



# Faculty of Engineering

## Meeting of two Engineering Society Chairmen, 48 years apart



**H**aving graduated in 1958 in the department of Civil Engineering in the University of Hong Kong, Ir. Chen Shao Chi, aged 73, is now enjoying his retirement. He has a very close relationship with the University of Hong Kong. His uncle also studied in the University. The grandfather of his mother was one of the members of the School Founding Committee 90 years ago! His father donated a huge collection of classic books to the University, which are now located in the Fung Ping San Library. Ir. Chen, after working for some years, offered to donate two bursaries, one to be awarded to Engineering students and the other for Medical students.



▲ Professor T.S. Ng, Dean of Engineering (left); Ir. Chen Shao Chi (right)

### Ir. Chen's university life:

Ir. Chen was the Chairman of the Engineering Society, HKUSU 48 years ago. The Society was mainly responsible for holding visits to construction and technical sites, consultant offices, factories and organizing social functions such as the annual ball, which was a golden opportunity for engineering students to find their partners!

University students in the 1950s were not as enthusiastic towards political and current affairs as those in the "Red Hot Period" in the 1970s. "We have the hearts for society, but we just don't understand politics", said Ir. Chen. Interests and out of vanity spurred him into the Chairman position, he admitted. Ir. Chen described his U life as very fruitful, particularly hall life in St. John's. He considers hall life a very good way of training for discipline and outstanding ability.

### The beginning of his career:

The freshly graduated Ir. Chen joined a small engineering company for a year before joining the Government as an engineer trainee. He had

worked in different government departments like the Geotechnical Engineering Office, Highways Department, Government Secretariat, etc. participating in many infrastructure, drainage, transportation and environmental engineering projects in Hong Kong. Ir. Chen claimed himself lucky having the opportunity to work in the Government as an inexperienced engineer. He said working for the Government helped him understand the infrastructure network and development in Hong Kong from a macro view and a better understanding of the Government working system.

Even though the civil service provided Ir. Chen a structured and stable career path, he was not satisfied doing only one job in his entire life; he chose to leave at the age of 50, after 25 years with the Government, to join a private company.

### From Government to corporate:

The first private company Ir. Chen joined was a Sino-Japanese construction company. As the General Manager, he was in charge of various big projects, including Castle Peak Power Station, Hong Kong Cultural Centre and Bank of China Building. He had a lot of opportunities to work in mainland China, like Guangzhou, Suzhou, Shanghai and Hainan Island. During his days in Beijing, Ir. Chen was involved in drafting, designing and building one of the earliest 5-star hotels in China, the Peninsula Palace (王府飯店). Afterwards, he was devoted to the Bank of China Building project, and in 1989, the building was completed. In that same year, he switched to another construction/real estate company, a Chinese-foreign joint venture organization, as Managing Director. There, he was involved in various government and private residential building projects. "When the economy is good, real estates can bring you huge profits. However, the risk of investment and the frequent need of socializing is the price to pay for."

Four years later, Ir. Chen joined one of the largest consultant companies in the UK. He became the

Chief Executive of the China region, and this was also the last page of his career too. In those years, he was in-charge of many huge engineering projects in China and Hong Kong, such as reclamation in Central, the Central Pier, the West Rail, MTR, KCRC, even the newly completed National Stadium in Beijing. The profit of working in a consultant company was relatively low, and required a lot of expertise as compared to other jobs, but Ir. Chen claimed that the satisfaction of working in a consultant company is much more!

In 2001, Ir. Chen retired, ending his 43 years career in the industry.



▲ From left: Prof. Ng, Ir. Chen, Brandon Cheung (Engineering Society), Prof. Tham



▲ From left: Ir. Chen, Kate Lin (Engineering Society)

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### Working in Government vs business entities:

Having worked in both Government and business entities, Ir. Chen thinks that working in Government is an excellent training to strengthen the basic technique and knowledge of the field. While business entities always put "profit making" as the top priority, they require their staff to use the least resources to finish a task in order to earn the greatest net profit. "You have to learn how to compete with time, to cope with limited resources and know you are responsible to your shareholders." Ir. Chen said.



▲ From left: Brandon Cheung (Engineering Society), Prof. Ng, Peter Pang (Engineering Society), Ir. Chen

"Besides efficiency, Government and corporations have a very different concept about money too. Since Government is non profit making, its main purpose is to serve the citizens. On the other hand, making a profit is fundamental to corporations. Therefore, it is important to understand market economies working in the business world. There's one thing you'll never consider when working in Government but not in business sectors, that's getting financing from financial institutions. Learning how to use money wisely is very crucial at the management level."

### The road to management:

Working as an engineer in the business world requires other skills besides engineering knowledge and techniques. Therefore, Ir. Chen suggests fresh graduates should try to work in Government first to build up a good foundation that would better prepare them for commercial practice later. "To reach the level of management, technical expertise is vital. Young engineers should not think they can be at management level, or can take up a big project at the very beginning of their careers. Relevant experience and technical know-how is the only way to reach that level."

"Of course, you are not to be evasive when time comes to move up the management ladder. When your knowledge in the field is getting better and better, people will expect more from you. Likewise you must aim high yourself too. Try different areas and try to broaden your horizon to a wider extent."

Ir. Chen also observes many people nowadays are not willing to do maintenance work. They may think it is better for engineers to "create" something. "Actually, you can learn a lot in maintenance work; it is a very good training", Ir. Chen added.

### Afterword:

Ir. Chen chose to leave and start a new career after 25 years with the Government, this change needs a lot of courage – does he encourage others to do the same?

Ir. Chen said every individual will have his own preferences; some love challenge, others prefer stability; one should find a path that suits himself. He does not encourage job-hopping, but feels we should never be too satisfied with our achievements.

Now that he is retired, does he enjoy his retired life? He does not like the fact that he retired early, and does not recommend other people to do the same. He thinks everyone should try their best to contribute to society – though retirement is unavoidable in a way, as you have to give way to the younger generation.

We can tell that he really enjoyed being an engineer very much; his enthusiasm towards his work is something that we should really learn. ■

Brandon Cheung (Chairman),  
Kate Lin (External Secretary)  
& Peter Pang (Publications Secretary)  
Engineering Society, HKUSU 2006-2007

# Meet an alumnus

Cathay Pacific Airways has been named Airline of the Year 2006 by Air Transport World for its unwavering commitment to safety, technical excellence and customer service. Cathay's success ultimately depends on the performance of its aircraft in the air, be it carrying passengers or freight. Engineering plays a critical role in achieving this.

I joined Cathay as an Engineering Trainee in 2001 upon my graduation in Mechanical Engineering. Unlike other engineering consultant firms and public utilities, Cathay does not offer scheme A programme to

graduates, instead, we have our own well-structured and comprehensive training programme. On top of the classroom training about aircraft technical knowledge, I have acquired a broad exposure and practical experience in different sections of the Engineering Department during my rotation such as Technical Services, Maintenance Support, Engineering Planning, Inventory Operations, Procurement and Quality Assurance. Hands-on training is always crucial to trainees to understand how aircraft maintenance works and build up their technical experience. I was assigned to Hong Kong Aircraft Engineering Company (HAECO) to gain my hands-on for six months. This part of the training involved base maintenance in aircraft hangar and line maintenance in the ramp areas (apron). Base maintenance is when the aircraft is stripped down to its fuselage where detailed inspections and components replacement are involved. Some of my experiences in the hangar were landing gears change, air cycle machine (aircraft air conditioning system) replacement and engine change. During the line maintenance (ramp)

By Kenny CHAN Kin Hang  
B.Eng (ME) 1999; M.Phil 2001

**Current position**  
**Technical Services Engineer - Airbus Fleet**  
**Cathay Pacific Airways Ltd**

training,

I was on shift duty and worked with the mechanics days and nights. Line maintenance works are comparatively light and simple, such as cabin check, inflight entertainment systems check, wheels and brakes replacement, oil and hydraulic replenishments. After that, I was being sent to three of our outstations: Frankfurt, Bangkok and Xiamen to understand their operations and inventory logistics.

My first attachment was Engineering Planning, Defect Control Group after I had finished my training programme. I worked as an Assistant Planning Engineer in the group. My main responsibility was to plan the aircraft defect clearance packages and liaise with the concerned parties in HAECO and outstations to get the maintenance jobs done. After one year in Engineering Planning, I was transferred to



▲ Engine change on a B747-400 Freighter





▲ Working in HAECO Line Maintenance during training



Technical Services - Airbus Fleet until now. Currently, my key accountability is the management of airframe systems for all our Airbus Industrie aircrafts (A300-600F, A330-300, A340-300 and A340-600). We need to do our jobs both proactively and reactively which include the development of preventive maintenance programme, the investigation of Mandatory Occurrence Report (from Hong Kong Civil Aviation Department) after safety (or potential safety) related events/accidents and the recommendation of resolution to minimize the occurrence of the defects, systems reliability analysis and Service Bulletin / work packages evaluation and incorporation through retrofit programs.

I am now the engineer in charge in the landing gears systems of Airbus Fleet. We need to support our flight operations round the clock on regular and ad-hoc basis. How to deal with the challenge and unexpected aircraft defects professionally is critical to keep the aircraft flying and generating revenue. One of the remarkable examples happened on the eve of Christmas in 2005 when abnormal high brake temperature was reported on number 4 brakes of a A300-600F aircraft after landing in Osaka. It was found by the engineers that the wheel and brake on that position could not be removed due to the bearing failure which had already melted on the wheel axle. In order to return the aircraft back to service as soon as possible, decision was made to replace the bogie assembly in-situ in Osaka. A rescue team, including myself, was flown there for immediate technical support. The aircraft was finally declared to be serviceable after 3 days repair. This is a typical example demonstrating excellent engineering teamwork, flexibility and efficiency, which I believe is what I had learnt during my university time in the Department of Mechanical Engineering. I'm always attracted by this dynamic working environment and I enjoy working with those professional engineers and expertise from all walks of life. ■

# International Conference on *Logistics and* (LSCM-2006) *Supply Chain Management* 5-7 January 2006



▲ Prof. K.L. Mak (middle) with colleagues from the logistics industry.

The captioned event was organized by the Industrial and Manufacturing Systems Engineering aiming at providing a platform for the effective cross-fertilization of innovative ideas, experiences and best practices amongst the academia, industry and government agencies; and hopefully, at paving the way for further collaborations between them. The Conference attracted more than 180 participants from the Asia Pacific, Europe and North America.

The Conference programme kicked off with a number of technical visits to the world-class logistics facilities including those of DHL Aviation (HK) Ltd., HK Air Cargo Terminals Ltd., HK Airport Authority, HK Post Airport International Mail Centre, HK International Terminals and Midstream Holdings Ltd. A reception dinner on the same day took place at Loke Yew Hall and was attended by conference participants and distinguished guests including the University's Vice-Chancellor, Professor Tsui Lap Chee.

During the Conference, 5 plenary lectures and more than 150 technical presentations were made. These covered a range of issues relating to transport logistics and physical distribution, supply management, e-business, strategic supply chain management, performance measure and computation intelligence techniques in the design and analysis of logistics systems.

The Conference has indeed provided a valuable opportunity for the attendants to exchange their views on the latest logistics strategies and technologies for the global businesses. Extensive and in-depth exchanges of opinions have been made about the global

as well as regional developments of the logistics businesses. Attention naturally turned to the remarkable developments in China; and about Hong Kong's position as the region's logistics hub, against the backdrop of the developments occurring in Southern China.

On the technological side, the need to promptly respond to customer's demands has called for new supply chain process models and enabling technologies (e.g. RFID) to achieve greater supply chain visibility and closer collaborations (e.g. information partnership) amongst supply chain partners. Further, in the era of rapid industrial development, green logistics concepts and approaches (e.g. reverse logistics) have emerged to address the host of problems that result. ■



▲ Reception banquet at the Loke Yew Hall



▲ Q&A during a plenary session

# How the whole Construction Industry could Benefit from SMILE-SMC



Targeting construction Industry improvements, **SMILE-SMC** can now help **Contractors** to improve their competitiveness and performance levels, though better "information and knowledge management". **SMILE-SMC** can also be used by **Clients** and **Consultants** e.g. when seeking nominated sub-contractors, specialist contractors, suppliers etc. Led by the Dept. of Civil Engineering, the SMILE-SMC R&D Team included members from other HKU departments and partners from industry.

## Examples of potential benefits:

### 1. Member Zone:

(a) Members\* can publicise company info. including descriptions of up to 5 projects; while (b) all who access the web-site can search for potential business "partners"

### 2. Wanted Zone:

(a) will contain messages on services, materials, information & people **NEEDED** by members; since (b) Members\* can advertise their own needs in "wanted" messages

### 3. Available Zone:

(a) will contain messages on services, equipment & materials **AVAILABLE** with members; since (b) Members\* can advertise their own "available" items

### 4. Information Library:

contains valuable construction industry information, collected from various sources, with special aids for Members

### 5. Discussion Forum:

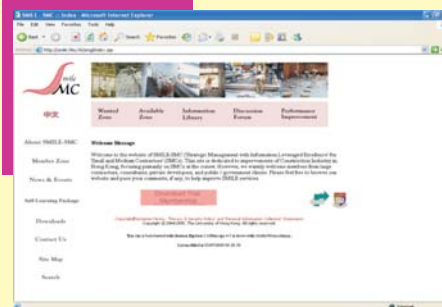
Members\* can exchange ideas on hot topics and common concerns

### 6. Performance Improvement Zone:

provides access to special tools and plug-ins, e.g. for more efficient "electronic information exchange" with sites and partners, formats for retrieving useful information e.g. in purchasing, materials management; and for benchmarking.



▲ 3rd SMILE-SMC Dissemination Workshop in February 2006



▲ **SMILE-SMC**  
- Now Available for use by Industry

\* also available free to "Trial Members" up to 31 August 2006.

For more information and a quick application link: please see <http://smile.hku.hk> (or email [smilemc@hku.hk](mailto:smilemc@hku.hk)) ■

## Mentorship Day 2006

Around 200 students and teachers took part in the Mentorship Day 2006 held on February 15, 2006 at the Loke Yew Hall. The Faculty introduced the "Peer Mentorship Scheme" in 2005 to provide additional help to Year One students who might have difficulties in adapting to university lives. Students will consult their teachers if they have academic problems; however, if they have a relationship problem or time management problem, they may find it easier to share it with their peers. Under the Scheme, each Year One student will be assigned a Peer Mentor, who is either a student on the Dean's Honours List or a research postgraduate student.

Ms. Angel Ho, Year 2 Civil Engineering student and the past Chairman of the Engineering Society, shared her experience on the occasion. "... when I first stepped into this University, I was bewildered of the variety of chances thrown before me... I was struggling in the dilemma of going on exchange and in experiencing more within the Campus... It was when I started exploring into my seniors' school lives, listening to their suggestions ...

Experiences of others help us grow, words of others give us inspirations unknown," said Angel.

Apart from Angel, Professor A.K.H. Kwan and Ir. W.L. Tang also shared their valuable experiences on the occasion. Professor Kwan graduated from this Faculty in 1978 and is currently our Associate Dean. Ir. Tang is the person-in-charge of the Graduate Mentor Scheme run by the H.K.U. Engineering Alumni Association for our Year Three students.

Everyone seized every single minute to get to know more about each other and had a great time. ■

## New Postgraduate Exchange Visit by Seoul National University

On February 20-21, 2006, a group of researchers from Seoul National University (SNU) visited the Croucher Hydraulic Laboratory for an intensive 2-day workshop. The visiting team of PhD and Masters students was led by Professor Il-won Seo, Director of SNU's Environmental Hydraulics Laboratory and the Chief Editor

of Journal of Civil Engineering, Korea Society of Civil Engineers. The first of its kind, this laboratory-to-laboratory intensive exchange is supported by the Brain Korea 21 programme, and aims to enhance internationalization and collaboration between leading Asian Pacific university partners. ■

## UPCOMING EVENTS

### Engineering Summer Camp 2006 for Secondary 5 and 6 students, July 17-21, 2006

This 5-day residential programme aims to give participants who are considering future university studies to explore the various engineering disciplines, and to offer them a taste of university hall life.

For more details, please visit: <http://engineering.hku.hk/summercamp> ■

### Engineering 95th Anniversary Reunion Dinner

Friday, November 3, 2006, 7:30 p.m.  
Please visit: <http://engineering.hku.hk/dinner06> for details and registration ■



# News from the Croucher Laboratory of Environmental Hydraulics

**Smithfield Road Flood Modeling Study** – During the heavy storm of June 24, 2005, extensive flooding and overshoot was observed in the drainage channels on the steep man-made slopes off Smithfield Road. As the rainstorm was not of an extreme type, the exact reason for the flooding is quite puzzling. Researchers in the Croucher Laboratory of Environmental Hydraulics, led by Prof. JHW Lee, have been commissioned by the Drainage Services Department (DSD) to investigate the causes of the flooding and develop effective solutions to solve the flooding problem.

It is commonplace to see stepped channels on steep channels all around Hong Kong. These are constructed to convey storm water flow safely and efficiently into the drainage system. The complex high velocity turbulent flow is three-dimensional and highly aerated. On cut slopes



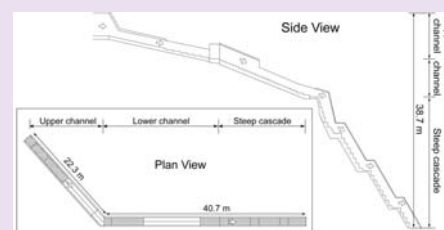
▲ Side view of high velocity air-water flow on Smithfield Road stepped channel and steep cascade

the drainage channel may be required to change course abruptly, and the flow direction is hence artificially altered. Laboratory experiments on a physical model of the Smithfield stepped channel show that this results in a highly aerated spiral vortex flow down the system, which may cause overflow from the existing channel. In addition, any obstructive trash grilles (intended to prevent garbage from entering the downstream system) placed on the stepped channel can split the flow considerably and cause a significant overshoot flow down the slopes onto the street level.

The study revealed that the flooding is caused by the sharp bend as well as the position and geometry of the trash grilles – which together cause significant obstruction of the high velocity supercritical flow (at 9 m/s down the slope!). Having identified the causes of the problem, simple and practical solutions have been jointly developed with DSD engineers. It is found that the flooding can be effectively prevented by strategic relocation and re-design of the trash grilles and suitable channel modification. The drainage improvements have been implemented on site and successfully put to the test during a black rainstorm at end of April 2006 – thus protecting Smithfield and the Island West areas from potential urban flooding. Further comprehensive basic research is under way to develop reliable general design guidelines for such unique urban flooding problems resulting from intense urbanization.



▲ Model of Smithfield stepped channel and steep cascade on man-made slope



▲ Sharp bend of stepped channel on steep man-made cut-slope

In April 2004 the Laboratory of Environmental Hydraulics was honoured to be named after Croucher on the occasion of the 25th Anniversary of the Croucher Foundation. ■

## Super Engineering Saturday ■■■

On March 11, 2006, the Faculty has organized the Super Engineering Saturday, an event designed for secondary school students to learn about the undergraduate study in the Engineering discipline. With the contribution of all the Departments in the Faculty, this one-day programme consisted of interesting talks, hands-on demonstration, multi-media project, and site visit to Tsing Ma Bridge and Traffic Control Division of HKSAR. More than 35 secondary school students have participated and they were given choices to join the activity that they were interested in. The event was very well received by the participants. Requests were received from the participating secondary schools to continue organizing this kind of event for their students annually. ■



# We will Miss You: Dr. Mike Sainsbury

Mike Sainsbury joined the department of mechanical engineering in 1976 and arrived here with a freshly minted PhD from Imperial College and his new and very artistic wife Phi Đào. They lived in Bisney Road and in due time produced two sons.

Mike was always "student centred". As a lecturer in dynamics and vibration he set about providing a laboratory experience which was probably unique in the world, carefully designing conveyors and vibrating tables to illustrate vital principles and having them made on a tiny budget, for the



▲ From Vibration and Noise to Applied Acoustics!

departments in those days had little money. His enthusiasm for providing fresh teaching examples every year meant that he never appeared to be ready on time for his lectures. Mike prepared his student notes by hand writing them onto a stencil, which was then attached to an inked drum and run off. Xeroxing was just too expensive. I do not think easy copying, as is now the case, has helped Mike, he is still to be seen running off his example sheets and notes 15 minutes before his lecture begins, and we have all seen him, in full flight, clutching piles of papers and notes under his arms as he runs to the lecture rooms. The advent of the computer has not helped Mike to have an easier life either. There are many past graduates who will tell you of their surprise at having their queries and questions answered by an "on line" Mike at 4:35a.m.

In the 1980s we had Professor Tobias from Birmingham University as our External Examiner and he was something of an expert in Mike's field, and I remember him saying that "Dr. Sainsbury should be removed from teaching courses and given the job of setting all of the examination questions on dynamics and vibrations for the whole of the English speaking world", such was the quality of the papers that he submitted.

Mike is one of the people who all of our Heads of Mechanical (he has worked for six) have appreciated, for he is not one who often says "no" to a request. His position as Director of Undergraduate Studies, and his pivotal role in compiling the Accreditation submission to the HKIE are two of the other major contributions he has made to undergraduate education in the past few years. It is very hard to imagine anyone doing what he has done in his self effacing but enthusiastic manner. He will be missed! ■

Brian Duggan

## STAFF AWARDS / NEWS

### Department of Civil Engineering

#### Professor Y.K. Cheung

Elected as Specially Invited Honorary President, and named as Distinguished Alumni in Hong Kong out of a total of 200,000 alumni at the 10th Anniversary of the China Universities Alumni (HK) Association;



▲ Honorary Presidents of the 7th WFEO World Congress on Engineering Education "Mobility of Engineers", 2006, Budapest, Hungary.

#### Professor J.H.W. Lee

Elected as a Council Member of the International Association of Hydraulic Engineering and Research (IAHR), 2005

#### Dr. T.S.T. Ng

Outstanding Young Researcher Award 2004-2005, HKU



▲ Dr. Ng (right) receiving the award from Professor Richard Wong, Deputy Vice-Chancellor

Dr. Ng is a qualified quantity surveyor and project manager, and his research has focused on using emerging management concepts, analytical approaches and computer and information technologies to improve the efficiency of construction processes. He has received numerous local and international awards for the many papers he has written in this important area of research.

### Department of Computer Science

#### Professor D.W.L. Cheung

Received a new ITF grants on e-transaction in the amount of \$9.18 million;

Appointed as the responsible party to lead in the "Strengthening of Research and Development in Interoperability of Information Technology" initiative in the Expert Group on Co-operation in Informatisation under Hong Kong/Guangdong Joint Conference chaired by CE Donald Tsang and Governor of Guangdong Province.

#### Professor F.Y.L. Chin

Best Paper Award for the paper entitled "Cooperative Determination on Cache Replacement Candidates for Transcoding Proxy Caching", The Third International Conference, ICCNMC 2005 (Zhangjiajie, China).

#### Dr. Lucas Hui and Dr. S.M. Yiu

First International Workshop on Security in Networks and Distributed Systems (SNDS 2005) Best Paper Award for the paper entitled "Supporting Efficient Authorization in Delegation with Supervision" by Richard Lui (graduate student), Sherman Chow (graduate student), Lucas Hui (staff) and S.M. Yiu (staff).

#### Mr. David C.M. Lee

Author of the SLIM software, which won an award in the Software Product Application category in the 2005 Golden Penguin Greater China Open Source software Competition, October 2005.

### Department of Electrical and Electronic Engineering

#### Professor V. Li

Part-time Member, Central Policy Unit, Hong Kong Special Administrative Region (HKSAR) from January 1 2006 for one year;

Chairman, Visiting Team, HKIE Accreditation Visit of the Faculty of Engineering, Chinese University of Hong Kong, March 2006;

Chang Jiang Chair Professor, Tsinghua University, Beijing, China, from April 2006 for three years. ■



# HKU won *the grand* championship in IUCEC, Korea

The 4th Inter-University Invitational Civil Engineering Competition (IUCEC) was held in Korea from 8th to 12th February 2006. Twelve teams from 8 institutions in 6 countries/regions participated in the competition. The competition required each team to fabricate a dome model that could sustain a prescribed static and impact load with the lightest self-weight. Under very keen competition, the HKU team (which comprised of three students: Mr. To Chiu Yin, Mr. Yim Fung Chin and Miss Lau Ching Ling, and the team leader: Dr. R.K.L. Su) defeated other teams from Tsinghua University, Tongji University, the National University of Singapore and others, and won the grand championship in the competition. The

dome built by HKU was 27g which was about two-third of the weight (40g) of the 1st runner up.

The prize was not brought by luck; the team members put in tremendous efforts. Using manual calculation, the team developed a unique analytical approach to optimize the design of the dome. Furthermore, the team prepared an innovative plastic mould to streamline the fabrication process. This championship is a proof of the success of engineering education in the Civil Engineering Department.

## What the winners have to say:

### Mr. To Chiu Yin, Ernest (Year 3)

The prize carries special meaning to me as it is the first prize and probably the last one that I can win for HKU, as a final year student. I now wish that the HKU team can do equally well in the competition in the years to come.



▲ The model made by HKU with self-weight of 27g



▲ HKU team (second from left: Miss Lau Ching Ling, Jenny, Mr. To Chiu Yin, Ernest and Mr. Yim Fung Chin, Franklin) receiving the grand championship from Professor Jongsung Sim, Hanyang University

### Mr. Yim Fung Chin, Franklin (Year 3)

It was exciting when our model passed the loading test. As our model was the lightest among all, it was the last one to be tested. Noticing all the other teams had passed the test; it's a breath-taking moment to drop the steel ball on the model.

### Miss Lau Ching Ling, Jenny (Year 2)

We are excited and happy to be one of the teams in this competition. It was our first time to travel to Ansan and we have met lots of friends from different Universities of different countries. We have experienced the culture of other countries and knew much more about the career of Civil Engineering in other countries. ■

# Winner of Google's Summer of Code competition

Mr. Roy Sai-chuen Ho's interview to Dr. Mamoulis about his success in the Google's Summer of Code competition. Mr. Ho is a part-time PhD student at the Department of Computer Science, The University of Hong Kong. His supervisors are Dr. Cho-Li Wang and Dr. Francis C.M. Lau. His research interests include operating systems, parallel and distributed computing, high-performance network and disk I/O.

**Q: Can you say a few words about the competition? What it was about, how many participants, how many awardees, what was special about your work, etc.**

Google's Summer of Code (SOC) is a program that matched students (including undergraduate and graduate students) with open source software (OSS) organizations and paid for the results. The program attracted 8,744 applications from all over the world, from which 400 students were selected and matched with 40 OSS organizations. The participating OSS organizations first provided lists of available projects. Participants had to select a project from the lists and submit a proposal. The selected students were asked to implement (or improve) certain functions for some existing OSS during the summer. My project was to implement an application programming

interface (API) and two advanced transport protocols (FAST TCP and GTP) for bulk data transfer in networks with high bandwidth and high latency. Compared to many other projects which built software for immediate use, mine was to establish a software platform for further research. For details about my project, please refer to <http://btap-scho.sourceforge.net/>.

**Q: Do you think your studies in HKU were a significant factor for your success?**

Yes. My project required theoretical understanding and practical experience on transport protocols and kernel timing mechanisms. I learnt most of these from the undergraduate courses and my final year project (which was also about transport protocols). Besides, OSS (e.g., GNU Compiler Collection, Linux, etc.) have been used extensively in assignments and projects, and are readily available in laboratory computers. In addition, my MPhil and PhD studies involve customizations of OSS, from which I learnt how typical OSS are designed and implemented. The Systems Research Group in CS (which I belong to) has provided the hardware resources and,

perhaps more importantly, the freedom for OSS development and testing. I am grateful to them for the training and support.

**Q: Any suggestions or hints to students who plan to participate in similar competitions?**

In SOC, the "competition" part was the review of students' proposals. A detailed project plan and a good schedule are essential. In the proposal, state why you are capable to do the project by describing the related prior work done by you (e.g., relevant assignments, projects, theses, etc.). Communicate with the reviewers (OSS organizations in the case of SOC) to clarify the project details and avoid misunderstanding. If you can provide relevant code samples written by you, or even a preliminary prototype of the targeted software (or part of it), you stand out from the crowd immediately. The proposal should be well written and proofread. After you are selected, you should respect the planned schedule (in SOC, many of the selected students were finally disqualified because of poor progress). Last but not least, your interest in the topic is an important factor in selecting the project. Good luck! ■

# HKIE Prize

## for Potential Engineering Students & HKIE Scholarship

### 2004-2005

Mr. Chan Ning Chun, Mr. Lee Chi Lok and Mr. Wong Wai Pui (2nd row: 2nd & 3rd from left; and 2nd from right, respectively) received The HKIE Prize for Potential Engineering Students 2004-05 at The Hong Kong Institution of Engineers Prize Presentation Ceremony held in the Joint Professional Centre on January 20, 2006. ■



▲ Mr. Chan Shu Ning, Miss Chu Mei Ling and Mr. Lincoln Lee Chung Hin received The HKIE Scholarship 2004-2005.



▲ Miss Chu Mei Ling and Ir Dr. Greg Wong



▲ Mr. Lee Chung Hin and Mr. Chan Shu Ning (2nd row: 2nd and 3rd from left)

### Rotary Foundation Academic-Year Ambassadorial Scholarship 2006-2007

Miss Leung Cheuk Ning, Charling (2005 graduate) was awarded The Rotary Foundation Academic-Year Ambassadorial Scholarship 2006-2007. The scholarship was awarded based on community service and would cover one academic year of study in another country up to US\$25,000. ■

### Young Engineers' Achievements

Miss Leung Cheuk-wah, Jeannie (2001 graduate) was presented a souvenir by the ICE President, Dr. Colin J. Clinton on September 30, 2005 in recognition of "Young Engineers' Achievements". Jeannie was chartered with ICE at the age of 24. She is currently the youngest MICE worldwide and works in the Geotechnical Engineering Office of the Civil Engineering and Development Department, Government of HKSAR.



### The small Bill to join the big Bill

Lin Hong (Bill)[MPhil in CS], has been offered a job to work in Microsoft HQ in Redmond, USA. Bill, who as a child had dreamed to be like the big Bill when growing up, joined Department of Computer Science six years ago doing computer science, and stayed on to pursue an MPhil in the area of databases. He was picked from hundreds of qualified applicants in the Asia region.



### Arup Best Student Award in Structural Engineering 2004-05 Best Final Year Project Award for Undergraduate Courses by the ASCE Hong Kong Section

Mr. Wong Tsang Hung (2005 graduate) (1st row far right) was awarded the Arup Best Student Award in Structural Engineering 2004-05 by the Joint Division of the HKIE Structural Division and the IStructE (Hong Kong Division), and the Best Final Year Project Award for Undergraduate Courses by the ASCE Hong Kong Section.



### 19th place in the 30th ACM-International Collegiate Programming Contest (ICPC) World Final

HKU team with members Liu Chi Man (CSIS2), Choi Sin Man (ActuarSc1), and Lui Ka Cheong (Econ&Fin1), has got the 19th place in the 30th ACM-International Collegiate Programming Contest (ICPC) World Final, held on 12th April 2006 in San Antonio, Texas. The contest consists of 83 teams advanced from 5606 teams at 183 regional sites worldwide, involving 1737 universities. The world class programmers compete in 5 hours to solve 10 challenging problems.

### Faculty of Engineering Newsletter

July 2006 Issue

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