the Advanced Study Institute (ASI) on “Recent Developments in Nearshore Coastal Water Quality Research: Prediction, Hydro-biological Interactions and Management” was successfully organised by the Department of Civil Engineering of The University of Hong Kong during December 14-19, 2009.

The Opening Ceremony of ASI was held on December 14, 2009 at the Wang Gungwu Theatre of Graduate House which commenced with a Welcoming Address by Professor Paul K.H. Tam, Pro-Vice-Chancellor (Research) of HKU. The Opening addresses were delivered by Mr. Peter K.K. Lau, Director of Drainage Services Department of HKSAR and Mr. Elvis W.K. Au, Assistant Director of Environmental Protection Department of HKSAR. The ASI Course Director and Pro-Vice-Chancellor of HKU, Professor J.H.W. Lee, then explained the background leading to the ASI, mentioning also related developments in a Jockey Club funded project to develop a water quality forecasting and management system for Hong Kong.

The ASI was an intensive high level teaching activity which lasted over five and a half days. A number of world leading experts and researchers were invited to give lectures. Most of the lectures were delivered in the morning session, while the afternoon sessions consisted of short presentations and discussions. On the afternoon of December 16, 2009, a field trip was organised to visit Stonecutters Island Sewage Treatment Works, followed by a boat cruise to see selected beaches, a fish culture zone and the Chinese White Dolphin Habitat.
Awards

Dr. R.K.L. Su’s paper entitled “Dynamic internal crack problem of a functionally graded magneto-electro-elastic strip” has recently been awarded the most cited articles published in Elsevier’s International Journal of Solids and Structures between 2004 and 2008.

Dr. R.K.L. Su has been promoted to Associate Professor on tenure terms effective from December 1, 2009. The promotion is a recognition of Dr. Su's accomplishments and hard work over the years.

Dr. Z.Q. Yue was awarded the 2008-2009 Best Peer Reviewer from the Chinese Journal of Rock Mechanics and Engineering.

Dr. X.Y. Li has been promoted to Professor with retrospective effect from July 1, 2009 onwards. This promotion is a recognition of Dr. Li's accomplishments and a reward for his hard work and contributions to the Department over the years.

Best Paper Award at the international conference on “Changing Roles: New Roles, New Challenges”, held from October 5-9, 2009, in Rotterdam, The Netherlands: The HKU led paper on “Super-charging supply chains - through Relational Integration for Overall Value” won this award sponsored by the Facilities Journal published by Emerald Group. The authors were Professor M.M. Kamaraswamy of HKU, Dr. Aaron Anvuur (of UCL, UK) and Dr. Hedley Smyth (of UCL, UK).

A paper co-authored by 3 academic staff members of the Department of Civil Engineering (i.e. J.S. Du, F.T.K. Au, Y.K. Cheung and A.K.H. Kwan, Ductility Analysis of Prestressed Concrete Beams with Unbonded Tendons, Engineering Structures, Volume 30, Issue 1, 13-21, 2008) has won the OVM Paper Award for Prestressing 2009 (Class 1) of China Civil Engineering Society (中國土木工程學會第三屆歐維姆優秀預應力論文獎一等獎).

Activities

Dr. A.T. Yeung delivered his invited lecture “Remediation Technologies for Contaminated Sites” at the International Symposium on Geoenvironmental Engineering, Hangzhou, Zhejiang, China on September 9, 2009.

Dr. A.T. Yeung delivered his invited lecture “Slope Disaster Prevention in Hong Kong: Past, Present and Future” at the 2009 ASCE Taiwan International Group Annual Convention, Hsinchu, Taiwan on November 20, 2009.
Dr. A.T. Yeung (pictured, 2nd row: 2nd from right) attended the American Society of Civil Engineers (ASCE) Region 10 (International Region) Assembly Training Conference in San Jose, Costa Rica, September 28-30, 2009, as a Governor of ASCE Region 10. The delegates were from Australia, Brazil, Chile, Columbia, Costa Rica, Ecuador, Hong Kong, Mexico, Panama, Peru, the Philippines, Taiwan, Thailand, and the United States.

Dr. A.T. Yeung represented the President of the American Society of Civil Engineers to participate in the International Roundtable Discussion on “Long-term Environmental Harmonization Design Concept & Disaster Mitigation” at the Chinese Institute of Civil & Hydraulic Engineering Annual Meeting, Hsinchu, Taiwan on November 20, 2009.

Dr. A.T. Yeung delivered the invited presentation “Ground Investigation, Field Tests and Laboratory Tests – Soil” at the Workshop on Slope Engineering organised by the Geotechnical Division of the Hong Kong Institution of Engineers, December 5, 2009.

Dr. A.T. Yeung hosted the Board of Governors Meeting of the ASCE Region 10 (International Region) in Hong Kong and Macau during January 16-18, 2010. Region 10 is composed of all the International Sections and International Groups of the American Society of Civil Engineers outside the United States. The current Board consists of Mr. Potenciano A. Leoncio, Jr. (Chair) of the Philippines, Dr. A.T. Yeung (Vice Chair) of Hong Kong, Professor Tai Sik Lee of South Korea, Mr. Ronald Hine of Costa Rica, Professor Himansu K. Banerjee of Australia, and Dr. Emmanuel Adeyemo of Nigeria. They are responsible for the overseeing of all the International Sections and International Groups of the American Society of Civil Engineers. Dr. A.T. Yeung was also approved by the nomination committee during the meeting to be official nominee for the position of the International Director and Chair of the Region 10 Board of Governors of ASCE 2010-2013.

A Workshop of the CIB (Conseil Internationale du Batiment) Task Group on ‘Public Private Partnership’ (TG 72) was held on September 14, 2009 at the ‘Global Innovation in Construction’ Conference in Loughborough, UK. It was chaired by Professor M.M. Kumaraswamy and 6 papers were presented, with interesting discussions and a consolidation of emerging PPP themes, as summarised in a post-conference report.

Professor M.M. Kumaraswamy jointly chaired (as Joint Coordinator) the 2nd meeting of the Task Group of CIB TG 72 ‘Public Private Partnership’ - on September 16, 2009, in the last session of the ‘Global Innovation in Construction’ Conference at Loughborough, UK. Future Task Group plans and events were brainstormed and consolidated.

Professor M.M. Kumaraswamy gave a presentation at the 2009 HKCA Conference at the Marriot Hotel, Hong Kong, on alternative contract procurement approaches entitled “Procurement Approaches: Revolving while Evolving?” on October 29, 2009.

Professor M.M. Kumaraswamy presented a Research Seminar at the National University of Singapore, on “Bridging ‘Knowledge Gaps’ in Construction Project Management: in Academic Research; in Industry Development; and between Research and Development”, on February 12, 2010.

Dr. F.T.K. Au presented an invited paper on “Simulation of Vibrations of Ting Kau Bridge due to Vehicular and Environmental Loading” at the 4th International Symposium on Environmental Vibrations: Prediction, Monitoring, Mitigation and Evaluation (ISEV2009), Beijing, China, October 28-30, 2009.

Dr. S.T. Smith (pictured) delivered a Keynote Lecture at the Second Asia-Pacific Conference on FRP in Structures (APFIS 2009) entitled “FRP Anchors: Recent Advances in Research and Understanding”. The conference, of which Dr. Smith was a member of the International Scientific Committee, was held in Seoul, Korea, December 9-11, 2009.

Dr. S.T. Smith delivered an invited lecture at the headquarters of The Hong Kong Institution of Engineers on January 18, 2010 entitled “Recent Advances in the Use of FRP Composites in Civil Infrastructure”.

Hong Kong Science Museum Exhibition

A research project by Professor H.H.P. Fang (pictured, right), Chair of Environmental Engineering, has been in exhibition at the Hong Kong Science Museum since late September 2009 until February 2010. Professor Fang’s project on Biohydrogen Production from Wastewater won the highest votes, among 13 candidates, from the public according a survey conducted by the Hong Kong Science Museum. This is the 15th exhibition of such kind conducted by the Hong Kong Science Museum since 2002, the 6th from HKU, and the 1st from our Faculty. A launching ceremony for the exhibition was held on September 23, 2009. Professor W.C. Chew, Dean of Faculty of Engineering, represented HKU to officiate the ceremony.

RGC – Hong Kong Science Museum Public Lecture

Professor H.H.P. Fang (pictured), Chair of Environmental Engineering, delivered the RGC Public Lecture on September 26, 2009 at the Hong Kong Science Museum. The lecture was jointly organised by the Research Grant Council and the Hong Kong Science Museum hoping to arouse interests and concerns of the general public on Environmental research. The lecture, which attracted about 200 attendants, was followed by a lengthy discussion session. Details may be found from the press release of RGC: http://www.info.gov.hk/gia/general/200909/26/P200909250140.htm.

A 4-day field trip (October 30-November 2, 2009) with 14 HKU members led by Professor H.H.P. Fang was organised with the collaboration of the Pearl River Water Resource Commission to visit the headwater of the West River. This trip was conducted because West River, which is the largest tributary of Pearl River, may become the future water supply resource for Hong Kong as the local demand of water from the East River increases, and yet very little about it is known to Hong Kong.
The objectives of this trip were to investigate the conditions
of the water resources, water quality and ecosystem in the
up-streams and lakes of the West River (including the
Nanpan River, Fuxian Lake, Xingyun Lake and the official
site of the Origin of the West River). Water samples were
collected and brought back to HKU for further analyses.
The 14 member team included Professor Fang, Drs. K.M.
Lam, T. Zhang, K. Shih, J. Chen and K. Wong of the
Department, plus Dr. J.D. Gu of the Science Faculty and 7
postgraduate students.

CICID News – Recent Collaborative Events

November 24, 2009: Knowledge sharing session on Target-Cost
mechanisms and NEC Contracts

Dr. Gangadhar Mahesh gave a presentation on “Selection of Gain /
Pain Share in TC / GMP Contracts” at the invitation of a team from the
Drainage Services Department. Participants from the Architectural
Services Department, Drainage Services Department and Highways
Department, also initiated constructive discussions on various options
and good practices in NEC and other Target Cost contracts.

December 9, 2009: Construction Law Task Force Meeting

CICID hosted Dr. Paul Chynoweth, the Co-ordinator of CIB W113 on “Law
and Dispute Resolution” at The University of Hong Kong. (Note: CIB -
Updates were exchanged on CIB W113, and the affiliated LARC and COPA
Study Groups (established by CICID).

February 22, 2010: ProMaRC Forum II

Professor M.M. Kumaraswamy initiated an inter-University Forum, at the National University of Singapore (NUS)
held on February 22, 2010. This was the second in the series, following the first such forum in August 2008
which led to the formation of ProMaRC – inter-University group
on Project Management Research Collaboration. ProMaRC
Forum II mobilised a total of 24 participants – including a total of
16 from 3 Universities (NUS, HKU and University of Technology,
Malaysia) who got together at NUS. Web-conferencing
arrangements enabled 3 others to join from UK, and 5 more to
join from HKU.
Dr. J.C.M. Ho was appointed as one of the editors of the Transactions of the Hong Kong Institution of Engineers for a period of three years starting from August 2009.

Dr. F.T.K. Au was nominated by the Hong Kong Institution of Engineers to serve on the 7-member Jury in the event entitled “My Vision of Cross Bay Link - Design Ideas Invitation Event” organised by the Civil Engineering and Development Department of the Government in September 2009.

Dr. W.Y. Szeto (pictured), BEng, MPhil, PhD, MIEI, MIEEE, MHKSTS, MCIHT, CMILT joined the Department as Assistant Professor in December 2009. He obtained his BEng, MPhil, and PhD degrees at the Hong Kong University of Science and Technology in 1998, 2000, and 2003, respectively. He was Lecturer in Transportation Engineering at Trinity College Dublin, and Assistant Professor at the National University of Singapore. He has been awarded the World Conference on Transport Research Prize (2001), the Eastern Asia Society for Transportation Studies Outstanding Paper Award (2003), the Hong Kong Society for Transportation Studies Outstanding Student Paper Award (2003), the Hong Kong Society for Transportation Studies Outstanding Dissertation Paper Award and the Gordon Newell Memorial Prize (2005), and the Hong Kong Institution of Engineers Outstanding Paper Award for Young Engineers/Researchers (2008). His research interests include intelligent transport systems, dynamic traffic assignment, network design, road pricing, network reliability, game theory, transport logistics, meta-heuristics, and landuse-transport-environment.

Dr. J. Yang has been appointed as Guest Professor of the East China Jiao-Tong University.

Dr. B. Young (pictured, right) has been appointed as adjunct Professor by Zhejiang University in December 2009.

Dr. A.T. Yeung was appointed to be a member of the Education and Examinations Committee of the Hong Kong Institution of Engineers 2009-2010.

Dr. A.T. Yeung was appointed by the Director of Buildings of the Hong Kong SAR Government to be a member of the Geotechnical Engineers Registration Committee Panel and an alternate member of the Geotechnical Engineers Registration Committee for a period of two years commencing January 2, 2010.

Professor J.H.W. Lee has been appointed by the HKSAR Government as a member of the Construction Industry Council from February 2010 to January 2012.

Mr. Kwok Bing Cheung (pictured, left) received the HKU Long Service Award at the Presentation Ceremony held in Loke Yew Hall on February 25, 2010. Mr. Kwok has served the University for 25 years.
Fellowships

Under the auspices of the William Mong Visiting Research Fellowship in Engineering of the Faculty of Engineering,

- Dr. Mahmud Ashraf, The University of Queensland, Australia, visited the Department from December 5-19, 2009. His seminar entitled “Strain Based Structural Design Approach for Metallic Materials” was delivered on December 15, 2009.

- Dr. Anthony Chen, Utah State University, U.S.A., visited the Department from December 9-22, 2009. His seminar entitled “Network Design under Uncertainty” was delivered on December 16, 2009.

Student Awards / Activities

Awards

Mr. Chan Chun Wing (pictured, 2009 graduate) was awarded:
- Best Student Award 2008-09 by HKIE Joint Structural Division
- Hong Kong University Alumni Prize 2008-09
- Hui Yin Hing Scholarship 2008-09
- Tai Tung-Ngok Prize in Civil Engineering 2008-09
- The Tang Essay Prize 2008-09
- Best Student Award 2008-10 by HKIE Geotechnical Division

Mr. Guan Xianzhang (pictured, 2009 graduate) was awarded:
- Chow Che King Prize 2008-09
- Civil Project Prize 2008-09
- Wing Lung Bank Limited Prize in Civil Engineering 2008-09

Mr. Fung Ching Cheung (pictured, 2009 graduate) was awarded the Environmental Engineering Prize 2008-09.

Mr. Li Mengyu (Year 3 BEng student) was awarded the Edward Keller Achievement Award in Civil Engineering 2008-09.

Miss Tam Lindy Lam (Year 3 MSc student) was awarded the Madam Ng Man Ching Prize 2008-09.

Mr. Yin Ka Yau (Year 2 BEng student) was awarded the Walter Brown Memorial Prizes in Mathematics 2008-09.

Mr. Leung (right) receiving his award from the Chairman of HKIE Geotechnical Division, Ir WK Pun

Mr. Leung Kin Kei (2009 graduate) received the Best Final-year Geotechnical Project Award 2009-2010 from HKIE Geotechnical Division for the project entitled “Analysis of Piled Raft Foundations” (supervisor: Dr. J. Yang). The award was presented at the HKIE Geotechnical Division Annual Dinner which was held on March 19, 2010.
Mr. Cheung Hang Shan (pictured, 2005 graduate) won The Cass Hayward Prize for the highest standard in the bridge question at the IStructE examinations 2009. After graduating from The University of Hong Kong, he joined Dragages Hong Kong Ltd. as a Graduate Engineer working on construction of the East Tsing Yi Viaduct. Currently he is seconded to a consultancy firm for 1 year to gain design experience, working as a design engineer for tendering various civil and building projects.

Mr. Tsang Chi Keung (pictured, 2008 graduate) was awarded the Gammon Construction Limited Prize in Civil Engineering 2008-09.

Miss Su Meini (pictured, Year 3 BEng student) was awarded the CL Tse Prize in Civil Engineering 2008-09.

Miss Pelin Ikiz (pictured, Year 3 BEng student) was awarded the HK Cheng Prize in Civil Engineering 2008-09.

Mr. Tang On (pictured, Year 2 BEng student) was awarded the Young Tsun Dart Scholarships 2008-09.

Dr. J.Y.K. Lam (right) receiving his award from the HKIE president, Ir Dr. Andrew K.C. Chan.

Authors of the paper from left to right: Ir Dr. J.C.M. Ho, Dr. J.Y.K. Lam and Professor A.K.H. Kwan

Dr. J.Y.K. Lam, former PhD student of Professor A.K.H. Kwan, was awarded The HKIE Outstanding Paper Award for Young Engineers/Researchers 2009 by The Hong Kong Institution of Engineers (HKIE) for the paper entitled “Minimum flexural ductility of high-strength concrete columns”. The prize presentation was held at the HKIE presidential address dinner on September 15, 2009. The details of the paper are: Lam J.Y.K., Ho J.C.M. and Kwan A.K.H. (2009), “Minimum flexural ductility of high-strength concrete columns”, Transactions of the Hong Kong Institution of Engineers, Vol. 16, No. 4, pp. 1-8.

Activities

Miss Gu Yingying (PhD student), under the supervision of Dr. A.T. Yeung, presented the paper “EDTA-enhanced electrokinetic extraction of cadmium from a natural clay of high buffer capacity” at the International Symposium on Geoenvironmental Engineering, Hangzhou, Zhejiang, September 9, 2009.

A Site Visit to Rubber Foundations for Earthquake

A group of 12 civil engineering students and 6 architectural students spent their last Christmas holidays at Sichuan for reconstruction of a kindergarten. They worked with local engineers on detailed designs of the project. They had also a visit to a site of a new hospital building on rubber foundations. The students experienced first hand the floating of a building on rubber pads which can isolate the building from strong vibrations during earthquakes.

This interesting site was introduced by Ir Victor Lo of the Development Bureau of HKSAR responsible for Sichuan Reconstruction and our students’ participation into the reconstruction was supported by the Lee Hysan Foundation.
Looking Back...

Reminiscing about the Department of Civil Engineering
By Professor J.H.W. Lee

Centre of High Building Research,
Cape D’Aguilar, Hong Kong, 1969

Our department pioneered full scale wind engineering research as far back as 1969. The experimental wind research station at Cape D’Aguilar consisted of towers to measure wind speeds and profiles, and a full-scale steel framed building to study the response of the structure under typhoon action. This research had put Hong Kong on the international map as a centre for the study of wind effects on structures, and was incorporated in the Hong Kong wind code for building design.
Announcements and Upcoming Events

APAC 2011

The 6th International Conference on Asian and Pacific Coasts (APAC 2011) has been tentatively scheduled for December 14-16, 2011. The event will be organised by Professor J.H.W. Lee of the Department of Civil Engineering, The University of Hong Kong and supported by the Local Organising Committee consisting of members from sister universities and government departments. The aim of APAC is to promote technological progress and activities, information exchange and cooperation. It is also a platform for engineers and researchers to keep abreast of the scientific and technological advances in development of coastal, port, and ocean engineering and other related fields.

Professor J.H.W. Lee (left), Chairman of APAC 2011 and Professor S.K. Tan, Chairman of APAC 2009 at the Handover Ceremony

Newsletter by Email

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