Dean’s Message

With the start of the academic year 2010-2011, I would like to take this opportunity to share with alumni and friends our Faculty’s achievements in the past year. I am proud of the accomplishments that we have made, which were the result of the hard work and dedication of all my colleagues, and the support from alumni and friends.

It has always been our Faculty’s goal to attract the best professorial staff and students to join HKU Engineering. This year, we have recruited some of the brightest students from around the world including two top students (Zhuangyuan) from Beijing and Hangzhou, a top scholar from Singapore, some outstanding students from Taiwan, an outstanding student from Russia, just to name a few. We have also recruited some outstanding teachers from top universities. The Faculty of Engineering has also made the highest improvement, among all 10 Faculties in HKU, in a number of fronts in teaching and research.

We have been ranked 19 by Times Higher Education recently, the best engineering faculty in Hong Kong. In the Quacquarelli Symonds World Rankings of universities in technology, HKU has gone up by 11 places to 52 in 2010 (we have jumped 16 places since 2007). To become a top Engineering school worldwide, we continue to encourage our staff to conduct world-class research and teaching activities, to be internationally engaged and participate in international conferences and organisations, and to collaborate with industries on research projects. In the past year, a total of 15 conferences was being organised by our teachers. While some of our staff have participated in experiential learning in Sichuan and Guangxi, others were actively engaging in our overseas visitor programme. As an integral part of China, many faculty members are also involved in various research projects in China. All in all, we are orienting ourselves to meet the needs of an increasingly competitive and globalised world.

Notwithstanding the achievements, there are certainly many challenges ahead of us. First and foremost, it is the time consuming effort of the new 4-year curriculum reform in 2012. We are ensuring that students are receiving the best education and training during the transition from the 3-year to 4-year curriculum.

As I have previously stated, technology is still the primary generator of wealth in a modern society. I strongly believe that engineering can help stimulate the growth of more technology-based jobs in Hong Kong and nearby areas. I wish to see more multinational corporations and technology giants establish their R&D operations in Hong Kong and collaborate with HKU Engineering. To make this dream come true, we will continue to train and educate the best pool of talents in Hong Kong.

HKU Engineering will be celebrating its 100th anniversary in 2011. It is a golden opportunity to reflect on our achievements and look forward to what we can accomplish in the years ahead. The Faculty has been very fortunate to have the enthusiastic support of alumni and friends in the past, and we hope to receive continuous support from you in the future.

Sincerely Yours,
Weng-Cho Chew
Dean of Engineering
The University of Hong Kong
"Education is where the future of our society lies and it involves a huge investment of public resources." Mr Michael M Y Suen, Secretary for Education, has reiterated. As many of us know, the HKSAR Government has always attached great importance to education and put tremendous efforts and resources into education development. To be in line with the implementation of the New Senior Secondary Academic Structure, HKU Engineering has been utilising a lot of manpower and resources in the preparation for the new 4-year curriculum in 2012.

In a nutshell, the new 4-year curriculum is a more open and flexible structure that will provide more choices in engineering programmes. In 2012, the Faculty is expecting to admit twice the number of students. To put it simply, the Faculty is accepting two cohorts of first year undergraduates in 2012: the batch of students for the new 3-year curriculum (the transition from 3- to 4-year curriculum) and the batch of students for the new 4-year curriculum. The chart below should clearly illustrate the above.

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<th>2012</th>
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<td>3-year curriculum students</td>
<td>YES</td>
<td>YES</td>
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<tr>
<td>4-year curriculum students</td>
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With the new 4-year curriculum, the Faculty aims at meeting the requirements of both the University and the Hong Kong Institution of Engineers (HKIE). More emphasis will be placed on language proficiency and general education. Engineering students will be required to take English language and Chinese language courses. They must take Common Core courses from the four Areas of Inquiry (AoIs): Scientific and Technological Literacy, Humanities, Global Issues, and China: Culture, State and Society. With the introduction of the common intake in 2008, the Faculty is moving towards a broad-based engineering education and students are required to take foundation courses in more engineering disciplines to broaden their knowledge. In addition, most students are required to take engineering internship or workshop training in the summer after the first year of study so that they can acquire practical work experience. They are also encouraged to participate in international exchange programmes.

The Faculty is also planning to launch an Engineering Science Programme in 2012. Under this programme, students can choose to specialise in a major engineering discipline or to further his/her study in a second major in any other disciplines.

All in all, the main aim of the new 4-year curriculum is to improve the quality of education. We at HKU Engineering are committed to providing the highest quality engineering education and training for the future generation.

Prof L G Tham  
Associate Dean (Undergraduate Programmes)  
Faculty of Engineering  
The University of Hong Kong
More on 4-year Curriculum at HKU Engineering

Dr K C Cheung
Chairman, Engineering Admissions Committee

Under the new secondary education model, all senior secondary students can apply to universities. Therefore, the Faculty of Engineering is expecting a larger number of applicants from 2012 onwards. In order to select applicants for admission, the Faculty would consider, among other factors, the subjects that they have studied in their secondary schools. Engineering involves the application of science principles and mathematical skills to solve practical problems. Our students should have studied one of the extended modules of mathematics together with science subjects such as physics or chemistry.

After the students are admitted, they will go through a common first year during which they study language courses, university common core courses, plus engineering courses that are common to all disciplines such as mathematics and computing. The idea is to allow students more time to learn about the various disciplines of engineering before they decide on which one to follow in the next three years.

Having one extra year in university allows students more time to make use of the opportunities open to them. For instance, they have one more summer to go for exchange or internship. They also have more time to take up positions of responsibility in student bodies such as Engineering Society. Having such experience would be beneficial for their career development.
Engineering Distinguished Lecture

“Let Darwin and the Bees Help Improve your Designs: Nature Inspired Optimisation Techniques in Engineering”
By Prof Yahya Rahmat-Samii
Distinguished Professor, Department of Electrical Engineering
University of California, Los Angeles, USA
June 22, 2010

Prof Rahmat-Samii gave an interesting talk about how engineers are constantly challenged with the temptation to search for optimum solutions for complex engineering system designs. He discussed an engineering introduction to Genetic Algorithms (GA) and Particle Swarm Optimisation (PSO) by describing in a novel fashion the underlying concepts and recent advances. He also demonstrated the potential applications of GA’s and PSO’s to a variety of electromagnetic and antenna designs, and assessment of the advantages and limitations of these techniques.

Faculty Seminars

“Repeated Patterns in Bioinformatics”
By Prof Francis Y L Chin
Associate Dean of Engineering
Chair of Computer Science & Taikoo Professor of Engineering
April 9, 2010

In this talk, Prof Chin discussed problems and algorithms on finding repeated patterns in the study of DNA sequences, protein and protein interaction (PPI) networks, etc. He also discussed how repeated patterns make some biological problems, say genome assembly, difficult.

“Hydraulics and the Environment”
By Prof Joseph H W Lee
Department of Civil Engineering, HKU
Director, Croucher Laboratory of Environmental Hydraulics
May 26, 2010

Hydraulics and environmental engineering have been core areas of development in the field of civil engineering in the past three decades. In this talk, Prof Joseph Lee reviewed two problems: prediction of multiple buoyant jets for wastewater disposal and the use of jet theory for urban flood control. He also shared some thoughts on theme-based research in the area of water environment engineering.

Special Engineering Faculty Seminar

“Control of Quantum Light Emission and Quantum Coherent in Nano-Structures”
By Prof Xue-Hua Wang
Professor in Optics, Vice Dean of School of Physics & Engineering
Sun Yat-Sen University, China
May 27, 2010

In this talk, Prof Wang firstly gave a brief introduction on quantum light emission and quantum coherence in nano-structures. He then discussed general theoretical treatment on the issues in photonic crystals (PCs) developed by his team, based upon the Green function method of the evolution operator in which the position-dependent photon-atom interaction is taken into account. Finally, Prof Wang showed some recent results on the control of quantum coherence and quantum entanglement in photonic crystals, which has vital application to solid-state quantum information processing.
Within the last decade, there have been numerous calls for changes in Engineering Education in the US. Prof Hastings gave an inspiring talk that outlined the drivers for change as well as what has been attempted at Olin College, MIT, Purdue, RPI in response to the calls for change. Changes include reorganising the curriculum around design, including more flexible pieces in an engineering degree and focusing on the global context of engineering. As Hong Kong is undergoing curriculum changes, it is useful to look at the US experience for reference.
A new international journal *Built Environment Project and Asset Management* (BEPAM) will be published by Emerald in 2011. Supported by the Department of Civil Engineering and the ‘Centre for Infrastructure and Construction Industry Development’ (CICID), BEPAM provides a niche forum to address the increasingly crucial interfaces between project management and asset management of building and/or civil engineering infrastructure. The core editorial team includes **Prof M M KumaraSwamy** and **Dr T S T Ng** from the Department of Civil Engineering.

**Prof J H W Lee** has been appointed as Honorary Professor by Nankai University, China.

**Prof S C Wong** was appointed as Justice of the Peace, The Government of HKSAR, with effect from July 1, 2010.

**Prof S C Wong** was elected as a member of the Civil Division Committee of the Hong Kong Institution of Engineers for the term 2010-2011. He was also appointed as a member of the Town Planning Board and its Metro Planning Committee, The Government of HKSAR, for two years with effect from April 1, 2010. Lastly, Prof Wong was elected as a committee member of the Chartered Institution of Highways and Transportation (Hong Kong Branch) for the term 2010-2011.

**Dr A T Yeung** was appointed by the Secretary for Development of the Hong Kong SAR Government to be a member of the Review Panel under Land (Miscellaneous Provisions) Ordinance of the Highways Department, Hong Kong SAR Government, 2010-2013. He was also appointed by the Director of Buildings of the Hong Kong SAR Government to be a member of the Geotechnical Engineers Registration Committee Panel, Buildings Department, Hong Kong SAR Government, 2010-2012.

**Dr A T Yeung** was appointed to be a member of the Scientific Committee, 10th Symposium on Electrokinetic Remediation (EREM 2011), to be held at Utrecht University, the Netherlands, July 17 to 20, 2011.

**New Staff**

**Dr B A Baudet** joined the Department of Civil Engineering as Assistant Professor in July 2010. She graduated from the Ecole Spéciale des Travaux Publics in Paris in 1997. After obtaining a MSc in geotechnical engineering from the University of Glasgow (1997), she carried out research at City University London for which she was awarded a PhD in 2001. She then joined the Civil and Environmental Department at University College London as lecturer and led the Soil Mechanics group there until her move to HKU. Dr Baudet’s main research interest is the characterisation and modeling of soils including effects of structure, time, reinforcement. She has collaborated with Soil Mechanics groups from Brazil to India.

**Dr C Y Kwok** joined the Department of Civil Engineering as Assistant Professor in July 2010. She previously worked as a Project Engineer at Itasca Consulting Group in Minneapolis, USA. She graduated with a PhD in Engineering at the University of Cambridge in 2008, with her research focusing on understanding the time-dependent behaviour of soils using Discrete Element Method. Dr Kwok holds a BEng and MEng from the University of Sheffield and MIT respectively. She had also worked as a Staff Engineer at CDM (California) between 2002 and 2004. She is now registered as a Professional Engineer in California.

**Student Activities**

**Greenville Student Design Competition**

The Sichuan earthquake in 2008 destroyed huge areas of Sichuan. Chengdu, the capital city of Sichuan, is taking a leading role in the earthquake rebuild and urbanisation as a China Urban and Rural Integrated Experimental Zone. The global architectural firm Aedas and the South China Morning Post’s Homes for Hope project, organised a design competition for creative, sustainable and quake-resistant designs for affordable housing in Sichuan. This competition attracted student designers from Mainland China as well as all around the world, including Harvard University, Massachusetts Institute of Technology, University of California, Berkeley, etc. A total of 185 entries was received from the mainland, Hong Kong, Macau, Taiwan and overseas.

**Jia Wei** and Pelin Ikiz, both Civil Engineering graduates in 2010, together with Zhu Jinglu and Luo Dan from the Architecture Department, participated in this competition. Their project entitled “Rebuild for Those Who Lost Homes - Qiang Minority” was one of the 10 shortlisted entries and was showcased in the Market for International Property Trade (MIPIM) Asia 2009. The project was also exhibited at the Hong Kong & Shenzhen Bi-City Biennale of Urbanism and Architecture.
Canadian Computing Competition

The preliminary round for Hong Kong students of the Canadian Computing Competition (CCC) was held in the Department of Computer Science on February 24, 2010 with 112 students from 23 schools participating. The award ceremony was held on March 10, during which the Dean of Engineering and the Head of Computer Science presented certificates to the top winners. The two top finishers of the senior category were invited to take part in the final competition held in May in Waterloo, Canada.

Multi-Factor Data Protection

The Center for E-Commerce Infrastructure Development (CECID) of the Department of Computer Science has recently researched and developed a novel technology, Multi-Factor Data Protection, which aims to enhance data protection over the current existing solutions in the market while staying as easy-to-use as possible. An application "OneLock" has been devised to implement this technology to protect data in USB storage devices. With OneLock, you can turn any off-the-shelf USB storage into a vault.

Conventionally, a user-defined password is used to unlock the encryption key. To improve data security, retrieval of encrypted content is confined to your designated computers using the right password. In case your USB storage is lost or being stolen, even if a hacker can crack your password, without your designated computer, the information there can’t be read. Furthermore, OneLock completely eliminates data leakage threat by allowing the data owner to destroy the encryption key planted in the designated computer, sealing the lost USB storage forever.

Easy Programming for Robots

The lectures and workshops on "Easy Programming for Robots" designed for secondary school students were held at HKU in March/April 2010. This knowledge transfer activity, which was funded by the UGC Knowledge Exchange Funds awarded to Dr Vincent Lau, was co-organised by the Department of Computer Science, the Hong Kong New Generation Cultural Association Science Innovation Centre, and the Broadlearning Education Limited. Over 100 secondary school students, mostly with no programming experience, attended this activity and learned introductory knowledge on engineering, software, and robotics. Participants learned about programming through a visual programming tool Scratch, which was developed by the Massachusetts Institute of Technology (MIT). During the workshops, the participants learned to programme the robots’ movements and a control panel was created to control the robots with a remote video. The workshop on "Easy Programming for Robots" was also introduced to secondary school students during the Engineering Summer Camp, July 26 to 29, 2010.

Student Activities

2010 Imagine Cup Game Design Competition

Two teams of our University entered the semi-final of the 2010 Imagine Cup Game Design Competition (out of 546 teams around the world). Members of these 2 teams are BEng (CompSc) students currently taking the Computer Game Design and Programming course instructed by Dr Vincent Lau. The Imagine Cup is a technology competition opens to students around the world. The contest spans a year including local, regional and online contests and winners go on to attend the global final contest held in a different location every year. The objective of the Game Design competition is to create a new game that uses both Microsoft’s XNA Game Studio 3.1 and Visual C#. The games developed are also required to illustrate the theme of the Imagine Cup "Imagine a world where technology helps solve the toughest problems". This year, a total of 696 teams (11 teams from Hong Kong among which 6 are from HKU) participated in the Game Design Competition and 150 teams (2 from our University and they are the only 2 from Hong Kong) entered the semifinal.
Wuhan Interflow Tour

Prof Victor Li, Dr Wilton Fok, Dr Philip Pong, Dr Alfred Yu, and a group of 10 engineering students visited the Wuhan University and Wuhan Steel via the Wuhan–Guangzhou High-Speed Railway from April 9 to 11, 2010. This group was invited by Mrs Regina Ip, a Councilor of the Legislative Council, to join the Wuhan interflow tour with students from other six universities in Hong Kong. Students from various programmes such as Information Engineering, Electrical Engineering, Civil and Environment and Computer Science joined the visit. During the visit, the Director of the Foreign Cooperation Division of the Guangzhou Railway (Group) Corporation Ms Ren Hong introduced the design and operation of the Wuhan-Guangzhou High Speed Railway to the delegates.

Student Interflow with the University of Electronics Science and Technology of China

20 EEE students visited the University of Electronics Science and Technology of China and joined an Interflow Conference with students from UESTC on May 25, 2010. HKU students Gavin Liu, Cindy Cheng, Huang Chao, Yew Kok Jin, Derek Chen, Ada Tien, Kam Ning, Zoe Yiu and Helen Hung presented different topics in the conference. The topics included the school reconstruction project in Deyang contributed by HKU, Mainland students studying in Hong Kong, Education and Development in Singapore and Malaysia, Wind Power System with demonstration and the Wuhan-Guangzhou Express Railway.

Sichuan Reconstruction

As a continuation of the Sichuan reconstruction project in 2009, the HKU Sichuan reconstruction team (including 4 teachers and 20 students from the Department of Electrical and Electronic Engineering) went to Sichuan again in May 2010. The team further improved the facilities in the reconstructed school in Deyang. An engineering team installed IP cameras in the computer room and micro wind turbines at the roof. An education team taught the local students science, computer and English.

As a memorial of the 2nd anniversary of the 512 Sichuan Earthquake, the Department of Electrical and Electronic Engineering organised the 'Conference on Sichuan Disaster Recovery Management and Reconstruction Engineering' on May 8, 2010. Also, a series of interviews with the members of the HKU Sichuan reconstruction team members were broadcasted in the programme "Starting from the Heart" 《在晴朗的一天出發》特備《由心出發》 in the Commercial Radio Hong Kong from May 3 to 11, 2010.

In addition, a book titled "Reconstruction after the 512 Earthquake" was published in April 2010. The book recorded the school reconstruction conducted by our teachers and students in August 2009. Besides the reconstruction process, the book includes the technologies deployed and students’ reflections on the project. The book can be downloaded from www.eee.hku.hk/~sichuan. Limited hard copies can also be obtained from the EEE Department office, 6/F Chow Yei Ching Building, HKU.

Energize 2010

Organised by the Department of Electrical and Electronic Engineering (EEE), Energize 2010 was a one-day event filled with fun, games and prizes held at HKU on May 20, 2010. It provided opportunities for current students to network with fellow students, teachers and alumni, and to learn more about study and career opportunities.
Annual Dinner of the HKU Industrial Engineering Association

HKU Industrial Engineering Association (HKUIEA) celebrated the New Year with its 34th Annual Dinner on January 30, 2010 held at Metropark Hotel Mongkok. The dinner was an excellent occasion for IMSE undergraduates to interact with alumni and academic staff. Dr Henry Lau, the Honorary President of HKUIEA, welcomed and thanked the attendance of guests and members. Miss Michelle To, a graduate of IMSE, was invited to be the Guest of Honor at the dinner and presented an inspiring speech about the career prospects of IMSE graduates. The evening included dinner, speeches, games and a lucky draw. It was a wonderful evening for all those who attended the dinner.

Staff News

New Staff

Dr Calvin Or joined the Department of Industrial and Manufacturing Systems Engineering as Assistant Professor in June 2010. He obtained his PhD degree in Industrial Engineering from the University of Wisconsin-Madison in 2008, specialising in human factors and ergonomics. His current research work focuses on the application of human factors and ergonomics to improve the design and usability of health care work system and technology to enhance the satisfaction, safety, and health of patients and health care professionals.

Dr Barbara P Chan visited Duke University, North Carolina, USA, in July 2010, and delivered a seminar titled “Collagen microencapsulation and applications in tissue engineering” in the Biomedical Engineering Department on July 15, 2010. During her stay at Duke, Dr Chan initiated several exciting research collaborations and visited the Orthopaedic Bioengineering Laboratory.

Prof K W Chow was a visiting professor at the University of California, Berkeley in California, USA from July 12 to 30, 2010.

Dr Sam C M Hui was the Chairman of the Organising Committee for the Build4Asia International Conference 2010 held in Hong Kong on June 3, 2010. He was also invited to make a presentation entitled “Operation and maintenance to improve energy efficiency and sustainability of existing buildings” at the Green Buildings: Better Quality of Life Conference held in Hong Kong on June 11, 2010.

Prof A H W Ngan was among a few international researchers invited to deliver keynote lectures in the following meetings: Gordon Research Conference on “Thin Film & Small Scale Mechanical Behavior” held in Colby College, Maine, USA, in July 2010, and the Oxford Micromechanics Meeting, to be held in Oxford, England, in September 2010. In August 2010, he was invited to visit the Aristotle University of Thessaloniki in Greece to conduct collaborative research. He is co-organising a symposium at the Materials Research Society 2010 Fall Meeting, to be held in Boston in November 2010. He will also be a keynote speaker in the Plasticity 2011 conference to be held in Mexico in January 2011, and an invited speaker in two separate symposia at the Minerals, Metals & Materials Society’s (TMS) 140th Annual Meeting to be held in San Diego, USA, in March 2011, as well as in the Fourth International Indentation Workshop to be held in Korea in July 2011.

Prof A K Soh was invited to visit the School of Electrical & Electronic Engineering of Nanyang Technological University as a Visiting Scientist from March 22 - 28, 2010 for research collaboration and to deliver a lecture entitled “Mesoscopic studies of ferroelectric/ferromagnetic materials with defects”. Also, Prof Soh is a visiting professor at Brown University in Rhode Island, USA from August 26 to October 8, 2010.

New Staff

Dr Michael Z Q Chen was born in Shanghai. He graduated from Nanyang Technological University, Singapore in 2003 with a BEng degree in Electrical and Electronic Engineering, and from Cambridge University in 2007 with a PhD degree in Control Engineering. From 2007 to 2009, he was a Lecturer in the Department of Engineering at the University of Leicester, England. From 2009 to 2010, he was a Professor and PhD advisor in the School of Automation, Nanjing University of Science and Technology, China. He is a Fellow of the Cambridge Philosophical Society, a Life Fellow of the Cambridge Overseas Trust, and a member of the IEEE. He is now a Guest Associate Editor for the International Journal of Bifurcation and Chaos. He joined the Department as Assistant Professor in July 2010. His research interests include: passive network synthesis, vehicle suspensions, complex networks, and statistical mechanics.
New Staff (Continued)

Dr P L Ho received his BEng degree in Building Services Engineering from Hong Kong Polytechnic in 1989. He then worked in a leading consultancy firm as a design and project engineer. In 1994, he joined The Hong Kong Polytechnic University as teaching staff, during which he conducted his research studies in thermal sensitivity of sprinklers and obtained his PhD in 1999. He was later involved in administrative duties in commercial and non-government organisations, while maintaining part-time teaching activities in various undergraduate and postgraduate programmes. He joined the Department as Teaching Consultant in July 2010. His research interests include studies in fire safety engineering and in building utility services.

Dr M X Huang obtained his BSc in Engineering Mechanics and MSc in Solid Mechanics from Shanghai Jiao Tong University (SJTU) in 2002 and 2004, respectively. Then he moved to The Netherlands and earned his PhD in Materials Science from Delft University of Technology (TU Delft) in 2008. After the PhD study, he was employed as a researcher at the global research centre of ArcelorMittal (the largest steel company in the world) in Maizières-les-Metz, France. His research work in ArcelorMittal was focused on the development of new generation of steels for automotive applications. Dr Huang joined the Department in September 2010 as Assistant Professor. His current research interests include microstructure-strength relationships of metals, advanced high strength steels, nanostructured materials and high temperature materials.

Student Activities

Technical visit to ICC

A technical visit to the International Commerce Centre (ICC) located near MTR Kowloon Station was conducted on July 24, 2010. This visit was organised jointly by the HKU, CityU, PolyU, HKUST and IVIE Student Branches of the American Society of Heating, Refrigerating and Air-conditioning Engineers (ASHRAE). Six students from HKU Department of Mechanical Engineering joined the visit and studied the design and operation of building services systems in this 490 metres super high-rise building.

Study tour to Singapore

Six students from HKU Department of Mechanical Engineering joined a technical study tour to Singapore from August 23 to 29, 2010. This study tour was jointly organised by the HKU, CityU, PolyU and HKUST Student Branches of the American Society of Heating, Refrigerating and Air-conditioning Engineers (ASHRAE) and supported by ASHRAE Hong Kong Chapter. Dr Sam C M Hui was the Advisor who helped the students in the arrangements and preparation for this tour.
HKU Engineering has long been 'the tertiary institution of choice' of many talented students. Here is an account of one of those who has made exemplary accomplishments in both academic and life pursuits.

CHAN Chuen Wing Kevin is currently a PhD graduate of the Department of Electrical and Electronic Engineering studying Biomedical Engineering (Medical Imaging) under the supervision of Prof Ed X Wu. He is also a graduate of the Medical Engineering undergraduate programme at HKU in 2006.

Why Medical Engineering? What inspires you?
Since I was young, I have been very interested in understanding how things are interconnected. In particular, I am fascinated by the complex yet ordered architecture of the human brain, which is the foundation of how we perceive the world. In recent decades, advancements in revealing the complexity of brain functions by means of neuroimaging techniques, particularly magnetic resonance imaging (MRI), allow us to understand globally, non-invasively and longitudinally how the brain works. The Medical Engineering programme offers me great opportunities to better equip myself to become smarter, more creative, and more independently in exploring this new world.

Since the beginning of my final year undergraduate project on "MRI study of optic nerve in glaucoma", my supervisor Prof Ed X Wu (Department of Electrical and Electronic Engineering) and my co-supervisor Prof Kwok-fai So (Department of Anatomy) have introduced me to the research field of medical imaging in neuroscience. My excitement in refining experimental design and looking into every detail of the MR brain images drove me to work 16 hours a day in the Laboratory of Biomedical Imaging and Signal Processing in HKU. My hard work resulted in a total output of 8 first-author scientific peer-reviewed journal papers and more than 40 international conference papers. I have also attended 8 overseas academic conferences between 2006 and 2010.

What other social and cultural activities have you participated in at HKU?
I have always wanted to develop myself as a well-rounded person and a responsible global citizen in the past 7 years at HKU. I have been selected as the Swire Scholar in 2008-2009, staying in Robert Black College (an academic guest house of HKU) and helping in cultural functions organised by the celebrated essayist and cultural critic Prof Lung Ying-tai. I joined the Buddy Programme 2005-2006 organised by the Office of International Student Exchange at HKU. I was also the peer mentor or mentee leader of several mentorship schemes organised by HKU and HKU Engineering Alumni Association. Since 2005, I have been a student ambassador of the HKU Centennial Campus Development Project. I am also a core group member of the Green Gown Guide (GGG) of HKU Campus Tour and have led more than 40 tours to introduce HKU campus to the public. I received the GGG Gold and Silver Awards in 2007 for my contributions.

What is your career goal?
Thanks to the support of my supervisor Prof Ed X Wu, I grasp every opportunity to train myself to become an independent scientist working in the field of neuroimaging. I want to be a successful researcher in the future. Upon my PhD graduation, I will start a faculty position at the University of Pittsburgh, USA and lead a research programme on structural and functional imaging of the visual system in health and disease. I am committed to applying my research skills to improve the livelihood of mankind.

Tips for other students:
1. Be focused and persistent.
2. Creativity is important, but the willingness to act and learn from trial and error is even more important.
3. Enjoy failures and spontaneity.

List of major Honours and Awards:
- Junior Fellow, International Society for Magnetic Resonance in Medicine, 2010
- Fulbright Junior Research Fellowship, 2009-2010
- Swire Scholarships 2008-2009
- Li Po Chun Postgraduate Scholarships, 2007-2010
- Dr Lo Kwee Seong Education Foundation Travel and Conference Grant, 2007-2008
- Dean's Honours List, Faculty of Engineering, The University of Hong Kong, 2004-2006
Staff Awards

Prof F T K Au and Prof B Young have been promoted to Professors from July 1, 2010. The award of the Professor title is a recognition of their accomplishments and a reward for their hard work and contributions to the Department over the years.

Prof Y K Cheung has been awarded the APACM (The Asian Pacific Association for Computational Mechanics) Congress Medal (Zienkiewicz Medal) on July 22, 2010. The Congress Medal is presented to honor an individual who has made outstanding and sustained contributions in the general field of computational mechanics over a substantial period of professional career and has shown leadership through contributions in promoting computational mechanics activities in the Asian-Pacific region. The award is given every three years at the time of the APCOM Congress. The Medal bears the name of Prof O C Zienkiewicz who happens to be an Honorary Doctor of Science in HKU.

Prof C F Lee and Dr Z Q Yue have been awarded the Award for Distinguished Contributions to Sediment Research in 2010 for their research work presented in the International Journal of Sediment Research.

Student Awards

Mr Guan Xianzhang, Mr Leung Kin Kei, Mr Guo Jiuhao, and Mr Ai Xuefei - 2009 graduates - won the Best Paper Award at the Institution of Civil Engineers (ICE) Papers Competition 2009.

Mr Hung William Wai Lun, Mr Lee Chi Lok, Miss Chong Suet Yee, Miss Tan Jing, and Miss Tse Ka Ki - 2009 graduates - won the Award of Merit at the same Competition.

Mr Wong Chak Man (2009-10 Year 1 BEng student) was awarded the Y S and Christabel Lung Undergraduate Scholarship for Engineering Students 2009-2010 by the Institution of Civil Engineers.

Mr Leung Cliff C Y and Miss Zhang Jing, PhD students, won the Best and Merit Awards for Presentation of the Infrastructure Stream, respectively, in the Second International Postgraduate Conference on Infrastructure and Environment held from June 1-2, 2010 in Hong Kong. Mr Leung and Miss Zhang are both being supervised by Professor F T K Au.

Staff Awards

The presentation ceremony of the Teaching Excellence Award and Best Tutor Awards of the Department of Computer Science for the academic year 2008/09 was held at the student-staff lunch gathering (MIXER) on April 1, 2010. This was the sixth time that Dr S M Yiu was selected for the Department’s Teaching Excellence Award. He also received the Best Teacher Award in the Faculty of Engineering in 2008/09 and the University’s Outstanding Teaching Award in 2009. Five tutors were selected for the Best Tutor Awards in the academic year 2008/09. They include Mr Chim Tat Wing, Mr Chui Chun Kit, Miss Lai Ka Ying, Pierre, Mr Mei Lijun, and Mr Wong King Fung Thomas.

Student Awards

Mr Lijun Mei, PhD student, has been awarded the HKSAR Government Scholarship for 2009-10. Mr Mei’s publications include papers in top conferences such as 30th International Conference on Software Engineering (ICSE 2008), the IEEE International Conference on Web Services (ICWS 2008), the 7th Joint Meeting of the European Software Engineering Conference and the ACM SIGSOFT International Symposium on Foundation of Software Engineering (ESEC 2009/FSE-17), and the 18th International Conference on World Wide Web (WWW 2009). He was selected for an IBM PhD Fellowship, an Internship for IBM China Research Laboratory, a Hong Kong and China Gas Company Limited Postgraduate Scholarship, and Hung Hing Ying Scholarships. He was also selected for best tutor awards by the Department. Mr Mei is supervised by Prof T H Tse of the University of Hong Kong and Dr W K Chan of City University of Hong Kong.

The Entrance Scholarships in Computer Science are awarded to first year students from the Early Admission Scheme, and to those admitted via JUPAS with excellent HKAL or HKCEE examination results. In the academic year 2009-10, five BEng(CompSc) Year 1 students are selected for this scholarship: Ricky Lam Shing Kit, Leung Chi Wah, Mui Tin Wing, Pun Ka Fai, and Tang Chun Hin. The five awardees received their certificates of award from Prof David Cheung, Head of Computer Science, and in the presence of teachers and fellow students at the student-staff lunch gathering (MIXER) held on April 1, 2010.

Two BEng (CompSc) Year 2 students, Loi Wai Hong and Kau Chun Kit, received the merit award in the "Games" category of the Samsung Anycall Android Mobile Phone Application Design Competition 2010. Their game, "Job Hunter", aims at educating students the importance of ethics during the process of job seeking in an interactive and interesting manner.

Three BEng (CompSc) Year 1 Students - Mui Tin Wing, Pun Ka Fai, and Tang Chun Hin - were awarded the Engineering Outstanding Students Scholarship 2009-10 by the Faculty of Engineering. These three awardees also received the Entrance Scholarships in Computer Science from the Department of Computer Science in the same year.

The Final Year Project Competition was held on May 19, 2010 where 7 out of 51 projects presented by BEng (CompSc) Year 3 students were shortlisted. The Department of Computer Science was honoured to have invited Mr C K Chan (Head of Channel Systems of HSBC), Mr Andy Cheung (Architect Evangelist of Microsoft Hong Kong), and Mr Chung Lee (Technical Director of the Markets Division of Thomson Reuters) to be the judges of the competition. The results were as follows:

| Champion: | Cheung Wing Yan |
| Project Title: | Algorithms for structural alignments |
| Supervisor: | Dr S M Yiu |

| First runner-up: | Chan Hao, Hui Yan Ting, Lau Chi Ho, and Li Man Ho |
| Project Title: | Energy-aware location-based services |
| Supervisor: | Dr R C K Cheng |

| Second runner-up: | Cheng Lee |
| Supervisor: | Prof F C M Lau |
Student Awards

**Mr Peng Yu**, PhD student, has been awarded the Hong Kong and China Gas Company Limited Postgraduate Scholarship for 2009-10. The award presentation ceremony was held at Tawngas Avenue on June 15, 2010. Mr Peng started his PhD study in September 2009 under the supervision of **Prof Francis Y L Chin**, Chair of Computer Science and Taikoo Professor of Engineering. Mr Peng’s research is in the area of Bioinformatics. He is also co-supervised by **Dr S M Yiu**.

Three BEng (CompSc) Year 2 students - **Wong Chi Yuen, Kau Chun Kit**, and **Loi Wai Hong** - teamed up as “citizen” and won the first runner-up in the “eBay Young Entrepreneurs Challenge 2010” with a prize of $20,000.

Staff Awards

**Dr Wilton Fok** and **Dr N Wong** have been selected as the two recipients of the Best Teacher Award 2009-2010 by the Faculty of Engineering in recognition of their excellence in teaching.

**Prof Victor O K Li** and **Dr Geng** received the Best Paper Award for their paper titled “A framework to analyze network performance based on information quality” at the “Next Generation Networking and Internet Symposium (NGI)” in the IEEE International Conference on Communications held in Cape Town, South Africa from May 23 to 27, 2010.

**Student Awards**

**Mr Chi-Un Lei**, **Mr Yuanzhe Wang**, and **Mr Quan Chen** won the Best Student Paper Award in the 2010 IAENG International MultiConference of Engineers and Computer Scientists. Mr Lei, Mr Wang and Mr Chen are postgraduate students under the supervision of **Dr N Wong**.

Mr Lau Kam Seng Andy of Medical Engineering programme was selected as one of the five student delegates of HKU (out of 25 nominees) to attend the U21 Undergraduate Research Conference held in Melbourne, Australia from July 1 to 7, 2010.

Three BEng (ME-BSE) Year 2 students, **Ms Chan So Chun Sue**, **Mr Fung Chak Pan Tommy**, and **Mr Wong Chi Chung** won the awards for the Schneider Electric Scholarship Scheme 2010. The scholarship includes HKD25,000 cash award and the awardees will be considered for permanent positions at Schneider Electric after graduation.

A BEng (ME-BSE) Year 2 student, **Mr Lam Cheuk Yin Victor**, was selected to join the Azbil Yamatake Corporation, Japan: Summer Internship Programme 2010 held from June 5 to August 20, 2010. This internship programme was organised by the Azbil Yamatake Corporation and HKU Department of Mechanical Engineering. The student went to Japan for 4 weeks and Singapore for 6 weeks to receive on-the-job training on building automation, industrial automation and energy management.

**Chiang Chen Industrial Charity Foundation Scholarship 2009-2010**

**Wong Man Long** (ME2)

**Engineering Outstanding Students Scholarship 2009-2010**

**Wong Chun Yin Johnny** (ME1)

**Chung Cheuk Yui** (BSE1)

**Fong’s Scholarship 2009-2010**

**Ahmad Saleem Grewal** (ME1)

**Mahfooz Hamza Farruth** (ME1)

**Lin Wai Juen** (ME2)

**Tse Yu Yee** (ME2)

**Chu Chi Wah Henry** (ME3)

**Wong Chuen Wa** (ME3)

**KONE Elevator Scholarship 2009-2010**

**Wong Chi Chung** (BSE2)

**HKU Engineering Alumni Association Scholarship 2009-2010**

**Tang Kit Wai** (ME3)

**Parsons Brinckerhoff (Asia) Ltd Scholarship**

**Law Pan Lau** (BSE2)

**Wong Chi Chung** (BSE2)

**Speak Out for Engineering by I MECH E**

**Chan Jimmy** (ME2)

**The Chartered Institution of Building Services Engineers Student Project Prize 2009-2010**

**Tsang Wai Man Wyman** (BSE3)

**The HKIE Building Services Division Scholarship 2009-2010**

**Lai Yuen Yee** (BSE3)

**The HKIE (Fire Division) Scholarship 2009-2010**

**Ching Chi Kong** (BSE2)
Mr Vincent T H CHU, a young civil engineer, has been dubbed by others “the walking encyclopedia of civil engineering”. Being a graduate of the Department of Civil Engineering in 1998, he was the recipient of the Ombudsman's Award 2007 under complaint-related category and Young Engineer of the Year Award 2008 (Merit) organised by the Hong Kong Institution of Engineers. Vincent Chu is the author of five civil engineering books, namely “200 Questions and Answers on Practical Civil Engineering Work”, “Civil Engineering Practical Notes A-Z”, “Ask Vincent Chu (Common FAQ on Practical Civil Engineering Works)”, “The Underlying Reasons in Practical Civil Engineering Works” and “A Closer Look at Prevailing Civil Engineering Practice — What, Why and How” which entail a list of useful practical experience, Q&As and knowledge that engineers should acquire. The five books were written within 5 years from 2005 to 2009. Vincent Chu also writes engineering columns in journals and international websites on a regular basis.

Ms Mandy M Y Leung, graduate of the Department of Electrical and Electronic Engineering, received the “Young Engineer of the Year Award 2010” by the Hong Kong Institution of Engineers (HKIE) in recognition of her commendable achievement and valuable contribution in the engineering profession, the HKIE and the community. The award was presented at the 35th Annual Dinner of the HKIE on March 16, 2010. Mandy obtained both her Bachelor and Master degrees in Electrical and Electronic Engineering from the University of Hong Kong. She is currently the Grid Planning Engineer of CLP Power HK Ltd. In August 2009, Mandy joined the Sichuan Reconstruction Project with a team of HKU engineering students. They contributed in building a constructed school in Sichuan after the 512 earthquake in 2008.
This year marks the 35th anniversary of the H.K.U. Engineering Alumni Association (HKUEAA)! Since established in 1975, the HKUEAA aims to bring together HKU engineering alumni of all years and disciplines, promote friendship amongst HKU Engineering graduates, encourage professional furtherance, and assist HKU engineering students in the University. In July 2010, the new cabinet of session 2010-2011 led by Mr Clement TSE was inaugurated. For this new session, we will continuously contribute to the engineering profession by providing all kinds of support to engineering students and the Faculty. Meanwhile, we also need your participation and support!

We look forward to seeing you in our coming activities and programmes!

The new cabinet of HKUEAA Section 2010-2011

You certainly were guided when you were small.

Someone certainly needs your guidance now...

Graduate Mentor Scheme 2011

Since 2000, Graduate Mentor Scheme (GMS) pairs up hundreds of renowned and socially experienced alumni (mentors) with young engineering students (mentees) to form friendly relationships. Mentees could gain support and guidance on the personal development from mentors whereas mentors could also gain insight from young mentees to enrich their perspectives.

Are you interested in engaging in this meaningful scheme to contribute back to our alma mater?

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If you want to be a Mentor or should you have any enquiries, please contact Ir Daniel YEUNG (hkueaa.gms@gmail.com) for the details.
The members of Engineering Society had a busy and enjoyable summer!!

Engineering Summer Camp 2010

The Engineering Summer Camp was held from July 26 to 29, 2010, which was designed for Form 5 to 7 students from local and overseas schools. During the camp, the participants enjoyed various kinds of activities including lectures, hands-on projects, laboratory visits, field trips, hall games, and so on. The current engineering students and alumni also shared their thoughts and experiences with the participants. In short, the summer camp is a great learning experience for secondary school students who are considering future university studies.

Registration Day

The Engineering Society organised the Registration Day on August 2 & 3, 2010 with an aim to give freshmen an opportunity to have a ‘first touch’ of The University of Hong Kong. Through the Registration Day, freshmen obtained all kinds of information including faculties, departments, residential halls, university associations, etc. Current students also gave tips to freshmen about their studies/activities in HKU.

Orientation Camp

The Orientation Camp was held from August 4 to 6, 2010 in Sai Kung. More than 140 freshmen joined the camp and participated in various activities including detective game, sociology game, water fight and camp fire. The freshmen gained a better understanding about university life and made new friendships.

Orientation Day

The Engineering Orientation Day was held on August 15, 2010. About 160 freshmen joined the event which was held on HKU campus and they participated in different activities such as mass games and ghost tours. The freshmen got to familiarise themselves with HKU through this event.