STAFF AWARDS/ACTIVITIES

Recent Awards

- Professor S.H. Lo has been awarded a Croucher Senior Research Fellowship for 2004-05. The reward allows Professor Lo to find a replacement teacher and concentrate on his current research on high-performance solid hexahedral elements and finite element mesh generation for the next academic year.
- Professor C.F. Lee was elected an Academician of the Chinese Academy of Engineering in 2004.
- Long Term Service Award for 25 years of service in the University was given in January 2004 to our Senior Technician, Mr. Tong Chak Hong (left) and for 15 years of service to our Office Assistant Ms. Sin Po Ying.
- Professor Y.K. Cheung was elected Honorary Fellow of the Hong Kong Association for the Advancement of Science and Technology on February 27, 2004. He was also awarded the first Gold Medal of the Hong Kong Institution of Engineers (HKIE) at the HKIE 29th Annual Dinner on March 9, 2004 (left). The latter award is in recognition of his outstanding contributions and achievements in the engineering profession, in particular for the development and application of finite elements and finite strip elements for solving engineering problems.

Activities

- Professor Joseph H.W. Lee gave an invited lecture at the Workshop on real-time coastal observing systems for ecosystem dynamics and harmful algal blooms (HABWATCH), Observatoire Oceanoligique, Villefranche-sur-Mer, France (GeoHab and IOC sponsored), June 10-22, 2003.
- Professor Joseph H.W. Lee was elected Chairman of the Asia-Pacific Division of the International Association of Hydraulic Engineering and Research (IAHR) in September 2003.
- Professor Joseph H.W. Lee has recently been invited, as a member of an International Review Panel, to review the final project presentation and report of the European Union Harmful Algal Bloom Expert System (HABES) project held at the Institut de Ciencies del Mar (ICM-CSIC), Barcelona, Spain, November 14, 2003. Led by Delft Hydraulics, the HABES project is a EU2.3 Million inter-disciplinary group research project with 13 partners from 12 countries aimed to carry out pioneering research on the hydro-biological factors that govern the dynamics of harmful algal blooms.
- Professor R.E. Allsop of University College London, U.K. (below) and Professor K.Y. Lo of the University of Western Ontario, Canada (left) visited the Department under the auspices of the Faculty of Engineering’s William Mong Distinguished Lecture in Engineering and Computer Science. Professor Lo’s lecture entitled "The Role of Cohesion in the Stability Evaluation of Concrete Dams on Rock Foundations" was held on November 13, 2003, and Professor Allsop’s lecture entitled “Science-led Strategy for Systematically Safer Use of the Roads for the Common Good” was held on December 9, 2003.
- Professor Joseph H.W. Lee was a keynote speaker at the International Conference on the “Solutions of water shortage and instream flow problems in Asia”, Incheon Regional Environmental Technology Development Center, University of Incheon, Korea, November 17-19, 2003.
- Professor Joseph H.W. Lee visited IIT Bombay in January 2004 as a guest of the Indian Institute of Technology and delivered a series of lectures at IIT, at the key government hydraulic institute the Central Water and Power Research Station (CWPRS) at Pune, and at the National Fisheries University in Mumbai, India.
- Professor Joseph H.W. Lee is one of the four key task leaders in the Area of Excellence (AoE) in Marine Environmental Research and Innovative Technology (MERIT), one of only two AoEs awarded by the UGC in January 2004.
- The Department’s Advisory Committee meeting was held on February 6, 2004 with both Department staff and external members from Government departments and industry. Professor L.A. Clark of The University of Birmingham, U.K., and Professor H.Y. Ko of the University of Colorado, U.S.A., were invited to review the Bachelor of Engineering Degree curriculum and met with staff, students and alumni of the Department.
- Professor Graeme Dandy of the University of Adelaide, Australia visited between February 13-23, 2004 under the auspices of the Environmental Hydraulics Visiting Fellowship. He delivered

◆ **International Conference on Slope Engineering, December 8-10, 2003**

The International Conference on Slope Engineering organised by the Department was held from December 8-10, 2003 in Hong Kong. The Conference attracted over 200 participants from all over the world. In total, 141 full papers were published in the Conference proceedings. There were 137 oral presentations and 4 keynote lectures.

The keynote lectures were delivered by Professor M.D. Bolton (left) of Cambridge University, U.K., Mr. R.K.S. Chan of the Geotechnical Engineering Office of the Government of HKSAR, Professor K. Sassa of Kyoto University, Japan and Professor R.L. Schuster of the U.S. Geological Survey, U.S.A.

The conference was financially sponsored by The Croucher Foundation and K.C. Wong Education Foundation, and supported by seed money from the William M.W. Mong Engineering Research Fund of The University of Hong Kong.

◆ **HK-Mainland China Geotechnical Lecture Series No. 8**

The 8th Lecture Series was successfully held from December 14-20, 2003 at HKU, HKIE and GEO.

The speakers were Professor Bian Zhaoqing (right) of Beijing Institute of Coal Engineering (北京煤炭設計研究院) and Professor Zhang Zaiming (左) of Beijing Geotechnical Institute (北京勘察設計研究院).

Professor Bian’s lecture topics included Codes and Standards in Geotechnical Engineering of Mainland China (關於中國岩土工程標準), and Professor Zhang’s lecture topics included Registration of Geotechnical Engineers in Mainland China (我國註冊岩土工程師 (岩土) 執業制度).

This was the last of the Lecture Series that has been financially supported by The Hong Kong Jockey Club Charities Trust.

◆ **News from CICID (Centre for Infrastructure and Construction Industry Development)**

**SMILE – SMC project**

SMILE – SMC (Strategic Management with Information Leveraged Excellence for Small and Medium Contractors) is a far-reaching and innovative RD&D (Research, Development and Dissemination) project that focuses on developing a suite of ICT-aided tools for the up-grading of Small and Medium Contractors (SMCs) who are said to form the ‘back-bone’ of the construction industry. The increasingly critical information flows and communication needs across complex supply chain networks demand smart support systems to ensure that the right people get the right information in the right doses at the right times. Secondly, knowledge management (KM) systems can enable the capture, consolidation and development of valuable experiential knowledge, that would otherwise disappear after each project.

The two-year SMILE-SMC project that commenced in November 2003, therefore aims to empower the continuous improvement of SMCs by providing a SMC-friendly framework and innovative ICT and KM tools for continuous improvement in boosting productivity, quality and company image, through strategic information and knowledge management. It is funded by a HK$ 2 million grant from the SME Development Fund of the Hong Kong SAR Government, supplemented by HK$ 400,000 from the Faculties of Engineering and Architecture, as well as by significant in-kind contributions from an expanding cluster of motivated ‘Partner Contractors’. It may be mentioned that HK$ 2 million is the maximum that may be granted to one project from this Fund, and the SMILE-SMC grant was the highest of the 14 grants that were awarded in the 2nd tranche, these 14 projects having been selected from 108 applications in that round.

The inter-disciplinary SMILE team, led by Dr. Mohan Kumaraswamy and Dr. Thomas Ng, includes colleagues from four Departments (including Civil Engineering) and the eBusiness Technology Institute; and is supported by many leading local bodies such as the Provisional Construction Industry Co-ordination Board, HK Contractors’ Association, Construction Industry Training Authority and the HK Federation of Electrical and Mechanical Contractors, as well as five overseas Universities with similar interests and experience.
The pilot ‘needs analysis’ survey has been completed and the second stage is focusing on modeling workflows and information flows at sites and offices of typical SMCs, in order to identify critical elements for improvement. These initial needs will be addressed through both web-based and mobile communication based SMILE systems - that will provide platforms and tools for (a) boosting business opportunities e.g. through an information ‘library’ and an ‘inter-organisational information exchange’, (b) enhancing productivity and quality e.g. through more efficient communications and intra-organisational knowledge management tools. Given the target group, functionality and usability aspects will be assigned high priority in the system design and development. System continuity and continuous development beyond the funding period is planned through the Centre for Infrastructure and Construction Industry Development.

Pilot Study on the Effectiveness of ISO9000-based Quality Management Systems

ISO9000-based Quality Management Systems have been maintained by many construction contractors in Hong Kong for almost a decade. However, the usefulness of ISO9000 in improving the quality of construction projects is still a much debated topic in practice. Recently, the Hong Kong Quality Assurance Agency (HKQAA) commissioned the Department’s Centre for Infrastructure and Construction Industry Development (CICID) to conduct an independent pilot study to examine the effectiveness of ISO9000 in improving the quality of building construction projects in Hong Kong. The research team being led by Dr. Thomas Ng and Dr. Mohan Kumaraswamy, is conducting cross-sectional studies with clients, project supervisory personnel, contractors and end-users to unveil the benefits and costs attributable to the implementation of ISO9000:1994 certified systems. Interesting observations are being derived and analysed. Further data is being collected for analysis and consolidation in a Final Report to the HKQAA in April 2004.

Research Highlight

This is the first of a series of articles given by researchers in Water Environment Engineering.

Dynamics of algal blooms and red tides in sub-tropical coastal waters - monitoring, modelling, and prediction

This project which started in 1998 is being supported by the Research Grants Council (RGC) Central Allocation Group and is led by Professor Joseph H.W. Lee. Other investigators from the Department are Dr. A.W. Jayawardena, Dr. A. Koenig and Dr. X.Y. Li.

In sub-tropical coastal waters around Hong Kong and South China, algal blooms and red tides (due to the rapid growth of microscopic phytoplankton) are often observed. Under the right environmental conditions, these blooms can occur and subside over rather short time scales - in the order of days to a few weeks. Algal blooms can lead to discoloration of the marine water, which may lead to beach closures, severe dissolved oxygen depletion, fish kills, and shellfish poisoning. In particular, in April 1998, a devastating red tide resulted in the worst fish kill in Hong Kong’s history - it destroyed over 80 percent (3400 tonnes) of cultured fish stock, with estimated loss of more than HK$312 million.
Activities

◆ Scholarship Presentation Ceremony 2003-04

The Scholarship Presentation Ceremony was held on February 2, 2004 and was attended by recipients, donors and Department staff. The total amount of scholarship support received this year was HK$326,000. There were a total of 19 recipients including 9 first year, 4 second year, and 4 final year B.Eng. students and 2 M.Sc. students. The Vice-Chancellor, Professor Lap-Chee Tsui presented souvenirs to sponsors thanking them for their generosity and for their continuing support to the Department and to our students.

◆ Inter-University Invitational Civil Engineering Competition, January 13-20, 2004, Macau

WE Did It!
[Experience Sharing on the Inter-University Invitational Civil Engineering Competition by Miss Yip Mei Ki (Year 2)]

The Inter-University Invitational Civil Engineering Competition 2004 was held at the University of Macau from January 13-20, 2004. Participating institutions included Hanyang University (Korea), Siam University (Thailand), the National University of Singapore (Singapore), Tsinghua University (China), Tongji University (China), the University of Macau (China) and The University of Hong Kong (HKSAR). There were a total of 20 teams competing in the competition which comprised a model fabrication contest, an environmental engineering competition and two brain twister games. The competition not only tested the participants’ civil engineering knowledge, but also their communication and presentation skills, their ability to tackle off-hand problems and their ability to cooperate within the team.

It was indeed a privilege to be one of the selected participants representing HKU. Before we set off for the competition, we already told ourselves that it was not the medals that mattered. We were in fact looking for an extra-curricula opportunity to observe and learn. I must say that this goal was achieved throughout the competition. We witnessed how each team interpreted the problems differently, and how they presented their brilliant ideas to the audience. The competition was also a cultural enriching experience. We were mesmerized by the unique artwork displayed by the Thai teams, the bilingual proficiency of the Singaporeans and the hospitality of the Koreans. We also enjoyed some good time interacting with our “comrades” from the Mainland. All in all it was truly a rewarding experience.

To me, the most unexpected and spectacular moment during the competition was when the MC announced that we the HKU team had won both the championship and the award of excellent performance in the environmental engineering

◆ Summer Industrial Training 2003

In the summer of 2003 a total of 140 placements were secured for all year 2 students and also some year 1 students. Other than placements in Hong Kong and the Yangtze Three Gorges Project Site, it was the first year that training extended to Beijing and Shenzhen. 15 students undertook on-the-job training in the Mainland and it was a very fruitful and rewarding experience for them all. The students not only gained invaluable practical experience, but it was also a perfect opportunity for them to improve their putonghua skills! Consequently, a brochure (in Chinese) was produced based on the student’s reports outlining their experiences up north. Please contact the Department if you wish to obtain a copy of the brochure. If you are interested in providing placements locally and/or donations to financially support our students to take up training opportunities in China, you are kindly requested to contact the Training Manager, Dr. D.J. Guo on 2859 2286/1978 or email: dguo@hkucc.hku.hk.
competition. The golden trophies we brought back from Macau were monuments of our hard work and our ability to excel. As a matter of fact, without the help of our advisor Dr. Ray Su and the continuous support from our Department, it would not have been possible. We would like to take this opportunity to express our deepest gratitude towards those who contributed to our participation in the competition - bravo!

**New Double Degree Programme**

A new double degree programme leading to the award of Bachelor of Engineering in Civil Engineering (Law) and Bachelor of Laws will commence in September 2004. The five-year programme aims to prepare undergraduates with a solid foundation in both civil engineering and law and will be the first double degree of its kind in Hong Kong. The goals of the programme are to nurture (i) ‘legally sensitive’ civil engineering professionals and/or (ii) legal practitioners with civil engineering expertise. Students will also have an option to pursue a further one-year law degree at Tsinghua University which will enable graduates to sit for the China Bar Examination, leading to a legal qualification in China. For full details, please visit our website at http://www.hku.hk/civil/underg_law.html.

**Mr. Chan Chi (Year 3 exchange student)**

Mr. Chan writes from Berkeley:

I joined the HKU Worldwide Exchange Program at the University of California Berkeley for 2003-04. There were quite a lot of interesting things happening in California. To mention some of them: the election of the new Californian Governor (Arnold S), the first earthquake I had ever experienced, the large-scale strike of the graduate students’ union which suspended many discussion sections in UC Berkeley, and the long queue outside San Francisco’s City Hall for same-sex marriage registration.

It is very competitive studying in UC Berkeley. Students are very concerned about their GPA. Most students want to get a high GPA to go to the Graduate School. Some of my friends dropped their courses after the first month because they got a B in the mid term exam! The workload is really very heavy. We have assignments every week and there is a lot of reading to do.

Being the best engineering school and public college in the country, students are really proud of themselves. They have a strong spirit, which is shown in sports competition. Like the inter-hall competition in HKU, college sports play an important role in university life. I still remember how crazy we were cheering up Cal in the Big Game of College Football match against our rivals, Stanford. Not only the university, but also the whole community is involved in the game.

I also attended a panel, which invited alumni of UC Berkeley to share their experience with fellow students. It seems that the questions from the students and responses from the engineers are quite similar to those in HK. I also attended a seminar about the professional examination for engineers. They were discussing whether a masters degree would be a requirement for PE examination. It is interesting to see the same situation in both HK and the US.

Despite the heavy workload, the content of the courses in UC Berkeley is not so difficult. They expect graduate courses would cover more detail. The requirement of HKU is rather comprehensive because at Berkeley they don’t require students to do undergraduate research. There are no lecture notes in most courses and students need to copy notes from the blackboard. Overall, I feel very lucky studying in HKU as we have all kinds of resources and academic support.

**Awards**

- Six of our Year I students; Miss Carrie Cheung, Miss Fong Hau Yin, Fiona, Miss Kwan Man Wai, Mr. Wong Ho Chuen, Mr. Wong Siu Wai, Patrick and Mr. Yeung Kai Sing were awarded the HKIE Prize for Potential Engineering Students at the HKIE Prize Presentation Ceremony held on December 17, 2003. The prize was introduced to identify and recognise those potential engineering students with excellent scholastic achievements; to encourage them to select engineering as their undergraduate degree; and to promote the HKIE and engineering profession to local secondary school students.

- Miss Lau Shuk Lei, our 2003 graduate was among four students to be awarded the Arup Best Student Award by the Joint Structural Division of HKIE and IStructE for excellent overall academic results during the whole course of their study; and demonstrated high level of competence in structural engineering in examinations, design projects, individual projects or final year dissertation, as appropriate.
Mr. Leung Ming Wai (right) our Year I student was awarded the HKIE Prize for Higher Education Students at the HKIE Prize Presentation Ceremony held on December 17, 2003. The prize was introduced to recognise the Higher Diploma/Higher Certificate engineering students with excellent academic achievements; to encourage them to pursue their careers in the engineering profession; to promote the HKIE to students studying Higher Education; and to encourage aspiring engineers to participate actively in HKIE’s activities.

Miss Law Hoi Chee, Rachel, our 2001 graduate currently working in the Geotechnical Engineering Office of the Civil Engineering Department of the HKSAR Government obtained 3rd Prize for the Trainee of the Year Award at the HKIE Prize Presentation Ceremony held on December 17, 2003.

Our Laboratory of Environmental Hydraulics has been selected by The Croucher Foundation to be named after the late Mr. Noel Croucher. The Naming Ceremony will take place on April 2, 2004.

The Third Lumb Lecture entitled “Geotechnical Challenges in Hydropower Development in China” will be delivered by Professor C.F. Lee, Pro-Vice Chancellor of HKU on October 6, 2004 at the Hong Kong Convention and Exhibition Centre, Hong Kong. Admission is free and no registration is required. For more details visit: http://www.hku.hk/civil/lumb_lecture or email: lumb@hkucc.hku.hk.

The 4th International Symposium on Environmental Hydraulics & 14th Congress of the Asia Pacific Division of the International Association on Hydraulic Engineering and Research (IAHR) will be held between December 15-18, 2004 at the Sheraton Hotel, Kowloon. For more details visit: http://www.hku.hk/civil/conference/iseh&iahr-apd2004 or email: iseh4@hkucc.hku.hk.

Note from the Editor:
In the March - August 2003 edition of the Newsletter, we wrote that “Mr. Johnny Ho Chi Ming” received the Sir Edward Youde Memorial Fellowship 2002-03. Please note that his name should be Mr. Johnny Ho Ching Ming. We apologise for the error.

Newsletter by Email
To view a soft version of this Newsletter, please visit our Department website on http://www.hku.hk/civil, or if you prefer to receive a soft version of this Newsletter by email, please send notification to civdept@hkucc.hku.hk.