Driving simulator provides scenario control and ethical management of risk to support research on driving performance, road safety, road infrastructure design, and driving impairment.
Mr. Eric Ma Siu Cheung, J.P.,
Under Secretary for Development,
Development Bureau, HKSAR

Mr. Ma was appointed as the Under Secretary for Development of the Hong Kong SAR Government in January 2014. He is an engineer by profession with over 25 years of experience in the construction industry. Before joining the Government, he held a number of senior positions in major consulting firms and contributed to the planning and implementation of various development projects in Hong Kong. He joined Maunsell Consultants Asia Ltd in 2001 and was promoted to the post of Managing Director in 2007, responsible for major development projects in Hong Kong. In 2010, he was tasked by AECOM with expanding its overseas business in Asia and was promoted to Executive Vice President, responsible for Civil and Infrastructure Business in the Asia-Pacific Region.

Mr. Ma is a fellow member of a number of professional bodies including the Hong Kong Institution of Engineers, the Chartered Institution of Highways and Transportation, and the Institution of Structural Engineers, United Kingdom. He is the former Chairman of Hong Kong Branch of the Chartered Institution of Highways and Transportation.

Mr. Ma graduated with a first class honours degree in civil engineering from The University of Hong Kong (HKU) in 1986. He then pursued a master degree in Engineering Science (Transportation) at Monash University, Australia.

1. What are some of your highlights during your career development?

There are a number of highlights, or interesting turning points, throughout my career. The very first one was as early as my admission to HKU. In fact, I just managed to pursue a diploma course at Hong Kong Polytechnic after Form 5. I felt very lucky to be admitted to HKU despite missing my A-levels. After graduating from HKU, I received a three-year rigorous training programme in the Government, which built a very solid foundation for my career. After completing the training, I decided to leave the Government to explore new opportunities in the construction industry. Working in the private practice was much more demanding and challenging but it offered greater exposure from small housing projects to large scale infrastructure projects. It is most important for graduates to equip themselves and be prepared for any opportunity which may come unexpectedly. Soon after I became a chartered engineer and joined Black & Veatch (BV), I was put in charge of a medium-size project involving the construction of a 2 km long highway and worked independently leading a multi-disciplinary project team. My experience continued to build up, and I took on the management of a multi-billion new town project. After working in BV for 10 years, I moved on to Maunsell to pursue opportunities to work on mega scale infrastructure projects. Joining a new company and working with new people would inevitably involve uncertainties and risks. But I believe moving out of your comfort zone is sometimes necessary for career advancement. After working for 6 years in Maunsell, I became the Managing Director and started expanding business to overseas markets. I then acquired valuable exposure to other Asian countries including Malaysia, Singapore, Mainland China, Taiwan, Brunei and Sri Lanka. Through working under different cultural and political landscapes, I developed much stronger skills in management and business skills. Winning a project is always challenging as you have to convince your client in an hour or so and sell your company’s capabilities on papers only.

2. What is the biggest challenge you have encountered so far and how you overcome it?

One of the biggest challenges that I have encountered was when I was working in Manusell around 2002. I was responsible for developing the infrastructure for Hong Kong Disneyland, which should be relatively straightforward. However, during the work progress, a substantial quantity of dioxin, a carcinogenic contaminant, was found at the site of the former Cheoy Lee Shipyard, which was a critical area for the Disney project. The project schedule was very tight. So I was under tremendous pressure to identify and formulate a technically feasible solution to address the contamination without affecting the project schedule. I also needed to convince and obtain approvals from the client, the Environmental Protection Department, the Legislative Council and the public on the viability of the proposal. With concerned efforts of the team, I eventually managed to de-contaminate the site and completed the construction on schedule without affecting the opening of the Disney Theme Park. The keys to this success, I believe, were communication and leadership skills in motivating and engaging a large multi-disciplinary team to explore innovative solutions and to work around the clock hitting all milestones timely.

3. Which aspect of HKU training or experience you would recommend the current students to take more advantage of?

HKU overall provides a good learning platform for its students. I would first recommend students to make use of the opportunities to enhance their international exposure
and cultural awareness, e.g., interacting with international students on campus and participating in international student exchange programmes. It is also important for students to develop critical thinking skills and to nurture their skills of analysis and evaluation, and to present their own reasoning. Such skills can be developed through taking part in different extra-curricular activities such as activities organised by the halls, student unions, interest clubs, or social services. Through these activities, they can also develop their leadership and presentation skills which are very crucial for their future career. I would also strongly advise students not to focus only on studying since they are already academically well-equipped after years of intensive training in secondary school. Apart from academic studies, they should deepen understandings of their fields through seminars, visits to construction sites and factories, etc. They should also try to broaden their knowledge on other subjects, even in social science and public affairs.

4. Where do you see the greatest opportunity going forward in the construction industry?

Overall speaking, I think the construction industry will continue to boom into the next decade. The Hong Kong SAR Government has committed different infrastructure initiatives for meeting the needs for land supply, housing and transportation projects, etc. However, every industry has its economic cycle. Engineers should prepare themselves for possible economic downturns in the cycle and seize every development opportunity, even those outside Hong Kong.

5. What advice do you have for young alumni beginning their careers in the construction industry?

The first few years after graduation are in fact the golden time for graduates to learn. I would strongly recommend young graduates to make good use of this training period to learn as much as they can. They should develop their interests in the work and be passionate. They should also be patient as I believe opportunity comes to those who are prepared. They should equip themselves for these opportunities. Finally, I would suggest them to seize overseas development opportunities like those in Mainland China and SE Asia. It is important to develop global perspectives and exposure because the world is interconnected. Asia would lead the economic growth globally in the next few decades and great opportunities are there.

6. What made you decide to leave the industry and join the Government?

After working in different countries to facilitate their developments, it came a time that I wondered how I could contribute to my hometown Hong Kong, and help it meet the challenges such as those on land development. A book entitled “Halftime: Moving from Success to Significance” I was reading at that time further re-affirmed my intention to move my career back to Hong Kong. Around the same time, Paul Chan, the Secretary for Development, invited me to take up this challenging position as the Under Secretary. I found the opportunity very meaningful as I could also make use of my experience for the benefit of Hong Kong. It was under such circumstances that I decided to join the Government.

Departmental Events

Scholarship Presentation Ceremony 2013-14

The Scholarship Presentation Ceremony for 2013-14 was held on March 24, 2014 in Convocation Room, HKU and the event was attended by recipients, parents, donors and teaching staff. There were a total of 17 recipients including B.Eng. and M.Sc. students. The Guest of Honour, Ir Wai Chi Sing, Permanent Secretary for Development (Works), delivered a speech and presented souvenirs to sponsors thanking them for their generosity in offering contributions to the cause of academic excellence. It was a chance not only for the students to thank their donors personally, but also for them to interact and exchange with prominent engineers from the industry.

Visit of South China University of Technology

South China University of Technology (SCUT) representatives presented a souvenir to Head of Department.
A delegation (3 Vice Deans and 15 students) from South China University of Technology (SCUT), Guangzhou, China visited our Department on March 3 and 4, 2014 to discuss and deepen research collaboration with us in the area of structural and transportation engineering. During the visit, both postgraduate students of SCUT and HKU made 3-minute presentation session on their research.

Visit of the President and Vice-Chancellor

Professor Peter Mathieson, President and Vice-Chancellor, visited our Department on May 15, 2014.

Dr. K. Shih (left) received the 2013 Outstanding Teaching Award from Professor Amy Tsui (Pro-Vice-Chancellor, middle) and Sir David Li (Pro-Chancellor, right) on March 26, 2014 at Loke Yew Hall.

Staff Award / Activities / News

Award

Dr. K. Shih (left) received the 2013 Outstanding Teaching Award from Professor Amy Tsui (Pro-Vice-Chancellor, middle) and Sir David Li (Pro-Chancellor, right) on March 26, 2014 at Loke Yew Hall.

Dr. C.Y. Tang delivered the following invited lectures/seminars:

Activities

Dr. C.Y. Tang delivered the following invited lectures/seminars:

• “An introduction to forward osmosis and pressure retarded osmosis”, Workshop on Forward Osmosis, July 2, 2014, Technical University of Delft, the Netherlands.
• “A journey in membrane research”, June 17, 2014, the University of Toulouse, Toulouse, France.
• “Salinity gradient power - a new green energy from the ocean”, April 18, 2014, Guangzhou Institute of Geochemistry, Chinese Academy of Sciences, Guangzhou, China.

Dr. J. Yang was one of three invited speakers at the 3rd International Workshop on Holistic Simulation of Geotechnical Installation Processes held in Karlsruhe, Germany on March 6-7, 2014. His talk was entitled “Liquefaction behavior of sand under non-symmetrical cyclic loading conditions”. The workshop covered a number of frontier topics in geotechnical simulation and modeling. The other invited speakers were Dr. Andrew Whittle, Edmund K. Turner Professor of MIT and former Head of Department of Civil and Environmental Engineering, and Dr. Kjell Karlsrud, technical director of Norwegian Geotechnical Institute, a world leading research and consulting organization in geotechnical engineering. Dr. J. Yang was one of invited speakers at the International Workshop on Wave Propagation and Soil Stiffness in the University of Bristol on March 20-21, 2014. His talk was entitled “Shear
stiffness of granular material at small strains: does it depend on grain size?" The workshop was held under the auspices of two technical committees of the International Society of Soil Mechanics and Geotechnical Engineering and was participated by a number of renowned researchers in the area.

- gave an invited keynote lecture entitled "Liquefaction behavior of sand: some recent findings" at the 16th Taiwan-Japan Joint Student Seminar on Earthquake Engineering at the National Central University, Taiwan on March 10-11, 2014.
- was invited to co-chair a technical session with Professor P-Y. Hicher of Ecole Centrale Nantes, France at the 10th International Workshop on Bifurcation and Degradation in Geomaterial at the Hong Kong Polytechnic University on May 28-30 2014. He also gave a talk entitled "Static liquefaction of sand-fines mixtures: the role of grain shape and size" at the workshop.
- was invited to a panel of experts reviewing the progress of a key project under the National Basic Research Program of China (973 Program). The review panel was comprised of eleven experts including three Chinese academicians and the review meeting was held at Tongji University on July 28-29, 2014.

**NEWS**

**Dr. S.H. Lee** joined the Department of Civil Engineering as an assistant professor in July 2014. He obtained his B.S. and M.S. in Engineering degrees at Seoul National University, South Korea and completed his Ph.D. study in Computational Design at Carnegie Mellon University, U.S. His research focuses on building information modeling, process modeling, standardized information exchange, and information visualization using Augmented Reality and Virtual Reality technologies. He is interested in developing an intelligent computational infrastructure to support the seamless information exchange and visualization in order to facilitate diverse activities in the AEC/FM Industry. He is also interested in the multi-resolution information modeling and processing for downstream simulation and visualization tools. His primary application areas include energy efficient and sustainable building and civil infrastructure projects. He participated in the Energy Efficient Buildings Hub Project and the Virtual Construction Simulator for Engineering Education Project when he worked as a post-doctoral scholar in the Department of Architectural Engineering at the Pennsylvania State University before joining HKU.

**Dr. S.D.N. Lourenço** joined the Department of Civil Engineering as an Assistant Professor in March 2014. He was previously at the School of Earth and Ocean Sciences, Cardiff University (UK) as a Lecturer in Engineering Geoscience. He obtained his first degree in Geological Engineering at the New University of Lisbon (Portugal), M.Sc. by research on landslides at Disaster Prevention Research Institute, Kyoto University (Japan) and Ph.D. in Geotechnical Engineering at Durham University (UK). His research interests are in soil particle wettability (fundamentals and applications), unsaturated soils and slope processes. In Cardiff, he developed a research network and capacity building in soil particle level studies through research grants from the Engineering and Physical Sciences Research Council (UK) and Royal Society (UK), which included visiting positions at the US Geological Survey (USA), University of Hannover (Germany) and Kyoto University (Japan). Dr Lourenço was the second runner-up for the 2012 Richard Wolter Prize by the International Association of Engineering Geology for under-40s research excellence in Engineering Geology. He is a member of the Physical Sciences Board, Royal Society (UK), the editorial board of Geotechnical Research (Institution of Civil Engineers, UK) and the Journal of Rock Mechanics and Geotechnical Engineering (Chinese Academy of Sciences).

**Professor S.C. Wong**

- was reappointed as a member of the Town Planning Board and appointed as the Vice-Chairman of its Rural and New Town Planning Committee, The Government of HKSAR, for two years with effect from April 1, 2014.
- was appointed as a member of the Home Purchase Allowance Appeals Committee Panel, The Government of HKSAR, for three years with effect from July 14, 2014.
- was elected as a committee member of the Chartered Institution of Highways and Transportation (Hong Kong Branch) for the term 2014-2015.
- was elected as a member of the Logistics and Transportation Committee of the Hong Kong Institution of Engineers for the term 2014-2015.

Four of our teaching staff received the Long Service Awards. Professor F.T.K. Au has served the University for 25 years. Dr. K.M. Lam, Dr. H.J. Pam and Professor S.C. Wong have served the University for 15 to 24 years. The Presentation Ceremony was held in Loke Yew Hall on March 17, 2014.
Construction of the Dabao project has resumed in March after the Chinese New Year holiday. The building is getting in shape now as the medical room at entrance level and the classroom floor at level +2.50 m were completed. During this period, Dr. C.K. Wong had led more than 20 students in 6 trips to monitor the construction progress.

“When I saw the completed footings of the building, it was like witnessing my baby being born!” said Steve Ho King Wui during a site visit in March. In total 12 students (Hung Ka Shing, Chui Ho Chun (Eddie), Ho King Wui (Steve), So Hoi Kin (Ben), Lin Hai Man (Stefany), Lam Wai Sum (Candy), Liu Kin Kwan (Thomas), C.K. Wong, Ng Ka Ho (Peter), Wong Kwun Hung and Yuen Man Ting (Mandy) (from IMSE)) joined the trip to inspect and take records of the completed footings. The students had also carried out a condition survey for Mingde Building in preparation of its renovation works for the 10th anniversary of Project Mingde.

During the summer, there were 5 visits to the Dabao site*. Before the trip, our alumnus, Ir. Tang Wai Ming, Raymond from Architectural Services Department was invited by the Department Head to share his experience with the students at the drawing office. Ir. Tang had also joined one of the trips to guide the students in supervision of construction. In the last 3 visits, Dr. Wong had arranged 3 groups of students taking the course CIVL2010 Experiential Learning to have their practical training at the Dabao site. There were 2 students in each group and they were arranged to stay at Hongshui village (40-min drive from Dabao) and commute to the construction site daily for supervision. They had to write daily logs and were supervised by Mr. Chan Shing, an experienced site engineer, to monitor the construction of the Dabao building. At the end of their trips, they had submitted a reflective journal to reflect on their journey. All of them wrote that they have learnt a lot of construction knowledge as well as communication skill from Mr. Chan and were very thankful to the Department in organizing such a useful and meaningful experiential learning course.

* Name of students who joined the site visits:

**Jun 07’s Trip:**
Ng Ka Ho, Poon Tsing, Pung Chun Nok, Wong Pak Yue and Yan Ziyuan

**Jun 17’s Trip:**
Hau Ho Kai, Ho King Wui and Wong Pak Yue

**Jul 12’s Trip:**
Chong Leung Chun and Li Ka Wai (both enrolled for CIVL2010)

**Jul 26’s Trip:**
Lau Cheuk Fu and Wu Shuang (both enrolled for CIVL2010), Ho Cheng Heng and Lau Chi Hin

**Aug 09’s Trip:**
Liu Bowen and Lu Wenqi (both enrolled for CIVL2010)
To celebrate the 10th anniversary of Project Mingde and to attract more parties at HKU to join, an exhibition displaying the past and present of Project Mingde and a sharing session were organized in the campus. The taskforce of 5 current Civil Engineering students, Samson Pung (the Chairperson), Stone Chan, Eddie Chui, Candy Lam and Ben So, spent a lot of time and efforts for the preparation work and the events were very successful.

The Exhibition was held from March 20-22, 2014. People from all walks of life visited our booth showed better understanding of how Project Mingde benefits the society. It is interesting to mention that even a professor from the University of Oxford came to our booth and the booklet “Dabao Journey” published by our project’s architect will be put in the library in the University of Oxford.

In addition, it is encouraging that over 120 students from various disciplines such as Engineering, Architecture, Arts, Business & Economics, Education, Science, Social Sciences and Medicine participated in the 10th Anniversary Sharing Session of Project Mingde held on March 27, 2014. We were also pleased to have invited Mr. Clifford Chow, the representative of our strategic partner, Lee Hysan Foundation, and Professor Norman Tien, Dean of Faculty, and Professor S. C. Wong, Head of Department, to join this event. Special thanks would be given to Professor Nicolas S.Y. Yeung for contributing his time and efforts on producing the Project Mingde 10th Anniversary video. Alumni and friends joined the event after work and they interacted and shared their experience with current students. Everybody enjoyed the sharing and it was a memorable evening.
**Awards**

Mr. Hu Tsz Fung and Mr. Lau Kai Ming (Year 3 CivE students) were awarded the Hui Yin Hing Scholarships 2013-14.

Mr. Lee Ho Yin Matthew (Year 3 BEng student), was elected by HKIE Environmental Division as the First Runner-up for his achievement at the HKIE Environmental Project Competition 2013/2014.

Miss Mao Yanping (PhD student under supervision of Dr. Zhang Tong) was awarded the Reaching Out Award under the HKSAR Government Scholarship Fund for the academic year 2013-14.

Mr. Ng Tsz Man (Year 3 CivE student) was awarded the HSBC Hong Kong Scholarship 2013-14.

Mr. Saif Ur Rehman Muhammad (Year 3 CivE student) was awarded the Talent Development Scholarship under the HKSAR Government Scholarship Fund 2013-14.

Mr. Lee Ho Yin Matthew (Year 3 CivE student) was elected by HKIE Environmental Division as the First Runner-up for his achievement at the HKIE Environmental Project Competition 2013/2014.

**Activity**

Messages from our students, who attended the 8th Inter-University Invitational Civil Engineering Competition (IUICEC) at the Monash University, Melbourne, Australia from July 6–10, 2014.

**Yuri Yan Wai Lam (Year 2 CivE (4-year curriculum))**

I am sure it was once in a life that the 8th IUICEC has given me a unique chance to participate in a civil engineering competition to communicate with students from different countries in the world. Although three of us had different ideas on building the bridge, we compromised to make the final decision under the supervision of Professor Ben Young. Throughout the competition, I have experienced a lot and it certainly broadened my horizons.

**Ember Ziming Liu (Year 2 CivE (3-year curriculum))**

The 8th IUICEC is definitely unforgettable experience for me. We are a team of three novices, and we managed to work out the bridge with lots of trials and discussion. During the 4-day competition in Monash University, we meet our counterparts from 14 institutes and their bridge models. Our conversations went from the competition to our life and study, which was joyful as well as inspiring.

**Daniel Kai Yin Leung (Year 2 CivE (4-year curriculum))**

It was my honour to represent my own department to join this kind of inter-universities competitions. From receiving the rule book, to being selected as one of the representatives and making trial models, it was a great sense of achievement when our bridge passing all the loading tests. Besides, during the competition, we could walk around to appreciate the works of other teams which all are inspiring to me and chat with civil engineering students from other institutions. It was a very valuable opportunity to have such a cultural and knowledge exchange and make friendships with civil engineering students from different countries. I believe this competition would be one of the highlights in my university life. Lastly, I would like to thank Professor Ben Young to be our team leader to Australia together who gave us many precious opinions before and during the competition and Miss Ruby Kwok who did many administration works for us so that we could focus on the competition.

**Newsletter by Email**

To view the electronic version of this Newsletter, please visit our Department website on [http://www.civil.hku.hk/](http://www.civil.hku.hk/), or if you prefer to receive the electronic version of this Newsletter by email, please send notification to civdept@hku.hk.

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