2011

KNOWLEDGE EXCHANGE CONFERENCE

(cum "3+3+4" Symposium on Knowledge Transfer)

SUCCESS STORIES

CONTENT

SUCCESS STORIES

(The sequence of speakers under each institution was arranged according to the Conference Programme at the Appendix.)

APPENDIX

香港城市大學
City University of Hong Kong

CITY UNIVERSITY OF HONG KONG

SPEAKERS

Dr. Alex Chengyu Fang

Assistant Professor
Department of Chinese, Translation and Linguistics
City University of Hong Kong

Biography

Alex Fang is based at the Department of Chinese, Translation and Linguistics, City University of Hong Kong and lectures on topics devoted to corpus linguistics, computational linguistics and machine translation. He currently supervises 6 PhD students. He has published widely and his most recent monographs include English Corpora and Automated Grammatical Analysis (2007) and Contributions of Syntax to Terminology Extraction (2010). He is closely involved with ISO TC37/SC4 in projects on standards for linguistic annotations and is also an expert member of the China National Technical Committee for the Standardization of Terminologies and Language Resources. He was previously Deputy Director of the Survey of English Usage, University College London.

Alex is the founding director of the Dialogue Systems Group (http://dsg.ctl.cityu.edu.hk), a research lab with 10 researchers and 12 affiliated international scholars. The lab performs corpus-based investigations into human speech and language and aims to develop linguistically motivated computational systems for automatic speech and language processing. In particular, it is currently developing man-machine spoken dialogue systems accessible via both the telephone and the Internet. At the same time, research is also being conducted at the DSG into corpus construction, corpus annotation, and dialogue act analysis.

Alex is also the founding president of The Language Automation Company (www.languageautomation.com).

Abstract

Linguistics, Language Industry and Language in Industry

Linguistics is the scientific study of human language in terms of form, meaning and context. With the exponential growth of information, computational approaches to linguistic analysis have constituted a core research area that is collectively known as computational linguistics and have been the major driving force for advances in language engineering. Practical needs such as automatic text retrieval, natural language understanding and text summarization have led to fast development of the language industry. In this presentation, we describe the research and development of speech and language technologies at the Dialogue Systems Group, based at the Department of Chinese, Translation and Linguistics, City University of Hong Kong and demonstrate how academic research can be adapted to suit practical needs arising both from the local community and from the industry. In particular, we showcase an interactive spoken dialogue system that has been designed to facilitate speech-driven information retrieval based on terminologies, the processing of which has associated the Group internationally with the industry and professional services.

Professor Daniel Fu Keung Wong

Professor
Department of Applied Social Studies

City University of Hong Kong

Biography

Professor Daniel Fu Keung Wong is a social work academic at the Department of Applied Social Studies, City University of Hong Kong. Professionally and academically, Professor Wong is a qualified cognitive therapist and conducts evidence-based research in indigenizing clinical intervention approaches in working with people with mental health concerns. His knowledge transfer activities revolve around: providing training to frontline health care professionals to deliver cognitive behavioural therapy to clients with mental health problems and running public health care prevention programmes and groups for people with mental health concerns. He has also written a number of self-help books and worker's manuals in Chinese for frontline health care workers and the general public in Hong Kong. Currently, he is the coordinator of Knowledge Transfer Committee of the College of Humanities and Social Sciences, City University of Hong Kong.

Abstract

Knowledge Transfer in Humanities and Social Sciences: What Are They?

One question that often baffles scholars in the fields of social sciences and humanities is: what constitutes a knowledge transfer activity in these fields? In sciences, knowledge transfer activities may involve the design of a product which has high commercial values and may in turn resulting in patenting and licensing of the product. In humanities and social sciences, the object of the transfer is not necessarily a tangible product. Instead, it may take the form of a contribution that helps develop and improve services, decision-making processes, and cultural events and products. Indeed, many of these activities revolve around the provision of advice, through consultancies and informal communications. In this presentation, drawing on the knowledge transfer activities of the College of Humanities and Social Sciences, City University of Hong Kong, the author would cite examples of the activities to illustrate the possible parameters of knowledge transfer in humanities and social sciences. Specifically, it aims to delineate the possible nature, processes and outcomes of knowledge transfer activities in humanities and social sciences. In addition, it also attempts to highlight the difficulties academics face while engaging in knowledge transfer activities in humanities and social sciences in educational institutions in Hong Kong.

Dr. Annis Lai-chu Fung

Assistant Professor
Department of Applied Social Studies
City University of Hong Kong

Biography

Dr. Annis Fung Lai-chu is an Assistant Professor in the Department of Applied Social Studies, mainly teaching social work and counselling courses. She won the 2009 Teaching Excellence Award from City University of Hong Kong, and in 2008, received a research award entitled, Outstanding Project Award, from the Quality Education Fund (QEF) of the Education Bureau. QEF selected 20 outstanding projects from the more than 7,000 funded from 1998 to 2008. Dr. Fung secured a five-year project, Project C.A.R.E. (Children and Adolescents at Risk Education, 有教無『戾』--- 校園欺『零』計畫), from QEF. It has been funded three times from September 2006 to August 2011 for a total of $11 million. This pioneer research project addresses youth aggression and peer victimization of school bullying in Hong Kong. Publications based on this project have appeared in top ISI international journals. In 2010, Dr. Fung received the 60th Anniversary Distinguished Alumni Award from the Department of Social Work and Social Administration at The University of Hong Kong. She was honoured for her outstanding contributions to social work research and education.

Abstract

Project C.A.R.E.: Primary and Secondary Hong Kong Students' Aggression and Peer Victimization of Bullying

Project C.A.R.E. (Children and Adolescents at Risk Education), spearheaded by City University of Hong Kong (CityU) and directed by Dr. Annis Fung Lai-chu (Assistant Professor-Department of Applied Social Studies), received three rounds of funding of $11 million from the Quality Education Fund (QEF) from September 2006 to August 2011. 77 secondary and primary schools participated and 158 schools are on the waiting list.
This was a ground-breaking project grounded in theory and empirically driven ecological interventions to reduce student reactive and proactive aggression, and aggressive and passive victimization of school bullying. Employing surveys and individual interviews, the project identified high-risk aggressors and victims from more than 33,000 students. Interventions included students, parents, and parent-child groups, and a "Harmony Ambassador Scheme." Eight to 10 sessions of Cognitive-Behavioural group therapy were offered. Persons in the Ambassador program interacted with elder peers with positive and pro-social behavior through outdoor and experiential activities.

Behavioural changes were assessed by self-report, teachers, and parents at pretest, posttest, and following treatment, supporting the program's long term effectiveness. Significant improvement was found in the proactive aggressors' bullying and reactive aggressor's impulsively aggressive behaviour, and the alleviation of emotional problems (e.g., depression, anxiety, anger). Aggressive and passive victims also indicated reductions in physical and verbal victimization, property attack, and social manipulation, and increases in school security and confidence establishing interpersonal relationships. Results can strengthen training for teachers, counsellors, social workers, police officers, and psychologists to enhance their skills to address youth aggression. Six sets of manuals, 11 booklets, and DVDs were published for this purpose. The public benefited from the Harmony School Competition, drama competition, slogan writing project, open forums, and radio and television programs promoting "zero" violence and anti-aggressive cultures in communities. Internationally, the project led to publications in top international journals and presentations at worldwide conferences.

Dr. Tak-yan Lee

Associate Professor
Department of Applied Social Studies
City University of Hong Kong

Biography

Dr. Tak-yan LEE is an Associate Professor in the Department of Applied Social Studies at the City University of Hong Kong. His primary teaching and research interests are in social work, group work, positive youth development, and practice teaching and learning. He is currently one of the co-principal investigators of a large scale applied research study on the development and evaluation of a positive youth development program titled "Positive Adolescent Training through Holistic Social Programmes" (Project P.A.T.H.S., since 2005) for junior secondary school students in Hong Kong. His recent research covers adolescent prostitution, positive youth development, parent-child communication, parental control, child and adolescent resilience, youth empowerment, runaway adolescents, youth and the cyber world, as well as social work practice teaching and learning. He has co-edited 5 books, 36 book chapters, 11 manuals and handbooks, published 8 teaching DVDs, and 56 articles in professional and international refereed journals.

Abstract

Towards Enhancement of Professional Practicum Teaching and Learning: A Conceptual Model

With no exception, all universities in Hong Kong will provide a new curriculum that emphasizes general education and allows wider choices from different disciplines to nurture an academic curiosity that is as deep as it is broad under the four-year normative curriculum in 2012. On one hand, universities aim to provide a holistic learning experience to produce well-informed citizens as well as leaders, and to prepare well-trained professionals with very practical knowledge to solve today's problems. On the other, a capstone course which will encourage students to engage in research is commonly found in most undergraduate programmes. Some universities aim to create a culture of inquiry, innovation, and discovery while all emphasize that the curriculum will cultivate critical thinking and a concern for society, particularly through service learning.

Economic and social environments are changing at an ever increasing pace in modern cities around the world. It is particularly so in Hong Kong. One of the challenges facing higher education in Hong Kong is that most graduates are being expected to demonstrate different types of competence in handling complicated occupation-related tasks. In response to such a drive, universities provide internship requiring integration of knowledge from different disciplines exposing them to knowledge and skills required for the job. This trend, together with the burgeoning evidence based practice movement in helping professions, highlight the importance of thinking carefully about what knowledge is, how it can be gained, how it should be used, and what the implications of different views are for clients, professionals, researchers, and taxpayers (Gambrill, 2005).

Against this background, this paper focuses on practicum teaching and learning for the helping professions and a conceptual framework on professional practicum teaching and learning is presented. The model integrates the perspectives from the university, the profession, the practicum agency, the student, and the practice teacher. Crucial issues will be highlighted and discussed.

Professor Sik Hung Ng

Chair Professor of Social Psychology
Department of Applied Social Studies

City University of Hong Kong

Biography

Sik Hung Ng, PhD (Bristol) and FRS (New Zealand), is Chair Professor of Social Psychology at the City University of Hong Kong. He co-founded the New Zealand Institute for Research on Ageing (1999), and served as the President of the Asian Association of Social Psychology (2007-2009) and a member of the Provisional Minimum Wage Commission of the Hong Kong SAR Government (2009-2010). He has published 5 books and over 90 international journal papers. His most recent book, co-edited with Stephen Cheung Yan-leung and Brahm Prakash, is Social Capital in Hong Kong: Connectivities and Social Enterprise.

Abstract

Transfer of Ageing Knowledge and Myths

"Ageing" is a socially constructed representation of apparent neural-biological and psycho-social changes in advanced age. The construction is open to the influence of not only science, but also folklores, religions, the fear of death, and the politics of "Who should care for the aged amongst us?" Knowledge of what ageing is and what it should be is highly contestable and often mixed with myths. Although ageing research has been relatively successful in "debunking" some of the older myths, it has the potential of creating inadvertently new myths of its own. The present talk addresses some of the modern myths and the need for a broader and more critical approach to the transfer of ageing knowledge.

Dr. Alice Ming Lin Chong

Associate Professor
Department of Applied Social Studies
City University of Hong Kong

Biography

PhD. (HKU), M.Sc.(Econ.)(UWales), B.S.Sc. (CUHK), PGD (E.Mgt) (HKCSS & CUHK), P.Mgr. (Canada), R.S.W. (HK).

Dr. CHONG, Ming-Lin Alice is the Associate Professor of the Department of Applied Social Studies, College of Liberal Arts and Social Sciences, City University of Hong Kong. She has been awarded her PhD. from the Department of Social Work and Social Administration, University of Hong Kong. Her areas of teaching are counseling, social work and human service management. Her research interests focus mainly on social gerontology (e.g. long term care, psychotherapy, end of life issues), as well as teaching and learning in higher education. Her publications appear in many academic journals, such as Ageing & Society, Social Work in Health Care, Death Studies, Palliative Medicine, Biological Psychology, among others.

Dr. Chong has established very strong professional connection with the community and is currently serving on the management board of several non-government organizations. She is appointed by the Hong Kong SAR Government to a few high-level governmental committees, such as the Elderly Commission which gives advice to the government on policy and services for older people; and to the Community Investment & Inclusion Fund Committee which provides seed money for the promotion of social capital in Hong Kong.

Abstract

Enhancing First Year Transition through a Student-centred, Non-credit Bearing Co-curricular Program

Higher education in Hong Kong is faced with high graduation rate but low motivation in learning, which is contrary to what happens in the West. To enhance first year students' learning motivation and to facilitate their adjustment to university life, a student-centred, non-credit bearing co-curricular program named "Project X for Learning Excellence" (Project X) has been specially designed and implemented since 2008/09 by the Department of Applied Social Studies of the City University of Hong Kong. The following experiential learning activities were organized: (1) small group program-specific learning communities to foster social support, open exchange and self-reflection; (2) academic skills training workshops supported by small group reflection and discussion; (3) student advising through training on goal-setting and individual/group consultation; (4) student-initiated, discovery-oriented community awareness projects (e.g. 3-3-4 project with a secondary school, equal opportunity project etc.) to connect classroom learning with community issues. Since students learn better through peers than teachers, a series of training, support and recognition was provided to student mentors to enhance their generic skills (e.g. management of task/self/others) so that they could be peer tutors. Longitudinal study found participation in Project-X activities positively associated with CGPAs and psycho-educational competence including self-efficiency, social development and leadership.

Dr. Taedong Lee

Assistant Professor
Department of Asian and International Studies
City University Hong Kong

Biography

Taedong Lee is an assistant professor in the Department of Asian and International Studies in City University of Hong Kong. Lee has worked on sub-national environmental governance with a variety of topics and methods. In his dissertation, "Global Cities and Climate Change," he examines conditions entailed in cities' participation in international climate change networks, collaboration patterns in a global network, and variations in city-level climate change policies with multilevel modeling, social network analysis and case studies of five cities in the U.S. and Korea. His studies including, "Local Climate Policy and Green Building,""Global Cities and Climate Change Networks," and "Act Locally Link Globally: Translocal Collaboration in C40 Climate Leadership Group" are under reviewed in top political science and public policy journals. He also develops a book project to provide climate change policy guideline for mayors, public officials and citizens. Main strengths of Dr. Lee lie in collecting and analyzing quantitative data with modeling and visualizing skills including the GIS and multilevel analysis. His articles have appeared in journals including *Voluntas* and *Nonprofit and Voluntary Sector Quarterly.*

Abstract

Green Building as a Solution for Better Life in Hong Kong

Sustainably built and energy efficient buildings are an international phenomenon that is driven by policy and market forces. These "green buildings" have quickly become an important component of the modern global city's skyline and business recruitment materials. My speech talks about the role of policy and business community in fostering green building using findings from analyses of 600 US cities. Hong Kong government and its Environmental Protection Department (EPD) set an ambitious GHG emission reduction target by conducting measures for maximizing energy efficiency. In order to maximize energy efficiency, the EPD proposed promotion of building energy efficiency and building environmental management system. Given that 67% of Hong Kong's total GHG emissions come from electricity generation and 90% of electricity consumption is related to buildings, improving building energy efficiency is imperative to save energy, costs and the environment. In this regard, it is crucial to assess how other cities in the US integrate green building policy into climate change and energy policy. Drawing lessons from US city level policy, I argue that political commitment and "policy by doing" are key factors driving the proliferation of green buildings.

Professor Jeffrey Shaw

Chair Professor
Dean of School of Creative Media
City University of Hong Kong

Biography

Professor Jeffrey Shaw is internationally recognized as a leading figure in new media art since the 1960's. In a prolific oeuvre of widely exhibited and critically acclaimed works he has pioneered and set benchmarks for the creative use of creative media in the fields of virtual and augmented reality, immersive visualization environments, navigable cinematic systems and interactive narrative. Shaw was the founding director of the ZKM Institute for Visual Media Karlsruhe (1991-2002), and in 2003 he was awarded an Australian Research Council Federation Fellowship to co-found and direct the UNSW iCinema Centre for Interactive Cinema Research. Since 2009 Shaw is Chair Professor of Media Art and Dean of the School of Creative Media at City University in Hong Kong, as well as Director of the Applied Laboratory for Interactive Visualization and Embodiment (ALiVE) and the Centre for Applied Computing and Interactive Media (ACIM).

Abstract

Future Cinema – Creating New Realities

While during its infancy the cinema was full of technological innovation and creative diversity, Hollywood has ended up defining its dominant forms of production and narration. But this situation is now changing because of the new digital modalities of cinematic production and presentation, and over the last ten years we have been witnessing a creative renaissance with a whole new range of experiences, from handheld micro-movies and interactive mash-ups, to video games and immersive telepresence in virtual 3D worlds. Professor Shaw's presentation will discuss the convergent multiplicity of these new techniques of cinematic representation and intercommunication, with illustrated examples of ground-breaking artworks that herald the digitally expanded cinema of tomorrow. Shaw will refer in particular to benchmark research he and his associates are currently undertaking at the CityU Applied Laboratory for Interactive Visualization and Embodiment (ALiVE).

In the realm of digital creation, the essential scale-ability of its codes allows the cinematic imaginary to be seamlessly distributed amongst these various technological systems, opening dizzying perspectives of creative interpolation on all levels and in all places. We are witnessing an increasing multiplicity of techniques of representation and inter-communication, and the emergent expressive possibilities that derive from their invention and application. The social vitality of creative research in this area provides a platform for the broader discourse concerning the co-evolutionary challenges for humankind living in a machine culture. This is the driver of a research trajectory that looks beyond the dominant industrial forms of popular media, and pushes the creative and critical boundaries of the cinematic imaginary in ways that can enrich human experience and be of transforming benefit to society.

POSTER PRESENTERS

Professor Ron Shu Yuen Hui

ex CityU staff
Previously Chair Professor of the
Department of Electronic Engineering

City University of Hong Kong

Biography

Professor Ron Hui (FIEEE 2003) received his PhD at Imperial College London in 1987. He has previously held academic positions at vthe University of Nottingham, the University of Sydney and City University of Hong Kong. He joined the University of Hong Kong as Chair Professor in 2011. Concurrently, he has held the Chair Professorship at Imperial College London since 2010.

He has published over 200 technical papers, including more than 150 refereed journal publications and book chapters. Over 50 of his patents have been adopted by industry. He is a Fellow of the IEEE and IET. He has been appointed twice as an IEEE Distinguished Lecturer by the IEEE Power Electronics Society in 2004 and 2006. He won two IEEE Power Electronics Transactions Prize Paper Awards for his publications on Wireless Power in 2009 and on LED system theory in 2010. His inventions on wireless charging platform technology underpin key dimensions of Qi, the world's first wireless power standard, with freedom of positioning and localized charging features for wireless charging of consumer electronics. In Nov. 2010, he received the IEEE Rudolf Chope R&D Award from the IEEE Industrial Electronics Society, the IET Achievement Medal (The Crompton Medal) and was elected to the Fellowship of the Australian Academy of Technological Sciences & Engineering.

Poster - CityU-1

Project Objectives

A universal wireless charging platform for simultaneously charging multiple portable electronic devices is developed.

Brief Description of the Project

The wireless charging platform taps into near-field electromagnetic coupling technology, and is capable of generating low-frequency electromagnetic field that does not harm the stored data in the devices being charged. Laboratory tests show that charging time is similar to that of conventional chargers. The charging platform does not require wired connection with the devices under charging. Electronic devices can be charged regardless of their positions or orientations.

Impact and Contributions

The technologies related to wireless charging have been adopted by the Wireless Power Consortium to draw up universal industrial standards for wireless charging, and they underpin key dimensions of Qi, the world's first wireless power standard. The invention may lead to the creation of a new generation of wireless charging apparatuses, and its widespread use can reduce the accumulation of electronic waste and packaging.

Project Team

Professor Ron Hui
(ex CityU staff; previously Chair Professor of the Department of Electronic Engineering)

Professor
Edward Kai Ning Yung

Chair Professor
Department of Electronic Engineering
City University of Hong Kong

Biography

Prof. Edward Yung was born in Hong Kong. He received a Bachelor of Science Degree in the University of Mississippi with Special Distinction in Electrical Engineering in the winter of 1972 with the highest grade point average in that batch of graduates. He earned a Master of Science Degree and a Doctor of Philosophy Degree with a perfect GPA in 1974 and 1977, respectively.

Prof. Yung's specialism include: Radio Frequency Identification Systems, small Antennas for Wireless Devices, sesign of Synthetic Chiral Materials and Wave Scattering from Chiral Materials, antenna Loaded with a Bi-Anisotropic Body of an Arbitrary Shape and Computational Electromagnetics.

Professor
Steve Hsianghoo Ching

University Librarian
Run Run Shaw Library
City University of Hong Kong

Biography

Steve Ching is the University Librarian at City University of Hong Kong. He is also an Adjunct Professor in Department of Economic and Finance. Before joining CityU in 2004, he was a Professor of Business School and the Director of University Libraries at Feng Chia University in Taiwan. His recent research works include changing management of library services, regional and inter-regional academic library consortia development and management, RFID application in libraries, strategic development for digital publishing, and economic issues for Pearl River Delta and Yangtze River Delta.

Poster - CityU-2

UHF RFID Automated Library System - The EasyService Project

Project Objectives

By using Ultra High Frequency Radio Frequency Identification (UHF RFID) technologies, the EasyService Project develops applications that allow users to handle by themselves various book circulation processes, for example, book loans and returns, and settling overdue fine payments.

Brief Description of the Project

The EasyService Project has given rise to the EasyCheck and EasyPay Systems. The EasyCheck System, launched in April 2008 in a selected small collection inside the Library, is well-received by users. Installed with a unique shielding device, the System ensures that no unrelated items nearby shall be mistakenly detected when the user is checking out books.The EasyPay System, introduced in 2009, has streamlined the overdue fine payment handling process and thus substantially reduced the administration for cash handling and micropayments.

Impact and Contributions

The project has drawn the attention of other libraries on the potential of UHF RFID and led to the formation of the Consortium for RFID Applications in Higher Education Libraries. CityU, Tsinghua University, and the Shanghai Jiaotong University are the founding members.

Project Team

Professor Edward Yung
Chair Professor, Department of Electronic Engineering
Professor Steve Ching
University Librarian, Run Run Shaw Library

Professor Kwai Man Luk

Chair Professor
Department of
Electronic Engineering
City University of Hong Kong

Biography

Professor Luk received his PhD degree in electrical engineering in 1985. His research interests include antenna design, and millimeter wave technologies. He was awarded 5 US patents and over 10 PRC patents on the designs of various printed antennas. He is a Fellow of IEEE, IET, CIE, and HKIE. He received the Croucher Award in 2003. He is a Chief Guest Editor of a special issue on 'Antennas in Wireless Communications' of the Proceedings of the IEEE.

Professor Quan Xue

Professor
Department of
Electronic Engineering
City University of Hong Kong

Biography

Prof. Xue received Ph.D. degree in electronic engineering from the University of Electronic Science and Technology of China (UESTC), Chengdu, China 1993. Then he joined the UESTC and was promoted as a Professor in 1997. In 1999, he joined the City University of Hong Kong, where he is currently the Associate Vice President, and a Professor in the Department of Electronic Engineering. He is a Fellow of IEEE with research interests in microwave and antenna.

Professor Chi Hou Chan

Chair Professor
Department of
Electronic Engineering
City University of Hong Kong

Biography

Professor Chan received his PhD in EE from UIUC in 1987. His academic lineage can be traced back to Helmholtz and Gauss. He joined City University in 1996 and has been a Chair Professor of EE since 1998. Chi is the recipient of the 1991 Presidential Young Investigator Award from the US National Science Foundation and the 2004 Joint Research Fund for Hong Kong and Macao Young Scholars from the Natural Science Foundation of China. He is a fellow of IEEE.

Poster - CityU-3

Radio-Frequency (RF) Technologies in Mobile Satellite Terminal for Chinese Area Positioning System (CAPS)

Project Objectives

To develop compact antennas and microwave integrated circuit transceivers for an advanced navigation and communication system, namely, the Chinese Area Positioning System (CAPS).

Brief Description of the Project

The CityU State Key Laboratory of Millimeter Waves received an RMB5 m yuan grant from the National Astronomical Observatories of China (NAOC) to develop radio-frequency front-end technologies that support the Chinese Area Positioning System (CAPS). CAPS is a national commitment and CityU is the first local university to be invited by the NAOC to participate in the CAPS project. Major targets of the project are to design small antennas capable of wide angular coverage and a five-in-one RF integrated circuit chip for receiving signals from and transmitting signals to different satellites for navigation and voice communication.

Impact and Contributions

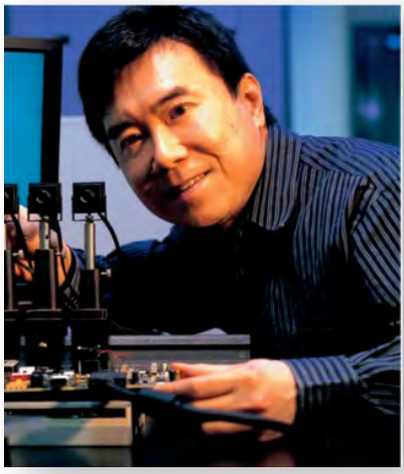
The circularly-polarised antennas developed by the Laboratory are small, light-weight, easy to fabricate and highly efficient. CityU antennas can improve the coverage of satellite phones because of their high gain in broadside and low elevation. The RF integrated circuit chip designed can substantially reduce the size and cost of the overall mobile unit.

Project Team

Professor Luk Kwai Man
Chair Professor, Department of Electronic Engineering
Director, State Key Laboratory of Millimeter Waves (HK)

Professor Xue Quan
Professor, Department of Electronic Engineering
Deputy Director, State Key Laboratory of Millimeter Waves (HK)
Associate Vice-President (Innovation Advancement and China Office)

Professor Chan Chi Hou
Chair Professor, Department of Electronic Engineering
Advisory Committee Member, State Key Laboratory of Millimeter Waves (HK)



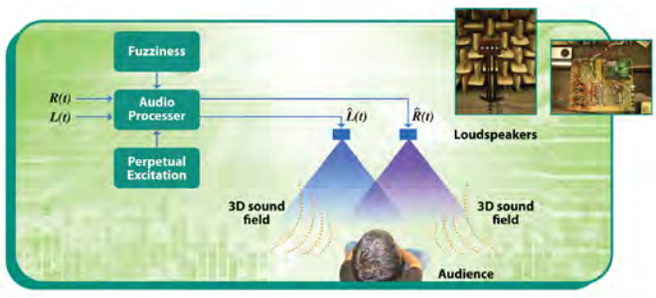
Dr. Peter Wai Ming Tsang

Associate Professor
Department of Electronic Engineering
City University of Hong Kong

Biography

Dr. Peter Tsang received his Ph.D. Degree from the University of Hong Kong in 1987, and is currently an Associate Professor of the Department of Electronic Engineering, City University of Hong Kong. His research interests include Digital Holography, 3D Television, 3D audio, Image Compression, and Computer Vision. Dr. Tsang has developed solutions for capturing real-world 3D scene, as well as methods for converting 2D color images into multi-view auto-stereoscopic images. His inventions have been licensed to several local companies in Hong Kong.

Poster - CityU-4



Project Objectives

The project aims to facilitate the generation of enhanced spatial effects for stereo audio systems.

Brief Description of the Project

The novel 3D sound system allows listeners to perceive more robust 3D effects through a dynamic processing of the sound field. The system comprises a computation efficient component that generates an enhanced output signal based on the digital processing of the stereo signals. This results in a more appealing audio effect, in a way that the listener feels as if the sound sources are emerging from an expansive environment. Different from some existing spatial enhancement techniques, our system provides a subtle hint of fuzziness that makes the 3D effect stronger, but less artificial to the human ears.

Impact and Contributions

The 3D sound system is applicable to audio systems and can be integrated with electronic devices such as audio dockings, portable loudspeakers, computers, MP3 and DVD players.

Project Team

Dr Peter Tsang
Associate Professor, Department of Electronic Engineering

Professor Shuk Han Cheng

Professor
Department of Biology and Chemistry and
Director
Office of Education Development and General Education
City University of Hong Kong

Biography

Prof Cheng Shuk Han received her BSc (Hons) from the University of Hong Kong (Major in Zoology and Minor in Biochemistry). She received her PhD from the Royal Postgraduate Medical School, which is now part of the Imperial College, University of London. Her PhD work was on the cellular immune response of BCG vaccination, under the supervision of Prof Denny Mitchison in the Department of Bacteriology, Hammersmith Hospital. She did her postdoctoral training under the supervision of Prof Tak Mak on molecular immune response of T cells at the Ontario Cancer Institute in Toronto. Before joining City University of Hong Kong in 1997, she worked in the Department of Paediatrics and Department of Orthopaedics and Traumatology at the Chinese University of Hong Kong.

She has won many innovation awards at international exhibitions, including the Gold Medal at the 35th International Exhibition of Inventions, New Techniques and Products of Geneva in 2007, and a total of 6 awards from the Korean International Women's Invention Expositions in 3 consecutive years from 2009 to 2011. She has published over 80 peer-reviewed research articles and some of them are among the Top 25 Hottest Articles in the Science Direct database. To date, she has supervised 19 graduate students, with 5 awarded PhD and 9 awarded Mphil. She is a member of the Editorial Boards of the journal Nanomedicine: Nanotechnology, Biology and Medicine and the journal Developmental Dynamics. She is an overseas Fellow of the Royal Society of Medicine (London). She also serves on the Board of Directors of Nano and Advanced Materials Institute Limited (NAMI) in Hong Kong.

Poster - CityU-5

Project Objectives

The transgenic fish technology can efficiently detect estrogenic disruptors in the environment by using transgenic medaka fish.

Brief Description of the Project

Estrogenic pollution is caused in part by the extensive use of estrogenic chemicals in food and pharmaceuticals, which enter the marine environment through sewage disposal. Such pollutants not only upset the hormonal balance of humans and organisms, but may also be carcinogenic. Medaka fish larvae with genes engineered to give off green fluorescence are exposed to sample solutions for 12 to 24 hours. The concentration of estrogenic disruptors in the sample can be measured by studying the intensity of the green fluorescence.

Impact and Contributions

The novel technology had once been exhibited in the Science News Corner of the Hong Kong Science Museum in 2010. The project team was awarded the Gold Prize and Federation of Korean Industry Special Prize at the third Korea International Women's Invention Exposition held in early May 2010, beating contestants from about 20 countries.

Three CityU students used the transgenic fish technology to come up with a business plan that won them the Asian championship of the HSBC Young Entrepreneurship of the HSBC Young Entrepreneur Awards 2010 and the bronze award of the Lee Kuan Yew Global Business Plan Competition 2010. The team eventually set up a startup company and licensed the technology.

The technology is suitable for a wide range of industries, including food production, cosmetics, pharmaceuticals and environmental monitoring.

Project Team

Professor Cheng Shuk Han
Professor, Department of Biology and Chemistry
Director, Office of Education Development and General Education

Professor Weijia Jia

Professor
Department of Computer Science
City University of Hong Kong

Biography

Prof. Jia is currently a full Professor in the Department of Computer Science and the Director of Future Networking Center, ShenZhen Research Institute of City University of Hong Kong (CityU), leading several large R&D projects on next-generation mobile phone and multimedia software and devices. He received BSc and MSc from Center South University , China in 1982 and 1984 and Master of Applied Sci. and PhD from Polytechnic Faculty of Mons, Belgium in 1992 and 1993 respectively, all in Computer Science. He joined German National Research Center for Information Science (GMD) in Bonn (St. Augustine) from 1993 to 1995 as a research fellow. In 1995, he joined Department of Computer Science, CityU as an assistant professor.

Prof. Jia's research interests include next generation wireless communication, protocols and heterogeneous networks; distributed systems, multicast and anycast QoS routing protocols. In these fields, he has a number of publications in the prestige international journals (IEEE Transactions, e.g., TPDS, TN, TMC, TC etc.), books/chapters and refereed international conference proceedings (e.g. ACM CCS, WiSec, MobiHoc, IEEE ICDCS, INFOCOM etc.). He has received the best paper award in a prestige (IEEE) conferences and has proposed an improved algorithm for well-known Vertex Cover and Set-packing NP-hard problems with time bounds of O(kn+1.2852k) and O((5.7k)kn) respectively. Both results stand on the current best time-bound to date for the fixed-parameterized intractable problems. In 2005 and 2008, he has been awarded total HK$22 millions from the Innovation & Technology Fund of the HKSAR Government for two projects with intentions of design and implementation of cyber cross-platform secure communications to integrate the Internet with 3G, WiFi,WiMAX, ad-hoc, Sensor and networks for real-time multimedia communications and mobile video surveillance.

Prof. Jia is the Chair Professor of Central South University, Changsha, China, Guest Professor of Shanghai Jiao Tong University, University of Science and Technology of China, Beijing Jiao Tong University and Jinan University, Guangzhou, China. He has served as area editor for prestige international journals (IEEE TPDS and ComCom) and chair and PC member/keynote speaker for various prestige international conferences. He is the Senior Member of IEEE and the Member of ACM.

Poster - CityU-6

Project Objectives

The invention is a software tool that connects 3G mobile network, WiFi, and the internet.

Brief Description of the Project

By installing the WeZOOM software tool in their personal gateway, users can access the WeZOOM-3G mobile surveillance system via cell phones and the internet. Upon detection of abnormalities, the surveillance camera will send signals to users through 3G phones. Users can operate the surveillance camera by using the phone keypad or PC keyboard. The system is equipped with infrared and RF315/433MHz remote sensing technology for monitoring home temperature, lighting, and heating from different locations.

Impact and Contributions

The invention has wide application in both domestic and business settings. WeZOOM was recipient of the Excellent Product Award in the 12th China Hi-Tech Fair. The software is licensed to several companies.

Project Team

Professor Jia Weijia
Professor, Department of Computer Science

香港浸會大學
HONG KONG BAPTIST UNIVERSITY

HONG KONG BAPTIST UNIVERSITY

SPEAKERS

Dr. Victor Ming Hoi Lai

Associate Professor
Academy of Visual Arts

Hong Kong Baptist University

Biography

Dr. Victor Lai completed his BEd at Liverpool, and has gained an MA at Royal College of Arts and a PhD at Lancaster University. He has gained numerous awards including Postgraduate Fellowship from the British Council, Overseas Research Scheme, Milner Kite Scholarship, Winslade Bursary Scholarship, John Milton Scholarship, Starr Foundation Fellowship from Asia Cultural Council, honourable mention grant from Vermont Studio Centre and artist-in-residence grant from Red Gate Gallery and the Hong Kong Arts Development Council.

Dr. Lai worked as Creative Director in renowned advertising companies, and has been working for a range of local and regional organisations. He was the Head of Department of Creative Arts and Physical Education of the Hong Kong Institute of Education (HKIEd), the president of Hong Kong Society for Education in Art, the Chief Examiner of the Hong Kong Examinations and Assessment Authority, one of the adjudicators for the Hong Kong Art Biennial Exhibition 2005, a member of the assessment panel on the Arts Education Key Learning Area of the Chief Executive's Award for Teacher Excellence, vice chairman of the art education section of Hong Kong Art Development Council, as well as the external examiner and advisor for several local tertiary institutions. Prior to the appointment at Hong Kong Baptist University, Dr Lai was an Associate Professor and Associate Department Head of Department of Cultural and Creative Arts of the HKIEd.

Abstract

Work Creatively: Facilitating Knowledge Transfer in Arts and Cultural Sector

The word "creativity" appears to be a cliché as it may be a self-contained term on what it is about and how may that be achieved. To do and to think creatively means one has to alter and enhance what we have in our existing realm. That is what we need, however, when the situation and structure of economy differs from what we have had before. That is also when the concept Knowledge Transfer comes into place, by allowing us as artists or art practitioners to think outside the box. Indeed, most people reckon that we, as art practitioners, experience no difficulty in expressing and creating; it may however be a myth on how we could sustain our creativity.

As a participant of two Knowledge Transfer Partnership (KTP) projects, I shall share my thought on the importance of art. It is not a mere out-of-reach interest, rather it is related closely to various industries in our community, may it be light source or shopping malls. Our projects are not just about artistic expressions and values, it is more of how we as artists or art practitioners contribute to the industry concerned, which we are in turn enlightened by the art of living and living up an artistic life.

Dr. Mee Ping Leung

Assistant Professor
Academy of Visual Arts

Hong Kong Baptist University

Biography

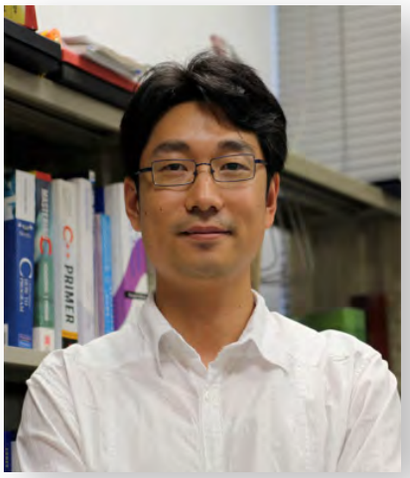
Dr. Leung Mee-ping completed her BFA at L'Ecole Nationale Superieure des Beaux-Arts a Paris, France, and has gained an MFA at California Institute of the Arts, LA, U.S.A. and a PhD at Chinese University of Hong Kong (Religious & Cultural Studies). She has received numerous awards including Civitella Ranieri Fellowship, Starr Foundation Fellowship and Hong Kong Art Biennial Award. Her art works have become permanent displays in many prominent locations and are collected by major world class art collectors.

Besides theoretical research on visual culture related to creative industry, contemporary art, traditional handicraft and transformation, Dr Leung has also work on mixed-media, video, multi-media installation and site-specific event-based projects. Her recent cross-sectoral projects attempt to extend her creative arts disciplines such as theatre, drama, and space saving design as well as the development of traditional handicraft.

Abstract

Community Arts Development---Multiple Knowledge Transferring of Inter-School

"Better Community, Better Life" initiated by Hong Kong British Council's Connecting Classrooms, is a program of co-operation with Hong Kong Baptist University Academy of Visual Arts, which has been carrying out community art creation in six secondary schools for nearly a year. The project has developed an inter-school community art creation which is based on multiple concepts of knowledge transfer. Not only has it retained the objectives of knowledge transfer that enables the knowledge of visual arts to be extended and stretched out diversely, but also realized the interaction between schools and community culture and discovered the new functions of schools within a community and their dialogues. This report will go through the details of this project, as well as the conceptual process of knowledge transfer and its consequences within the participating schools.



Dr. Xiaowen Chu

Associate Professor
Department of Computer Science
Hong Kong Baptist University

Biography

Xiaowen Chu received his B.Eng degree from Department of Computer Science and Technology, Tsinghua University in 1999, and his PhD from Department of Computer Science, Hong Kong University of Science and Technology in 2003. He is currently an Associate Professor at the Department of Computer Science, Hong Kong Baptist University.

Dr. Chu's research interests include computer networks, all-optical networks, wireless networks, and parallel and distributed computing. He has published more than 100 research papers in International Journals and conferences. He has served as Chair/vice-Chair/Co-Chair of many International conferences and workshops, including the 3rd IEEE International Symposium on Security in Networks and Distributed Systems, the 10th IEEE International Conference on High Performance Computing and Communications, the 4th International Conference on Communications and Networking in China, the 7th Annual IEEE Consumer Communications & Networking Conference, the 1st and the 2nd International Workshop on Frontier of GPU Computing. He has also served as TPC members for many International conferences, including IEEE INFOCOM, IEEE GLOBECOM, IEEE ICC, IEEE PERCOM, etc. Dr. Chu has been a guest editor of Journal of Supercomputing and International Journal of Network Management. He has received the Best Paper Award of IEEE International Conference on Computer and Information Technology. He has been the PI and Co-I of many research projects and received many research grants with a total amount of 3 million HK dollars.

Abstract

GPU Computing in Mainland China's Industry

GPU computing means the use of GPUs (graphics processing units) to perform general purpose scientific and engineering computing. This new technology has been successfully applied in many real-world applications because of its low-cost and energy-efficiency. Inspur Group Co., Ltd. is one of the leading IT companies and the largest server manufacturer and server solution supplier in mainland China. In this talk, we will introduce the Inspur-HKBU Joint Laboratory for Heterogeneous Computing, which was recently established by the Department of Computer Science, Hong Kong Baptist University and Inspur. This joint laboratory combines the strength of both parties and focuses on the research and development of cutting-edge GPU computing technologies in order to provide low-cost and energy-efficient solutions to real-world applications. We will show some successful applications that we have developed together with Inspur and other third parties, including petroleum prospection in oil industry, 3D Reconstruction of Electron tomography, and DNA sequence alignment in bioinformatics.

Professor Jiming Liu

Head
Department of Computer Science

Hong Kong Baptist University

Biography

Jiming Liu is the Chair Professor of Computer Science Department at Hong Kong Baptist University. His areas of research are in multi-agent autonomy-oriented computing (AOC), Web intelligence (WI), self-organizing/decentralized systems, as well as real-world complex system/complex network related problems (e.g., in health and health systems, extreme event management, and sustainability/energy management). Prof. Liu is a Fellow of IEEE. He obtained his Master of Engineering and Ph.D. degrees from McGill University, Montreal, and held full-time R&D positions at Computer Research Institute of Montreal (CRIM), Virtual Prototypes Inc. (VPI), and Knowledge Engineering Technology Inc. (KENTEK) in Canada prior to 1994. In 1999, Prof. Liu was an invited Visiting Scholar in Computer Science Department at Stanford University. Prof. Liu has published many international journal articles and conference papers, as well as authored research monographs and edited books. Prof. Liu has contributed to the community in various capacities, e.g., serving as the Editor-in-Chief of Web Intelligence and Agent Systems (WIAS), an Associate Editor of IEEE Transactions on Knowledge and Data Engineering, IEEE Transactions on Systems, Man, and Cybernetics–Part B, and Computational Intelligence: An International Journal, as well as a member of the Editorial Board of other international journals.

Abstract

GPU Computing in Mainland China's Industry

Joint presentation with Dr. Xiaowen Chu - Please refer to the abstract on the previous page.

Professor Jonathan Wong

Director
Sino Forest Applied Research Centre for Pearl River Delta Environment
Professor
Department of Biology

Hong Kong Baptist University

Biography

Dr. Jonathan Wong is a Professor of Environmental Science in the Hong Kong Baptist University, the Directors of the Applied Research Centre for Pearl River Delta Environment and Hong Kong Organic Resource Centre and the Executive Director of the Earth Tech Consultancy Co. Ltd. He was bestowed with the 'Medal of Honor (MH)' by the HKSAR government in 2011 for his service to the society. As the convener of the 'Task force for campus sustainability, HKBU' he seriously advocates the low-carbon living and sustainability of the resources to reduce our carbon foot print on ecosystem. He developed the first third party independent organic certification system in Hong Kong. Dr Wong has over 20 years of experience in solid waste management with expertise in biological waste treatment technology focusing on bioenergy and biomass production from organic wastes with purpose to develop solutions for the disposal of organic solid wastes as well as producing value added products from the waste. He authored over 350 refereed papers, conference proceedings, and technical and consultancy reports.

Abstract

Composting a Solution for Organic Waste Management

In Hong Kong, 3,715 and 1,243 tonnes/day of putrescible and special wastes, respectively, were landfilled during 2009, which occupies huge volume of our precious landfill space. Besides, decomposition of organic wastes becomes the source of methane in landfills, contributing to 8-10% of total anthropogenic methane. Hence, diverting waste from landfilling to other alternative treatment technologies such as composting becomes environmentally more sustainable. Composting, an economic and robust biological treatment technology, can convert organic waste into a value added fertilizer product resulting in financial incentives and most importantly conserving our earth resources.

Research at the Hong Kong Baptist University has developed composting technology that can be performed at community to pilot scale for organic waste generated in Hong Kong. A composter with treatment capacity of 100 kg/day was developed for community level-composting and demonstrated the feasibility of food waste separation and composting in public housing estate using Un Chau Estate as an example. The technology was scaled up to apply for the pilot scale 4 t/d in-vessel composting facility for food waste composting. The acidity problems encountered during food waste composting was successfully overcome by modification of the composting feedstock. The composts produced are of excellent quality and can be used in organic farming. Animal manures and other biosolids were also successfully composted in a 10 t/d in-vessel composters at the Ngau Tam Mei Animal Waste Composting Facility. In this case, one of the wastes, horse stable bedding material, was used to adjust the property of other wastes such as pig manure and sewage sludge; thus developed a sustainable resource management. The experience and technology gained from these pilot study should provide an excellent basis for large scale commercial operations. A 'cradle to cradle' approach using wastes as resources would reduce the carbon foot print on our ecosystem and make our environment safe which should be considered by our Government.

Dr. William Ng

Associate Professor
Department of Religion & Philosophy
Hong Kong Baptist University

Biography

Dr. William Yau Nang Ng is currently an Associate Professor of the Department of Religion and Philosophy at the Hong Kong Baptist University. He holds a PhD in comparative religious study from University of Toronto and is an expert in Chinese religions. He teaches courses on Buddhism, Matters of Life and Death and Socio-cultural Issues in Hong Kong Today. He has written four books, edited a series on comparative study and co-translated two books from English into Chinese. Dr. Ng published many articles on Chinese philosophy, religion, film study and cultural studies and has contributed entries for different Encyclopedias. He has been taking part in the Exchange Project and Research Project of the Knowledge Transfer Office at the Hong Kong Baptist University since 2010.

Abstract

Heart Meets Heat-- Exchange and Mutual Enrichment in Creativity and Cultural Sensitivity in the International Writers Workshop

People cherish different ideals of happiness and have search for this well-spring of their life in different places. Many look for it in the hoarding of riches, some in the pride of power, and others in the appreciation of art and literature. Unlike material possession, great literature opens up new visions, deepens self-understanding, promotes creativity and enhances the meeting with great mind and soul. To get in touch with first rate creative writers around the world can enhance the understanding of different visions and inspirations. Thus, it is important to connect different people and culture and promote exchanges and communication of different literary traditions around the world.

Established in 2004, the International Writers Workshop (IWW) can be seen as a pilot practice of Hong Kong Baptist University in its development towards a creative institute. The IWW supports the exchange and communication of visions, inspirations, literary creativity and cultural sensitivity among famous international writers from different cultures. Throughout these years, around seventy writers from over forty countries have visited IWW, bringing to Hong Kong their visions and inspirations. This paper seeks to capture what have been done in IWW and to explain how IWW, by means of literature, serves humanity in connecting people and cultures and promoting mutual understanding. In order to help to explain the exchange and communicative function of IWW, a three-dimension schema has been developed to depict the different level of connectivity reflected the work and design of IWW.

POSTER PRESENTERS

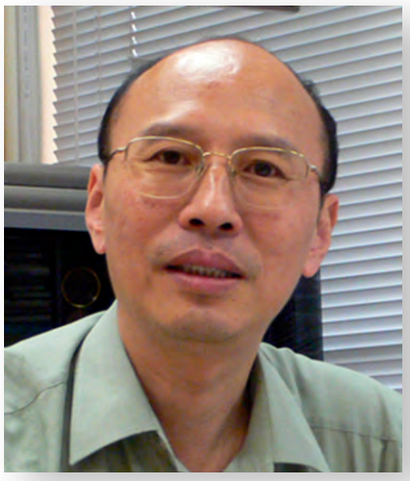
Dr. Lian Hee Wee

Associate Professor
Department of English Language & Literature
Hong Kong Baptist University

Biography

Lian-Hee Wee is a phonologist whose research lies mainly on the theoretical issues drawn from data in the Chinese languages and Asian varieties of English such as Hong Kong and Singapore. He is presently associate professor at the Department of English Language and Literature, though prior to this appointment he had served at the National University of Singapore and also the City University of Hong Kong after obtaining his PhD at Rutgers University in 2004. He has published numerous articles co-written two monographs "Hakka Tone Sandhi: Corpus and Analytical Challenges" (Journal of Chinese Linguistics, 2004) and 《疑难与路向：论天津方言的连读变调》(Beijing: Commercial Press, 2005) and is co-editor of the volumes "Reality Exploration and Discovery: Pattern Interaction in Language and Life" (Stanford, CSLI, 2009) and "Interfaces in Chinese Phonology" (Taipei: Academia Sinica, 2008). The present project transfers his classroom experience on teaching as well as his research in linguistics into bo th the enrichment of theatric comedy in the Hong Kong cultural scene and the training of communication for students, teachers and other working professionals in search of better teamwork and interaction.

Poster - HKBU-1



Professor Yu Huang

Associate Dean
School of Communication
Hong Kong Baptist University

Biography

Prof. Huang Yu comes from China and received his professional journalism training in Beijing. From 1988 to 1994, he was in the United Kingdom pursuing his Ph.D. degree and also working as a journalist. Since 1994, he has been teaching in the Department of Journalism, Hong Kong Baptist University and he was the Head of Department of Journalism for five years. Now Prof. Huang is the Associate Dean of the School of Communication.

The establishment of the Pulitzer Prize Winners Workshop, which advances journalistic education and practice in the Greater China region, exemplifies Professor Huang's determined efforts to bring an idea to fruition, which has helped to heighten the community's awareness of the University's newest initiative and developments in journalistic education.

Prof. Huang's current research interests include: Mass media in Hong Kong and mainland China, Media representation/ construction, Social relation and media changes, Political economy of media/communication studies, News/media and social development, Media and Chinese nationalism, and Chinese language in HK media.

Poster - HKBU-2

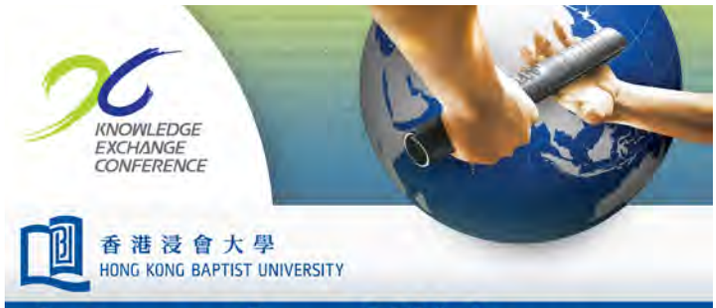
Professor Ling Chung

Associate Vice-President/Dean of Arts
Office of the Dean of Arts
Hong Kong Baptist University

Biography

Professor CHUNG Ling received her Ph.D in Comparative Literature from University of Wisconsin, Madison; a fiction writer and poet; recipient of National Award for Arts (Taiwan); publications include Spring Rain on the Great Earth (《大地春雨》, prose collection), Predestined Lovers (《生死寃家》, short stories collection), Muses of Modern China: A Critical Study on the Works of Taiwan Women Poets (《現代中國謬司：台灣女詩人作品析論》, literary criticism), Chinese Zen and American Literature (《中國禪與美國文學》, literary criticism), etc; taught at State University of New York, Albany, The University of Hong Kong and National Sun Yat-sen University; currently Associate Vice-President and Dean of Arts of Hong Kong Baptist University; also the founder and the Director of the International Writers Workshop; since its establishment in 2004, the Workshop has invited over 80 renowned writers from all over the world; she established collaboration between the Workshop and Hong Kong Literary Museum Workshop, Poetry OutLoud, Sino Group, etc.

Poster - HKBU-3



International Writers Workshop

Project Objective

The aim of International Writers Workshop (IWW) is threefold:
- at university level, to encourage creative writing and engage students in literary discussion;
- at local level, to enrich the cultural life of Hong Kong people; and
- at international level, to inspire literary creativity of writers from around the globe through exposing them to Hong Kong life and culture.

Brief Description of the Project

IWW runs two programmes each year, a series of public activities are arranged during the visit. Visit to Chinese cities are also arranged for writers for cultural exchange.

Writer-in-Residence:
Held in the spring quarter, 7 established Chinese-writing writers have been received for a one-to-three months stay.

Visiting Writers:
Held in fall quarter, 8 – 9 international writers are invited for a one-month stay. One outstanding features of the "Visiting Writers" programme is that it sets a theme for each year.

Visiting Writers 2010 Welcome Reception

Impact and Contributions

Over 80 writers from 40 countries have been invited to Hong Kong.
IWW provides writers from around the world with not only an ideal platform for exchange in creative writing, but also a bridge to connect with the international sphere.

The Hong Kong community also gets to know about different cultures from about 70 public activities IWW has organized. As to nurture the creativity of younger generation, IWW has organized several activities which are specific for high school students.

Knowledge Transfer Partners

Poetry OutLoud
Hong Kong Literdry Museum Workshop
Tuen Mun Catholic Secondary School

Project Sponsors:

Mr. and Mrs. Albert Hung
The Mr. & Mrs. Yeh Mou Chong Charitable Trust

LINGNAN UNIVERSITY

SPEAKERS

Mr. Ka Fai Wong

Assistant Professor
School of Science and Techonology
The Open University of Hong Kong

(Speaker invited by Lingnan University)

Biography

Wong Ka Fai is a register nurse (psychiatry) and has more than 15 years clinical experience in different specialties of psychiatric care and has established close network with different mental hospitals. Moreover, he has more than 6 years of solid working experience in the nursing team of the School of Science & Technology of The Open University of Hong Kong.

Abstract

Enhancing the Self Care Ability through Intergenerational Knowledge Transfer Program in Elder Academy in Tuen Mun

Expanding ageing population coupled with unhealthy lifestyle practices increases the prevalence of non-communicable disease (NCD) for all ages, with evidences telling us that the earlier an individual adopts healthy lifestyle habits, the lower his or her risk of contracting NCD during adulthood and beyond. In response to the Action Plan to Promote Healthy Diet and Physical Activity Participation in Hong Kong (Department of Health, 2010), the Asia-Pacific Institute of Ageing Studies piloted a project Health Frontier in Tuen Mun. The project linked universities, secondary schools and elder academies together to work in a coordinated manner for the promotion of positive health behaviors (foci include health promotion, disease prevention, health seeking behavior, chronic disease management) at different levels. The project adopted a train-the-trainer approach where professionals and professors were the master trainers to University students and elders, who adapted the knowledge and skills learned (in form of workshops and resources packs) into the secondary school curriculum. The trained secondary school students brought further the knowledge and skills acquired to elders who studied in their host elder academy. The program put intergenerational relationships on some readily available platforms (i.e. university, secondary school and elder academy) and leveraged on each other's strengths to promote health by advocating a life course perspective toward health. The train-the-trainer approach brought together community stakeholders, teachers, students, agency supervisors, elderly to facilitate cross-disciplinary, cross-sectoral, inter-generational exchange of experience and knowledge that reinforce the learning and adherence to positive health behaviors.

Dr. David Lok Kwan Dai

Consultant Geriatrician
Prince of Wales Hospital

Honorary Secretary
Hong Kong Alzheimer's Disease Association

(Speaker invited by Lingnan University)

Biography

During his 30-year career in the medical profession, Dr Dai has specialised in geriatric, rehabilitation and pulmonary medicine. He has been the Consultant Geriatrician in the Department of Medicine at Prince of Wales Hospital, Hong Kong, since 2002, and he holds honorary teaching positions at the Chinese University of Hong Kong and Hong Kong University. In addition, Dr Dai is a member of several Hong Kong Government Labour and Welfare Bureau steering committees and working groups studying issues relating to community care and residential care services for the elderly. He is a member of several Social Welfare Department committees and panels, and of the Guardianship Board's Panel. Besides, he serves as the Hon Secretary and Coordinator of the Education and Publication Committee of the Hong Kong Alzheimer's Disease Association, and he is its Immediate Past President. Dr Dai believes that an ordinary person can contribute to his fellow human through service, courage and passion.

Abstract

Capacity Building in Care for Demented Persons

Capacity building is a long-term continual process of development that involves all stakeholders. In dementia care, this will engage persons on the individual, institutional and societal levels. Dementia is prevalent among our aging population; 10% of persons aged above 75yrs and 30% of aged above 85 yrs. The approach to dementia care has evolved from a purely medical model, to include social support; educational and protective strategies. The "Ripple Strategy" for capacity building places the family physician at the centre. A local survey reveals only 27% of doctors are confident in the treatment of dementia. Daycare fills the next ring, where training of carers and early detection can take place. Eventually, a person with dementia will be admitted to an old age home. 50% of clients in private residential homes suffer from cognitive impairment. The residential home can provide an ideal facility for educational activities for healthcare workers. The person centered care approach has been proven to be as effective as dementia care mapping in managing BPSD. The broader framework should include family carers to build up a relationship centered care model. The nurse can play a central role in the advocacy of person and relationship centered care across settings. Home care may be limited by increasing disability in the advancing dementia process. An integrated homecare, daycare programme within a residential home may make transition of care setting less disruptive for the person with dementia and family members. The US is looking at the nursing home as a potential market. The UK National Dementia Strategy also considers stimulating the market to achieve sustainability of dementia care programmes. Lying in the outmost rim of the "Ripple" is raising public awareness, which includes rights and empowerment, and enhancing skills and knowledge in both health and social care. The family is the best place to start early detection of symptoms in an elder member. A school project demonstrated feasibility and has been repeated in Macau. Finally, Hong Kong can be play the role of a dementia hub in the Pearl River Delta to provide a model quality care system for other parts of China, which can take part in solving the issues of the aging population in the region. The 12-5 has clearly laid down homecare to be the basis of elder care, to be supported by community resources; while institutional care becomes the backup. Training of healthcare providers is the crux, and Hong Kong can play a role in this aspect. The next level of care will be protective. This will engage preventive approaches to delay the onset of dementia in the life course of an individual. On the societal level, such will be legal and ethical instruments, to include the will, advance medical directive, lasting power of attorney and guardianship.

Miss Phoebe Pui Yee Tang

Senior Project Officer
Asia Pacific Institute of Ageing Studies

Lingnan University

Biography

Phoebe is a Senior Project Officer in Asia-Pacific Institute of Ageing Studies, Lingnan University. She has a profound interest in researching issues related to ageing population, its policy development and appraisal and inter-generational programs that promote knowledge and experience exchange between among generations. She is also an active participant in the community and is serving on a few government and NGO committees in Hong Kong in her own capacity, including being (1) member of Commission on Youth (COY), (2) adjudicator of Registration of Persons Tribunal, (3) member of Kwai Tsing District Fight Crime Committee (DFCC); (4) member of Tuen Mun District Coordinating Committee on Elderly Services, Social Welfare Department; (5) executive member of Women Service Association, (6) member of Steering Committee for the TEEN Programme, the Women Foundation

Abstract

Translating a High-level Policy Directive Into Layman-understood Items for Ageing Policy Evaluation

2012 marked the 10th anniversary of the Madrid International Plan of Action on Ageing (MIPAA). MIPAA is a comprehensive, far-reaching and aspirational document that underscores 3 priority directions, 18 priority issues, 35 objectives and 239 actions that seek to guide policy formulation and implementation towards the specific goal of successful adjustment to an ageing world. The paper reports the development of the Ageing Policy Integrative Appraisal System (APIAS) that translated the essence of MIPAA into operational items that enable policy makers, service providers and service users to monitor, to evaluate and to appraise aging policy in a bottom-up participatory manner. The APIAS has two main components: First, a comprehensive indicator of policy implementation and; Second, a validated instrument for elders' appraisal on ageing services and their quality of life as a result of policy implementation. The APIAS has been the first of its kind, in terms of its design and scale, in Asia Pacific Region to tap on and to move forward the implementation of MIPAA policy directives in local arena from two ends, i.e. Providers' and Receivers'. It is multi-functional, applicable to the whole region/country as well for specific functional areas. The first application in Macao SAR has proven its positive effect and has set a benchmark hereafter upon its periodical review and shall continue to provide scientific evidence for policy-maker and service providers in promoting care and healthy living of elderly people in Macao, and by extension, other countries in the region as the protocol developed will also be of use to its fellow districts or countries in the region.

Dr. Carol Hok Ka Ma

Assistant Director
Office of Service-Learning

Lingnan University

Biography

Carol MA Hok Ka is an Assistant Director in the Office of Service-Learning (OSL), Lingnan University. She has a particular passion for the promotion of intergenerational programmes and is an active participant in both elderly services and youth services. She has received many awards for community services and academic achievements from Lingnan University as well as the Government of the Hong Kong Special Administrative Region. She was awarded a W.T Chan Fellowship to study and practice service-learning in the University of California at Los Angeles and was also awarded a Lingnan Foundation Scholarship to do a research internship at the National Primary Health Care Centre, University of Manchester.

She is currently a member of Independent Police Complaints Council (IPCC); a member of Environmental Campaign Committee (ECC), Environmental Protection Department, a member of Committee on the Promotion of Civic Education (CPCE); a member of Youth Programme Co-ordinating Committee (YPCC), Commission on Youth (COY);a co-opted member of Working Group on International Exchanges and Conferences, Commission on Youth; a member of the Tsuen Wan District Summer Youth Programme Co-ordinating Committee, and the treasurer of Tuen Mun Healthy City Association Limited.

Abstract

Digital Classroom Project: Service-Learning and Information and Communication Technology's Impacts on Student Learning in Hong Kong

This paper describes a collaborative service-learning model between a University and a primary school in Hong Kong that develops a hybrid model of university-community partnerships in service-learning and internet-based learning. Echoing the trend of advancing technology in education and the need for holistic education, the Digital Classroom Project (DCP) integrates the pedagogy of Service-Learning (S-L) and Information and Communication Technology (ICT). With the aim of creating a learning environment unconstrained by time and location, the DCP encourages learners to develop independent learning skills and share knowledge with a diverse and global audience. Primary school students participated in guided reading and group discussions led by university students utilizing both online and face-to-face activities. A comprehensive evaluation of effectiveness was implemented that examines eight different areas. This paper reports this program evaluation, which found overall positive impacts on students' learning.

POSTER PRESENTERS

Professor Alfred Cheung Ming Chan

Director
Asia-Pacific Institute of Ageing Studies
Lingnan University

Biography

Chair Professor of Social Gerontology, Department of Sociology and Social Policy, Lingnan University

Director, Asia-Pacific Institute of Ageing Studies (APIAS), Lingnan University

Director, Office of Service-Learning (OSL), Lingnan University

Chairman, Elderly Commission, HKSAR

Chair, Advisory Committee of 'Opportunities for the Elderly Project', Social Welfare Department, HKSAR

Chair, Working Group on Diet and Physical Activity, Department of Health, HKSAR

Member, Minimum Wage Commission, HKSAR

Adjunct Professor, School of Continuing and Professional Education, The Hong Kong Institute of Education (HKIEd)

Consultant, Ageing and Social Development Issues for the United Nations Economic & Social Commission for Asia and the Pacific (UNESCAP)

Academic interests:
- Interpretation of intergenerational relationships
- Ageing and long-term care policies in Asia Pacific
- Development of health and social care measurements, Quality of Life, Caring Index and etc

Poster - LU-1

Revitalizing rural village in Ha Fa Shan Hong Kong through Knowledge Transfer program

Program Overview

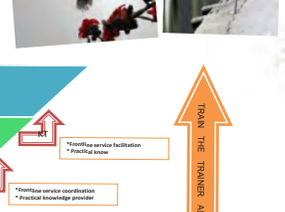
Revitalizing Ha Fan Shan project helped create a win-win situation for the developments of the community and the academia. Asia Pacific Institute of Ageing Studies, a research institute of gerontology based in Lingnan University, had sought multi-factional collaboration amongst the local community, the education sector and various non-government organizations, in which Ha Fa Shan Village Conmmittee, Ho Koon Nature Education cum Astronomical Centre, Yan Chai Hospital Social Service Department and Women Development Association had actively contributed to the success of the Project. Through a series of research, trainings and programs, each of the aforementioned party had utilized their professional knowledge to improve the living quality of the Ha Fa Shan villagers through the implementation of "active ageing" by transferring theoretical and practical knowledge as well as the providing of services to the residents.

Under the guidance of course instructor and KT tutor, University students interested in the social welfare and social problems in Hong Kong have conducted an assessment on the needs of the inhabitants and identified the ageing population in the area who have poor access to public facilities and are lack of social network. Based on the findings, students, accompanied by volunteers, then provided services and promoted sustainable assitance at Women Service Association and Yan Chai Hospital Social Service Department.

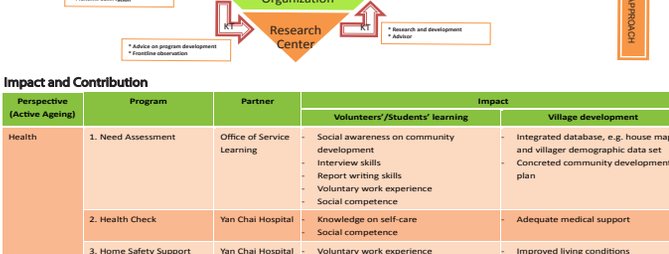
In order to further enhance the sustainability and to maximize the impacts of the Project, data collected along with the need assessment report were shared amongst 2 local non-government organizations and Home Affairs Department in Tsuen Wan, of whom they organized several visits and programs in Ha Fa Shan Village to improve the linkage between the rural dwellers and the city while strengthening the cohesion amongst the villagers.

Program Objectives

1. To improve the rural community development through knowledge-transfer based action research and program
2. To encourage stduents applying their knowelge in real world by strengthening their roles in community development
3. To improve villagers' life by revealing the needs and the potentials of Ha Fa Shan Village



Conceptual Map



Impact and Contribution

Perspective (Active Ageing)	Program	Partner	Impact	
			Volunteers'/Students' learning	Village development
Health	1. Need Assessment	Office of Service Learning	- Social awareness on community development - Interview skills - Report writing skills - Voluntary work experience - Social competence	- Integrated database, e.g. house map and villager demographic data set - Concreted community development plan
	2. Health Check	Yan Chai Hospital	- Knowledge on self-care - Social competence	- Adequate medical support
	3. Home Safety Support	Yan Chai Hospital	- Voluntary work experience - Social competence	- Improved living conditions
Participation in Society	1. "Daily call" Scheme	Women Service Association	- Sharing and care training	- Extended social network
	2. HFS Ecological and Cultural Profile	Ho Koon Nature Education cum Astronomical Centre	- Knowledge on recognizing common plants in Hong Kong - Hiking trail design skills - History of Tsuen Wan - Narrating ability	- Consolidation of HFS attractions- hiking trial, farming yield and village history. - Aroused public awareness on HFS village development
Adequate Security	1. Holiday Farmer program plan	Office of Service Learning	- SWOT analysis skills - Farming experience	- Organized farming program development plan

Project Team:

Prof	CHAN Cheung Ming Alfred
Dr	LIANG JrShiuan Emily
Miss	HO Pui Man Pelletier
Miss	TANG Pui Yee Phoebe
Miss	CHAN Hiu Yan Fanny
Miss	CHUNG Nga Man Amber
Mr	Lai Chun Kiu, Tony
Miss	Lau Wing No, Helen
Miss	CHEUNG Wing Yu, Winky
Mr	CHAN Wing Chung, David
Miss	Li Wing Yin

Asia Pacific Institute of Ageing Studies
Lingnan University

Knowledge Transforming Society

Poster - LU-2

KNOWLEDGE EXCHANGE CONFERENCE

Lingnan 嶺南大學 University

Promoting Healthy Diet to Young People against Non-Communicable Diseases (NCDs) through Intergenerational Knowledge Transfer Program

Project Overviews

There has been an increasing trend of ageing population coupled with unhealthy lifestyle habits which increases the prevalence of non-communicable diseases (NCD) for the general population in the future. Evidence proved that an earlier development of healthy lifestyle practices would reduce the accumulation of biomedical risk factors, hence lowering the risk of suffering from NCD in later life. However, among the four major behavioral risk factors of non-communicable diseases, unhealthy diet is found very common in young University hostel residents. In view of this, Asia Pacific Institute of Ageing Studies aims to equip the hostel residents with healthy lifestyles through health promotion in hostels in order to combat one of the major behavioral risk factors of NCD and develop residents' healthy bodies at an earlier stage.

Cooking Mama Series is an integrated project developed for such purpose. 5 student researchers equipped with research skills as well as health knowledge conducted a survey to understand residents' eating behavior and health knowledge in order to identify the priority areas for health promotions for hostel residents. Based on the findings of the survey, student researchers organized health talks for the students and partnered with elderly to offer health workshops in hostels in order to transfer targeted health knowledge and healthy cooking skills to them.

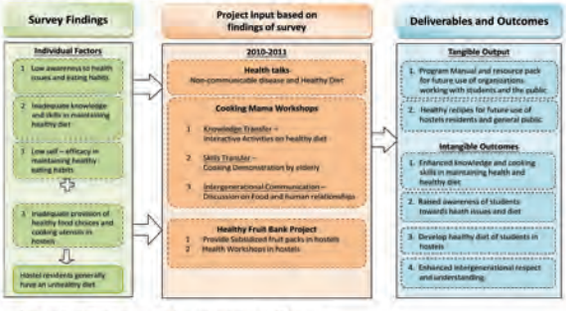
Project Objectives:

1.To enhance student's knowledge and skills in maintaining healthy diet;
2.To raise students' awareness towards their health and daily eating habits;
3.To encourage healthy cooking and healthy eating behavior in daily hostel life, in order to improve students' living styles at the earliest state and develop healthy bodies in the life course;
4.To enable intergenerational knowledge and skills exchange through young-old partnership, so as to enhance intergenerational respect and understanding.

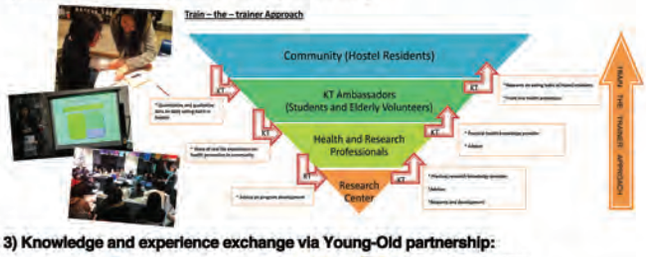
Highlights of the project:

The project put its emphasis on developing a healthy eating habit of hostel residents and is characterized by:

1) Survey on resident's eating habits and health knowledge deficits:



2) "Train-the-trainer" approach in program delivery:



3) Knowledge and experience exchange via Young-Old partnership:

Project Team

Prof CHAN Cheung Ming Alfred
Dr LIANG Jr Shiuan Emily — Miss TANG Pui Yee Phoebe
Miss HO Pui Man Pelletier — Miss LAU Wing No, Helen
Miss CHAN Hiu Yan Fanny — Mr LAI Chun Kiu, Tony
Miss CHUNG Nga Man Amber — Mr CHAN Wing Chung, David
Miss CHEUNG Wing Yu, Winky — Miss LI Wing Yin

Asia Pacific Institute of Ageing Studies
Lingnan University

Poster - LU-3

KNOWLEDGE EXCHANGE CONFERENCE

Lingnan 嶺南大學 University

Enhancing Intergenerational Understanding through the Development of Social Gerontology Programs for Secondary Schools

Overview:

Hong Kong is currently facing an aging population, with 13% of the total population aged 65 years old or above in 2010. The number is projected to be 24% in 2030. Considered there will be one in every three persons aged 65 years old or above, the impact on every aspect of life is going to be huge. Societies with little preparation to understand and to cope with corresponding issues would be especially vulnerable, and counter-productive intergenerational misunderstandings and conflicts might easily be ignited. To build an "ageing-friendly" environment, , it is vital to help prepare the minds of members of the public for a better understanding on aging and older persons, as well as the challenges and opportunities brought by the aging population.

The introduction of Other Learning Experience (OLE) in 334 New Senior Secondary Curriculum in 2009 has provided an excellent opportunity for the development of Social Gerontology Program for Secondary Schools. The 5-module program, providing students with ample out-of-classroom exposures, will reinforces it didactic learning part of the program. Social Gerontology Program will be incorporated in the modules of "Moral and Civic Education", "Community Service" and "Career-related Experiences", of which students are suggested to fulfill at least 135 lesson hours. Apart from operating on the OLE platform, individual module could be elicited to enrich the teaching of new subjects in the 334 New Senior Secondary (NSS) Curricular such as Health Management and Social Care (HMSC), Liberal Studies (LS) and etc.

Selective Themes/Topics Taught in Social Gerontology

Dimensions	Themes
Social	* Grand/Parent-child bonding * Caring for your elder neighbor
Intellectual	* Gerontology & the life cycle * Active Aging
Physical	* Optimizing your health through exercise * Managing Chronic Illnesses
Vocational	* Occupational hazards * Making your pension count
Emotion	* Dealing with negative forces in life * Counseling & therapy seeking
Spiritual	* Setting life goals & Work-shadowing * Keep well in spirit: sleeping, eating & exercising

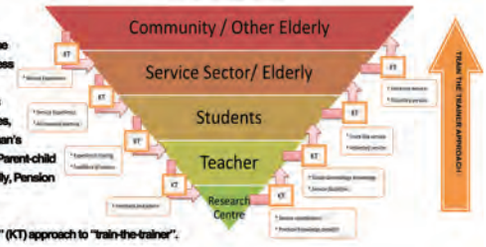
Objectives:

- To better students understanding on aging issues and older persons.
- To provide students plentiful out-of-classroom exposures of aging society.
- To enhance intergenerational communication and understanding.
- To prepare students and potential employees for elderly related industries.

Highlights:

- Designed curriculum follows a "life-course approach" for enriching students' awareness in biological, behavioral, economical, historical, psychological and social factors that affect life experiences, personal choices, opportunities, and constraints across human's lifespan. Selective themes such as Grand/Parent-child bonding, Active Aging, "Graying" Gracefully, Pension and Retirement Planning are included.

The Train-The-Trainer Approach



- Synchronized with "Knowledge Transfer" (KT) approach to "train-the-trainer".
- Strengthened interactive linkages amongst different parties: students, teachers, schools, academics, elderly and community service providers.

Outcomes:

Student	Teacher	School	Elderly	Service Provider	Community
• Self-awareness • Whole-person development • Positive values and attitudes • Well prepare for own later years • Career explore	• Self-awareness • Teaching pack and experience • Teaching autonomy • Exchange ideas with other teachers	• Nice teaching atmosphere • Strong bonding with community • Positive image	• Self-awareness • Active Aging • Positive image • Intergenerational communication • Needs and challenges are concerned	• Needs and challenges are concerned • Potential human resources • Strong bonding with community	• Age-friendly • Age-integrated • Strong cohesion • Volunteerism • Potential human resources

Project Team:

Prof. CHAN Cheung Ming, Alfred
Dr. LIANG Jr Shiuan, Emily — Miss TANG Pui Yee, Phoebe
Miss HO Pui Man, Pelletier — Miss LAU Wing No, Helen
Miss CHAN Hiu Yan, Fanny — Mr.LAI Chun Kiu, Tony
Miss CHUNG Nga Man, Amber — Mr.CHAN Wing Chung, David
Miss CHEUNG Wing Yu, Winky — Miss LI Wing Yin

Asia-Pacific Institute of Ageing Studies
Lingnan University

Poster - LU-4

Enhancing Knowledge Transfer through Portfolio-Learning

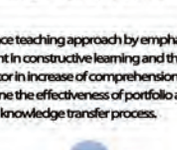
Project Objectives

Didactic learning is one of the most conventional ways of teaching in the history of Education. Legion of others see the creation of knowledge in classroom as sole transmission from teachers to students - one-way, static and passive. However, knowledge is neither absolute nor static. Hence, knowledge transfer is a dynamic process of accumulation, sharing, creation and application which involves constant interaction and reinforcement of each element through a spiral of action (Figure 1) among individuals and organizations, which makes the outcome of learning/teaching even harder to measure or to meter.

Figure 1. Knowledge Transfer: A spiral of action and interaction

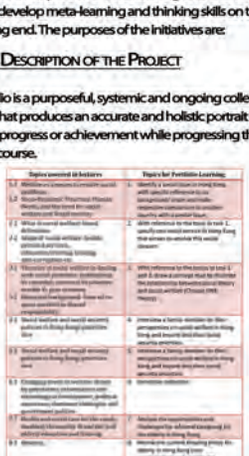
The use of portfolio learning in arts and humanities related subjects was not common, though its application in science and technology disciplines as teaching approach and assessment tool has been in place for many years. To fill this void, , the course instructor of Social Welfare and Social Problems in Hong Kong offered by the Department of Sociology and Social Policy in Lingnan University works hand in hand with Knowledge Transfer (hereafter 'KT') Associates to include portfolio-learning for the first time in humanities subject in Lingnan University as an attempt to capture and to validate the KT process on the teaching end; and to help students develop meta-learning and thinking skills on the learning end. The purposes of the initiatives are:

-To enhance teaching approach by emphasizing the role of a student in constructive learning and the role of instructor and tutor in increase of comprehension.
-To examine the effectiveness of portfolio as an evaluation tool in the knowledge transfer process.



Brief Description of the Project

Portfolio is a purposeful, systemic and ongoing collection of student work that produces an accurate and holistic portrait of student's effort, progress or achievement while progressing through the 13-week course.



Eleven mini-topics (excluding the first week and the final week) were designed echoing the information given out by the course instructor in the lectures. Students take the liberty to include and to exhibits materials related to the given topics, in any formats they prefer and are required to provide commentaries of the selected materials, reflect on the process of learning, create knowledge and also reflect on the barriers of their learning process throughout the course.

Impact and Contributions

Portfolios provide summative as well as formative evaluations on students' learning progress and instructor's teaching effectiveness:

(1)Summative evaluation
-Summative portfolio focuses on learning outcomes, i.e. the application of skills and information learned in class into their mini-topics.
-Summative portfolio contains evidence that show the range and extent of students' skills in knowledge creation.
-Summative portfolio records learning outcomes rather than the process of learning.

(2)Formative evaluation
-Formative portfolio demonstrates the processes of learning used and experienced by the students
-Formative portfolio becomes an assessment when the focus is on the learning process

Project Team

Prof. CHAN Cheung Ming, Alfred
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Miss LI Wing Yin

Asia-Pacific Institute of Ageing Studies
Lingnan University

香港中文大學
The Chinese University of Hong Kong

THE CHINESE UNIVERSITY OF HONG KONG

SPEAKERS

Professor Louis Wing Hoi Cheung

Research Associate Professor
Department of Orthopaedics and Traumatology
The Chinese University of Hong Kong

Biography

Dr. Louis Cheung is a Research Associate Professor in Department of Orthopaedics and Traumatology and Deputy Director of Musculoskeletal Laboratory, The Chinese University of Hong Kong. He also serves as a programme committee member of Biomedical Engineering programme, CUHK. His research interests are biology of osteoporotic fracture healing and applications of biophysical interventions for enhancement of fracture healing. He co-invents low-magnitude high-frequency vibration technology with Prof. KS Leung; has one obtained and two pending patents. Dr. Cheung published 43 SCI peer-reviewed international journal papers and serves as editorial board member, reviewers of several funding bodies and international journal in orthopaedics, like AO Foundation and Orthopaedic Research Society. He is also the invited reviewers of a few international orthopaedics-related journals. Dr. Cheung devotes into knowledge transfer activities as well since 2000 in fall prevention to serve community elderly.

Abstract

Interactive Engagement with the Community: From Public Education to Academic Research

Tissue regeneration research team of Department of Orthopaedics and Traumatology, The Chinese University of Hong Kong, led by Prof. KS Leung and Louis Cheung, puts effort in the past years on exploring the biology of osteoporotic fracture and enhancement of fracture healing using biophysical interventions. The research team confirms the impaired reparative ability of osteoporotic bones during fractures. This implies difficult clinical management of geriatric fracture patients, including treatment and rehabilitation and hence heavy burden of healthcare budget. The team also spent 6 years to invent a novel biophysical modality, vibration treatment that can effectively accelerate fracture healing by around 30% by enhancing new bone formation and increasing blood circulation.

In view of the escalating aging population in Hong Kong, the research team kicked off to set up a fall prevention team to serve the community in 2000 (http://www.no-fall.hk). The team has organized more than 150 educational talks for community elderly in the past decade to spread the message and knowledge on bone health and fall prevention. We also trained the staff in community centers to learn fall prevention in order to provide a better service for elderly. With the funding of medical foundations, a mobile van for fall prevention purpose was set up to serve the elderly in remote areas like Lantau Island. We therefore have a good network with community centers in Hong Kong. In recent years, a comprehensive fragility fracture program is established as well in Shatin district for rehabilitation of geriatric fracture patients, in which physical exercise classes, doctor consultations, medications and vibration treatment are provided. In the meantime, we make use of this opportunity to conduct large-scale clinical trials to evaluate the efficacy of vibration treatment on reducing fall and fracture rates. Overall, this is a good experience of the team to have the model of bench to public education to academic research.

Professor Vivian Wing Yan Lee

Assistant Dean (student affairs)
Faculty of Medicine
Associate Professor
School of Pharmacy

The Chinese University of Hong Kong

Biography

Dr. Vivian Lee is currently the Associate Professor of the School and Assistant Dean (Student Affairs) of the Faculty of Medicine. Before her current appointment, she had worked as a hospital clinical pharmacist at Cedars-Sinai Medical Center, in Los Angeles, USA. Dr. Lee received her bachelor of sciences degree in Biochemistry at the University of California, Los Angeles (UCLA) and her doctor of pharmacy degree in the School of Pharmacy, University of Southern California (USC). She had pursued post-doctoral training in Pharmacy Practice residency at the Huntington Memorial Hospital in Pasadena, USA.

Dr. Lee is dedicated for the clinical pharmacy development. She started the first clinical pharmacy clerkship program in Hong Kong as well as the overseas student exchange in clinical pharmacy with USC at CUHK. In addition, she tries to expand the roles of pharmacist through various innovative ways including the launch of the first interactive online drug information platform in Hong Kong-Ask My Pharmacist Online University Led drug Enquiry Platform (AMPOULE), the Paediatric Health: easy Access Resources on Medicines (PHARM) and the community pharmacy outreach program to cope with the demands of pharmaceutical care to improve medication adherence and chronic disease management in elderly patients of Hong Kong.

Abstract

Knowledge Transfer: Commitment to Public and Partnering for Excellence

Drug-related questions are often encountered by people who are on medication or taking health supplements. However, due to various barriers, these questions remain unresolved which lead to possible medication problems. The Outreach Programme organized by the School of Pharmacy showed that more than half (55.3%) of the drug-related problems discovered in the elderly population were associated with lack of knowledge about their medication and their state of disease. Furthermore, sensitive medical issues, such as sexually transmitted diseases, erectile dysfunction, use of contraceptive etc., are not widely discussed among the public. With increasing popularity of self-medication as the first-line treatment for mild diseases, together with the lack of drug knowledge, it is expected that more drug-related questions would arise in the future.

In response to the expected drug information demand, a new online interactive drug enquiry system called AMPOULE (Ask My Pharmacist! - Online University-Led drug Enquiry) (http://www.ampoule.org.hk.) Platform was established. Through AMPOULE, pharmacists will provide personalized suggestions to drug-related queries, hoping to reduce possible medication problems faced by the general public. We target to enhance communication between pharmacists and the general public through innovative channels. The demand of drug information is expected to rise with more knowledge and well-educated enquires. Enquirers expect fast and efficient professional assistance for their drug-related problems. The traditional pharmacist consultation in the pharmacy may not be sufficient to fulfill enquirers' demands. It is hoped that the public awareness in proper medication use and drug safety can be enhanced by providing proper drug knowledge, thus improving the overall effectiveness of drug treatment. In this presentation, the following objectives will be achieved:

1. Experiences in developing online drug information platform will be shared;
2. Factors affecting success knowledge transfer will be discussed;
3. Address the areas for partnership in knowledge transfer to ensure medication safety.

Professor Chi Hin Cho

Associate Director
Professor of Pharmacology (Research)
School of Biomedical Sciences
The Chinese University of Hong Kong

Biography

Professor C.H. Cho was the Chair Professor of Pharmacology from 2000 to 2007 in the University of Hong Kong before he joined the Chinese University of Hong Kong (CUHK) in 2007 as chairman and Professor of Pharmacology.

Currently, he is the Associate Director of the School of Biomedical Sciences, Faculty of Medicine in CUHK. He has been the President of the Gastrointestinal Pharmacology Section of the International Union of Basic and Clinical Pharmacology from 2006-2010 and visiting and honorary professors of Peking University, Fudan University, Zhejiang University, Beijing Capital University of Medical Science, the Fourth Military Medical University, Virginia Tech, University of Maryland and University of California, Irvine.

His current research interests focus on drug development for inflammation and cancers in the gastrointestinal tract. Professor Cho is the editorial board member and associate editor in more than 20 journals in the fields of Gastroenterology and Pharmacology.

He publishes more than 380 peer-reviewed articles in journals and books and is the editor of five books in gastrointestinal ulcer and cancer.

Abstract

A Peptide Targeting Tumor Blood Vessels: From Experimental to Clinical Application

Ligand-mediated diagnosis and targeted therapy would have vital clinical applications in cancer treatment. In this study, an orthotopic model of colorectal cancer was established in the colon of mouse. Using this animal model an in vivo phage library selection was utilized to isolate peptides specifically recognizing the vasculature of colorectal cancer tissues but not the other tissues. A phage (termed TCP-1 phage) was isolated by this manner and it homed to the colorectal cancer tissues by 11- to 90-fold more than other organs. Chemical synthetic peptide (termed TCP-1) displayed by TCP-1 phage inhibited the homing ability of the phage to the tumor mass when co-injected intravenously with the TCP-1 phage into mice with colon cancer. Meanwhile, immunostaining analysis indicated that TCP-1 phage and peptide localized in the vasculature of the colorectal cancer tissue, but not normal tissues. Moreover, TCP-1 peptide bound to blood vessels of surgical tissue samples of human colorectal cancer, in particular in the advanced stages. These findings indicate that TCP-1 binds to a specific site which is localized only in the colonic tumor blood vessels.

In addition, TCP-1 when conjugated with a proapoptotic peptide specifically induced apoptosis in tumor blood vessels in vivo. These data define a novel peptide TCP-1 as an effective agent for imaging detection and drug delivery for colorectal cancers. This peptide and its analogues attract academic and industrial collaborations in the development of drug therapy and diagnosis for gastrointestinal cancers.

Professor William Kam Fai Wong

Associate Dean (External Affairs)
Faculty of Engineering
Professor
Department of Systems Engineering and Engineering Management
Associate Director
Centre for Entrepreneurship
Director
Centre for Innovation and Technology

The Chinese University of Hong Kong

Biography

K.F. Wong obtained his PhD from Edinburgh University, Scotland, in 1987. He has been a post-doctoral researcher in Heriot-Watt University (Scotland), UniSys (Scotland) and ECRC (Germany). At present he is the Associate Dean (External Affairs) of the Faculty of Engineering, a professor in the Department of Systems Engineering and Engineering Management, and the Director of the Centre for Innovation and Technology (CINTEC), of the Chinese University of Hong Kong (CUHK). As the Director of CINTEC, he is responsible for technology transfer and industrial liaison. Academically, his research interest centers on Chinese computing, parallel database and information retrieval. He has published over 200 technical papers in these areas in various international journals and conferences and books. Professionally, he is a fellow of BCS, IET, HKIE and HKITJC. He received the Medal of Honour (MH) from the HKSAR Government in July 1, 2011 for his contribution to the local Hong Kong IT industry. He is currently the President of the Hong Kong IT Joint Council. He also serves as the Chairman, ICT Advisory Committee, HK Scout Association, member of Digital 21 Advisory Committee (2008-2010, 2010-2012), vetting committee member of Innovation Technology Commission's SERAP programme, SMC member of Lam Tai Fai College, SMC member of Tang Sui Kin Victoria Secondary School, board member of HK Internet Registration Company (2008-2009) and chairman of HK IT Sector 59th National Day Celebration Gala Dinner Organization Committee.

Abstract

The Roles of Hong Kong in the National Twelve Five Year Strategic Plan

The Chinese's National Twelve Strategic Plan (abbreviated 12.5) has been announced in the 2011Q2. It defines the directions and missions of the development of China in the coming five years 2011-2015. Innovation and technology are one of the key investment targets. For this, it is the goal of the Chinese Central Government to raise the R&D to GDP ratio from the currently 1.7% to 2.2% in 2015. Hong Kong has three local universities ranked within top 100 in the QS world ranking. They are also within the best in engineering and medical research. In view of this, how can Hong Kong contribute to the implementation of the 12.5 plan. In this talk, the advantages and hence the roles of Hong Kong for this purpose are identified.

Professor Barley Shuk Yin Mak Chan

Assistant Professor
Department of Curriculum and Instruction
Director
Centre for Enhancing English Learning and Teaching

The Chinese University of Hong Kong

Biography

Prof. Mak has been training primary and secondary English language teachers at the undergraduate and postgraduate levels in Hong Kong and overseas for many years. She is the founding Programme Director of the M.A. in English Language Teaching and has been working on a strategic plan to launch an Ed.D in English Language Teaching. Her publications have appeared in internationally referred journals, for example, Educational Review, English Language Teaching Journal, Language Testing and System.

Prof. Mak is the founding Director of the Centre for Enhancing English Learning and Teaching. She has conducted various public-funded research projects (e.g., the Quality Education Fund, the Language Fund, Hong Kong Education City funding). Since 2001, she has secured over HK$37,000,000 external funding for her research projects (of which over HK$28,000,000 has been in the capacity as the principal investigator). She is now conducting the New Senior Secondary Curriculum Implementation Study 2011 and the Curriculum Survey on Primary Education 2011 commissioned by the HKSAR Education Bureau.

Barley Mak has served on a number of prominent HKSAR teacher education committees, for example, the Task Force on Language Benchmark Training Arrangements (English) of the Advisory Committee on Teacher Education and Qualifications and various committees for the Chief Executive's Award for Teaching Excellence. She is currently a Member of the Focus Group (English Language) for the Development of Depository of Curriculum-based Learning and Teaching Resources and a Panel Expert of the Refined English Enhancement Scheme.

Abstract

Building a Young Writer Community: A Knowledge Transfer Writing Project in Hong Kong

The integration of language arts into the English curriculum has been strongly advocated in recent years by the Education Bureau (EDB) in Hong Kong as part of the school curriculum reform. As outlined in English Language Education: Key Learning Area Curriculum Guide: Primary 1 to Secondary 3 (2002), schools are encouraged to use literary or imaginative texts more to promote critical thinking, free expression and creativity.

To support the above curriculum reform, a university-school partnership programme is proposed for nurturing young short story writers in secondary schools in Hong Kong.

Through this partnership programme, English teachers from participating schools are trained by experienced facilitators on how to motivate and guide their students through the process of writing short stories in a positive context. Subsequently, students are encouraged to write collaboratively. Participating teachers are also encouraged to exchange ideas and make enquiries in an on-line forum supported by the Centre for Enhancing English Learning and Teaching (CEELT).

To celebrate students' creative efforts and reinforce their practices in this form of language arts, a short story anthology will be published for each participating school. A short story writing competition will be organised and the outstanding short stories will also be published, and sent to all secondary schools in Hong Kong and via a dedicated e-gallery. This presentation will describe how the project is executed to actualize the knowledge transfer among CUHK and the participating schools. Reflections and experiences of the participating teachers and students as well as sustainability of projects of such kind will also be discussed.

Professor Gladys Wai Lan Tang

Chairman
Department of Linguistics and Modern Languages
Centre Director
Centre for Sign Linguistics and Deaf Studies
Department of Linguistics and Modern Languages

The Chinese University of Hong Kong

Biography

Prof. Gladys Tang is the Founding Director of the Centre of Sign Linguistics and Deaf Studies since its establishment in 2003. She also served as Chairperson and Division Head of the Department of Linguistics and Modern Languages until July 2011. She received her PhD in Applied Linguistics from the University of Edinburgh, United Kingdom. Her research interests are language acquisition, in particular signed and spoken language acquisition of deaf children, sign linguistics and deaf education, and applied linguistics. She has published about second language acquisition, second language pedagogy, sign linguistics, signed and spoken language acquisition of deaf children, and deaf education. She is also the anonymous reviewer for books, journals, conference proceedings and distinguished theses. Examples of such venues include Theoretical Issues of Sign Language Research, Bilingualism: Language and Cognition, Journal of Deaf Studies and Deaf Education, Journal of Contemporary Linguistics, Language and Linguistics, Lingua, Sign Language and Linguistics, Cambridge University Press, John Benjamins Press, Lawrence Erlbaum, Mouton de Gruyter, etc.. She is the Asian Liaison of International Association of Sign Linguistics and member of the Advisory Board of the same organization. She is on the editorial board of the journal of Sign Language Typology. She has contributed her service to the community by being a member of PEN-International, a consultant for the UNICEF Project on Bilingualism and Biculturalism in Deaf Education in China (2006-2011).

Abstract

The Jockey Club Sign Bilingualism and Co-enrolment in Deaf Education Programme: From Sign Linguistics to Inclusive Deaf Education

Professor Gladys Wai Lan Tang
Chairman, Department of Linguistics and Modern Languages; Centre Director, Centre for Sign Linguistics and Deaf Studies, Department of Linguistics and Modern Languages, The Chinese University of Hong Kong

Professor Scholastica Wai Sze Lam
Research Assistant Professor, Centre for Sign Linguistics and Deaf Studies, Department of Linguistics and Modern Languages, The Chinese University of Hong Kong

Mr. Chris Kun Man Yiu
Senior Programme Officer, Centre for Sign Linguistics and Deaf Studies, Department of Linguistics and Modern Languages, The Chinese University of Hong Kong

Sign linguistics research aims to identify ways to examine how sign languages is structured as a natural language and how it is acquired by deaf children. To date, a significant research outcome is that early acquisition of sign language supports deaf children in becoming 'sign bilingual' (i.e. proficient in a signed and a spoken language). Such bilingual knowledge in turn facilitates their literacy development in spoken language as well as deaf education. While this understanding is gaining grounds in many parts of the world, its lack is the norm in Asia. As a result, educators and parents of deaf children are still harping on the misconception that the oralist approach (i.e. learning through residual hearing and speech) is the only way to resolve the problem in deaf education.

In HK, unique research efforts into various lines of sign linguistics research have paved the way for applying this new-found knowledge to an experimental programme "The Jockey Club Sign Bilingualism and Co-enrolment in Deaf Education Programme (JC-SLCO Progamme). The Programme represents an unprecedented attempt in Asia to incorporate natural sign language into an inclusive education setting. It aims to maximally utilize the linguistic resources of both signed and spoken language provided by hearing and Deaf teachers in educating deaf as well as hearing children under the same educational environment following the same syllabus. Most important of all, the Programme will inform the community that the model lives up to the philosophy of inclusive deaf education: both hearing and deaf children have the benefits of being sign bilingual, and hearing children will come to appreciate the special educational needs of deaf children who in turn grow up understanding the values and culture of the majority hearing society. In this paper, we will present how sign linguistics research in HK has led to the establishment of a programme that nurtures successful school partnership between researchers at university, professional teacher trainers at teacher training institutions, parents of deaf and hearing children, government units, deaf organizations and NGOs in the local community.

Professor Timothy Chi Yui Kwok

Professor
Department of Medicine & Therapeutics
Co-Director
CUHK Jockey Club Centre for Osteoporosis Care and Control
Deputy Director/Professor
S H Ho Centre for Gerontology and Geriatrics

The Chinese University of Hong Kong

Biography

Professor Timothy Kwok had undergraduate medical education and postgraduate training in Geriatric Medicine in the United Kingdom. He joined the Department of Medicine & Therapeutics in the Chinese University of Hong Kong in 1994, and became professor in 2006. He has been director of the Hong Kong Jockey Club Centre for Positive Ageing, a comprehensive care centre for people with dementia, since 2004. He is council member of the Hong Kong Geriatrics Society and President of the Hong Kong osteoporosis foundation. His research interests include dementia, nutrition in old age, osteoporosis and health service models.

Abstract

Innovations in Models of Care for Older People with Dementia

Dementia is a major cause of disability and dependency in old age. While there is as yet no effective remedy or cure for this common condition in old age, there is evidence that psychosocial interventions may slow the cognitive decline in the demented people and relieve the caregiver burden. Cognitive training may also play an important role in prevention of dementia. The implementation of non-pharmacological interventions may therefore have a major impact in reducing the burden of dementia in Hong Kong.

A locally designed cognitive training programme for the non-demented people is effective in improving reasoning and memory in the less-educated. This is important as most older people in Hong Kong have low education level which is a risk factor of dementia. Similarly, an eight-week calligraphy programme was shown to improve orientation and attention in old age home residents.

Cognitive stimulating activities have been shown in randomized trials to be effective in preserving cognitive function in the demented people. A prospective study of demented people attending a dementia specific day care centre in Hong Kong showed stabilization of cognitive decline and significant reduction in family caregiver stress.

Most family caregivers of demented people are under psychological stress because of the constant need for supervision and communication problems. A local psycho-educational programme delivered by social workers via the telephone has been shown to reduce caregiver stress. A similar counselling programme delivered via the internet is being developed.

Professor Siu Kai Kong

Professor
School of Life Science
The Chinese University of Hong Kong

Biography

Dr. SK Kong received his higher education in Hong Kong and the UK. He is now a professor in the Biochemistry Programme of The School of Life Sciences at The Chinese University of Hong Kong (CUHK). His research interests are to study the cell death process in erythrocytes and cancer cells. SK Kong is also interested in developing biosensors to detect bio-molecules using fluorescence and novel techniques. Apart from teaching and doing scientific research, Dr. Kong also participates in many science-promoting activities and arranges many workshops for secondary school students. Currently, he is a fellow of the Center for Promoting Science Education in the Faculty of Science at the CUHK.

Abstract

Teaching Support for the 3+3+4 Biology in Hong Kong Secondary Schools

Watson and Crick discovered the structure of DNA in 1953. Since then, molecular biology has been developed rapidly and changed our lives in many ways. Another important milestone in biotechnology was the invention of Polymerase Chain Reaction (PCR) by Kary Mullis in 1983 to amplify DNA by chemical reactions. Now, these topics become part of the new senior secondary biology curriculum in Hong Kong. Under this new 334 curriculum, biology teachers in the local secondary schools face two challenges to provide hands-on teaching and learning activities – the lack of hardware and reagent kits supplied at an affordable price. In the light of this, with the support from the Knowledge Transfer Project Fund from CUHK, our team developed some teaching materials to help our students to learn these new technologies better. With the input from secondary school students after running several workshops, we learned how to improve the teaching and learning process, quality of reagent kits and utility of the hardware for PCR. With some more modifications, it is expected that these products will be available in the market at a reasonable price in the near future.

Professor Hugh Thomas

Director
Center for Entrepreneurship
Associate Professor
Department of Finance

The Chinese University of Hong Kong

Biography

Hugh Thomas is the Director of the Center for Entrepreneurship and an associate professor in the Department of Finance at The Chinese University of Hong Kong. He received his bachelor of arts in history from the University of Alberta, postgraduate diplomas in Chinese language from the Beijing Language and Culture University and history from Nanjing University, an MBA from the Chinese University of Hong Kong and a PhD in International Business and Finance from the Stern School of Business, New York University. He has published numerous articles and cases in banking and finance. He participated in founding China's first business school, the National Center for Industrial Science and Technology Management at Dalian in 1980 and subsequently worked in banking and consulting in Hong Kong for seven years. Prior to joining CUHK, he was an associate professor in the Finance Department of McMaster University in Canada.

Abstract

How Can Student Business Plan Competitions Effectively Stimulate Knowledge Transfer and Entrepreneurship?

The question "How can student business plan competitions effectively stimulate knowledge transfer and entrepreneurship?" is critical to knowledge transfer as practiced in universities in Greater China today. In the history of entrepreneurship education in China, the inauguration of what was to become the China Challenge Cup of Entrepreneurship (the Little Challenge) in Tsinghua University in 1998 is counted as Genesis. Since then, the Chinese Ministry of Education has increasingly come to view entrepreneurship, rather than management science in established firms, as the key to continued economic growth. China today is a world leader in terms of numbers of formal tertiary classes in entrepreneurship, and the business plan competition is core to their curricula. In Hong Kong, the move towards active knowledge transfer as opposed to pure research is part of a global change in education emphasis. New business plan competitions are initiated every year. But business plan competitions in general and the Little Challenge in particular have many problems. Several successful businesses have come out of these competitions but many of the competitions have trained excellent prize winning teams that have no interest in rolling out their ventures. What makes a good business plan competition and how educators can work effectively with entrepreneurs, service providers, investors and students to build effective knowledge transfer is the subject of this session. As director of the CUHK Center for Entrepreneurship Hugh Thomas designed and has run The Chinese University of Hong Kong's Vice Chancellor's Cup of Student Entrepreneurship and has worked with colleagues to design and run the Hong Kong Social Enterprise Challenge, sponsored by the Hong Kong Government's Home Affairs Bureau. The Center has trained teams who have won awards in, among others, Hong Kong's Young Entrepreneurs Development Council E-Challenge, HSBC Young Entrepreneur Awards, Asia Moot Corp, Texas Venture Labs, and the China Challenge Cup of Entrepreneurship – the top competition in the world in terms of expenditure of human resources.

Professor Wallace Ping Hung Chang

Associate Professor
School of Architecture
Director
Urban Place Research Unit
School of Architecture

The Chinese University of Hong Kong

Biography

Prof. Wallace Chang is currently Associate Professor, Director of Urban Place Research Unit at the School of Architecture, Chinese University. Graduated from MIT and HKU with studies on urban design and architecture, a theorist and practitioner in architecture, urban design, community education and public art, Chang has an extensive experience in urban conservation, human landscape, sustainable planning, public space and vernacular culture, particularly at the Pearl River Delta (PRD) region. He has realized a wide range of award-winning designs and researches including public toilet, youth hostel, university activities center, residential clubhouse, conservation strategy and district planning projects, etc. Chang initiated a movement of participatory charrettes on sustainable planning and urban conservation in the PRD including Zhongshan (1999), Hong Kong (Tai-O) (2000) and Guangzhou (2002), East Kowloon (2006), Shenzhen (2007). Recently, Chang has been commissioned by the Development Bureau on the Design Guidelines of Public Open Space in Private Developments [POSPD], and now is researching on the Kai Tak River Green Corridor—Community Education Project with the support from Environment Bureau.

Abstract

Green Art and Community Culture - A Reinvention of Urban River

On Sep 30, 2007, the author led a group of research students to rethink one of our community assets in Wong Tai Sin and renamed the Kai Tak Open Nullah as the Kai Tai River. Since then, the evolving process from a shift of perception to an instrumental agenda has hinged on multi-faceted consideration from environmental education, urban planning, ecological protection, to heritage management. Gradually the academic ideas have been transgressing into social acts including exhibitions in shopping malls, speeches in schools, advocacies in the media, and direct communications with the authorities.

These acts were all relevant to bring forth an attention of the significance in civil rights and public initiatives in transforming our immediate built environment. The directives of these experiences are bringing a new dimension for an alternative quality of life in our city including elements of community planning, cultural sustainability, public education and creative spaces. The approach is a knowledge-base design research initiative integrated into the process by engaging different stake-holders in proclaiming an ownership of their environment and sustaining a progressive self-generated program. The idea helps to translate knowledge from academia towards the society and vice versa, reciprocals of social experience.

The Kai Tak River project is still ongoing, and it is supported by the Environment and Conservation Fund to further the ideas of Community Education and Environmental Art. The paper is meant to consolidate the earlier experiences into a theoretical framework upon which a body of knowledge can be built. It will try to embody the direct inceptions, analytical observations and illustrated figures and cases overseas as comparison. The reflective accounts of the process and the provocative proposition to construct a community-building model for the emerging civil society of Hong Kong are to share with the learning communities from primary, secondary to tertiary educational institutions.

POSTER PRESENTERS

Professor Daniel Tik Pui Fong

Research Assistant Professor
Department of Orthopaedics and Traumatology
The Chinese University of Hong Kong

Biography

Prof Daniel Fong is currently a Research Assistant Professor and Director of Sport Performance and Biomechanics Laboratory at the Department of Orthopaedics and Traumatology, Faculty of Medicine, The Chinese University of Hong Kong. His research interests include ankle sprain injury, knee biomechanics, sport medicine, slips and falls, biomedical engineering and disabled sport biomechanics. Since 2006, he has gained a total amount of HKD 9.3 million from competitive and industrial research grants, and the major research achievement is the invention of an intelligent sprain-free sport shoe. For this project, he received HKD 5 million from the Innovation and Technology Commission since 2004 and worked out the invention in 2011.

Prof Fong has published 30 journal articles and over 120 conference abstracts. In 2009, he was awarded the "CUHK Young Researcher Award". In the same year, he was awarded Fellow of International Society of Biomechanics in Sports (FISBS). He is also Life Member of World Association of Chinese Biomedical Engineers (WACBE), Member of Institute of Electrical and Electronics Engineers (MIEEE), Member of Engineering in Medicine and Biology Society (MEMBS), and Member of Hong Kong Ergonomics Society (MHKES).

Poster - CUHK-1

Recognition and Active Prevention Technology for Ankle Sprain

Project Objectives

Ankle sprain is the most common single type of sport-related injury. Ankle sprain injury occurs when there is an incorrect foot orientation during landing as the athlete often cannot react quickly enough to correct the orientation in the short time available. The proposed intelligent anti-sprain sport shoe is being designed in order to produce a resistive torque to the supination torque when ankle sprain risk is identified. It is active protective apparel, which is different from other protective apparel by allowing full range of motion during normal movement, but only provides protection when needed.

Brief Description of the Project

The proposed intelligent anti-sprain sport shoe consists of three parts: sensing, identification, and correction. Briefly, the anti-sprain sport shoe has a sensor to detect the ankle motion in a real time manner. The identification part can determine the sprain risk based on the data collected. If the motion is endangering the athlete, the correction system will be initiated to delay or stop the sprain motion. The corrective system is a myoelectric stimulation device, which can deliver electric signals to the peroneal muscles at the lateral shank to correct the spraining motion. A prototype version of the intelligent anti-sprain sport shoe has been successfully developed, it being the first intelligent anti-sprain application system in the sports area around the world.


Accidental Ankle Sprain Motion in Sports

Impact and Contributions

The intelligent anti-sprain shoe can prevent acute traumatic ankle ligamentous sprain injury and reduce the ankle injury risks effectively. It is a revolutionary innovation of functional sport apparel. There is no similar product in the market right now and it is applicable to different sport and ready for the industry to use.


Common Ankle Sprain Motion


Wireless Anti-Sprain Device


User Equipped with Anti-Sprain Device

Project Team

Department of Orthopaedics and Traumatology
Prof. Daniel Tik Pui FONG, Research Assistant Professor
Prof. Kai Ming CHAN, Chair Professor
Dr. Patrick Shu Hang YUNG, Honorary Clinical Associate Professor
Ms. Vikki Wing Shan CHU, Research Assistant
Ms. Mandy Man Ling CHUNG, Research Assistant

Department of Mechanical and Automation Engineering
Prof. Wei Hsin LIAO, Professor

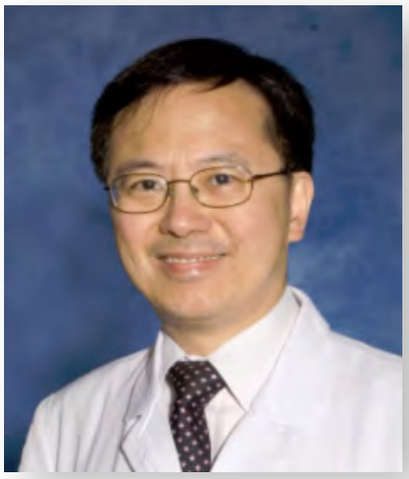
Department of Electronic Engineering
Prof. Tan LEE, Associate Professor

Project Sponsor(s)

Sengital Limited
Hong Kong Technologies Group Ltd
International Biomechanics Limited

Funding Source

Innovation and Technology Commission and The Hong Kong Research Institute of Textiles and Apparel



Professor Wai Sang Poon

Chair Professor and Chief of the Division of Neurosurgery
Department of Surgery

The Chinese University of Hong Kong

Biography

Professor Poon is currently the Chair Professor and Chief of the Division of Neurosurgery, Department of Surgery, Prince of Wales Hospital, the Chinese University of Hong Kong. He is active in undergraduate and postgraduate surgical education, as head of the Division of Surgery of the Graduate School, and specialist training in neurosurgery, as Chairman of the Specialty Board in Neurosurgery.

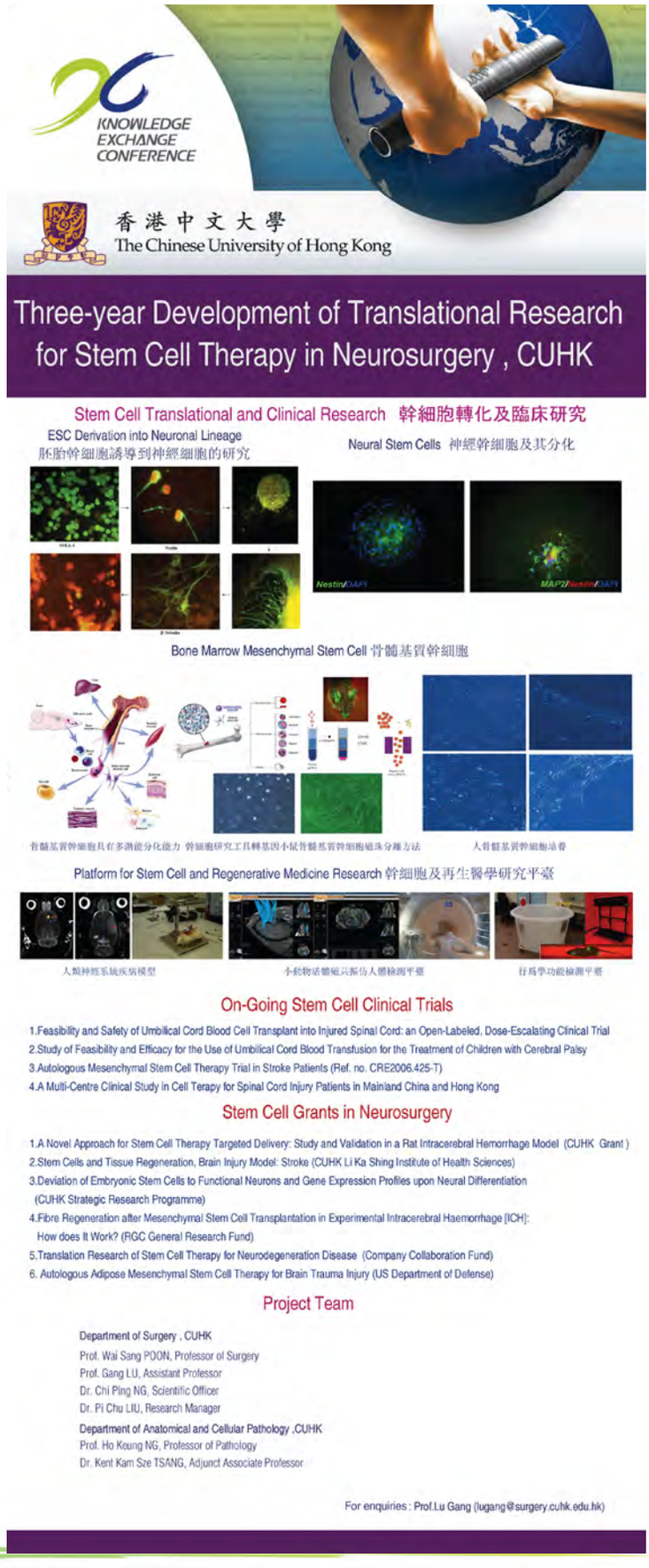
He received his undergraduate medical education at Glasgow University (1973-8), general surgical training at the City and University Hospitals, Nottingham, U.K. (1980-1982), neurosurgical training at Glasgow's Institute of Neurological Sciences, experimental cerebral ischaemia at Glasgow University's Wellcome Surgical Institute (1986) and experimental neuro-oncology at Harvard Medical School's Massachusetts General Hospital (1990-1).

His clinical interests include pituitary surgery and surgical management of Parkinson's disease; research interests include clinical and experimental head injury, hyponatraemia, telemedicine, neurorehabilitation and neuro-oncology.

He is an active participant of college and society activities locally and internationally: He is a member of the Editorial Board of the British Journal of Neurosurgery, Neurosurgery and World Neurosurgery.

In January 2011, he received the State Scientific and Technological Progress Award (SSTPA) 2010 second-class for the research study entitled "Technology for the early diagnosis and prevention of secondary brain injury in the management of traumatic brain injury".

Poster - CUHK-2



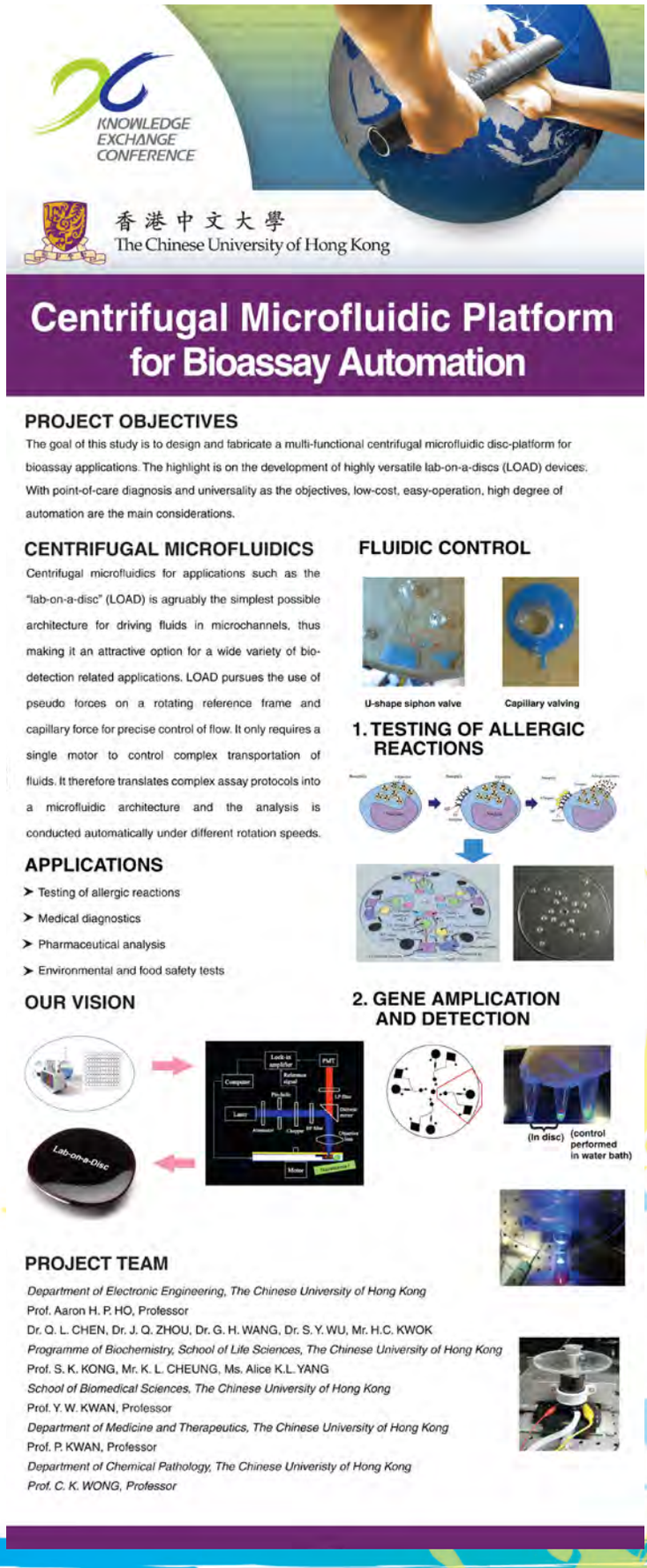
Professor Aaron Ho Pui Ho

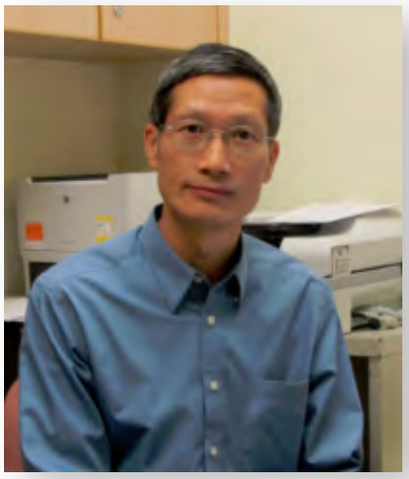
Professor
Department of Electronic Engineering
The Chinese University of Hong Kong

Biography

Professor Ho received his BEng and PhD in Electrical and Electronic Engineering from the University of Nottingham in 1986 and 1990 respectively. He is currently a professor in the Department of Electronic Engineering, The Chinese University of Hong Kong (CUHK). He has held positions as Associate Dean of Engineering, CUHK, Assistant Professor in the Department of Physics and Materials Science, City University of Hong Kong, and Senior Process Engineer for semiconductor laser fabrication in Hewlett-Packard. Started as a compound semiconductor materials scientist, his academic interests have evolved over the years to cover a broad range of topics including nano-sized semiconductor materials for photonic and sensor applications, optical instrumentation, surface plasmon resonance biosensors and biophotonics. He has published over 230 peer-reviewed articles and 5 US patents.

Poster - CUHK-3





Dr. Kwan Chi Leung

Laboratory Technologist
School of Life Science

The Chinese University of Hong Kong

Biography

Dr. K.C. Leung is currently laboratory technologist of the School of Life Sciences, The Chinese University of Hong Kong (CUHK). With extensive research experience in clinical enzymology, protein chemistry, instrumental analysis, immunological analysis, animal study and recombinant DNA technology, Dr. Leung is devoted to the development and production of electronic courseware modules for the education of biochemistry and life sciences of university and secondary school students over the years. Recently, Dr. Leung and his team members have won the awards in the Teaching and Learning Innovation Expo 2009 and 2010 at CUHK for development of an e-learning platform for biochemical science.

Based on the experience of courseware production and the implementation of the new Senior Secondary School Curriculum in Hong Kong, Dr. Leung and his team members have started to develop teaching and learning modules for the new curriculum a few years ago. In view of the various experiments in the new biology curriculum which demand expensive reagents and equipment, Dr. Leung's team was the first in Hong Kong to design and supply affordable lab equipment, specially-formulated reagents and teaching-learning packages to secondary schools which have only limited budget, hoping that students taking biology can all enjoy some good learning activities. The current project "Development of hardware modules for DNA amplification for new senior secondary school (NSS) biology teaching and learning" is one of their tasks towards this direction.

Poster - CUHK-4

Development of Hardware Modules for DNA Amplification for New Senior Secondary School (NSS) Biology Teaching and Learning — Learn by Constructivist Approach

Project Objectives

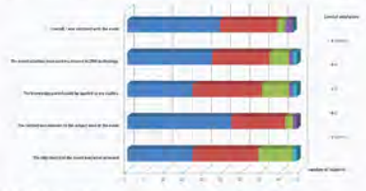
This project aims to develop education hardware to provide students with hands-on experience in learning the key principles of DNA technology, a new challenging domain of the New Senior Secondary School (NSS) Biology Curriculum.

Brief Description of the Project

- The project is about the research and development of an education hardware and the reagent kit for the experiment of DNA amplification with instruction manuals and study materials.
- It allows students to manipulate different parameters of the experiment and learn the principle of DNA amplification from the results.

Several workshops have been held for secondary school students. They used the tailor-made hardware module to carry out experiments on various topics of biotechnology and experienced the fun of learning.

Feedback from 44 students in the workshops held on 18 Jun and 10 Aug, 2011.



Impact and Contributions

- This project is the first in Hong Kong on development of hardware modules for secondary school students to learn modern biology by a constructivist approach.
- Secondary school teachers can make use of this simple and affordable hardware to design teaching modules for students to learn abstract concepts of modern biology easily.
- Knowledge and experience can be transferred from the higher education sector to secondary education sector through the provision of teaching and learning references and the linkage of exchange.
- This project serves as an exemplary work for other related subjects in curriculum development.

Project Team

Biochemistry Programme, School of Life Sciences, The Chinese University of Hong Kong
Dr. Kwan Chi LEUNG
Dr. Patrick Hung Kui NGAI
Dr. Fai Hang LO
Ms. Christy Lee Yi CHENG

Funding Source

Supported by CUHK Knowledge Transfer Project Fund

Professor William Shi Yuan Wang

Wei Lun Research Professor of Electronic Engineering
Department of Electronic Engineering
The Chinese University of Hong Kong

Biography

Prof. William Wang is Wei Lun Research Professor and director of the Language Engineering Laboratory at the Department of Electronic Engineering, The Chinese University of Hong Kong. Trained as a linguist, Prof. Wang has contributed to the language engineering field throughout his career, commencing in 1959 when his PhD dissertation was one of the first studies to apply combined knowledge of linguistics and acoustics to the problem of machine recognition of speech. More recently, he and his research team at the Language Engineering Lab have worked on:– speech recognition; computational modeling of language evolution; and the use of electro¬encephalography (EEG) to study how the brain processes the Chinese language, particularly in perception of lexical tone and reading its logosyllabic writing system.

The latter work has progressed into the field of assistive communication. Some individuals have physical and/or cognitive impairments that prevent them from communicating with others by speech or any other conventional means. Brain–computer interfaces (BCIs) offer such individuals a means to communicate by converting EEG measurements of their spontaneous brain responses to visual stimuli presented on a computer into text typed on a computer screen. Prof. Wang and his lab members are currently developing two BCI systems specifically for input of Chinese text.

Poster - CUHK-5

Brain-controlled Chinese Text Input

Project Objectives

A substantial minority of people experience damage to their nervous system that limits, or even destorys, their ability to control muscle movement. In the most severe cases, the person can become locked-in, retaining full consciousness, but unable to communicate by any conventional means, such as speaking, writing, or signing. Several kinds of neuromuscular disorder can cause an individual to become locked-in, including amyotrophic lateral sclerosis (ALS), as well as other types of motor neuron disease.

About 10,000 people in Hong Kong are affected by neuromuscular disorders, with about 3 people in 100,000 having motor neuron disease. Our work is aimed at developing portable, inexpensive, and easy to use brain–computer interface systems that will allow such individuals to input Chinese text into a computer by thought alone, providing them with a new channel for communication with other people.

Project Description

Brain–Computer Interfaces (BCIs):

A brain–computer interface, or BCI, is a system that uses neurophysiological signals that originate in the brain to control an external device, such as a computer.

Operating Principle:

Our BCIs monitor the electrical activity of the user's brain via electrodes positioned about the scalp (see Fig. 1), a method known as electroencephalography (EEG). The user looks at a computer screen that displays an array of Chinese text (see Fig. 2). The text in the array flashes rapidly in random order while the user focuses on the target text that he wishes to select. Each time the target flashes, a characteristic brain response is elicited (see Fig. 3), allowing the user's selection to be identified.

Our Current Systems:

We are currently developing two BCI systems, both of which use a portable EEG headset (see Fig. 4). One system encodes Chinese characters in terms of components (see Fig. 2); the second system encodes characters in terms of individual stokes, much like on a mobile phone.

Fig. 1. One of our BCI systems in operation

Fig. 2. Screenshot of our component-based BCI system

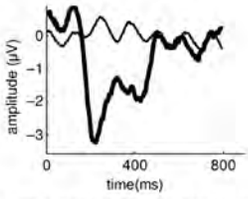


Fig. 3. Brain signals elicited from users of our BCI systems

Impact and Contributions

We aim to deliver BCI systems by which users can input Chinese text at the rate of two characters per minute. These systems will give individuals with neuromuscular disorders a new channel for communication, potentially greatly improving their quality of life.

Fig. 4. Portable EEG system used to measure brain activity

Photograph shows the EPOC headset manufactured by Emotiv Systems, Inc., San Francisco, U.S.A. Image source: http://www.emotiv.com/

Project Team

Department of Electronic Engineering
Prof. William Shi Yuan WANG, Wei Lun Research Professor
Dr. James W. MINETT, Research Associate
Dr. Hong Ying ZHENG, Research Associate
Dr. Gang PENG, Research Associate
Ms. Lin ZHOU, Research Assistant
Mr. Manson FONG, Research Student

Project Sponsors

The Office of the Government Chief Information Officer, ATDF Project
The Innovation and Technology Commission, ITF Project
Supported by CUHK Knowledge Transfer Project Fund

THE HONG KONG INSTITUTE OF EDUCATION

SPEAKERS

Professor Winnie Wing Mui So

Head/ Professor
Department of Science and Environmental Studies
The Hong Kong Institute of Education

Biography

Professor Winnie Wing-mui SO obtained her PhD from the University of Hong Kong. She is currently the Head of the Department of Science and Environmental Studies at The Hong Kong Institute of Education where she teaches Postgraduate Diploma, Master of Education, Doctor of Education, and PhD in Science Education, General Studies and/or Liberal Studies. Professor So's main research areas are inquiry learning in Science/ General Studies/ Liberal Studies, integrating IT in Science/ General Studies/ Liberal Studies, project-based learning and teacher development. She has been the principal investigator of various research grants from the General Research Fund, Quality Education Fund, and the Education Bureau. Internationally, she is currently an executive member of the World Education Research Association. Locally, she has been appointed member of the Humanities and Social Science Panel of the Research Grants Council of Hong Kong. She also serves in the Curriculum Development Committees on Science Education and Liberal Studies of the Curriculum Development Institute.

Abstract

Enhancing Teacher Professional Development through Professional Dialogue: An Investigation into a University-school Partnership Project on Enquiry Learning

In pursuit of professional development, teachers are encouraged to participate actively in professional dialogue. It has been shown in the literature that professional dialogue allows teachers to converse about the challenges in their workplace, brainstorm solutions, share experiences, and consider alternative teaching approaches. Based on a two-year university-school partnership project on enquiry learning, this study aims at empowering teachers to cultivate students' ability in enquiry learning through professional dialogue. School visit reports, final reports of the project, lesson observation reports, and semi-structured interviews carried out at the end of the project were analyzed. The findings show that the university support team created the fundamental basis for professional dialogue by conveying information regarding enquiry learning, introducing new pedagogies, conducting lesson observations, and reviewing school-based teaching materials. In addition, the support team sustained the dialogue by promoting collaborative work, including analyzing students' assignments and configuring ways to address diverse student needs with the teachers. Given the stimulations through professional dialogue, teachers involved in this study were able to familiarize themselves with enquiry learning and to gain confidence in adopting new pedagogies to facilitate student learning.

Professor Allan Walker

Head/ Chair Professor
Department of Education Policy and Leadership
The Hong Kong Institute of Education

Biography

Professor Allan WALKER is the Joseph Lau Chair Professor of International Educational Leadership at The Hong Kong Institute of Education. He has designed and implemented multiple leader learning programmes for school leaders in Hong Kong and across the region. These programmes are recognized internationally and have engaged thousands of local, regional and international school leaders. He has been consultant/advisor on large-scale research and development projects in more than 20 countries in Asia-Pacific Region, Europe and North America. He is co-editor of the *Journal of Educational Administration*, one of the top journals in the field, serves on the boards of numerous top ranked journals and has published over 300 books, chapters and journal articles. He is known internationally for his passion for school leadership, innovative approaches to development and to disseminating regional understandings of school leadership in the West.

Abstract

Seeding Sustainable Leader Learning Communities

This paper details a concerted strategy to design, implement and embed school leadership learning communities as a way of improving education leadership and school improvement. Given the impact of school leaders on school and student outcomes, the paper holds that knowledgeable, ethical and connected leaders are a key ingredient in any improvement effort. The philosophy underpinning a suite of programmes for local and international educators holds that to be worthwhile, learning must be context-based and context-placed; and focus on building enduring learning networks, not simply on the transmission of established knowledge. For this to happen, strategies must adapt to fluid school realities and disentangle traditional learning hierarchies and institutional boundaries. Design strategies combine: respect for new and emerging knowledge, 'flexibility within structure', individual and group responsibility and participation, inquiry learning, an ethical focus and holding a future-orientation. The paper will outline an initiative designed for leaders of international schools. Ongoing research into completed programmes provides a number of useful insights for making sustainable leadership learning networks work and for planning their further spread.

Dr. Eric Po-keung Tsang

Associate Professor
Department of Science and Environmental Studies

The Hong Kong Institute of Education

Biography

Dr. Eric Po-keung TSANG was academically trained as an environmental scientist specializing in pollution and environmental impact/feasibility studies. He is currently an Associate Professor in the Department of Science and Environmental Studies at The Hong Kong Institute of Education. His research interests are waste water treatment technology and applied ecology. He is active in the community in both the local and international scenes, proven by his chairmanship of Green Power Hong Kong, a major Green group, and his membership on the science panel of the International Year of Global Understanding initiated by the International Geographical Union (IGU). Over the years, he has also served in various government committees related to environmental protection and conservation. Examples are the Country Marine Parks Board, Environment and Conservation Fund, and the Environmental Campaign Committee. His current research projects include industrial waste water treatment involving electrochemical processes and nano-technology in collaboration with partners in Mainland China.

Abstract

Aspects of Waste Water Treatment by Electrochemical Method and Nano-Technology: Their Possible Application in Hong Kong

This presentation provides a brief overview of recent developments in waste water treatment using electrochemical processes and nano-Technology which can find possible applications in Hong Kong.

The presence of antibiotics as micropollutants in the environment, such as in municipal wastewater, surface water, ground water, and agricultural soils, has gained much attention in recent years. Antibiotics are used not only to prevent diseases and infection, but they are also added to animal feed at sub-therapeutic levels to promote weight production. Approximately 21.9 million pounds of antibiotics were administered to animals annually from 2002 to 2004 in the United States, but only a fraction of them were absorbed in the guts of animals. Consequently, up to 90% of administered antibiotics might be excreted into the environment via animal manure or urine. In this study, electrochemical degradation of antibiotics in water was carried out to provide reference for exploring a feasible way to treat these organics. A Ce doped SnO_2 anode and Ti were used as an anode and cathode set in an undivided cell. Metronidazole (MNZ) was used as model compound. Electrolysis was performed in Na_2SO_4 electrolyte. The results showed that the Ce doping made the structure of the SnO_2-Sb electrodes compact and multi-porous, and the efficiency of the process was increased.

Recently, Nano-scale zero-valent iron (NZVI) technology has also been widely used for the treatment of environmental pollutants. It has the advantage that the small particle size of the adsorbent results in a large specific surface area and hence a high density and great intrinsic reactivity of e surface sites. All of these lead to a high efficiency in the elimination of a variety of pollutants. However, the mechanism of contaminant removal by NZVI is still under debate, although several mechanisms have been proposed. In the study reported here, the mechanism for the absorption of MNZ by NZVI particles was established based on the experimental results obtained. The findings can be used for the optimization of conditions to be used for this treatment process.

POSTER PRESENTERS

Dr. Kam-wing Chan

Co-Director
Centre for Development and Research in Small Class Teaching

The Hong Kong Institute of Education

Biography

Dr. Kam-wing CHAN is the Co-Director of the Centre for Development and Research in Small Class Teaching and is an Assistant Professor in the Department of Curriculum and Instruction at The Hong Kong Institute of Education. He received his doctorate from Leicester University and is also a Licentiate of the College of Preceptors and a Member of the Chartered Institute of Linguists. He is experienced in leading, designing, and coordinating teacher professional development programmes in small class teaching. His main research areas include class size, cooperative learning, and teacher professional development. Dr. Chan has published a number of journal articles, books and book chapters with a focus on pedagogy and teacher development.

Poster - HKIEd-1

Small Class Teaching and the Inclusive Philosophy behind it as a Catalyst
小班教學及其融合理念如何催化變革

Project Objectives

1. To collaborate with the school's leadership in designing a curriculum to cater for learner diversity
2. To support teachers' professional development in the area of small class teaching
3. To help the school to build up a learning community to optimise teaching in a small class environment
4. To facilitate the sharing of the school's experience with local and Mainland educators

Brief Description of the Project

The Project represented the fruits of years of collaboration between the Centre for Development and Research in Small Class Teaching (The Centre) and Lok Sin Tong Leung Wong Wai Fong Memorial School (The School) in Tuen Mun. To begin with, professional support in the form of, for example, workshops on cooperative learning, collaborative lesson planning, lesson observation and the inducing of changes to the learning environment, were provided by The Centre to empower the teachers involved to use Small Class Teaching (SCT) as a facilitator in optimising their pupils' learning.
Within a small and caring learning environment, the pupils were expected to develop respect and trust, and a spirit of cooperation and teamwork in helping and serving. In return, the principal and teachers of The School contributed to knowledge transfer by sharing their experiences on the Teachers' Professional Development Days organized by The Centre and at Small Class Teaching symposiums in Mainland China.


The dedicated staff of The School and The Centre


Participating in a Small Class Teaching Forum in Nanjing

Impact and Contributions

The Project has demonstrated the inclusive philosophy behind SCT as a catalyst for the teacher development and school improvement that have contributed to a successful turnaround of a school that was on the brink of closure to one that is now recognized by the local community for its quality of education. The Project has not only enhanced the effectiveness of implementing SCT in the School, but has also had wider policy implications since the government began to implement SCT in local primary schools in 2009/10. The Project has been accepted into the Innovative Learning Environment Project of the Organization for Economic and Cooperation Development for wider dissemination to countries around the world.


Lesson observation on cooperative learning for problem solving


Story Garden – a garden for promoting creativity and sharing


Pupils decorating the playground for life-wide learning


Smart Classroom – an advanced technology classroom for interactive learning

Project Team

Centre for Development and Research in Small Class Teaching
Dr. Kam Wing CHAN, Centre Co-Director
Dr. Kwok Chan LAI, Centre Director
Mr. Yiu Nam TANG, Centre Manager

Dr. Doris Pui-wah Cheng

Director
Centre for Childhood Research and Innovation
The Hong Kong Institute of Education

Biography

Dr. Doris Pui-wah CHENG is an Associate Professor in the Department of Early Childhood Education and is currently the Director of the Centre for Childhood Research and Innovation at The Hong Kong Institute of Education. She obtained her PhD with her work on Teachers' Understanding and Implementation of Play in Early Childhood Classroom from the University of Bath, U.K. She has published internationally on issues of play-based pedagogy, early childhood curriculum, and the professional development of early childhood teachers.

Dr. Cheng is currently the Associate Editor of the Journal of Global Studies of Childhood and sits in the International Advisory Committee for the Journal of Early Childhood Research. She is also a founding member of the Association for Childhood Education International (ACEI, Hong Kong and Macau) and is serving actively as an executive member in the organization. She has strong interest in enhancing the learning and teaching quality of young children, and her current research focuses on quality practice in early childhood education and the relationship between play and the development of children's theory of mind.

Poster - HKIEd-2

Empowering Early Childhood Institutions in Implementing Effective School-based Curriculum

Project Objectives

* To support the Curriculum Leaders in employing leadership and management strategies for the effective implementation of a curriculum that enhances the development and learning of young children
* To assist preschools in implementing integrated learning in the six learning areas
* To assist preschools in building up a critical mass as agents of change in curriculum innovations and to sustain changes after the project period
* To assist the participating settings in building up a support network for reciprocal exchange

Brief Description of the Project

Project Duration: July 2008 to September 2011

Conceptual / Theoretical Framework

Framework for Empowering ECE Institutions in Curriculum Development Through University-School Partnership

Project Implementation Schedule

Phase	Month	Action
1	1st month: Preparation	* Seminar for the partner schools and site visits by the Curriculum Development Consultant * Formulate the Curriculum Core Team in each setting
2	2nd month: Curriculum Review and Action Planning	* Site visits by the Curriculum Development Consultant * Review of current curriculum practice * Devise an action plan for curriculum innovations * Seminar for the Core Team
3	3rd to 10th month: Trialling and Implementing Innovations	* Seminar for the Core Team * Curriculum planning and trialling of the teaching and learning activities * Peer observations, sharing sessions, reflective seminars and workshops organized by the Core Team and facilitated by the Curriculum Development Consultant in each individual setting * School network meetings
4	11th month to 12th month: Reflection and Action Planning	* The Curriculum Development Consultant reviews with the staff the problems, difficulties and solutions involved in curriculum innovations * Compile a reflective report and formulate an action plan for the following year
5	13th month to 36th month: Re-enactment of 2nd Cycle of Curriculum Innovations	* Participate in an experience-sharing seminar for the incoming cohort of schools * Begin another cycle of curriculum innovation (13th – 24th month) * Continue to interact with the participating schools through the website

Interactive Seminar held at HKIEd

Implementing curriculum innovation in the classroom

Impact and Contributions

* 750 practitioners from the 56 participating preschools have benefited from enhanced knowledge and skills in curriculum development, while over 9,000 young children from the collaborating settings have benefited from the effective implementation of a school-based curriculum.
* Collaborative school networks were formed among the partner schools for reciprocal professional sharing and support both during and after the project.
* A project website, http://www.ied.edu.hk/ccri_usp/index.html, was constructed to provide an interactive platform for the partner schools both during and after the project.
* Two research conference papers were generated from the project, one of which was presented at the OMEP World Congress held in Sweden in August, 2010 while the other was presented at the East Asian International Conference for Teacher Education Research held in Hong Kong in December, 2010.
* Curriculum leadership of the core team members and their confidence to serve as agents of change were enhanced.
* Knowledge of curriculum development and the pedagogical skills of the practitioners were also enhanced.
* Children's motivation and engagement in learning were improved.
* A book entitled "Exemplary Practice on Effective School-Based Curriculum" has been published and disseminated to all early childhood institutions in Hong Kong.
* A broad range of curriculum improvement and innovations is in progress.

Project Team

Centre for Childhood Research and Innovation
Dr. Doris CHENG, Centre Director & Associate Professor
Prof. Margaret N C. WONG, Professor
Ms Anissa Y.M. YUNG, Project Manager & Curriculum Consultant

Department of Early Childhood Education
Ms Karin AU YEUNG, Teaching Fellow
Dr. Susan S.K. CHAN, Associate Professor
Dr. Wai Ling CHAN, Assistant Professor
Ms Lily L.H. CHEUNG, Senior Teaching Fellow
Ms Phoebe H.L. CHEUNG, Teaching Fellow
Dr. Rebecca H.P. CHEUNG, Assistant Professor
Ms Jessie K.Y. FUNG, Senior Teaching Fellow
Dr. Dora C.W. HO, Assistant Professor
Dr. Margaret W.C. LAU, Assistant Professor
Ms Edith Y.L. LEUNG, Senior Teaching Fellow
Ms Eva Y.Y. LUI, Lecturer
Dr. Tammy M.N. TAM, Senior Teaching Fellow
Dr. Tricia K.S. WONG, Assistant Professor
Dr. Veronica W.Y. WONG, Project Manager

Project Sponsor

Education Bureau (HKSAR)

Dr. Anissa Siu-han Fung

Associate Professor
Department of Cultural and Creative Arts

The Hong Kong Institute of Education

Biography

Dr. Anissa Siu-han FUNG is an Associate Professor in the Department of Cultural and Creative Arts at The Hong Kong Institute of Education. She is a renowned ceramics artist and product designer educated at the Royal College of Art in England and later awarded Doctor of Fine Art in Australia. Her ceramics have been globally showcased in more than 50 exhibitions, with many pieces archived by local and overseas museums. Her innovative artworks, developed from research on Chinese ritual culture and aesthetics in burial objects, are highly commended by international artists and professional counterparts.

In recent years, Dr. Fung has dedicated her work to bringing art into the community and conducting research to explore integrated arts learning activities and creative teaching approaches, especially on interdisciplinary curriculum with visual arts and non-art subjects. She is the recipient of the "Excellence in Teaching Award 2009" and the "Knowledge Transfer Award 2010-2011" from The Hong Kong Institute of Education for her high quality teaching and her community art development projects.

Dr. Fung is Project Leader of the CCA-Community Arts and Sports School (CASS) and the Visual Arts Education and Community Development Project (VAECD), visiting professor of the Hanyang University International Summer School in Korea, and also former chairperson of the Hong Kong Contemporary Society of Ceramics.

Poster - HKIEd-3

Dr. Kenneth Kuen-fung Sin

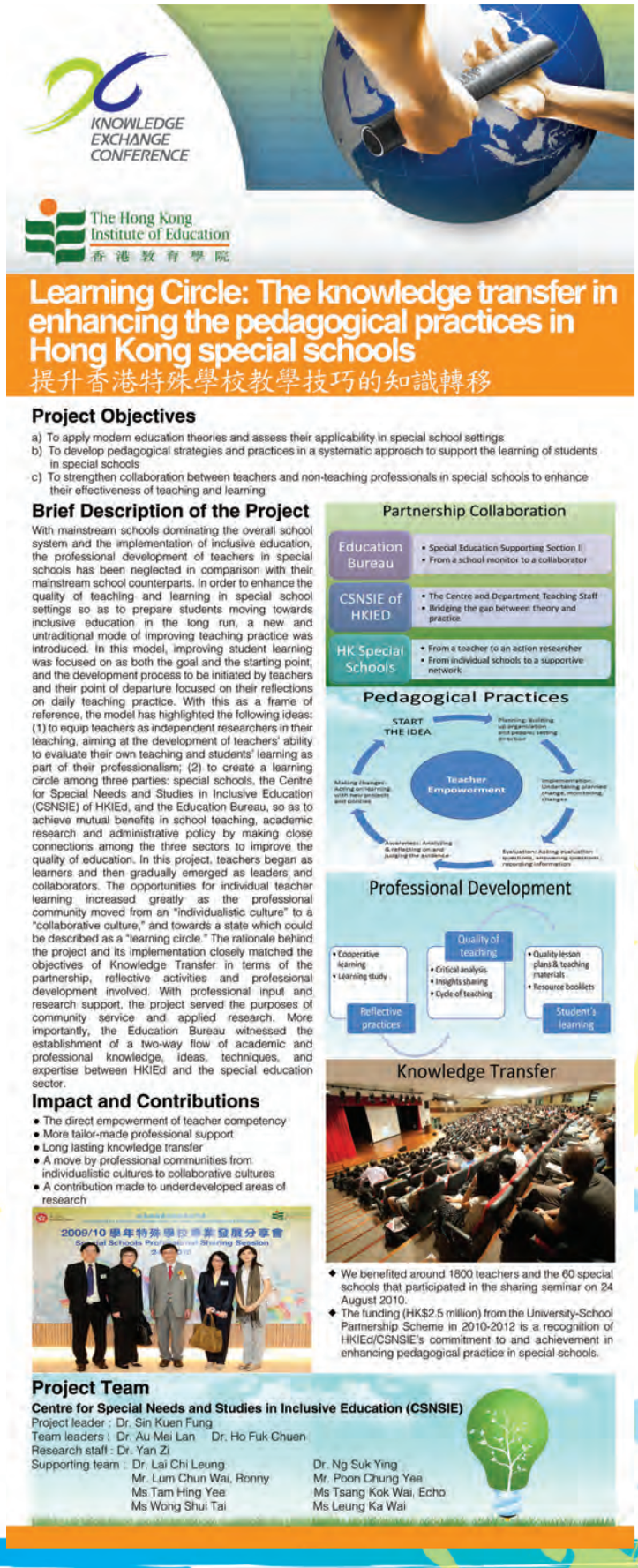
Director
Centre for Special Needs and Studies in Inclusive Education
The Hong Kong Institute of Education

Biography

Dr. Kenneth Kuen-fung SIN is the Director of the Centre for Special Needs and Studies in Inclusive Education and is an Associate Professor in the Department of Special Education and Counselling at The Hong Kong Institute of Education. His expertise and research lie in the areas of emotional disorders, learning difficulties, assistive technology in special needs and professional development in inclusion. He has much consultancy experiences in many local research projects in special needs as well as training work for teachers teaching children with disabilities in Mainland China and Macau. He once led a project valued HK$51 million in total for three years, which was funded by the Education Bureau. The project aimed at advancing inclusion in education by organizing a wide range of professional development programmes at different levels for Hong Kong teachers.

Dr. Sin also takes part in many community services related to special needs and inclusion such as serving as school council member of two special schools, task group member in giftedness, inclusion and special needs in the Education Bureau, the Curriculum Development Institute and the Hong Kong Examinations and Assessment Authority, and executive member in NGOs for persons with visual impairment, hearing impairment, intellectual disabilities, autism and emotional problems. He is also the Vice Chairman of the Special Education Society of Hong Kong.

Poster - HKIEd-4



THE HONG KONG POLYTECHNIC UNIVERSITY
香港理工大學

THE HONG KONG POLYTECHNIC UNIVERSITY

SPEAKERS

Professor Angelina Yuen

Vice President (Institutional Advancement and Partnership)

The Hong Kong Polytechnic University

Biography

Prof. Angelina Yuen is currently Vice President (Institutional Advancement and Partnership) of The Hong Kong Polytechnic University where she has served since 1986.

Angelina holds a Bachelor's degree in social work, a MSW, a MEd. and a PhD degree from Hong Kong, Canada and U.K. Her research interests and areas of specialism are mainly on social support networks and community care, social work education, social work practice in China, corporate social responsibility and occupational social work.

Angelina was President of the Hong Kong Social Workers Association and is serving/served as Board Member of numerous Government commissions and NGOs, including the Social Workers' Registration Board, Hong Kong Council of Social Service, Advisory Committee on Social Work Training and Manpower Planning, Hong Kong Press Council, Commission on Strategic Development, and has been appointed Justice of Peace since 2002 and further awarded a Bronze Bauhinia Star by the Hong Kong SAR Government in 2008.

Angelina has helped to spearhead social work education in China since 1988 and has played a key role in the development of social work education in the Chinese mainland. She is also actively engaged in various international organizations.

Angelina has been elected as President of the International Association of Schools of Social Work (IASSW) since July 2008.

Abstract

Establishment of the PolyU Shenzhen Base as a Strategy to foster Industry-University Partnership in the Pearl River Delta

The Hong Kong Polytechnic University Shenzhen Base (the PolyU SZ Base) is a strategic move of PolyU to engage in education, research, knowledge transfer and commercialization of its outcomes targeting at the needs of Hong Kong, Shenzhen and the Pearl River Delta (PRD). The Base builds on PolyU's strengths in applied research, its pioneering experience in offering postgraduate award programmes in the Chinese Mainland, and its long-term connections with industries in the region. The SZ Base supports the strategic goal of PolyU to excel as a world-class applied university.

The mission of the PolyU SZ Base is to become the headquarter of PolyU in PRD and to provide one stop service for the region. The PolyU SZ Base is an interdisciplinary and multi-purpose platform where the research expertise, innovative power, knowledge transfer experience, education and executive development strengths of PolyU congregate to meet the challenges of the real world at one of the world's fastest growing economic regions.

The PolyU SZ Base will also serve as a one stop service centre for PolyU colleagues in PRD to develop research, consultancy, training and other professional endeavours. Through its support services, the PolyU SZ Base will facilitate academic colleagues to develop cutting-edge research projects in Mainland, to establish strategic partnership with renowned scholars and universities, to provide needed consultancy to businesses, industries and government bodies, and to secure national/regional research funds through the legal entity of the PolyU SZ Base.

In this speech, the speaker will present the mission and vision of the Shenzhen Base, its strategies and activities and the work in which PolyU Shenzhen Base foster industry-university partnership in the Pearl River Delta.

Ir. Professor Alex Wai

Vice President (Research Development)

The Hong Kong Polytechnic University

Biography

Ir Professor Ping-kong Alexander Wai is Vice President (Research Development) of The Hong Kong Polytechnic University (PolyU). He received the BSc(Hons) degree from the University of Hong Kong, and the MS and PhD degrees from the University of Maryland, College Park, USA. After graduation, he joined Science Applications International Corporation in McLean, VA, where he worked on the Tethered Satellite System project – a joint United States-Italy Space Shuttle mission. Later, he worked in the Electrical Engineering Department of the University of Maryland, Baltimore County, USA. He joined PolyU in 1996. Between 2002-10, Professor Wai served as and Head of Department of the Electronic and Information Engineering, Dean of Faculty of Engineering, and Associate Vice President. Currently, he is Chair Professor of Optical Communications.

His research interests include optical fiber communications and optical networks. Prof. Wai is an active contributor to the technical field, having over 150 refereed international journal publications. He has contributed to the organization, served an invited speaker and keynote speakers of many international conferences. Professor Wai is Associate Editor of Optics Express. He is a fellow of Optical Society of America and Hong Kong Institution of Engineers and a Senior member of IEEE.

Abstract

Capturing Research Value with Application

The vision of PolyU is to be a leading University that excels in professional education, applied research and partnership for the betterment of Hong Kong, the nation and the world. The University devotes a great deal of effort to research. PolyU is a place where innovation meets application. Our research is meant to serve the practical needs of society.

PolyU's ability to transfer cutting edge knowledge to industry and business has led to numerous life-changing inventions and innovations which have reaped international awards. Many of them have been put to good use benefitting the community. A vast range of researches and technologies have found their place in the real world, including aerospace, infrastructure, engineering, textile, biotech and healthcare.

Over the years, PolyU has lined up many successful partnerships with business and industry in Hong Kong and the Chinese Mainland through the University's high impact research projects, creating great societal impetus and strategic significance for the nation. In this speech, Prof. Wai will present a number of cases, demonstrating how PolyU has successfully captured research value with application. These include: National and International Space Programs, China High Speed Railway Monitoring System, novel multi-potent anti-cancer drug, etc. These home-grown innovations are of high relevance to the community, at the same time, it illustrates well how Hong Kong can contribute to advancement of frontier technologies through academic knowledge transfer.

Mrs. Dorinda Fung

Director of Student Affairs

The Hong Kong Polytechnic University

Biography

Dorinda Fung is the Director of Student Affairs at Hong Kong Polytechnic University. Mrs. Fung has a passion of providing opportunities to help students' holistic development.

Aligning with HKPU's mission of being an application-oriented university, Mrs Fung has been exploring for different internship platforms and models to connect students with the real world where they can experiment on applying what they have learned inside the classroom. Meanwhile it is HKPU's institutional policy to make work-integrated education mandatory. All undergraduates will have to undergo some internship experience before graduation. Mrs. Fung and her team have been instrumental to the successful realization of this institutional commitment.

Mrs. Fung is also keen to add cultural exposure to work experience and thus she works diligently to expand students' internship horizons beyond Hong Kong. Since the mid nineties, HKPU has been enabling over 7,000 HKPU students to have internship experience offshore, to over 30 different countries and over 25 cities in the Chinese mainland. From 2004 to 2006, with a generous donation of $16M from The Hong Kong Jockey Club Charities Trust, Mrs. Fung was the Chairman of a joint-institution initiative that facilitated 1,000 students from the 8 local tertiary institutions to participate in offshore placements.

Dorinda has a background as an educator, and in various fields of psychology. She has been the Director of Student Affairs at HKPU since 2002. She provides leadership to 120 full-time staff and her responsibilities include overseeing psychological and careers counselling, personal and professional skills development, financial support, physical education, hall residences, scholarships and amenities.

Abstract

Connecting students to the Real World : the PolyU Experience

With the mission of providing high quality application-oriented education, The Hong Kong Polytechnic University offers a wide range of courses which directly meets industrial, commercial and community needs. It is a prime aim of the University to equip students not only with professional competency but also the ability of independent thinking, good communication skills and a global outlook. In view of this, the university-wide "Work-Integrated Education" (WIE) was launched as a mandatory graduation requirement for all full-time undergraduate students starting from the intake of 2005-06. It aims to help students to become 'all-round students with professional competence' and to produce 'preferred graduates'.

Work-Integrated Education in PolyU refers to "structured and measurable work-based learning experiences which take place in an organizational context relevant to a student's future profession, or the development of generic skills that will be valuable in that profession. It offers students the opportunity to learn to connect classroom theory with practical workplace applications through on-the-job work placements. Through the implementation of WIE, it is wished to reaffirm the positioning of PolyU as a University offering academic programmes in a professional context and to strengthen the competitive edge of the University's professional-based programmes with a view to attracting more quality students and to enhancing the employability of students.

We have implemented the WIE for 5 years already and the learning curve has been steep for both the faculty and students.

Professor Kaye Chon

Dean of School and Chair Professor
School of Hotel & Tourism Management
The Hong Kong Polytechnic University

Biography

A former hotel manager and tourism industry consultant, Professor Kaye Chon (Ph.D., CHE, FIH) is Dean and Chair Professor of the School of Hotel and Tourism Management at The Hong Kong Polytechnic University. Prior to being appointed as Dean, Dean Chon has assumed the roles of Director and Chair Professor of the School of Hotel and Tourism Management since year 2000.

Under Dean Chon's leadership, the School has arisen as one of the world's leading institutions in hospitality and tourism management. In 2009, the School was ranked no. 2 in the global ranking of hospitality and tourism schools based on research and scholarship, according to a study published in the *Journal of Hospitality and Tourism Research.*

Dean Chon was previously Professor and Director of Research and Director of Tourism Industry Institute at the University of Houston's Conrad N. Hilton College in the United States.

He is the past Chairman of the **International Society of Travel and Tourism Educators** and currently Chairman of **Pacific Asia Travel Association Education and Training Committee**. Dean Chon is honoured by the United Nations World Tourism Organisation (UNWTO) with the prestigious **UNWTO Ulysses Prize 2011**.

He has been listed in ***Who's Who In The World.***

Abstract

Industry and University Partnership

Experiential learning is an important pedagogy in a field like hotel and tourism management studies which are closely related to industry practices. The School of Hotel & Tourism Management (SHTM) at the Hong Kong Polytechnic University was able to implement successful industry partnership programs in several unique ways.

First, the School has successfully launched the "Professor For A Day" program with a great amount of success. Prominent managers from the industry are invited to spend a day in the School. They have lunch with a group of invited staff and students, talk with students individually, and give a lecture to students and staff, so they can share with students the current issues and trends in the industry and also have a chance to motivate and inspire the students. Upon completion of the visit, they are presented with a certificate of participation as Professor For a Day, which many of them hang in their offices.

Second, the School has implemented an industry mentorship program. This scheme allows students the chance to receive expert guidance and advice from external mentors. The mentors include senior alumni and industry executives. The mentors meet with their mentees on a one-to-one basis to have lunch and a chat, and to give them some career advice.

Third, several industry relevant subjects are taught entirely in an experiential learning environment. For example, a Restaurant Management subject would involve the students to learn the entire process to plan and price the menu, prepare the food, serve the food and fully responsible for profit and loss of the restaurant for the day. A meetings and conventions management class would involve students to organize professional conferences which are often organized by the School, wherein a class of approximately 30 students would be fully responsible for planning, organizing and executing a professional conference.

As the latest development of the School, a teaching and research hotel "Hotel ICON" has been developed and started operation in the second quarter of 2011.

Dr. Alwin Wong

Associate Director
Institute for Enterprise

The Hong Kong Polytechnic University

Biography

Dr Alwin Wong is the Associate Director of the Institute for Enterprise at the Hong Kong Polytechnic University, actively driving university-wide knowledge transfer initiatives, addressing needs and interest in commercialization and entrepreneurship. His team's recent efforts are associated with the nurturing of innovative and entrepreneurial culture through the PolyU Micro Fund for both students and alumni. He also leads a team to support the development of the commercial, industrial and public sectors, by offering professional services in management consultancy, customized training for corporations, and executive development for focused sectors.

Concurrently serving as the General Manager of PolyU Technology & Consultancy Co. Ltd., Dr Wong oversees consultancy, professional services and licensing for the University rendered to the public.

Dr Wong also serves as Secretary-General of the International Strategic Technology Alliance (ISTA) comprising 24 top science and technology universities in China, UK and the USA. He is responsible for facilitating interest, exchange and development of activities/programs for R&D commercialization, knowledge transfer and international collaborations for members in the Alliance.

He has over 20 years of business development, project management and technology transfer experience for various industrial sectors, with engagements in turnkey engineering projects dating back to the early 1980's in China.

Abstract

Cultivating Entrepreneurial Learning: An Out-of-Classroom Approach

To stay competitive in this globalized, dynamically changing world, our society needs to have creative and socially responsible younger generation of leaders and entrepreneurs.

Universities offer an excellent environment to cultivate youngsters' creative and entrepreneurial thinking, skills, and knowledge. Similar strategic focus on entrepreneurship education has also been advocated in China although they are mostly permeated through conventional business plan competitions and entrepreneurship talks. Such education endeavours can leverage on the popularization of social networking across internet and mobile communication domains, as people are very much connected to the world with rich information on new concepts, ideas and opinions on current and social issues.

In this regard, entrepreneurial learning may be facilitated outside conventional teaching environments, putting creativity to innovation and even entrepreneurial engagements with experiential learning.

In 2011, The Hong Kong Polytechnic University launched the PolyU Micro Fund, as a pilot scheme associated with the University's knowledge transfer enhancement initiatives, aiming to cultivate innovation and "Do Well Do Good" entrepreneurial ambiance to stimulate creativity and social entrepreneurship among students and young graduates. The Scheme itself offered out-of-classroom learning platform on major aspects of entrepreneurial thinking for student and young graduates. Participants are enriched with experience gained through actual implementation of their awarded business propositions / innovative projects, supported by seed funding from the Scheme.

In addition to gaining financial, networking and mentoring support for execution of their businesses and projects, awardees also participated in a study mission to visit selected university incubators, start-up ventures and young entrepreneurs in Chinese mainland, with structured training workshops to help equip their skills to kick start their business endeavour.

In the long run, we aim to nurture a group of creative and socially responsible entrepreneurs and leaders as core members of the society to support Hong Kong's knowledge-based economy.

* This speaker was invited by The Hong Kong Polytechnic University

Ir. Allen Yeung

Vice President
Business Development & Technology Support

Hong Kong Science and Technology Parks Corporation

(Speaker invited by The Hong Kong Polytechnic University)

Biography

Ir. Allen TB Yeung holds the positions of Vice President, Business Development and Technology Support at Hong Kong Science and Technology Parks Corporation (HKSTPC). Ir. Yeung is responsible for incubating technology and innovative design startup companies, creating synergies among industry and academic sectors, and providing advanced laboratory support facilities for innovation and technology development. In this capacity, he works with government organizations, non-profit organizations, industry, associations and investment community groups to promote technology development in Hong Kong.

Ir. Yeung has over 20 years experience with extensive business and management background across private equity investment, information technology, and electronics industries.

Ir. Yeung serves as Founding Chairman of Hong Kong Business Angel Network (HKBAN); Chairman at the Hong Kong Technology & Renewable Energy Events (HKTREE) organizing committee; and Preliminary Judge Panel of Hong Kong Award for Industries - Technological Achievement.

He is the Board Member of Monte Jade Science & Technology Association of Hong Kong; the Fellow Member of The Hong Kong Institute of Engineers (FHKIE); and the Executive Committee Member of Green ICT Consortium (GICTC).

Ir. Yeung is an advisor to the Department of Electronic Engineering, the Chinese University of Hong Kong; the member of Dept Advisory Committee DAC of HK Polytechnic University's Electronic & Information Engineering Dept.; and the Advisory Committee (AC) of the Hong Kong Information Technology Industry Council (HKITIC) under Federation of Hong Kong (FHKI).

Abstract

Experience Sharing on Technology Entrepreneurship

Hong Kong Science & Technology Parks Corp runs technology incubation programme since 1992. During the course of the programme, we conduct periodic milestone reviews with each incubatees, in which we monitor their development and provide guidance to incubatees. In this talk, I will share my observations on some key areas where some incubatees are doing better than others, hence improving their chance of successes. I will also highlight some key services and financial support provided to incubatees. Key statistics of the programme will be shared.

POSTER PRESENTERS

Professor K.L. Yung

Professor and Associate Head
Department of Industrial and Systems Engineering
The Hong Kong Polytechnic University

Biography

Professor Kai Leung, Yung obtained his BSc in Electronic Engineering (1975), MSc, DIC in Automatic Control Systems (1976), PhD in Microprocessor Applications in Process Control (1985) in the UK and became a Charted Engineer (C.Eng.,MIEE) in 1981. Since graduation, he has been working in the UK for companies such as BOC Advanced Welding Co. Ltd. British Ever Ready Group, and the Cranfield Unit for Precision Engineering. In 1986, Professor Yung returned to Hong Kong to join the Hong Kong Productivity Council as Consultant and subsequently switched to academia to join the Hong Kong Polytechnic University where he is now as an Associate Head of the Department of Industrial and Systems Engineering and Director of the Microsystems Technology Centre. His research interests include precision motion control and system aspects of Computer Integrated Manufacturing and Management, and logistic planning and optimization.

Poster - PolyU-1

An Innovative Micro Injection Molding Machine

Project Objectives

These days, we assume that most of the item we buy will be compact and multi-functional. As a result, factory owners are continuously called upon to make tiny parts. The PolyU-designed Micro Injection Molding Machine combines micromachining and advanced micro-electroforming processing which can produce extremely high precision molds at inexpensive prices.

Brief Description of the Project

A first bottom-up high precision plastic micro-injection molding machine which helps the miniaturization of products and producing high precision micro plastic parts such as micro biomechanisms, micro-pumps, micro nozzle, medical parts, micro lenses and optical connectors. Other machines only attempt to reduce the size of conventional designs while our machine adopts a revolutionary upward injection design eliminating the air entrapment problem and the need for shutoff valves that restricts melt flow. There are four servos each at the four corners of the mold clamping to automatically adjust clamping pressure for minimum mold distortion. Two linear motors are used to propel the plastic into the mold giving unmatched acceleration and precision well below milligram level. The precision is further enhanced by real-time pressure signature analysis to account for any variations. The mechanical design is simple with mechatronic control for future performance optimization through software upgrades.

SP-5 Micro Injection Molding Machine

Micro Filter

Impact and Contributions

This invention is designed to produce precision micro components, such as micro switch and sensor for automotive industry, inkjet printer nozzle for computer industry, hearing aids or implants for bio-medical industry, micro lens for optics industry, gear wheel, latches and micro transmission for watch industry.

Project Team

Department of Industrial and Systems Engineering
Prof. K L Yung, Professor and Associate Head

Poster - PolyU-2

Professor
Thomas Yun-chung Leung

Professor
Department of Applied Biology & Chemical Technology and
Director of Lo Ka Chung Centre for Natural Anti-Cancer Drug Development
The Hong Kong Polytechnic University

Prof. Thomas Leung was trained as a molecular biologist at Imperial College (University of London). He earned his PhD from Sir William Dunn School of Pathology (University of Oxford). After completing postdoctoral training at Centre for molecular sciences (University of Oxford) and the Chinese University of Hong Kong, he joined the Hong Kong Polytechnic University in 1996.

For applied research and development, Prof. Leung has filed 4 US Patent applications and a number of patent applications in HKSAR, China, UK, and Taiwan. He received an international Gold Medal Award for the invention of a biosensor that can detect antibiotics in food. For technology licensing, Prof Leung has built a strong network with biotech companies, universities and hospitals to collaborate and deliver cutting-edge technology for the community. He has developed a new anti-cancer drug with Dr. Thomas Lo, and the drug has been successfully licensed to a biotech company. More importantly, the drug has been undergoing its clinical trial in Hong Kong. This invention has been hailed as a breakthrough for "made by Hong Kong" anti-cancer drug.

Dr. Thomas Wai-hung Lo

Associate Professor
Department of Applied Biology & Chemical Technology

The Hong Kong Polytechnic University

Dr. Lo is Associate Professor in the Department of Applied Biology and Chemical Technology and the Deputy Director of Lo Ka Chung Centre for Natural Anti-Cancer Drug Development at the Hong Kong Polytechnic University. He received his B.Sc. and M.Sc. in Chemical Engineering from Massachusetts Institute of Technology in 1985 and his Ph.D. from Purdue University in 1991. After postdoctoral research work at Cornell University, he joined the Hong Kong Polytechnic University in 1994. His research interests include development of novel anti-cancer protein drugs, bioprocesses for efficient production of enzymes, protein drugs and biomaterials, environmental bio/technology for the removal of pollutants, and biosensors for monitoring and control of environmental and biochemical processes. He has co-authored 60 research publications in SCI journals, 29 papers in referred proceedings, 4 book chapters, 1 US patent and 5 pending patents. He has also co-authored the Environmental Science and Technology's Second Runner-up Environmental Technology Paper of 2007, Best Paper Award of 2007. He received the President's Award for Excellent/Achievement in Research Scholarly Activities, 2 Technology Transfer Awards and the 2009 High Impact Achievement Award for Research Achievement from the Hong Kong Polytechnic University.

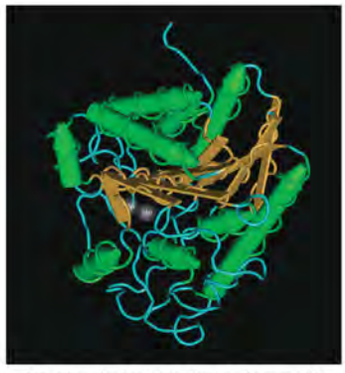
Rational Design of Engineered Arginine Depleting Enzymes as Multi-potent Anti-cancer Agents

Project Objectives

Liver cancer is one of the world's deadliest diseases, which kills 700,000 people globally each year. Conventional therapy such as chemotherapy is poisonous with lots of side effects, creating a lot of pain to the patients, yet still not able to remove cancer cells completely. Thus, there has been a call for the development of drugs that can effectively treat cancers with minimal side effects, and are affordable to patients.

Brief Description of the Project

Arginine deprivation has become a new cancer treatment paradigm and has exploited for treatment of various cancers. Arginine is an essential amino acid for the growth of cancer cells. Deprivation of arginine induces cancer cells death but it is generally well tolerated in normal cells. The successful use of Arginine Deiminase (ADI) to treat argininosuccinate synthetase (ASS) – deficient tumors has opened up new possibilities for targeted therapy. Nevertheless, many ASS-positive cancers are resistant to ADI. By rational drug design, we have developed a thermostable arginase (BCA-PEG20) to treat both ADI-sensitive and ADI-resistant cancers. This engineered multi-potent drug can inhibit proliferation of multiple cancer types including drug-resistant liver cancer and breast cancer.



Three dimensional molecular structure of thermostable Bacillus arginase (BCA)

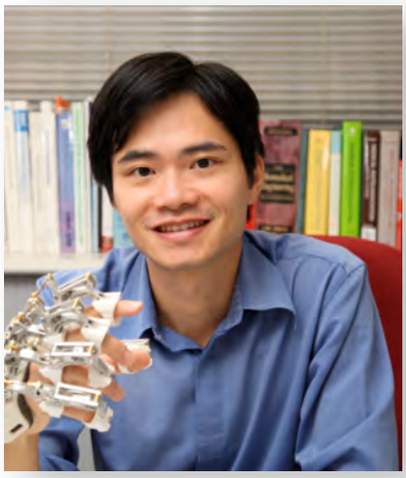
Thermostable Bacillus arginase (BCA) can be isolated from a hot spring bacterium

Impact and Contributions

BCA-PEG20 is a safe and effective drug as it converts arginine to ornithine and urea.BCA-PEG20 demonstrates in vivo antitumor activities in lung cancer, breast cancer, gastric cancer, cervical cancer and oesophageal cancer. Besides, it is actively against other arginine auxtrophic cancers, including leukaemia, melanoma, pancreatic cancer, prostate cancer and eye cancer.

Project Team

Department of Applied Biology and Chemical Technology
Prof. Thomas Yun-Chung Leung, Professor and Director of Lo Ka Chung Centre for Natural Anti-Cancer Drug Development
Dr. Thomas Wai-Hung Lo, Associate Professor



Dr. Raymond Kai-yu Tong

Associate Professor
Department of Health Technology and Informatics
The Hong Kong Polytechnic University

Biography

Raymond Kai-yu TONG received his PhD in Bioengineering from the University of Strathclyde, Glasgow, UK. He is Associate Professor in the Department of Health Technology and Informatics, the Hong Kong Polytechnic University(PolyU). He is Programme Leader in the BSc. in Biomedical Engineering in PolyU. His research interests include rehabilitation robotics (e.g. PolyJbot, Exoskeleton Rehabilitation Hand Robot), functional electrical stimulation(FES) and stroke rat model. Projects have been funded by Innovation and Technology Fund, UGC CERG/GRF and PolyU Niche Areas Fund as principal investigator. His inventions have received HKIE innovation awards for young members(2008), three gold awards in international invention exhibitions(2010[Germany], 2007[Belgium],2004[China]) and Hong Kong Award for Industry(2003). Patent has been filed in US and licenses to US and Hong Kong companies.

Webpage: http://www.acad.polyu.edu.hk/~htong

Poster - PolyU-3

Professor Eric Ka-wai Cheng

Professor
Department of Electrical Engineering
The Hong Kong Polytechnic University

Biography

Prof Eric Cheng obtained his BSc and PhD degrees both from the University of Bath in 1987 and 1990 respectively. Before he joined the Hong Kong Polytechnic University in 1997, he was with Lucas Aerospace, United Kingdom as a Principal Engineer and led a number of power electronics projects He received the IEE Sebastian Z De Ferranti Premium Award (1995), outstanding consultancy award (2000), Faculty Merit award for best teaching (2003) from the University, Faculty Engineering Industrial and Engineering Services Grant Achievement Award (2006) and Brussels Innova Energy Gold medal with Mention (2007), Consumer Product Design Award (2008), Electric vehicle team merit award of the Faculty (2009), and Special Prize and Silver Medal of Geneva's Invention Expo (2011). He has published over 250 papers and 7 books.. He has over 100 interviews by media on his research and development. He is now the professor and director of Power Electronics Research Centre of the university. His research interests are all aspects of power electronics, air-conditioning, renewable energy, motor drives, EMI, electric vehicle and energy saving.

Poster - PolyU-4

Solar Powered Air Conditioning System for Vehicles

Project Objectives

The Solar Powered Air Conditioning System was developed as a solution to provide alternative energy source for vehicles' air-conditioning with the engine off during idling. It helps reduce CO2 emission and the demand on fossil fuel. It is readily applied to any vehicles to provide electricity and air-conditioning.

Brief Description of the Project

The vehicle installed with Solar-Powered Air-conditioning System differentiates itself from others with a solar energy panel made up of photovoltaic modules on the top of it. As the vehicle moves along roadside, it will automatically collect solar energy for storage in a specially made battery system supported by an optimized control system.

The power collected will support a stand-alone electric air-conditioner which can be switched on when the car engine is not running. The sophisticated system can also operate during cloudy or rainy days because solar energy is automatically stored in the battery during sunny weather.

During the 4th Macau International Environmental Co-operation Forum & Exhibition held from 31 March to 2 April 2011, Prof Cheng of PolyU accompanied Mr. Edward Yau, Secretary for the Environment of the HKSAR Government, experienced SAV and claimed it a practical assistance to the industry

Solar Private car

The System Components

Impact and Contributions

- Complete electric air-conditioning on vehicle, which gives the same performance as conventional counterpart
- Regulate battery condition even after long period of parking
- Reduce CO2 per year per vehicle by 4 tons for 6 hours of operation
- Return of investment is within 2 years for 8 hours commercial operation per day
- Variable speed drive for air-conditioning
- Maximum Power Point Tracking (MPPT) Solar battery charger
- Suitable for private cars, vans and buses
- To enable conventional combustion engine vehicles with air-conditioning whilst engine is switched off

The Solar Panel

Project Team

Department of Electrical Engineering
Prof. Eric Ka-Wai Cheng, Professor

Professor Yi-Qing Ni

Professor
Department of Civil and Structural Engineering
The Hong Kong Polytechnic University

Biography

Dr. Y. Q. Ni is currently a Professor in the Department of Civil and Structural Engineering at The Hong Kong Polytechnic University. He has expertise in structural health monitoring, structural dynamics and control, smart materials and structures, and nonlinear oscillation. He currently serves as a co-chair of the Committee on Sensors and Actuators, Asia-Pacific Network of Centers for Research in Smart Structures Technology. He is a member of the International Structural Health Monitoring (SHM) Guidelines Standing Committee, the International Society for Structural Health Monitoring of Intelligent Infrastructure, and a member of editorial board for the international journals Mechanical Systems and Signal Processing, Structural Control and Health Monitoring, and Advanced Steel Construction. Prof. Ni has been heavily involved in the research assisting the Hong Kong Government Highways Department to implement and operate SHM systems on the large-scale bridges in Hong Kong. He has also acted as a lead consultant in developing SHM systems for a number of landmark structures including the design of SHM systems for the cable-stayed Sutong Bridge with a main span of 1,088 m and the Canton Tower with a height of 600 m. Prof. Ni has co-authored five books, 89 international journal papers, and 194 conference papers. His "Mega-Structure Diagnostic and Prognostic System" received a Gold Medal and a Grand Prize at the 37th International Exhibition of Inventions, Geneva (2009), and a Golden Prize at the 11th China International Industry Fair, Shanghai (2009). He is currently appointed as an Adjunct Professor by University of Notre Dame (USA), Zhejiang University (China) and Dalian Jiaotong University (China).

Poster - PolyU-5

Mega-Structure Diagnostic & Prognostic System

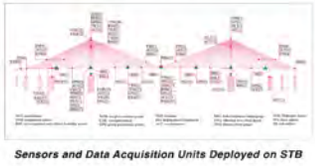
Project Objectives

Mega-structures such as long-span bridges and high-rise structures are vital civil infrastructure. Maintaining their safe and reliable operation is critical to secure the well being of people, to protect the vast investments, and to support the vitality of economy. However, mega-structures cannot last forever; they even begin to deteriorate once they are built. Therefore, it is of paramount importance to diagnose and prognose the safety of emga-structures throughout their whole life-cycle.

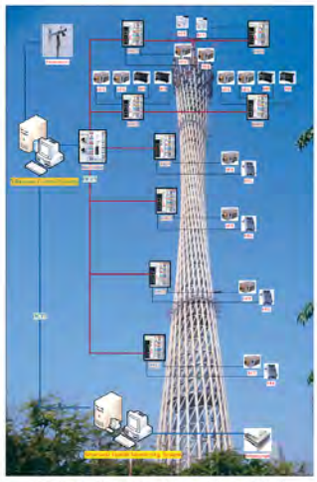
Brief Description of the Project

PolyU has devised a comprehensive diagnostic and prognostic system to provide a life-cycle screening for mega-structure's safety. Not only can it identify the structural damage at the earliest possible stage to avoid any catastrophic structural failure, but also can assess structural health immediately after any major hazardous event; Not only does it inform us what/where the severest damage is and when/how rehabilitation should be processed, but also tells us whether immediate evacuation of the occupants/contents is necessary.

A Destroyed Bridge after a Ship Collision Accident



Sensors and Data Acquisition Units Deployed on STB



Sensors and Data Acquisition Units Deployed on Canton Tower

Impact and Contributions

The system is applied in long-span bridges, skyscrapers/high-rise structures, tunnels, dams, railways, and mines. In particular, we have developed the system for the world's highest TV tower – Canton Tower, the world's longest main span cable-stayed bridge – Sutong Bridge (STB), as well as Shenzhen Stock Exchange's new headquarter.

Project Team

Department of Civil and Structural Engineering
Prof. Yi-Qing Ni, Professor

香港科技大學
THE HONG KONG
UNIVERSITY OF SCIENCE
AND TECHNOLOGY

THE HONG KONG UNIVERSITY OF SCIENCE AND TECHNOLOGY

SPEAKERS

Dr. Claudia Xu

Director
Technology Transfer Center
Vice President
HKUST R and D Corporation
General Manager
HKUST R and D Corporation (Guangzhou) Limited
The Hong Kong University of Science and Technology

Biography

Dr. Claudia Xu is Director of Technology Transfer Center at the Hong Kong University of Science and Technology (HKUST), with responsibilities for the University's intellectual property management, patent portfolio development, patent licensing, academic-industrial collaboration, technology commercialization and entrepreneurship program. She also serves as Vice President of the HKUST R and D Corporation and General Manager of the HKUST R and D Corporation (Guangzhou) Limited, which are the two commercial arms of the University in Hong Kong and China respectively.

Dr. Xu's career has spanned over 20 years in management consulting, strategic planning, business development, and management and commercialization of high-value university research outputs and technologies. She started her career with the provincial Science and Technology Bureau in China. Prior to joining HKUST, Dr. Xu first worked for McKinsey & Company (Hong Kong) as Energy Specialist engaged in the energy, chemical and petrochemical, and utility sectors. She then moved to Bechtel (Asia Pacific) as a Strategic Planning Manager and subsequently as Business Development Manager, where she was involved in the development of large size infrastructure projects in the region.

Dr. Xu received a BEng and Ph.D. in Chemical Engineering, and a MEng in Energy Technology.

Abstract

Building Mainland China Partnerships at HKUST

Hong Kong stands in the unique position of a truly international city linking the East and the West and is a strategic gateway to Mainland China. Similarly, the Hong Kong University of Science and Technology (HKUST) has established global distinction as a research university with highly international orientation in focus, reach and impact, while at the same time has been actively pursuing opportunities to participate in the Mainland research schemes and collaborations with various Mainland organizations ranging from public to private sectors.

As of today, there have been over 50 collaborative arrangements with various universities and research institutes in the Mainland. The University formed early links with Shenzhen through an alliance in 1999 with Peking University and the Shenzhen Municipal Government leading to the establishment of the Shenzhen Industry, Education and Research (IER) Base and the Shenzhen PKU-HKUST Medical Center. With the support of the Shenzhen Municipal Government, HKUST opened its new research base in Shenzhen on 22 September this year, which marks another milestone in HKUST's development in the Mainland.

In Nansha of Guangzhou City, the HKUST Fok Ying Tung Graduate School was formed as the fifth school of HKUST in January 2007 with the mission to foster research and technology advancement and provides education through PG program, academic exchange and professional training.

Other collaborations in the Mainland include the Zhejiang Institute for Advanced Materials in Hangzhou City and Foshan LED Technology R&D Center in Foshan City, with which HKUST has established platforms for research, innovation, and technology transfer, along with training for local entrepreneurs. Private sector collaborative efforts include the Huawei-HKUST Innovation Lab set up on the HKUST campus, funded by world-leading telecoms solution provider Huawei Technologies.

Fostering these diversified links is an important part of our strategic outlook and mission at HKUST. Working together with our Mainland partners can complement each others' strengths to energize regional development in order to achieve win-win situation for innovation and strategic R&D development in the long run.

Professor Jow Ching Tu

Associate Professor
Division of Social Science
The Hong Kong University of Science and Technology

Biography

Prof. Tu Jow Ching, Division of Social Science, HKUST. The major research interests include population aging, mortality and health, fertility and gender, the socio-economic consequences of population changes.

Abstract

Population Aging and Economic Growth

With populations aging in nearly all countries, there has been widespread concern about the possible effects on economic growth and on the ability of countries to provide support for their elderly populations. In particular, because the elderly are in general less economically productive than younger people, a preponderance of old-age individuals would seem to suggest that (a) economic growth will be slower than in the past, and (b) relatively smaller working-age cohorts of the future will be burdened by the need to care for, and pay for the support of, the elderly population.

Professor Gordon Mckay

Acting Head/ Professor
Department of Chemical & Biomolecular Engineering
The Hong Kong University of Science and Technology

Biography

Prof. Gordon McKay is the Acting Head of the Department of Chemical and Biomolecular Engineering at HKUST. Prof. McKay received his PhD from Bradford University in 1970 in Combustion Kinetics. In 1970, he was appointed Lecturer II in Chemical Engineering at Queens University, Belfast, Senior Lecturer in 1980 and Reader in 1985. During the years 1984-85, Prof. McKay was appointed as Professor and EC Project Manager to establish Faculty of Engineering at University of Jordan.

Prof. McKay served as an owner and CEO of Consultant Process Engineering and Management Systems Ltd. (1985-95), Senior Process Specialist, Project Management Ltd. (Foster Wheeler Ireland) and Project Manager of 200 HAZOPs, 20 EIAs, 5 IPCLs, 50 Environmental Audits & 100 Process Plant Designs.

Prof. McKay's research focuses on developing a fundamental understanding of the design and optimization of processes and products for environmental applications, waste minimization and energy recovery. Prof. McKay's current research activities include wastewater treatment for dyes and metals using adsorption, ion exchange and ozonation, biopolymers from crab and prawn shells, process design, dioxin removal, MSW processing and production of new adsorbents.

Abstract

Waste to Energy

Worldwide human society produces vast amounts of wastes from our own domestic and social activities, industrial, commercial and constructional activities. Our own community in Hong Kong of just under seven million people produce between nine to ten thousand tonnes per day of municipal solid waste and around tow thousand tonnes per day of sewage sludge. At present almost all of this goes to our three landfill sites a very valuable resource on Hong Kong which could be used for other purposes.

Furthermore, it has been projected that the current capacity of these three sites will be exhausted in the next six to seven years. The proposed extension of one of these sites into a Country Park area has already caused a significant controversy in Legco.

What can we do? There are several pilot projects using different technologies under trial in Hong Kong but most are several years away from a full scale operating waste processing plant. A brief mention of these will be made in the presentation.

However, Hong Kong Government Departments, like most countries around the world in a similar situation, are proposing to alleviate the waste problem initially by the introduction of one or two large scale waste volume reduction processing plants using incineration. This presentation will discuss the advantages and disadvantages, particularly in terms of the emissions, of waste reduction by thermal treatment and show some photographs of some incinerators in other countries. You will see some results from a pilot plant constructed and operated in Hong Kong by Chemical Engineers from HKUST and engineers fron Green Island Cement Company Limited.

Professor King Lun Yeung

Joint-Professor
Department of Chemical and Biomolecular Engineering and Division of Environment
The Hong Kong University of Science and Technology

Biography

Prof. King Lun Yeung, a joint-Professor of the Department of Chemical and Biomolecular Engineering and Division of Environment, received his Ph.D. in Chemical Engineering from the University of Notre Dame. Prof. Yeung's research is on smart materials in health, environment and energy applications, with more than 150 publications, 300 presentations and 12 inventions (ca. 36 patents) in these topics. Prof. Yeung is also editor of the Chemical Engineering Journal and member of editorial board of Catalysis Today, Recent Patents in Chemical Engineering, International Journal of Chemical Engineering. He is reviewer for major funding agencies around the world including USA's SBIR, PRF and NSF, UK's EPSRC and RSC, EU's F7, Singapore's A-Star and Czech's RCSS.

Abstract

Smart Antimicrobials for Healthy Living Environment

The World Health Organization (WHO) reported that one of the most common routes for transmission of infectious diseases is by indirect contact with surfaces contaminated with infectious droplets produced by the patient's coughing, sneezing and talking. Many microbes, including viruses can survive for days on surfaces. Hand contact with contaminated surfaces (i.e., fomites) and subsequent transfer of microbes to mucosal membrane of the mouth, nose and eyes is the cause of many reported gastroenteritis outbreaks (i.e., norovirus) and rhinovirus infections. Other pathogens known to transmit through fomites include cold virus, rotavirus, P.aeruginosa and methicillin-resistant S. aureus (MRSA).

Regular cleaning and disinfection are therefore important for breaking the chain of infection, and the use of antimicrobial surface coating provides an additional safeguard against disease transmission. HKUST has developed a system of smart antimicrobials designed to treat and disinfect air, water and surfaces of harmful microorganisms. The antimicrobial systems create synergy in design and function to achieve multilevel action against microorganisms to ensure rapid disinfection and long-term protection.

Smart responses were integrated in the design to achieve self-cleaning and self-disinfecting actions that are triggered by contaminating actions of touch and droplets. Laboratory, field and clinical tests were carried out to demonstrate the practical applications of these antimicrobial systems.

Professor Ali BeBa

Director
Entrepreneurship Center
Consultant
HKUST Business School

The Hong Kong University of Science and Technology

Biography

Prof. Beba graduated from the Middle East Technical University, Turkey and received his PhD in chemical engineering from the University of Tulsa, Oklahoma, USA. In his 30+ years of profession, he has worked extensively in and outside of Turkey for a range of public and private institutions as well as NGOs, including Smithco Engineering Inc, Procter & Gamble, UNEP, EU and WB. He served as the Chairman of the Environmental Protection and Packaging Waste Recovery & Recycling Trust (CEVKO) and taught engineering, business and entrepreneurship in academic institutions including Colorado State University in the USA; Ege, Yıldız Technical Universities and Ozyegin University in Turkey. In addition to his academic duties, he provides services for SMEs and NGOs to support their R&D projects and help them to draft professional business plans. He was the Academic Director for the Center for Entrepreneurship of Ozyegin University in Istanbul where he taught entrepreneurship to UG and MBA students and executed international outreach entrepreneurship activities such as, the Goldman Sachs Foundation (GSF)'s Global 10000 Women Entrepreneurs Program, European Forum for Entrepreneurship Research (EFER) and Life Long Learning (LLL) projects for EU. Prof. Beba is currently the Consultant of HKUST Business School and he is also the Director of the HKUST Entrepreneurship Center.

Abstract

Awakening Entrepreneurship in Knowledge Transforming Societies

Entrepreneurship is at a crossroads in East Asia. The former Asian Tigers — Hong Kong, Singapore, South Korea and Taiwan — have turned largely to technological innovation, constantly reinventing consumer goods and gadgets at ever-lower prices. Business innovation — the creation of wealth in new ways — is retreating, pushed on by generational change in populations and at the helms of once dynamic corporations. At stake is the prosperity that is all too often considered permanent. In an era of corporations spanning the globe it is well worth recalling that small business established by entrepreneurs drives the world economy. Entrepreneurs use their initiative and imagination to generate breakthrough products and services. Whether social or monetary, wealth is at the very centre of the entrepreneurial spirit. Yet, wealth can be transitory. East Asia's population is ageing rapidly, which has the potential to restrict economic growth. The environment for fostering entrepreneurialism in the region is good but by no means great. R&D is limited throughout the region, with most innovation driven by foreign investors, and there are few incubation centers and limited angel investors and VCs from whom entrepreneurs can benefit. Family businesses predominate in this region, with often less than ideal succession planning, governance and financing. Very few family businesses survive to the third generation. As the economies of East Asia, including China, become freer, problems such as these will proliferate. In places with limited land, most notably Singapore and Hong Kong, "me too" investment mostly in real estate by family businesses intolerant of failure has the potential to create economic bubbles that could burst at any time. Obviously, this must change, and quickly. There is an urgent need to revive the spirit that drove entrepreneurs in East Asia to create an economic powerhouse of the region. Family businesses have the responsibility to reform themselves through professionalization and independent management. Governments, too, must develop adequate and enforceable frameworks in such areas as corporate governance and the protection of IP. The tertiary education sector also has an obligation to revive the flagging spirit of entrepreneurship in the region. HKUST, being well aware of its responsibility in this area, has started to implement campus-wide entrepreneurship programs and activities. The University currently is in the process of renewing its philosophy and restructuring the organizational structure of its EC which was established in 1999. HKUST 2011 Entrepreneurship Competition of May 17th, (http://onemilliondollar.ust.hk) was launched with this new philosophy and an expanded scope. This helped to promote the development of an entrepreneurial ecosystem at the campus and its impact was felt in the region. These efforts will be increased in-line with the concept of 1-HKUST in the coming year since the prosperity, and the future in knowledge transforming societies of this region well depend on awakening entrepreneurship.

Professor Matthew Tommasini

Associate Artistic Director
The Intimacy of Creativity -
The Bright Sheng Partnership: Composers Meet Performers in Hong Kong
Composer-in-Residence/Adjunct Associate Professor
Division of Humanities

The Hong Kong University of Science and Technology

Biography

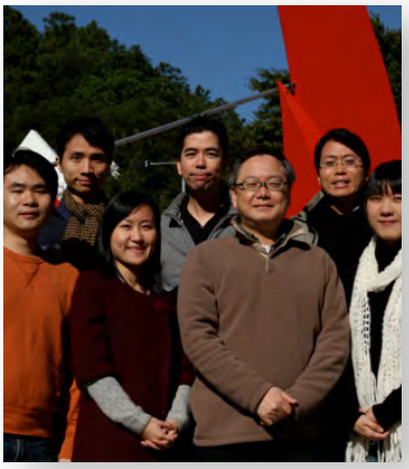
Matthew Tommasini is Associate Artistic Director of the internationally-acclaimed workshop The Intimacy of Creativity – The Bright Sheng Partnership: Composers Meet Performers in Hong Kong at The Hong Kong University of Science and Technology where he also serves as Composer-in-Residence and Adjunct Associate Professor of Music. Mr. Tommasini holds degrees in music composition from the University of Michigan (DMA, MA) and UCLA (BA). He is a recipient of the Charles Ives Scholarship from the American Academy of Arts and Letters and grants from the ASCAP Foundation's Leonard Bernstein Fund and the American Music Center's Composer Assistance Program (CAP). He has been commissioned by prominent arts organizations including the Milwaukee Ballet, the New York Youth Symphony, and danzfest, the Italian international dance festival. His work has been performed by principal members of the Los Angeles Philharmonic, Dallas Symphony and the Detroit Symphony and by renowned chamber ensembles, including Daedalus Quartet, Antares, and Parker Quartet. He also serves as Composer-in-Residence of the southern California-based Connections Chamber Music Series, which he co-founded with members of the Pacific Symphony. His work is published by Alfred Publishing, recorded on the Centaur Records label, and has been featured on RTHK's Radio 4 and The Works television program.

Abstract

Witnessing Creativity in Action – Stimulating Learning in the Creative Arts through Direct Engagement with Composers and Performers

The value of direct engagement with the creative process in creative arts education is explored through a discussion of The Intimacy of Creativity – The Bright Sheng Partnership: Composers Meet Performers in Hong Kong. The presentation begins by outlining the format and goals of the internationally-acclaimed, annual two-week workshop hosted by The Hong Kong University of Science and Technology (HKUST), which brings an international group of world-renowned performers and composers together with selected emerging composers to Hong Kong to revise and present chamber music compositions through in-depth open discussions and public performances. Specifically, the presentation explains how the workshop aims to turn the normally passive concert-going experience into an active, engaging one by asking audiences to re-think the traditional notion of a complete musical work, offering the unique opportunity to observe the revision process from start to finish. The presentation also explains how this project educates audiences about contemporary classical music, a genre little known and understood by the general public, by asking composers to speak about the ideas behind their work. The discussion continues by summarizing the direct impact of the workshop on Hong Kong audiences, including HKUST students enrolled in music courses, who, as part of the developing Creative Arts Program at HKUST, observe open discussions and public performances and write about their experiences. The discussion concludes with a summary of the project's broader engagement with the Hong Kong community via partnerships with Hong Kong-based arts and media organizations, including Radio Television Hong Kong (RTHK), the Leisure and Cultural Services Department (LCSD), and the Hong Kong New Music Ensemble (HKNME), among others, which play a key role in expanding the impact of the project and defining the event as an important part of arts and cultural offerings in Hong Kong.

POSTER PRESENTERS



Professor Karl W.K. Tsim

Professor
Division of Life Science & Director of Center for Chinese Medicine R&D

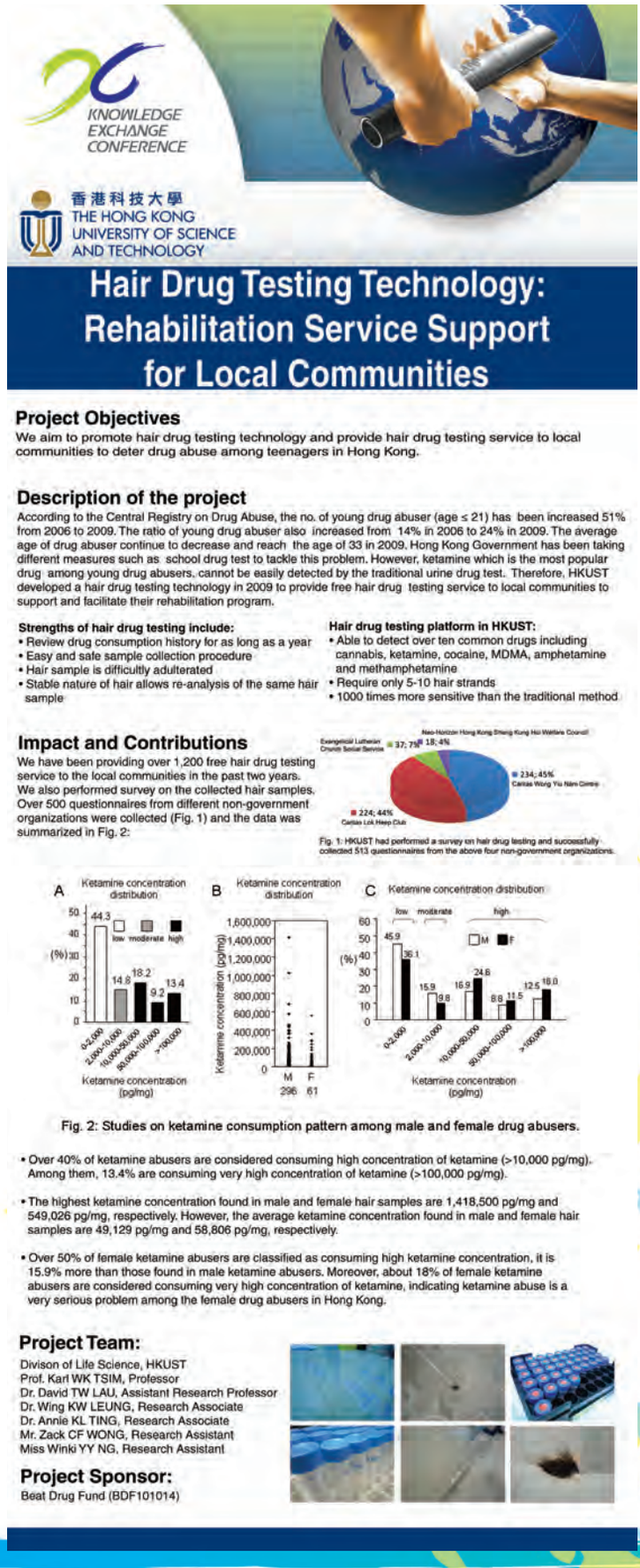
The Hong Kong University of Science and Technology

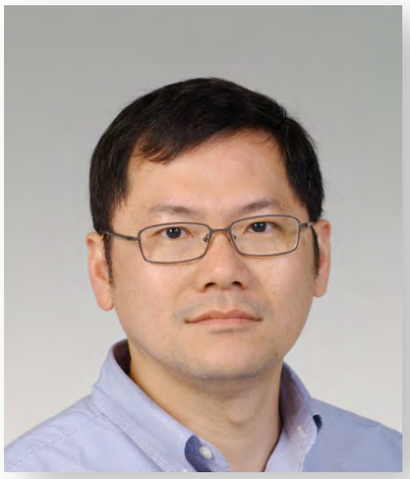
Biography

Prof. Tsim received his Bachelor and MPhil degree in Biochemistry from the Chinese University of Hong Kong. He pursued his graduate study in University of Cambridge and received his PhD in Molecular Neurobiology. He began his Post-doctoral training in the field of Neurobiology in University of Cambridge and followed by Stanford University School of Medicine. He then received an Assistant Professor position in the Hong Kong University of Science and Technology (HKUST), and now he is a Professor in the Division of Life Science and the Director of Center for Chinese Medicine R&D in HKUST.

Prof. Tsim's research interests cover three main areas: i) Molecular and Cellular Neuroscience. ii) Modernization of Traditional Chinese Medicine (TCM) and iii) Determination of drug/chemical residues in hairs. He has been publishing over 200 articles in high profile journals such as Journal of Neuroscience, Journal of Biological Chemistry and Planta Medica. He is the inventor of 10 patents in the field of TCM and hair drug testing. Not only having an excellent track record in research, Prof. Tsim also eager to share his research finding to different communities. He has been the organizing committee member for 40 international meetings and had provided mentorship to over 30 graduate students. His research team developed an efficient hair drug testing technology in the year of 2009 and has been providing over 1200 hair drug testing service to local communities. The mission of his research team is to transfer research findings to benefit the society.

Poster - HKUST-1





Professor Chak K. Chan

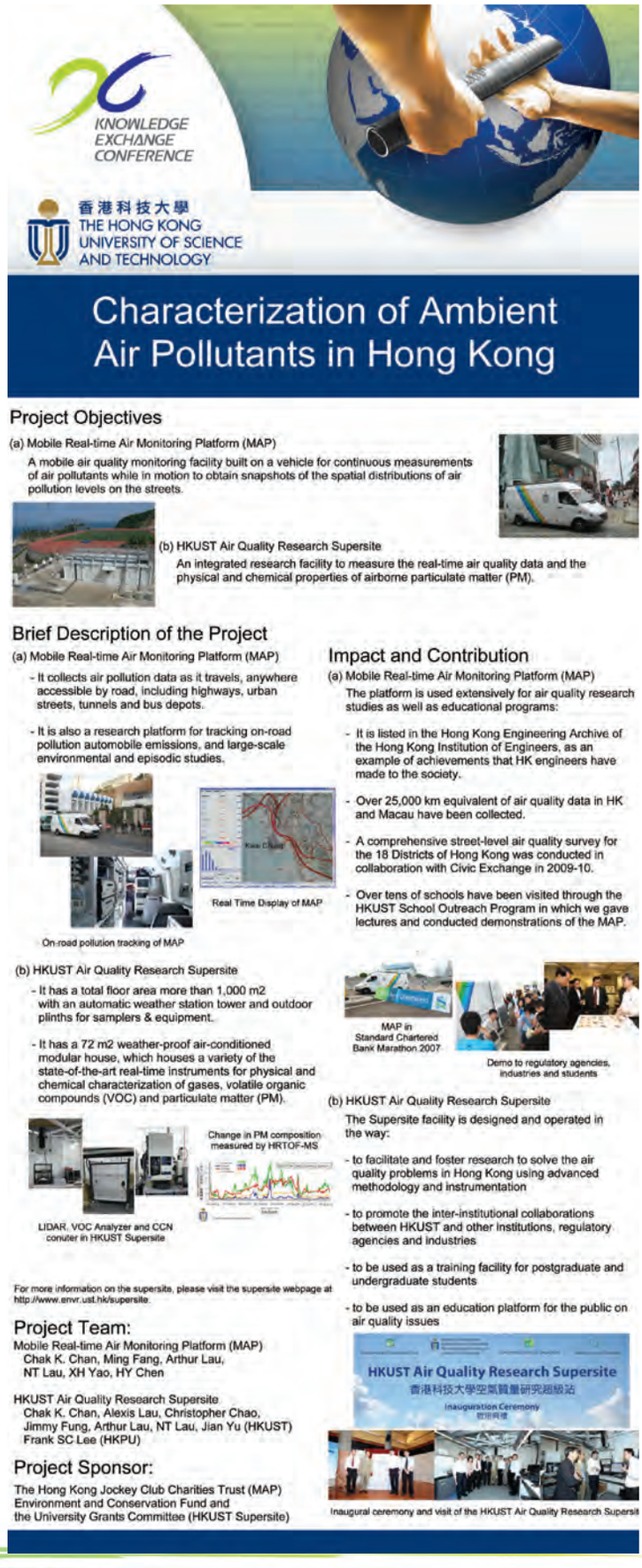
Head and Professor
Division of Environmentt
Professor
Department of Chemical and Biomolecular Engineering
Director
Institute for the Environment

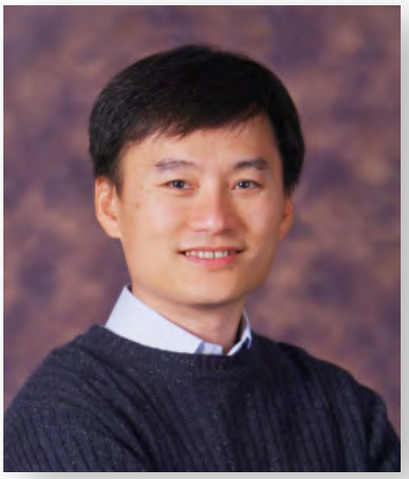
The Hong Kong University of Science and Technology

Biography

Dr. Chak K. Chan obtained BSc in Chemical Engineering from the University of Texas at Austin in 1986 and PhD in Chemical Engineering from the California Institute of Technology in 1992. He is currently Head and Professor of Division of Environment, Professor of Chemical and Biomolecular Engineering, and Director of the Institute for the Environment at HKUST. His research interests include air pollution, aerosol science and atmospheric chemistry. He has published over 100 papers with citations to date over 3700 and an H-factor of 32. He received Second Prize of the State Natural Science Award in 2010 and First Prize of the Natural Science Award in 2007. He is an Editor-in-Chief of *Atmospheric Environment*.

Poster - HKUST-2





Professor Gary Shueng-Han Chan

Associate Professor
Department of Computer Science & Engineering

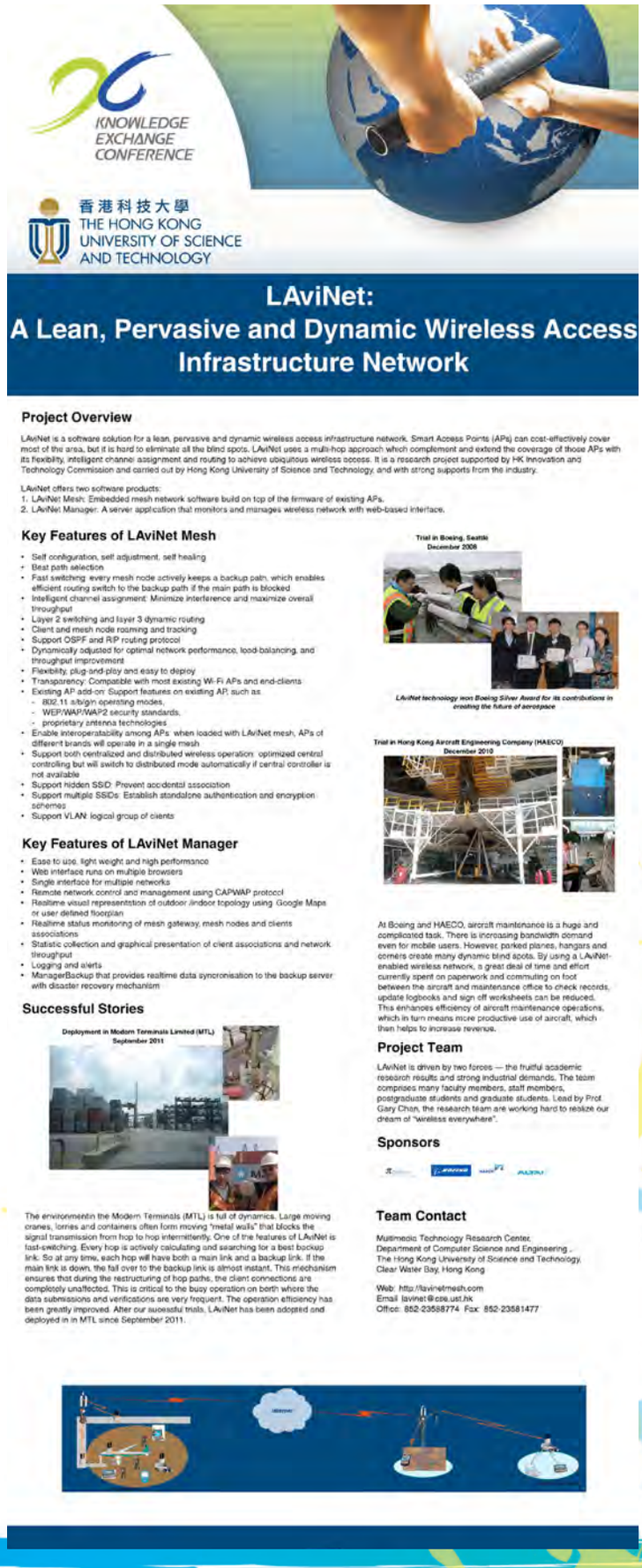
The Hong Kong University of Science and Technology

Biography

Prof. Shueng-Han Gary Chan is an Associate Professor in the Department of Computer Science and Engineering at HKUST. Prof. Chan got his BSE in Electrical Engineering from Princeton University. At Princeton, he was the recipient of Charles Ira Young Memorial Tablet and Medal, awarded “to the student who excels in research in EE.” He also received the POEM Newport Award of Excellence, awarded “to a senior who has demonstrated high scholastic achievement and also shown high potential for leadership in the field of photonics, electro-optics or optoelectronic materials.” He won the Sigma Xi book award in 1993. He is a member of honors societies Tau Beta Pi, Sigma Xi, and Phi Beta Kappa, and a senior member of IEEE since 2003.

Prof. Chan has been conducting research and development on wireless and peer-to-peer networking for more than 15 years with very fruitful results. Focusing on applied research useful to industry, he currently has more than 10 patented or patent-pending inventions and 110+ papers published in these areas. Prof .Chan has chaired/co-chaired numerous international conferences. He has over 6 years of ITF experience with 4 ITF projects, and has a strong team addressing software and deployment issues of his ITF projects.

Poster - HKUST-3



Professor King Lun Yeung

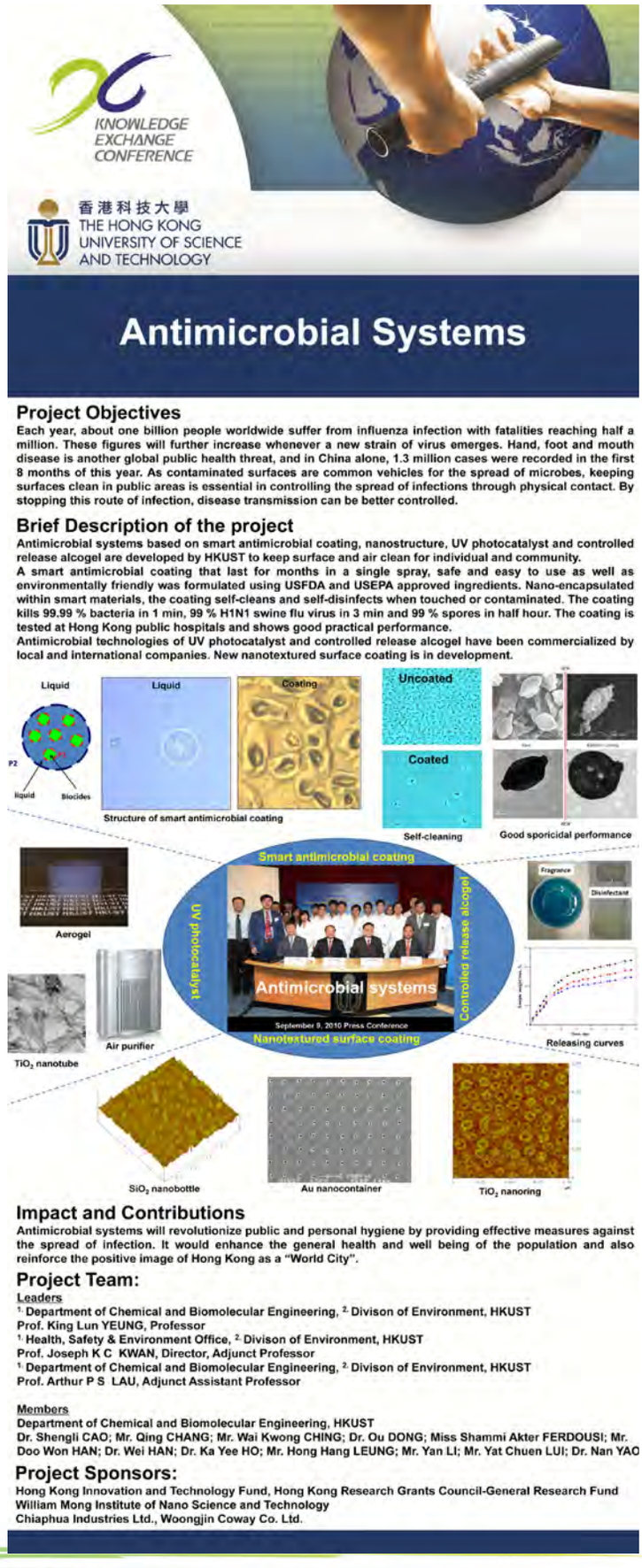
Joint-Professor
Department of Chemical and Biomolecular Engineering and Division of Environment

The Hong Kong University of Science and Technology

Biography

Prof. King Lun Yeung, a joint-Professor of the Department of Chemical and Biomolecular Engineering and Division of Environment, received his Ph.D. in Chemical Engineering from the University of Notre Dame. Prof. Yeung's research is on smart materials in health, environment and energy applications, with more than 150 publications, 300 presentations and 12 inventions (ca. 36 patents) in these topics. Prof. Yeung is also editor of the Chemical Engineering Journal and member of editorial board of Catalysis Today, Recent Patents in Chemical Engineering, International Journal of Chemical Engineering. He is reviewer for major funding agencies around the world including USA's SBIR, PRF and NSF, UK's EPSRC and RSC, EU's F7, Singapore's A-Star and Czech's RCSS.

Poster - HKUST-4



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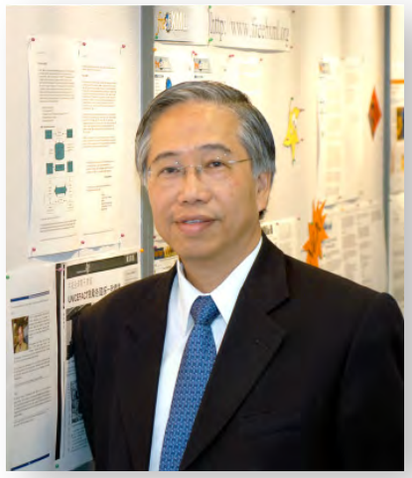
SPEAKERS



Professor David W.L. Cheung

Head and Professor
Department of Computer Science
Director
Center for E-Commerce Infrastructure Development

The University of Hong Kong

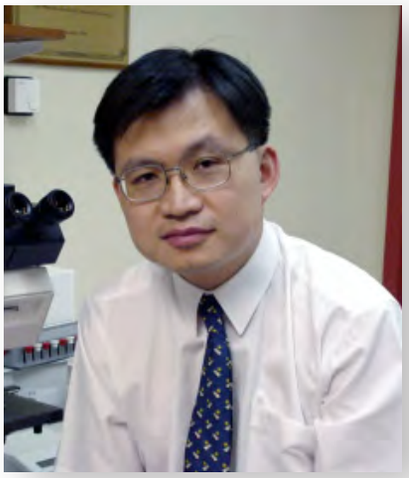
Biography

Professor David W.L. Cheung is the Head of Department of Computer Science and Director of the Center for E-commerce Infrastructure Development (CECID) in The University of Hong Kong. He conducts research in database, cloud computing and e-commerce technologies. He is a Distinguished Fellow of the Hong Kong Computer Society. He was the recipient of the HKU Outstanding Researcher Award. Most recently, he received the Distinguished Contribution Award in the 2009 Pacific-Asia Data Mining and Knowledge Discovery Conference. He was the program chairman of the 2001 and 2005 Pacific-Asia Knowledge Discovery and Data Mining Conferences, the conference chairman of the 2007 PAKDD Conference. He was also the conference co-chair of the 2009 CIKM Conference. Concerning applied research, Professor Cheung and his team have developed open-source ebXML gateway, which has received awards in various prominent competitions, including the Hong Kong 2004 IT Excellence Awards, the 2004 Asia-Pacific ICT Awards, and the 2005 Linux Business Awards. He has received more than 70M of ITF grants as PI or Coordinates.

Abstract

From ebXML Gateway to the Challenge of Applied Research in Hong Kong

In the area of electronic commerce, a family of XML based standards known as ebXML was sponsored by OASIS and UN/CEFACT in 2002. Its mission is to provide an open XML-based infrastructure to conduct electronic business by trading partners. In 2002, the Center of E-Commerce Infrastructure and Development (CECID) at HKU received an ITF grant for the implementation of the ebXML infrastructure. As a deliverable of the project, a software named Hermes was released as an open source software. It has since become the most popular ebXML messaging gateway in the world. In Hong Kong, Hermes is being used in many B2B systems including the Government Electronic Trading Services (GETS) system, the office supplies procurement system in MTRC. The GETS system processes over 20 million document exchanges annually. In this talk, we will share our success, excitement and difficulties experienced in doing applied research and technology transfer in Hong Kong.



Professor Yok Lam Kwong

Chui Fook-Chuen Professor in Molecular Medicine, Chair of Haematology and Oncology, and Chief of the Division of Haematology, Medical Oncology and Bone Marrow Transplantation
Department of Medicine

The University of Hong Kong

Biography

Professor Y.L. Kwong is chief of the Division of Haematology, Medical Oncology and Bone Marrow Transplantation at the Department of Medicine, University of Hong Kong. He is a chair professor, and holds the Chui Fook Chuen Chair in Molecular Medicine. He is specialized in haematology and haematopathology. His clinical work focuses on the management of haematological malignancies. His research centers on the molecular pathogenetic pathways and novel treatment modalities in haematological neoplasms. Together with the clinical pharmacology team in his department, Professor Kwong has pioneered the development and use of oral arsenic trioxide in the treatment of acute promyelocytic leukemia and other blood cancers. The oral arsenic trioxide formulation has successfully secured patents in the United States of America and Japan. An international oral arsenic trioxide user group has been formed to promote clinical use and research in this area. His research team is also actively involved in defining the molecular defects and optimal treatment protocols for T-cell and natural killer cell lymphomas, which are neoplasms prevalent in Asian populations. His team is widely regarded as one of the world opinion leaders in the treatment of T-cell and natural killer-cell malignancies.

Abstract

The Development of Oral Arsenic Trioxide for Cancer Treatment: Academic Success, Economic Implications and Global Perspectives

Arsenic trioxide (As_2O_3) has been used medicinally for millennia in both Chinese and Western medicine. It was first demonstrated to be effective in the treatment of chronic myelogneous leukaemia in the nineteenth century. After the Second World War, As_2O_3 continued to be used as a standard medication for leukaemia treatment until the advent of modern chemotherapy. Its therapeutic efficacy was re-discovered in the 1970s first in Harbin and then in Shanghai for the treatment of acute promyelocytic leukaemia (APL). The intravenous (i.v.) formulation was used. Despite its discovery in China, a United States (US) patent was granted to US investigators, resulting in the marketing of i.v.-As_2O_3 at prohibitive prices, making the medication unaffordable in less affluent countries.

Based on the experience of using "liquor arsenicalis" (oral arsenic) in the Department of Medicine, Queen Mary Hospital, C.R. Kumana and Y.L. Kwong researched on the preparation of oral-As_2O_3. The group succeeded in producing an oral-As_2O_3formulation, which was shown pharmacokinetically and clinically to be compared with the i.v.-As_2O_3 formulation. Furthermore, because of slow intestinal absorption, the peak blood arsenic level reached after oral-As_2O_3 was much lower than that of an equal dose of i.v.-As_2O_3. Because QTc prolongation that may lead to potentially fatal ventricular arrhythmias, a serious side effect of i.v.-As_2O_3, is directly proportional of blood arsenic level, oral-As_2O_3 results in minimal QTc prolongation, so that its cardiac safety is much superior to i.v.-As_2O_3. The administration of oral-As_2O_3 at home also makes arsenic maintenance therapy feasible. The treatment of APL has therefore been changed dramatically in Hong Kong since the development of oral-As_2O_3.

In collaboration with Versitech, the technology transfer branch of the University of Hong Kong, oral-As_2O_3 has successfully secured a US patent and a Japan patent. Oral-As_2O_3 is posed to replace i.v.-As_2O_3 globally. Oral-As_2O_3 may also be available on humanitarian grounds to less affluent countries for the treatment of APL. The development of oral-As_2O_3 has important lessons and implications. (1). It shows that academic innovation does not necessarily have to come from big investments. (2). Academic innovation can also be commercially successful. (3). Academic and industry collaborations are needed to impact on medical practice. (4) Global societal problems such as expensive medication pricing should also be tackled by academia and industry.

Professor Amanda Whitfort

Associate Professor
Department of Professional Legal Education
The University of Hong Kong

Biography

Amanda Whitfort is an Associate Professor in the Department of Legal Education, Faculty of Law, The University of Hong Kong and a member of the Hong Kong Bar. She has extensive experience in criminal prosecution work and acts on fiat for the Hong Kong Department of Justice. She holds an LLM from The University of London and trained as a lawyer in Australia where she prosecuted for the Victorian Office of Public Prosecutions. She is a member of the Society for the Prevention of Cruelty to Animals Law Reform Committee and the AFCD's Animal Welfare Advisory Group's Legal Working Party. Her research interests include criminal justice and administration and environmental law, both of which she currently teaches at the University of Hong Kong. She is the leading legal authority on animal welfare in Hong Kong.

Abstract

The Review of Hong Kong's Animal Welfare Laws

From 2007-2009, the Central Policy Unit of the Hong Kong Government and the Research Grants Council funded the authors to conduct a comprehensive review of Hong Kong's animal welfare legislation. Hong Kong's animal welfare laws were drafted in the 1930's and a review of current law was timely. Media publicity had focused on increasing public concern as to the adequacy of legislation available to address cases of cruelty to animals and the government is currently under pressure to update legislation.

In the course of the two year review, the authors identified that Hong Kong's anti cruelty legislation, as currently drafted, is unable to assist animals in danger and distress. The authors found licensing conditions for pet shops seriously out of date with modern welfare science and a lack of legislation controlling hobby breeders allowing animals of dubious origin and health to be widely sold throughout the Territory.

The authors also uncovered serious failures, at local slaughterhouses, on farms and in live food wet markets to meet animal welfare standards prescribed by the OIE Terrestrial Animal Health Code 2009 (Slaughter of Animals), to which China is a signatory.

The review has now been released and is being studied by the Hong Kong government, with the view to reform. The primary author will discuss the review findings and recommendations for extensive amendment to laws, regulations and codes of welfare affecting animals in Hong Kong.

Professor Paul S.F. Yip

Professor
Department of Social Work and Social Administration
Director
Hong Kong Jockey Club Centre for Suicide Research and Prevention
The University of Hong Kong

Biography

Professor Yip is the director of the HKJC Centre for Suicide Research and Prevention and a Professor of Social Work and Social Administration at The University of Hong Kong. He is a national representative of the Hong Kong SAR for the International Association of Suicide Prevention (IASP) and a vice-president of the International Association of Suicide Research, a consultant for Beijing Suicide Prevention Services, a board member for Suicide Prevention Service (Hong Kong). He has done innovative suicide prevention work in restricting means of charcoal in a community-based exploratory study. He is a pioneer in developing sophisticated surveillance system in monitoring and estimating suicide rate. He has received the Outstanding Researcher Award, The University of Hong Kong in 2009, a Distinguished Alumni Award, and La Trobe University in 2008 for his excellent research and service on population health. He is also a recipient of an Excellent Research Award "Charcoal Burning Suicide" by the Health and Welfare Bureau of Hong Kong SAR Government, 2007 and a Silver Asian Innovation Award, by Asian Wall Street Journal and Singapore Economic Development Board, 2005.

Abstract

A Public Health Approach for Suicide Prevention: from Research to Practice

Traditionally, suicide has been viewed as a mental health issue best addressed primarily through clinical interventions, especially through the treatment of depression. However, it has been found that the majority of people who committed suicide had not received psychiatric services prior to death. Furthermore, in view of the size of the problem and the limited resources, the medical and clinical model involving intensive professional care service might not be practical in Asia. In our daily lives, stopping people from reaching the edge of a cliff is always easier than trying to save them when they are on the edge. In the same sense, drug-clot busters might be useful in providing temporary relief for those who suffer from cardiovascular diseases, but this is not as cost-efficient or cost-effective as a healthy diet and routine exercise for the population as a whole. The public health approach to suicide prevention shares the same vision. By using information and knowledge generated from research studies, a multilayer intervention, holistic and integrated approach together with community collaboration, we can make a difference.

Professor Chi-Ming Che

Dr. Hui Wai Haan Chair of Chemistry
Department of Chemistry
The University of Hong Kong

Biography

Professor Chi-Ming Che received his B.Sc. and Ph.D. in 1978 and 1982, respectively, from The University of Hong Kong (HKU). From 1980 to 1983, he studied at the California Institute of Technology under the guidance of Professor Harry B. Gray. Thereafter, he returned to his alma mater, where he was promoted to Chair Professor of Chemistry in 1992. Since 1997 he has been the Dr. Hui Wai-Haan Chair of Chemistry in HKU. His research interests include inorganic and organic synthesis; metal-ion promoted organic transformations; reactive metal-ligand multiple bonded complexes; inorganic photochemistry; luminescent materials; bioinorganic chemistry; and inorganic medicines. Over 100 Ph.D. students have successfully completed their studies at HKU under his supervision. With more than 700 publications and an H-index of 76, Professor Che is one of the ISI Highly Cited Researchers. He is a current member of the international advisory board of *Chemistry-A European Journal, Chemistry-An Asian Journal, Chemical Science*, *ChemCatChem*, and *Journal of Inorganic Biochemistry*.

In 1995 Prof. Che was elected as a member of the Chinese Academy of Sciences and became the first CAS member from Hong Kong and the youngest CAS member at that time. He was elected as a Fellow of World Innovation Foundation (2004), a Fellow of Federation of Asian Chemical Societies (2005), a Fellow of TWAS in Chemical Sciences (2007), and a Fellow of The Royal Society of Chemistry (2009). He received the following awards or prizes: National Natural Science Prize of China (1993), Croucher Senior Fellowship (1997), Chung-Hsing S&T Lectureship (1997), Distinguished Research Achievement Award of the University of Hong Kong (2000), IUF Invited Professorship of France (2000), Federation of Asian Chemical Societies Foundation Lectureship (2003), Visiting Scientist of National Research Council of Italy (2004), Pfizer Signature Lecture (2006), TWAS Prize in Chemistry (2006), 1st Class State Natural Science Award of China (2006), Seaborg Lectureship at the University of California at Berkeley (2007), Prize of Ho Leung Ho Lee (HLHL) Foundation for Scientific and Technological Progress (2007), Edward Clark Lee Lectureship at University of Chicago (2008), the Leader of Year 2008 Hong Kong (Research), Fellow of Royal Society of Chemistry (2008) and Molecular Sciences Forum Lecture Professorship at Institute of Chemistry, CAS (2009).

Abstract

Organic Light-Emitting Diodes

Organic light-emitting diodes (OLEDs) with unique features including fast response time, ultra-thin panel structure, low-power consumption and wide viewing angle, continue to draw substantial attention in the development of next generation of new display technology. Over the decades, we have been doing fundamental research in the development of innovative highly robust phosphorescent metal emitters with practical applications in OLEDs, and improving technology in process and production of these materials. Over the past 10 years, we jointly worked with Sun Yat-Sen University, Clover & Coled Display Ltd., OLED-T Ltd., and Teijin Dupont Films Japan Ltd., to promote the research and development of new materials and printing technologies.

Through partnerships with local, international and Mainland display companies, we have been able to develop novel and patentable materials for OLEDs with practical applications. We have also produced patentable technologies for applications in electronics, displays and lighting. Our recent endeavour is to collaborate with display and materials companies in Mainland to launch the technological know-how for AMOLED panel production with high yields in Hong Kong and in Guangdong. Meanwhile, training of scientists and engineers in local companies promotes research and development in the area of OLEDs. Research findings and technological know-how are subsequently transferred to industries. We are working to promote the development of new lighting industry and innovative electronic consumer products in Hong Kong and South China in the coming decade.

Acknowledgments. We are grateful for financial support from the Innovation and Technology Fund, National Natural Science Foundation of China/Research Grants Council Joint Research Scheme (N_HKU 752/08), Research Grant Council of Hong Kong (HKU 7008/09P), and The Chinese Academy of Sciences–Croucher Foundation Funding Scheme For Joint Laboratories.

Professor Tammy Y.L. Kwan

Assistant Dean (School-University Partnerships)
and Associate Professor
Faculty of Education
The University of Hong Kong

Biography

Tammy Kwan taught social, geographical and environmental education in the Queensland University of Technology before returning to The University of Hong Kong in 1998 as Associate Professor. She has been PGDE program director (2005-2007) and was partnership director for initial teacher education from 2007-2010. She is now Assistant Dean (School-University Partnerships). She has a strong commitment to encouraging teachers to become critically reflective professionals through better personal understanding and to achieve professional development and personal growth. She is responsible for setting up the community of Professional Partnership Schools which encourages the adoption of a 'whole school mentoring support' approach to actualize School-University Partnerships.

Abstract

Extending the Boundary of School-University Partnerships

The major aim of School-University Partnerships (SUP) is to achieve and consolidate in-depth collaboration between schools and the Faculty of Education, HKU, in order to enhance the continuous professional development of schools and teachers, and further the success of initial teacher education.

To achieve this aim, a "whole school mentoring support" has been promoted to involve teachers and principals who share a similar vision. Schools that are committed to this approach are eventually invited to become part of our group of "Professional Partnership Schools (PPS)". This group represents an enlarged collaborative community of 19 PPS, all of which have signed a 3-year memorandum with the Faculty. This has allowed partnership schools to benefit from a mutual exchange of professional experiences, bringing about meaningful school improvements and better student learning.

Since 2007, we have witnessed the extension of the boundary of SUP in the following aspects to strengthen our collaboration:

- Through Initial Teacher Education Practicum Placement within each school, there has been a huge increase in the number of mentor-teachers in each school.
- We have extended the initiative so that it includes primary schools as well as secondary schools.
- As well as knowledge exchange with student-teachers, mentor-teachers and principals, we have also included parents so that they might understand better the collaboration between schools and our faculty.
- We have extended partnership from individual schools to cluster schools as a way of multiplying the positive effects of SUP.
- We have extended our focus from practicum placemen to the encouragement of professional teacher development which has led to school improvement by infusing research opportunities into schools.
- We have extended our communication to include major School Sponsoring Bodies as well as individual schools.
- We have extended our geographical locus from the local Hong Kong context to the pioneering of overseas international practicum exchange.

We strongly believe that by extending the boundary of the various forms of KE activities, we have generated a profound impact on the local school community as well as the broader educational community. This has further actualised the spirit of "School-University Partnerships" so that it lives up to the Faculty's mission of nurturing our graduates and transforming them into passionately committed teaching professionals.

Professor Agnes F.Y. Tiwari

Head and Professor
School of Nursing
Assistant Dean (Education)
Li Ka Shing Faculty of Medicine

The University of Hong Kong

Biography

Professor Agnes Tiwari is Head of School of Nursing and Assistant Dean (Education) of Li Ka Shing Faculty of Medicine, The University of Hong Kong. Professor Tiwari received her Diploma of Nursing from the University of London, Master of Science in Social Research from the University of Surrey, United Kingdom and Doctor of Philosophy from the University of Wollongong, Australia. Also, she was awarded the Fellow of the American Academy of Nursing (FAAN) in recognition of her contribution to the nursing profession.

She is committed to research-based teaching and her educational research interests include the development and evaluation of nursing students' critical thinking, outcome-based education, problem-based learning, portfolio assessment, and constructive alignment. Recent awards for her scholarly work include Best of Journal of Nursing Scholarship from the Sigma Theta Tau International, the Teaching Medal from the Li Ka Shing Faculty of Medicine, the Outstanding Teaching Award from the University of Hong Kong.

She has published extensively including the much cited paper "From process to outcome: The effect of portfolio assessment on student learning", and "A comparison of the effects of problem-based learning and lecturing on the development of students' critical thinking" which was The Journal of Medical Education's second most cited paper in 2006.

Abstract

Preparing Academic Supervisors and Clinical Mentors for Work-integrated Learning in Nursing Education

It has long been recognized that the workplace is a unique and valuable learning environment for nursing students. However, it is also known that knowledge learned at the university is not transferred readily into practice in the reality of the workplace. Similarly, the transfer of the practical skills learned at university into workplace practice is often limited to an imitation of the context in which it was originally learned. Thus, questions have been raised about the capability of nursing graduates to move seamlessly into the reality of clinical work after their university education. Indeed, the term 'reality shock' has often been used to describe the difficulties experienced by new graduates during the transition from student to professionally practising nurse. Central to the problem is the long-standing, unresolved gap between the actualities of practice in the workplace and the culture of academic nursing in the university. This presentation will describe the planning and implementation of a clinical mentoring scheme that has been designed to prepare final-year nursing students better for their entry into the nursing workforce.

The medical and surgical units of a large, university affiliated, teaching hospital provide the context within which the clinical mentoring scheme takes place. Institutional support was secured through a series of meetings between senior administrators of the hospital and senior academic staff of the university to negotiate the staff development plans, organizational changes and costs associated with the proposed scheme. A model of clinical mentoring was worked out and agreed whereby a designated clinical nurse is appointed as the named tutor for each nursing student undergoing his/her final clinical practicum in a surgical or medical ward over a 4-month period immediately before completion of the baccalaureate programme in nursing. The students work closely with their mentors, even following the same shift patterns, in order to promote their socialization into new professional roles and reduce their sense of isolation and vulnerability. As a part of the capacity-building strategies, a structured mentoring programme, with planned follow-ups, is provided to the clinical mentors prior to their taking up the mentoring assignment. The roles and responsibilities of the academic supervisors and clinical mentors are delineated clearly and agreed. Specifically, models of teaching, facilitation and supervision necessary for the mutual integration of workplace and academic learning have been developed, implemented and refined as needed. Formative and summative evaluations provide feedback for the scheme's continuous quality improvement. The scheme is now in its 5th year of implementation, with positive outcomes in terms of student learning and professional socialization.

Professor Terry Y.S. Lum

Associate Professor
Department of Social Work and Social Administration
Director
Sau Po Center on Ageing
The University of Hong Kong

Biography

Dr. Terry Lum (林一星) is an Associate Professor at the Department of Social Work and Social Administration and the Director of the Sau Po Center on Aging at the University of Hong Kong. Before joining the University of Hong Kong, he was an Associate Professor at the School of Social Work at the University of Minnesota. Dr. Lum earned his Bachelor's degree in Economics and his Master's degree in Social Work from the University of Hong Kong. He earned his Ph.D. degree in social work from the Washington University in St. Louis, with special focus on gerontological social work and policy research. Dr. Lum is also an elected Fellow of the Gerontological Society of America.

Abstract

Evidence Based Elder Care - How Research Contributes to Improve the Quality of Care and Quality of Life of Older People in Long Term Care System

The number of institutionalized elderly persons has been rapidly increasing in Hong Kong. In 2009, 58,300 elderly persons, or 5.2% of all elderly in Hong Kong, were institutionalized. Residential care for frail elderly people has grown rapidly since the 1980s, and concerns over the living conditions of residents and quality-of-care in these homes emerged at much the same time. Although the Hong Kong Government has tried to improve the quality of nursing home care through a licensing process, with the expectation that doing so will eventually improve residents' quality-of-life (QOL), very little has been done to systematically monitor and improve the QOL of older nursing home residents. Using the Green House Nursing Home Project in the US as an example, I will present how a small but well-designed research project that focused on QOL of older people, has revolutionized the nursing home care in the United States.

Professor Peter K. K. Lee

Associate Dean (Special & Mainland Affairs)
Faculty of Engineering
Honorary Professor
Department of Civil Engineering

The University of Hong Kong

Biography

Professor Peter K K Lee is currently the Associate Dean in the Faculty of Engineering and an Honorary Professor in the Department of Civil Engineering at The University of Hong Kong. After a few years working in the industry in the United Kingdom, he returned to join the University in 1970 and has been involved with teaching and research activities ever since. Before appointment of the Faculty position, he had been the Head of the Department of Civil Engineering for over 7 years and implemented project-based-learning design courses hand in hand with traditional courses on fundamental engineering principles.

Outside the campus, Professor Lee has been an active member of the engineering community and has established a strong connection with the profession. During his tenure at the university, he emphasized the importance of communication in engineering. With the support from senior practicing engineers as joint-supervisors, he has introduced successfully credit-bearing practical design courses with small groups of students. Summer intern in the industry is also a core component in the curriculum. Through these arrangements, students are able to experience for themselves the application of knowledge taught in the classroom in the real life scenario and hence enhancing their interests in studying engineering.

Abstract

An Experiential Learning Experience in Engineering – the Mingde Projects

By combining learning and practice, the Mingde Projects gives Civil Engineering students the opportunity to volunteer on community-based projects and contribute their skills to society. Mingde, in Chinese, appears in the motto of The University of Hong Kong carrying the meaning of "understanding the human virtue". Since it began in 2004, the Mingde Projects has united nearly 350 students and teachers, together with some 70 alumni, in a common cause. In the end, the project is not only about volunteering, it is about training a new generation who takes up the duties of society.

The first project began in 2004 when students in Civil Engineering were invited by a donor to design and supervise the construction of Mingde Building, a primary school in the mountainous area in Dalang Village, Rongshui Country in Guangxi Province, China. On completion of the Building, students working on this project learned an unexpected lesson - walls alone do not make a school. To fully realize the dream of a new school for the children, students raised funds among themselves for new furniture, books and equipment to make it complete.

This was followed in 2006 by the Gewu Building, a dormitory for 600 vocational training students also in the Rongshui County. After primary education, most boys and girls in their early teens undertake vocational training before embarking on a career in the society. A dormitory at the training school can help to save everyday long travelling hours of these teenagers coming from scattering villages far away.

The most recent project, the Zhengdong Jie Kindergarten in Chongzhou, is near completion. The original building collapsed during a severe earthquake in May, 2008. Due to site constraints and stringent earthquake resistant requirements, this is a much more complicated project. We were fortunate to have unfailing supports from many professional alumni contributing their valuable time and effort, voluntarily, to guide and supervise the work of students. Over 200 students have been involved in this project. During the monthly supervision visits to the construction site, opportunities have been arranged for students to witness the ruins caused by earthquake as well as various earthquake resistant systems proposed for different new structures.

Through Mingde Projects, the Department of Civil Engineering has been successful in providing students a platform to experience the practical application of knowledge taught in the classroom. Also through participation in real projects, students understand the need of the society; learn how to communicate with the society and to contribute to the society with their own effort and expertise. This experience will fortify their confidence and interests in the programme they have chosen to study at the university as well as to give them a sense of satisfaction when caring the need of the society around them.

Professor John C. H. Lin

Assistant Professor
Department of Architecture
The University of Hong Kong

Biography

John Lin is an architect based in Hong Kong and currently an Assistant Professor at The University of Hong Kong. He was born in Taiwan and immigrated to the US. After studying in both the Art and Engineering programs at The Cooper Union in New York City, he received a professional degree in Architecture in 2002. His current research concerns the process of urbanization in rural China with a focus on the sustainable development of Chinese villages. His current projects include the design of several school buildings, a village community center, a hospital and a sustainable house prototype in China. Located in rural areas of Shaanxi, Jiangxi, Guizhou, Hainan, Hunan and Guangdong provinces they integrate local and traditional construction practices with contemporary sustainable technologies. The projects coordinate between Chinese and Hong Kong universities, education bureaus, ministries of construction, and local governments along with NGO's and charity organizations. His research and work has been published widely and exhibited in various places including the Architecture Park (*Kolonihaven*) at the Louisiana Museum of Modern Art in Copenhagen 2004, the Hong Kong & Shenzhen Bi-City Biennale of Architecture and Urbanism 2007 and 2009, the Beijing Architecture Biennale 2008 and at the Venice Biennale of Architecture 2008 and 2010. He has received two AR Awards for Emerging Architecture in 2009 and 2010 for his *Qinmo Village School* and *Taiping Bridge Renovation* projects. He has taught previously at the Royal Danish Academy of Fine Arts, School of Architecture and The Chinese University of Hong Kong. He is the 2010 recipient of the Outstanding Teaching Award at The University of Hong Kong.

Abstract

A Different Role: Teaching in the Real World

In reflecting on my role as a teacher over the past 9 years, I began to compare myself to the teachers which had the biggest impact upon my own education. The most memorable are those which did not necessarily hold all the right answers. These teachers formulated curriculum around real-life problems and put us into situations where there were no existing answers. I remember distinctly the excitement in discovering unexplored frontiers. In that moment, I acquired the desire for further knowledge, and the desire to become an architect.

As teachers we cover only a fraction of a person's entire professional career, it is far more important to offer the tools and instill the desire for pursuing a lifetime of learning. Engagement in the world at large is such a bridge. Though the classroom is essential as a place to generate ideas, ultimately ideas must be tested in the complexity of the real world. The ability to engage in unprecedented and complex problems is the difference between simply possessing knowledge and lifelong learning. This fundamentally changes the student-teacher relationship, which may be hierarchical in the classroom, but contemporaneous in the real world; the teacher is an instigator, a critic, a leader, a fellow collaborator and him/herself equally a student. This is why I believe that the most important quality for being a good teacher is the ability to learn from, and in partnership with students.

Professor Ron S.Y. Hui

Chair Professor
Department of Electrical and Electronic Engineering
The University of Hong Kong

Biography

Ron Hui received his Ph.D at Imperial College London in 1987. He has previously held academic positions at the University of Nottingham, the University of Sydney and City University of Hong Kong. Presently, he is a Chair Professor at the Departments of Electrical & Electronic Engineering at the University of Hong Kong and Imperial College London. He has published over 140 refereed journal papers in Power Electronics and Industrial Electronics. Over 50 of his patents have been adopted by industry worldwide. His inventions underpin key dimensions of the world's first international Wireless Power Standard "Qi", which was launched in 2010 by the Wireless Power Consortium, now comprising over 80 international companies. He is a Fellow of the IEEE (USA) and IET (UK). He received the Earth Champion Award in 2008. In 2010, he received the IET Crompton Medal, the IEEE Rudolf Chope R&D Award and was elected to the Fellowship of the Australian Academy of Technological Sciences & Engineering.

Abstract

Drastic Reduction of Electronic Waste through Novel Sustainable Technologies

Modern portable electronic products such as mobile phones and iPods have transformed human society in communication and entertainment. However, these products and their chargers also give rise to increasing electronic waste problems. Similarly, electronic ballasts and compact fluorescent lamps have been promoted by many governments which emphasize only energy saving without realizing the serious consequences of the associated electronic waste and highly toxic chemicals. In this talk, the author will address the needs for new international criteria for "Sustainable Technologies" and explain how new technologies in wireless charging and sustainable lighting areas can play significant roles in drastically reducing electronic waste and preserving the environment. Novel wireless charging pad systems for portable consumer electronics and recyclable ultra-low-loss ballasts will be introduced as examples that meet the criteria for sustainability, including not only energy saving but also long product lifetime and recyclability.

Professor Yuen Ying Chan

Professor of Journalism
Director
Journalism and Media Studies Centre
The University of Hong Kong

Biography

Ying Chan is a writer, educator, China media expert, and the founding director of the Journalism and Media Studies Centre at The University of Hong Kong. As an academic unit of HKU, the JMSC offers professional graduate and undergraduate degrees in journalism, and MPhil and PhD degrees. Prior to joining HKU in 1998, Chan spent 23 years working as a journalist in New York City, where she reported for the New York Daily News, NBC News, and Chinese language dailies. Chan's honours include a Nieman Fellowship at Harvard University, a George Polk Award for journalistic excellence and an International Press Freedom Award by the Committee to Protect Journalists. She is the co-Public Lead of Creative Commons Hong Kong; a board member of the Media Development Loan Fund, an investment fund for independent media worldwide; and the chair of the World Economic Forum Council on Informed Societies. She writes regularly on China's media and media development issues and has co-edited two books on China's media.

Abstract

Creative Commons: An Innovative Copyright Model to Promote Creativity and Knowledge Sharing

Creative Commons (CC) is an international system of intellectual property rights management through which creators can choose to distribute their works with "some rights reserved". An innovative copy-right protocol for the digital age, CC promotes the values of sharing, openness and collaboration. In 2008, the Journalism and Media Studies Centre of HKU, worked with professors Alice Lee and Li Yahong of the HKU Faculty of Law and community volunteers to bring CC to Hong Kong. Since then, more than 400,000 pieces of creative work have been licensed under CC in HK.

Professor Ying Chan, co-community lead of CCHK, will discuss how CC has helped to promote creativity and knowledge exchange, and the significance of the growing international CC movement. She will also discuss Hong Kong's experience in the implementation of CC licenses, and how the licenses could be used to promote the creative work of both faculty and students. CCHK works with Creative Commons International (http://creativecommons.org/international/) to localize and promote the use of CC licenses in Hong Kong.

Mr. David T. Palmer

Scholarly Communications Team Leader
University Libraries

The University of Hong Kong

Biography

David Palmer is the Scholarly Communications Team Leader in the University Libraries, developing and managing the institutional repository, "The HKU Scholars Hub", and the many issues of access, repository population, and bibliometrics that surround The Hub. He has worked at The University of Hong Kong Libraries (HKUL) since 1990, as Systems Librarian, Technical Services Support Team Leader, and now as Scholarly Communications Head. He is a founding member of the Hong Kong Open Access Committee, and was instrumental in having HKU become signatory to the Berlin Declaration on Open Access in November 2009. He has lead in many path-breaking projects, such as the first university in Asia to have all of its thesis collection (19,000+) online in fulltext, the first institution worldwide to do an institutional upload of publication data for each researcher into Thomson Reuters' ResearcherID, and the creation of ResearcherPages in The Hub for each of HKU's authors.

Abstract

Making HKU Research Discoverable & Findable: The HKU Scholars Hub

Developed and maintained by the University Libraries, the Hub is the institutional repository of The University of Hong Kong (HKU). On top of its regular work to place HKU publications in open access, it has received funding from the HKU Knowledge Exchange Office (KEO) to make HKU research and researchers highly visible on the web, with the aim of increasing all forms of collaboration, internally and externally. The Libraries extracted data from several internal HKU silos and external databases to create author profiles, or "HKU ResearcherPages" for each of the professoriate staff.

These pages bring together in a public mashup, interlinking publication details, patent records, and grant applications, as well as details of community service, postgraduate student supervision, research interests, etc. Bibliometrics provided by Scopus and ResearcherID, as well as Hub generated view counts and download counts, cumulated to the article level, and to the author level, show that this work and these pages have increased visibility, and thus impact. Serendipitously this work has also received the attention and efforts of many HKU researchers, who now interact with Library staff and their ResearcherPages to ensure that their details are complete and shown in the best light. The Hub is therefore one tool by which a new culture and community of Knowledge Exchange is being forged at HKU.

Professor Yanfeng Zheng

Assistant Professor
School of Business
The University of Hong Kong

Biography

Yanfeng Zheng is an assistant professor of entrepreneurship at Hong Kong University. He earned his Ph.D. in management at University of Wisconsin Madison in 2006. His research interests revolve around the nexus of strategy and entrepreneurship. Specifically, he studies how high-tech startups develop capabilities through organizational learning. His current research deals with how cognitive structures of founding teams affect their behaviors, especially when surprise events occur. He was the recipient of the Irene M. McCarthy Award for the best paper on the topic of High Technology and Innovation in 2006 at the Babson International Entrepreneurship Conference. His work has been published at leading management and entrepreneurship journals such as Strategic Management Journal, Journal of Business Venturing, Journal of Management Studies, and Journal of Small Business Management. Dr. Zheng has extensive teaching experience in organizational behavior, strategic management and entrepreneurship.

Abstract

Turning New Business Ideas into Reality, Cases and Lessons from Hong Kong

New venture creation has been proved to be a crucial driver of job creation and regional economy development worldwide. Hong Kong is no exception. Yet, few new ventures in Hong Kong were able to grow sufficiently to make meaningful contributions to employment and economy. According to the 2009 Global Entrepreneurship Monitor (GEM) survey, the majority of new firms in Hong Kong still hired fewer than 10 employees and concentrated in industries with small growth potential. The average annual sales of those new firms in Hong Kong were meager compared to financial or real estate groups in the same region. Companioned with low level of high-impact entrepreneurial activities in Hong Kong, most Hong Kong students and novice entrepreneurs have only meager understanding on how to start and grow new ventures even with brilliant ideas. Existing entrepreneurship education in Hong Kong is lack of a practical component. These facts are in stark contrast to the image of Hong Kong as a region friendly to new ventures because of its entrepreneurial tradition, mature legal system, professional workers, and support from Hong Kong S.A.R. government. In this session, I will explain these paradoxical observations. Specifically, I will discuss a few local business ideas and how their founders nurture their businesses. The purpose is to illustrate the challenges and opportunities facing entrepreneurs in the current and local environment. In the end, I will offer suggestions for students and novice entrepreneurs on what exactly they can do to turn their business ideas into reality.

Professor Mirana May Szeto

Assistant Professor
Department of Comparative Literature
School of Humanities
The University of Hong Kong

Biography

Mirana May Szeto did her Ph.D. in Comparative Literature, UCLA and is Assistant Professor in Comparative Literature at the University of Hong Kong. She has published in postcolonial and critical theory journals like *Interventions* and *Concentric*, writes on China and Hong Kong cinema and literature, urban cultural and spatial politics, as well as cultural policy and coloniality in volumes like *Neoliberalism and Global Cinema: Capital, Culture, and Marxist Critique, Hong Kong Screenscapes: From the New Wave to the Digital Frontiers, Sinophone Studies*: *A Critical Reader*, and has completed a book manuscript on *Radical Itch: Critical Theory and Its Discontents in Colonial Cultural Politics.* Her current book project is entitled "Decolonizing Neoliberalism: Learning from Hong Kong Cultural Movements." She is also the Arts Education Advisor of the Arts Development Council, Member of the Wan Chai District Council Cultural and Leisure Services Committee (2006-08), Member of the Viva Blue House Board of Directors, Advisor of the Saint James' Settlement Advisory Committee for Community Development Services, Core Member of the People's Panel for West Kowloon, Founding Member of Community Cultural Concern, Member of the Choi Yuen Eco-Community Building Studio, Member of Heritage Watch, Advisor and Co-Founder of Students and Scholars Against Corporate Misbehavior, and an active member of movements in preservation of living heritage and communities.

Abstract

Working with Community, Government, Professional and Business Stake-holders: Knowledge Exchange in the Living Preservation of the Blue House Heritage Cluster

Recently in Hong Kong, persistent preservation movements (e.g. Wedding Card Street, Star Ferry and Queen's Pier) pushed the government to reconfigure its urban development policies to include heritage preservation. How can inter-disciplinary academic research, inter-cultural knowledge and professional know-how assist the affected community, non-government organizations and the government to generate together better policy development and execution and do something Hong Kong people actually like?

The Blue House Cluster Heritage Revitalization Partnership Scheme is the first public-private partnership project of its kind in Hong Kong in which the original grassroots inhabitants are not evicted to give way to heritage preservation and development, but can continue to stay as active participants in the revitalization of their community. Our participatory research, policy making, planning and design have helped in creating a new alternative: a bottom-up, community-led and sustainable "living preservation" model which integrates culture and heritage into development. It can become a beacon for sustainable communities to come and a demonstrative research and educational tool. It preserves not only the architecture and cultural landscape, but also the Hong Kong Tonglau habitual way of life. Its innovative social enterprises and creative financial model are self sustainable while offering at the same time affordable rental homes and services as well as relevant job opportunities for the community. It promotes community participation and generates local knowledge transfer and cultural production. How is this possible?

POSTER PRESENTERS

Professor Weijen Wang

Associate Professor
Department of Architecture

The University of Hong Kong

Biography

Wang Weijen, associate professor at department of architecture of The University of Hong Kong, graduated from UC Berkeley and Taiwan University. His design projects won several AIA Design Awards and Far Eastern Architectural Award, as well as Green Building Award and HKIA Award, and were exhibited at venues including Taipei Museum of Modern Art, Beijing Architecture Biennale, Shenzhen Biennale of Architecture and Urbanism, and Venice Architecture Biennale of 2008. He was also the curator of 2007/08 Hong Kong–Shenzhen Biennale of Architecture and Urbanism. His research mainly focuses on Chinese architecture and cities. He was a visiting associate professor at department of architecture of MIT in 2008-2009.

Poster - HKU-1

Ms. Tris Kee

Director of Community Project Workshop
Faculty of Architecture

The University of Hong Kong

Biography

Ms. Kee is a graduate of Master of Architecture, University of Waterloo, Canada.

As the recipient of the Royal Architectural Institute of Canada Roll of Honor 2002, Tris has worked in Rome, London, Amsterdam and Canada before returning to Hong Kong. She is a Registered Architect in Hong Kong, a professional member of the Hong Kong Institute of Architect (HKIA), Royal Architectural Institute of Canada (RAIC), The Hong Kong Interior Design Association (HKIDA) and the Hong Kong Institute of Architectural Conservation (HKICON). As an architect, Ms. Kee has participated in the design and completion of Phase 2 Science and Technology Park of Hong Kong, a number of MTRC stations and residential developments at the Peak.

As the Director of Community Project Workshop at HKU since 2009, Ms. Kee has been involved in a number of projects aimed for promoting knowledge exchange (KE) with the community; namely, The District Aspiration Study for Tsuen Wan and Kwun Tong; The Conservation Management Plan for the Hong Kong Sheng Kung Hui, The Revitalization Scheme for Wong Uk, Sha Tin, Art Alive @ Park 2010, the Tsuen Wan short course on urban planning and architecture, the Public Engagement Meeting for Pok Fu Lam Harbourfront, as well as the Study of the Kwun Tong Waterfront Promenade.

Poster - HKU-2

Background

Our CPW provides design and consultancy services to government and non-governmental organizations, and undertakes other non-commercial projects which require interdisciplinary expertise drawn from all disciplines of the Faculty: Architecture, Landscape Architecture, Architectural Conservation, Real Estate and Construction, and Urban Planning and Design. Today, CPW utilizes faculty-wide skills, knowledge and professional experience, to provide invaluable services to the community.

CPW has developed teams of consultants who critically evaluate, analyze, and synthesize problems in a 'real-life' project context. These teams are comprised of academic staff members from the faculty, outside professionals, university students and community representatives. The community projects undertaken by CPW aim to address the pressing and changing community needs of our society.

Fig 1&2: CPW engages in site study and public consultation sessions

Fig 3: Students' model for CPW project

The Objectives of CPW

The mission and objectives of CPW are threefold:

Knowledge Exchange (KE)
- To promote KE matters related to the Faculty of Architecture;
- To be responsible for all KE activities related to the Faculty, such as overseeing KE awards, KE data collection, KE reports and KE funding applications.

Community Participation
- To provide design and consultancy services to government and non-governmental organizations that require the expertise of the Faculty of Architecture;
- To foster the development of core competencies in applied research and development, in the Faculty of Architecture;
- To engage in projects targeted at serving community needs;
- To carry out research and design in planning, conservation and built design projects;
- To organize and conduct conferences, seminars, exhibitions, training courses and overseas missions relating to the Faculty.

Experiential Learning
- To provide experiential learning opportunities to students;
- To provide internship positions to students;
- To facilitate out-of-classroom learning opportunities for students in return for academic credit.

Fig 4&5: Students' design proposals

Services Offered

- Vision Plan
- Master Plan
- Design Inception Plan
- Outline Schematic Proposal
- Architectural Schematic Design
- Landscape Schematic Design
- Feasibility Study
- Geological Study
- Environmental Study
- District Aspiration Study
- Historical / Conservation Study
- Government / Public Consultation
- Government / Public Presentation
- Exhibition
- Analytical Report
- Environmental Engineering Review
- Coordination with local Design Institutes

CPW Advisory Board (2011-2013)

Dr. Roger C. K. Chan, Associate Dean (Research)
Dr. Frederik Pretorius, Associate Professor
Mr. Jonathan D. Solomon, Assistant Professor
Dr. Hoyin Lee, Assistant Professor
Mr. Matthew R. Pryor, Assistant Professor

Contact

Tris Kee,
Director
Tel: 2859 2143
E-mail:
triskee@arch.hku.hk

Inaciso Chan
Research Associate
Tel: 2241 5839
E-mail:
inaciso@hku.hk

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faculty of architecture 建築學院
Community Project Workshop 社區項目工作坊

CENTENARY 香港大學百周年

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Professor Joe Y.F. Lau

Associate Professor
Department of Philosophy

The University of Hong Kong

Biography

Dr Joe Lau is an Associate Professor in the Philosophy Department at HKU and the current Department Chairperson. His research area is the philosophy of mind and cognitive science. He is also interested in the teaching and promotion of critical thinking, and the use of IT in education and knowledge exchange. He was a University Teaching Fellow in 2006. A textbook on critical thinking and creativity has just been published by Wiley in 2011.

Poster - HKU-3

Project Objectives

1. To develop and maintain a website that disseminates free learning resources about critical thinking and related thinking skills, in order to enhance the teaching and learning of thinking skills in both the local and global community.
2. To promote awareness of the importance of critical thinking through related activities, including publications, public talks, special courses, etc.

Brief Description

The primary product of the project is **Critical Thinking Web (http://philosophy.hku.hk/think)**, a website with over 100 online tutorials on critical thinking, logic and related topics, in both Chinese and English.

The website was launched around 2004. It is a major portal for online self-learning about critical thinking and is regularly updated. It receives about 30,000 visitors on average each month, and appears on the first page of Google's search results on "critical thinking" (out of 14 million web pages).

The website pioneered the use of a creative commons license to place learning material in the public domain to maximize the free dissemination of knowledge. The project was invited to join the MIT Opencourseware Consortium.

The project investigator has also offered seminars on critical thinking to HKSAR government departments and published books and miniguides to promote critical thinking

Impact and Contributions

The project has helped people around the world to improve their critical thinking. Users of the website come from all over the world, e.g. China, US, UK, Brazil, Iran and South Africa. Apart from universities, many teachers from local and overseas secondary schools have used the website in their teaching.

The project content has been used by many diverse educational companies, e.g. Pui Ching Education Center, a Hong Kong non-profit organization, uses the website content in a thinking skills workshop. A US Navy intelligence officer has also used the website content to design a Critical Thinking and Structured Analysis (CTSA) workshop for CSC, a $16-billion global IT services company.

The creative license used for the website content ensures that disadvantaged minorities and developing countries can have access to free and high-quality learning material. Saylor.org, a free education initiative that aspires to become a free online university, has designed a complete online course on logic and critical thinking based on the project website **(http://www.saylor.org/courses/phil102)**.

Project investigator:

Dr Joe Y F Lau
Associate Professor, Department of Philosophy
School of Humanities, Faculty of Arts, The University of Hong Kong

Project Sponsors:

- Initial setup funded by a UGC Teaching Development Grant.
- Further development of the website supported by various HKU Teaching Development Grants.

Professor Ali Farhoomand

Professor of Innovation & Information Management
School of Business
Director
Asia Case Research Centre
Faculty of Business and Economics

The University of Hong Kong

Biography

Ali Farhoomand is Professor of Innovation and Information Management and the founding Director of Asia Case Research Centre at The University of Hong Kong School of Business. He has taught and conducted research in universities across the globe, including executive development programs at Oxford and INSEAD and as a Visiting Scholar at MIT Sloan School of Management. He has been a consultant for the government as well as large companies. A three-time winner of the Society for Information Management Paper Award, Professor Farhoomand has written several books, published numerous academic articles and developed 140 business case studies, over half a million copies of which were distributed worldwide through Harvard Business Publishing and other outlets. He is the creator and executive producer of the popular FocusAsia Business Leaders series, which was aired by BBC World, PBS and Asia News Network. He is recipient of several teaching awards including The University of Hong Kong Outstanding Teaching Award.

Poster - HKU-4

Professor Chun-Hung Chu

Clinical Associate Professor and
Assistant Dean (Research and Innovation)
Faculty of Dentistry

The University of Hong Kong

Biography

Dr Chun-Hung Chu is a Clinical Associate Professor and Assistant Dean (Research & Innovation) of the Faculty of Dentistry, The University of Hong Kong. He is a registered specialist in Family Dentistry in Hong Kong. He teaches clinical dentistry and supervises research post-graduate students. He is the Honorary Secretary of South East Asian Association of Dental Education. His research interests include caries prevention and management and community dental care.

Dr Chu was conferred Bachelor of Dental Surgery, Master of Dental Surgery in Pediatric Dentistry and Doctor of Philosophy by The University of Hong Kong. He also obtained a Postgraduate Diploma in Dental Public Health. Dr Chu is a Fellow of the Royal Australasian College of Dental Surgeons, Fellow in Dental Surgery of the Royal College of Surgeons of Edinburgh, Master of the Academy of General Dentistry and Diplomate of the American Board of General Dentistry.

Dr Chu married Shela and has two daughters, Samantha and Stephanie. They are Evangelical Christians attending Alliance International Church. They serve in Christian small group fellowship, and have joined missionary visits to Mainland China, Myanmar, Cambodia and the Philippines.

Poster - HKU-5

Promoting oral health of Hong Kong preschool children through educating their parents and kindergarten teachers

Project objectives

To promote the oral health of preschool children in Hong Kong through provision of oral health education (OHE) to their parents and kindergarten teachers.

Brief description

In this project, kindergarten teachers were trained to become oral health educators. Oral health education aids such as toothbrushing demonstration models and teacher's manual have been developed and provided to the kindergartens to enable and facilitate the teachers to carry out OHE for preschool children.
To better understand the oral health related behaviours of the preschool children and their parents, individualized dental caries (tooth decay) risk assessment of the children including parental questionnaire was conducted. The information obtained was used to improve the OHE.

This project started in 2008 to provide outreach dental service to 14 kindergartens with support from the government Health Care and Promotion Fund. In 2010, further support have been sought from the S.K. Yee Medical Foundation and the Colgate-Palmolive Co. Ltd to expand this knowledge exchange (KE) project to cover 100 kindergartens, involving over 10,000 preschool children. OHE sessions were arranged in the kindergartens for all teachers (about 2,000 in total) and also for parents of the children. Undergraduate and postgraduate dental students participated in delivering the OHE. In addition to the educational activities, prevention (topical fluoride application) was provided to the high risk children according to protocols developed from our previous research.

An interim evaluation was conducted this year on 83 participant kindergartens through interviewing the principal or head teacher. Nearly all (96%) of the respondents were very satisfied or satisfied with our project and all found their oral health knowledge had improved. The trained teachers also carried out OHE in their various teaching activities.

Impact and Contribution

1) Our continuing KE project has successfully transferred important oral health knowledge to the teachers and parents of over 10,000 preschool children in the past 4 years. We also learned from them in the process and the knowledge gained was used for continuous improvement of the KE project.
2) The kindergarten teachers were empowered and facilitated to carry out further OHE activities.
3) Research and teaching were built into the project. Our dental students have gained a lot through participation and experiential learning.
4) The oral health of the children was also improved through the education they received from the teachers.

Project Team:

Faculty of Dentistry, The University of Hong Kong,
Dr. Chun Hung CHU, Associate Professor,
Prof. Edward Chin Man LO, Professor in Dental Public Health,
Dr. Xiaoli GAO, Research Assistant Professor in Dental Public Health,
Dr. Alex Man Him CHAU, Dentist,
Dr. Ivy Di WU, PhD graduate,
Dr. Emily Ming JIANG, PhD Candidate,
Dr. Marcus Ho Tak FUNG, PhD Candidate

Acknowledgement

This service received support from
1) Health Care and Promotion Fund (01080405)
2) Health and Health Services Research Fund (07080741)
3) S.K. Yee Medical Foundation Fund (210205)
4) Bright Smiles Bright Future Dental Health Education Grant (2010001)

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Professor Dorothy F.P. Ng

Assistant Professor
Faculty of Education

The University of Hong Kong

Biography

Dr Ng is a senior language education researcher, also has over 20 years experience of teacher training. She was graduated from the Department of Chinese Language and Literature, the Chinese University of Hong Kong, and was awarded Post-graduate Diploma of Education (Distinction) and Master of Arts (Language Education). Later Dr Ng was awarded Common Wealth Scholarship to study Diploma of Applied Linguistics in Regional Language Centre in Singapore. She has been lecturer of Chinese University of Hong Kong and Hong Kong Institution of Education, and now is an Assistant Professor within the Language and Literature division, Faculty of Education and was previously an Assistant Professor within the Department of Curriculum Studies, in the Faculty of Education of University of Hong Kong. Her research interest includes linguistics, medium of instruction, classroom discourse analysis, teaching of reading and reading and learning etc. Dr Ng's current focus has been on the integration of Chinese opera into the curriculum. Her research aims to enhance and enrich students' understanding of culture, art performance, literature and music and it is anticipated that this will be fully integrated into the secondary curriculum.

Poster - HKU-6

Professor Kam Pui Chow

Associate Professor
Department of Computer Science
Associate Director
Center for Information Security and Cryptography

The University of Hong Kong

Biography

Dr K. P. Chow is the Associate Professor of Department of Computer Science and the Associate Director of the Center for Information Security and Cryptography at The University of Hong Kong. Dr. Chow's areas of research interest are computer forensics, cryptography, computer security, Internet surveillance and privacy. He was the chief designer of the computer forensic tool Digital Evidence Search Kit (DESK). Dr. Chow has been working on the Internet piracy monitoring system Lineament I, and Internet auction site monitoring system Lineament II. Both Lineament I and Lineament II were adopted by HKSAR Customs and Excise Department in 2007 and 2011 respectively. He has also published research papers on computer forensics, data security and cryptography in local and international conferences and journals. Dr. Chow has analyzed various data leakage cases in Hong Kong, which includes the IPCC case in 2006, the Foxy/Edison cases and the Yahoo case in 2008. Findings and results were presented in local seminars and international conferences with participants from legal and IT professions. In 2009, Dr. Chow was the honoree in the category of Senior IT Security Professional of the 3rd Annual Asia-Pacific Information Security Leadership Achievements Program. Dr. Chow has served as a member of the Program Committee of the international computer forensic workshop SADFE (Systematic Approaches to Digital Forensic Engineering) in 2005, 2007 and 2011. He was the conference chairman of the Sixth IFIP WG 11.9 International Conference on Digital Forensics held in 2010 in Hong Kong. From 2010, Dr. Chow is the Chairman of the Information Security and Forensics Society (ISFS), a professional body for digital forensics experts in Hong Kong. Dr. Chow is also a committee member of the IT Division, Hong Kong Institution of Engineers, and a council member of the Hong Kong Forensics Science Society. In the past few years, Dr. Chow has been invited to be a computer forensic expert to assist the Court in Hong Kong.

Poster - HKU-7

Project Objectives

The heated trend of online shopping nowadays is followed by a series of intellectual property infringement and the auction of fake goods. In order to prevent this, a new system called Lineament Monitoring System II (Lineament II) was jointly developed by the Center for Information Security and Cryptography at the University of Hong Kong and the Customs and Excise Department (C&ED), HKSAR, making 24-hour monitoring possible.

Graphical Overview of Lineament II system architecture

Brief Description of Project

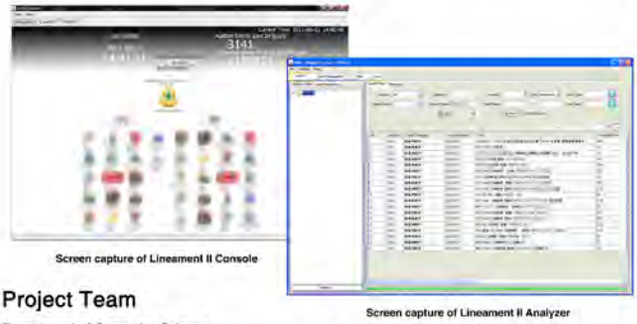
Lineament II targets the activities of Internet auction sites selling intellectual property infringement articles. By entering some relevant information into the system, C&ED can impose a 24-hour monitoring of the local Internet auction sites and suspected infringing activities are recorded to facilitate follow-up action and investigation by Customs officers. As Lineament II can be operated automatically, not only can it enhance the efficiency in monitoring Internet auction sites, it can also enhance the enforcement effectiveness of combating the sale of infringing articles through Internet auction sites as it can operate round the clock.

Lineament II uses the latest technologies in cybercriminal profiling, artificial intelligence (AI) and web crawling. The crawler of the system not only collects data from the target auction sites, but also performs a semantic analysis on the crawled data so that they can further be analyzed by the profiling engine and the AI engine. The profiling engine analyses the behavior of individual user account and then trigger rules of the AI engine to alert the law enforcement officers for follow up actions.

Impact and Contributions

In the past, C&ED counted on the manual patrolling to surf for suspected cases, which was tedious and inefficient. Some of the suspicious cases could even be missed due to the unavoidable carelessness. Moreover, the illegal sellers would sometimes keep the bidding open briefly and erased all the information after the deal within an hour, making it more difficult to track. However, the new system does a search of key words such as sellers, brands and price range. After entering the relevant information into the Lineament II, round-the-clock monitoring of the designated internet auction sites gets stared. Any suspected infringements will be recorded to facilitate follow-up investigations by officers.

Last year, 45 cases of selling counterfeit goods online were detected, mainly involving with auction websites, which is up 15 percent from 2009. The goods involved accessories, watches, clothes, toys and sunglasses, etc. The Lineament II, which costs about HK$300,000, has so far investigated 120 cases of which 70 have been solved since launched in January.



Screen capture of Lineament II Console

Screen capture of Lineament II Analyzer

Project Team

Department of Computer Science

Dr CHOW Kam Pui; and

Members from Center for Information Security and Cryptography

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Project Sponsor

Customs & Excise Department, HKSAR

Professor Victor O.K. Li

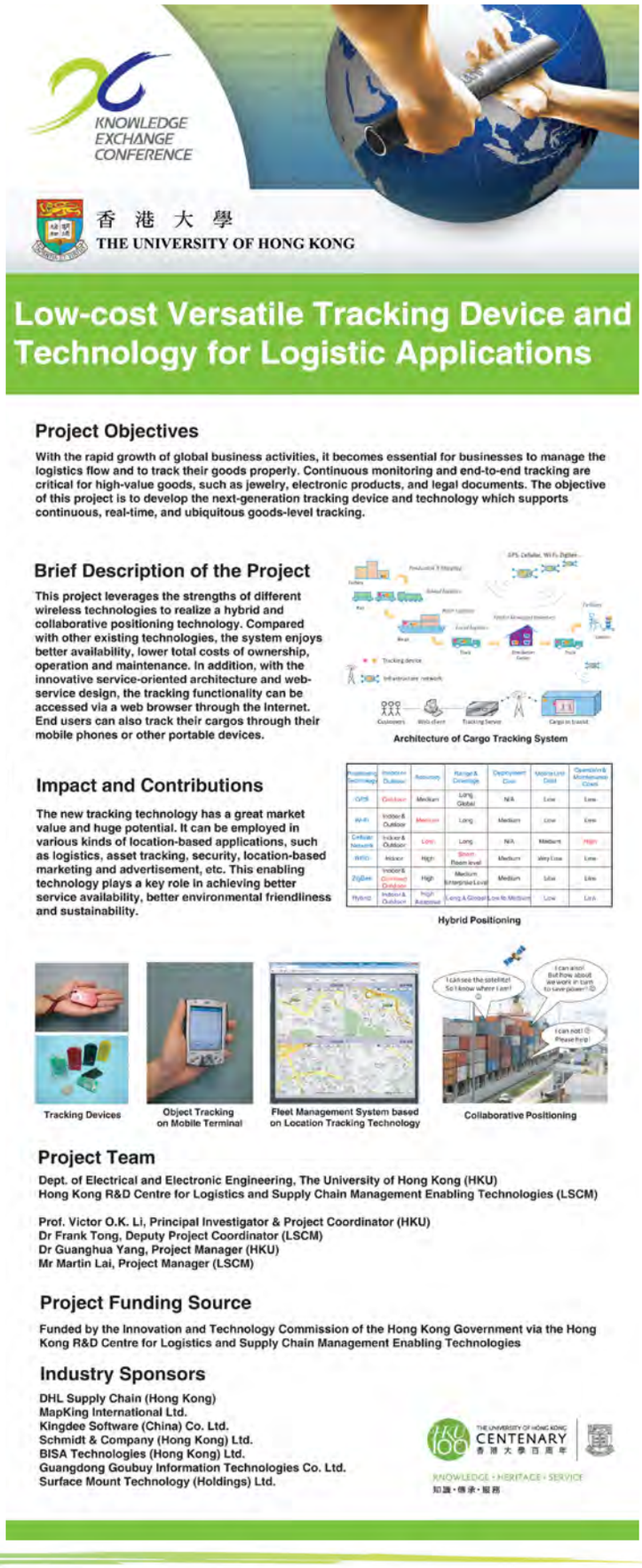
Associate Dean (Research)
Faculty of Engineering
Chair Professor of Information Engineering
Department of Electrical and Electronic Engineering

The University of Hong Kong

Biography

Victor O.K. Li received SB, SM, EE and ScD degrees in Electrical Engineering and Computer Science from MIT in 1977, 1979, 1980, and 1981, respectively. He is Associate Dean of Engineering and Chair Professor of Information Engineering at the University of Hong Kong (HKU), and Guest Chair Professor of Wireless Communication and Networking at Tsinghua University, Beijing, China. He served as Managing Director of Versitech Ltd., the technology transfer and commercial arm of HKU, and is now on the boards of Sunevision Holdings Ltd. and China.com Ltd. Previously, he was Professor of Electrical Engineering at the University of Southern California (USC), Los Angeles, California, USA, and Director of the USC Communication Sciences Institute. Sought by government, industry, and academic organizations, he has lectured and consulted extensively around the world. He has received numerous awards, including the PRC Ministry of Education Changjiang Chair Professorship at Tsinghua University, the UK Royal Academy of Engineering Senior Visiting Fellowship in Communications, the Croucher Foundation Senior Research Fellowship, and the Order of the Bronze Bauhinia Star, Government of the Hong Kong Special Administrative Region, China. He is a Registered Professional Engineer and a Fellow of the IEEE, the IAE, and the HKIE.

Poster - HKU-8



Professor Henry Y.K. Lau

Head and Associate Professor
Department of Industrial and Manufacturing Systems Engineering

The University of Hong Kong

Biography

Henry Lau is the Head of Department of Industrial and Manufacturing Systems Engineering. Henry graduated from the University of Oxford with a First Class Honor BA Degrees in Engineering Science and a DPhil in Robotics. Prior to joining HKU, he has been working in industry for many years as a system engineer and section manager at the UK Atomic Energy Authority (UKAEA) and AEA Technology plc., working on projects involving bespoke tele-robotics systems and advanced automation systems for the nuclear industry in decommissioning and waste management. While working in England, Henry was a Croucher Foundation Research Fellow at the University of Oxford Robotics Research Group, and a visiting lecturer at Brasenose College teaching Engineering Science.

Henry joined the University of Hong Kong in 1997 and his research interest includes artificial intelligence, in particular in artificial immune systems (AIS), intelligent automation for material handling, virtual and augmented reality systems, system analysis and design. In addition, Henry works closely with industry to conduct research and development projects on the design, evaluation and deployment of automated material handling systems, process simulation and improvement, and the deployment of virtual reality technology for system visualization.

Poster - HKU-9

Professor Yuguo Li

Head and Professor
Department of Mechanical Engineering

The University of Hong Kong

Biography

Yuguo Li is a Professor and Head of HKU Mechanical Engineering, and was a Principal Research Scientist and the team leader of indoor environments at CSIRO Australia prior to 2000. He studied at Shanghai Jiaotong University, Tsinghua University and Royal Institute of Technology in Sweden with PhD in Fluid Mechanics.

His research interests are at the interface of atmospheric environment and energy efficiency with a focus on ventilation (environment aerodynamics). His current research topics include city ventilation, urban heat island, and ventilation control of infection. He contributed to new theory and technologies of natural ventilation and hospital ventilation. His work led to the findings of the roles played by airflow and ventilation in the 2003 Amoy Gardens SARS outbreak. He carried out research on hospital ventilation in preparation for the influenza pandemic for Hospital Authority and WHO. He led and drafted the 2009 WHO guidelines on natural ventilation and co-drafted the 2007 WHO interim infection control guidelines.

He serves as Associate Editor of Indoor Air, Energy and Buildings. He received the State Scientific and Technological Progress Award (Second Prize) in 2010 and HKU Outstanding Young Researcher Award in 2003. He was elected an ASHRAE Fellow in 2007, ISIAQ Fellow in 2008 and HKIE Fellow in 2011.

Poster - HKU-10

Effective Ventilation for Minimizing Expiratory Droplet Exposure

Project Objectives

To understand the behavior and transmission of the expiratory droplets from a respiratory patient infected with diseases such as SARS and influenza in indoor environment.
To develop effective ventilation methods in hospitals and crowded indoor environments such as high-speed trains and classrooms.

Brief Description

Respiratory diseases such as influenza still kill. "Our understanding of the transmission of influenza is woefully inadequate". Expiratory droplets are the vectors of the disease transmission. Breathing, coughing and sneezing etc of an infected person can generate pathogen-containing particles of saliva and mucus.

In 2003, we studied the roles of airflows and ventilation in the spread of SARS in the Amoy Gardens outbreak. Since then, we have used the SARS research findings and thermal fluid engineering principle to develop new and effective ventilation methods for isolation rooms, understanding the roles of ventilation in influenza transmission, and developing feasible ventilation methods for hospitals in resources-limited countries.

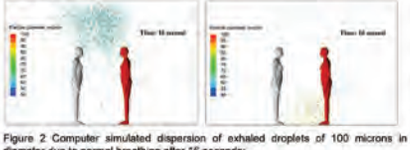


Figure 2 Computer simulated dispersion of exhaled droplets of 100 microns in diameter due to normal breathing after 16 seconds:
Left: With **35%** relative humidity (drier air);
Right: With **95%** relative humidity (wetter air)

Figure 3 Penetration of exhaled air in a mock-up full-scale hospital ward.

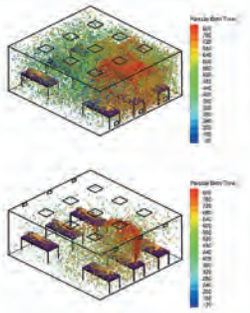


Figure 1 Top: The remaining number of particles of 10 μm in diameter by a patient in a room with **lower** level exhaust after 800 seconds; Bottom: The remaining number of particles of 10 μm in diameter by a patient in a room with **upper** level exhaust after 800 seconds, and much less particles are remained in air.

Impact and Contributions

We drafted as the lead author the 2009 WHO guidelines - Natural Ventilation for Infection Control in Health-Care Settings.

We drafted the Ventilation Chapter in the 2007 WHO Guidelines on Infection prevention and control of epidemic- and pandemic-prone acute respiratory diseases in health care.

The isolation ventilation design principles developed by the SARS busters were used in constructing the new SARS wards.

Invited by Ministry of Health, Indonesia, we provided evaluation to design of isolation rooms in 15 avian influenza referral hospitals.

We have given 1-2 lectures per annum on ventilation in health care settings for the Hong Kong Infection Control Nurses Association, Asia-Pacific Society of Infection Control and Centre for Health protection.

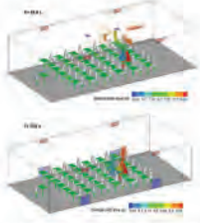


Figure 4 Dispersion of exhaled droplets due to coughing in a classroom
Top: In a room ventilated by **mixing** system;
Bottom: In a room ventilated by **displacement** system.

Figure 5 Left: Coverpage of WHO Guideline developed by Prof. Yuguo Li and his collaborators; Right: Professor Yuguo Li, in Indonesia in February 2009 as a WHO Temporary Advisor for the Indonesia Ministry of Health on ventilation design in their hospitals for control of avian flu.

Project team/Collaborators

Dr. Wing Hong Seto and Ms. Patricia Ching, Queen Mary Hospital
Dr. Benjamin Cowling, Department of Community Medicine, HKU
Prof. Ignatious Yu and Prof. TW Wong, Department of Community Medicine, CUHK
Mr. PL Yuen, Hospital Authority
Dr. Carmem LÚCIA Pessoa-Silva and Yves CHARTIER, WHO, Geneva
Prof. Yuguo Li, Dr. Qian Hua, Dr. Xie Xiaojian, Mr. Liu Li, Mr. Zhang Lei, Ms. Caroline Gao, Department of Mechanical Engineering, HKU

Project Sponsors

Research Grants Committee: 3 projects (HKU 7115/04E, 7150/06E, 7146/08E)
RFCID/Hospital Authority: 4 projects (HA-NS-002, 003, 006, 007)
WHO: 2 projects HKIE SARS Fund: 1 project

Professor Yu-Lung Lau

Associate Dean (Research)
Li Ka Shing Faculty of Medicine
Head and
Doris Zimmern Professor in Community Child Health
Department of Paediatrics and Adolescent Medicine

The University of Hong Kong

Biography

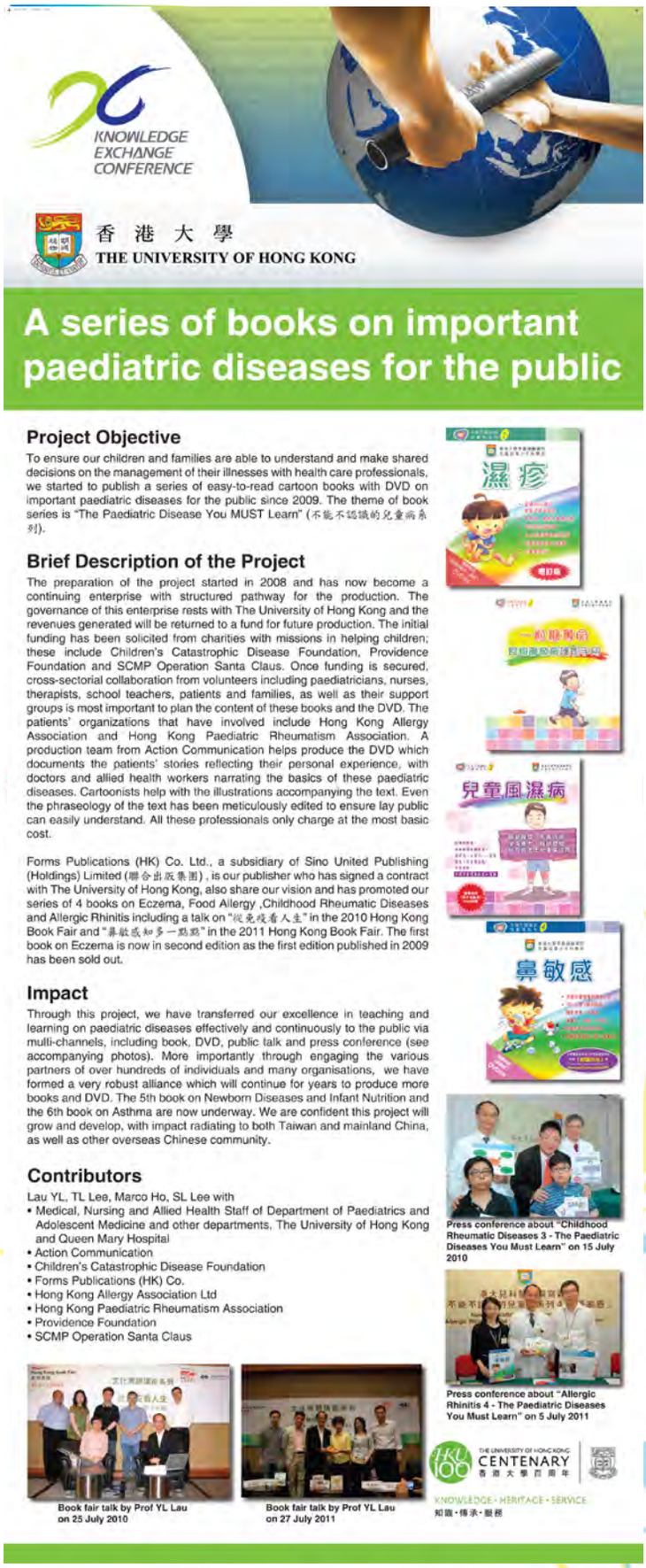
Professor Lau Yu Lung who graduated from the University of Glasgow in 1980, joined the Department of Paediatrics in 1988 as a lecturer. He is currently the Chair Professor in Paediatrics and Head of the Department, as well as the Associate Dean for Research in the LKS Faculty of Medicine.

Professor Lau's main research interests include primary immunodeficiencies, genetics in childhood and immunological diseases, developmental and viral immunology and control of childhood infectious diseases. He established an Asian Primary Immunodeficiencies Referral Network offering e-consultation and free genetic tests for such patients in China and Asia, supported by the Society for the Relief of Disabled Children. For studying the genetics of systemic lupus erythematosus, he has set up the Asian Lupus Genetics Consortium with collaborators from centres in China and Thailand. His research team has also contributed significantly to the understanding of how pathogens, such as SARS-coronavirus and influenza virus cause disease, and the possible strategy in controlling them.

As a child health researcher and advocate, especially in the area of control of infectious diseases, he has worked towards the implementation of universal pneumococcal vaccination in 2009 for Hong Kong children in his capacity as the Chairman of the Working Group on Pneumococcal Vaccination, Department of Health. He steered the process of introducing the universal screening for HIV infection in pregnant mothers back in 2001, when he was the Chairman of the Scientific Committee on AIDS, Advisory Council on AIDS.

As a public educator, Professor Lau initiated a book series for educating the Hong Kong public on childhood diseases, including eczema, food allergy, rheumatic diseases and allergic rhinitis.

Poster - HKU-11



Professor Connie S.H. Ho

Professor
Department of Psychology

The University of Hong Kong

Biography

Connie Ho is a full Professor and Director of two Doctoral Educational Psychology programmes at thev the University of Hong Kong. She is an editorial board member of two international academic journals and has been providing consultative services to some NGOs and government departments on education-related issues.

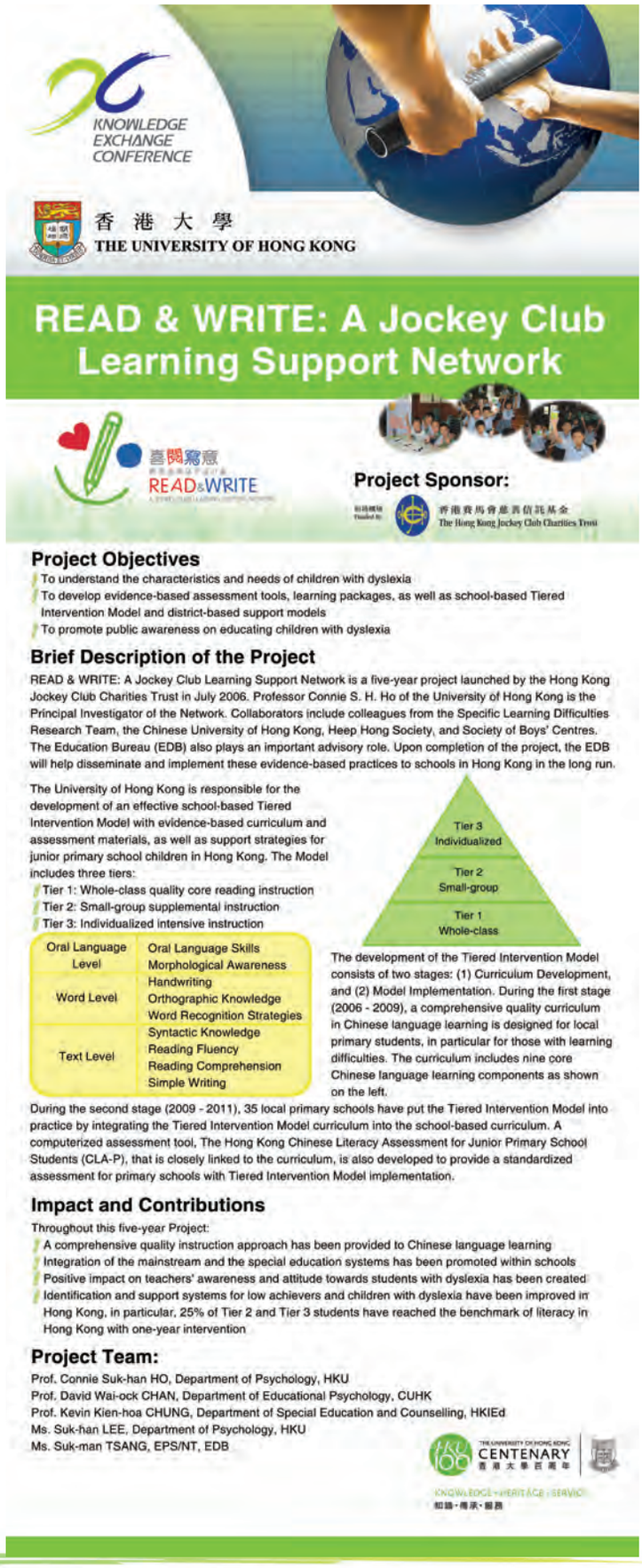
Prof. Ho's research focuses mainly on reading acquisition and reading disability in Chinese. She has documented that the rate of dyslexia among Hong Kong Chinese children is around 10%, comparable to the rate found for alphabetical languages. Her research has focused on the underlying mechanisms of reading acquisition and the cognitive profile of reading disability. Her research findings have given us insights about the language-universal and language-specific aspects of learning to read different languages. In recent years, she has also investigated the genetic and environmental contributions of language and reading development, and the connection between language impairments and reading disability in Chinese.

With regard to research grants, she has been awarded 14 external competitive grants amounted to over HK$60M in the past 10 years. She has been the principal investigator of 9 of these research projects, and has produced over 80 academic publications on these topics.

Since 2006, Prof. Ho has served as the principal investigator of the READ & WRITE project, which is a 5-year project funded by the Hong Kong Jockey Club aiming at developing evidence-based support to children with specific learning difficulties. There are several sub-projects including basic research as well as development of assessment tools, learning packages, and school-based support models to help needy children from preschool to adolescent period. In addition, the project also develops programmes for teacher training and parent support.

This project has generated some important academic and educational publications, including journal papers, standardized screening and assessment tools, and training-related curricula and packages for Chinese language learning that support children with specific learning difficulties. The assessment instruments are the first standardized Chinese screening and assessment instruments for learning difficulties world-wide. They have become the practical standard used by all schools and professional psychologists in Hong Kong. These evidence-based practices in the identification of and the intervention to learning difficulties have exemplified how good science can be applied to meet real-world challenges.

Poster - HKU-12



APPENDIX

Knowledge Exchange Conference: Knowledge Transforming Society (cum "3+3+4" Symposium on Knowledge Transfer)

December 5-6, 2011

Meeting Rooms S221 - S227, Hong Kong Convention and Exhibition Centre

PROGRAMME

DAY 1 (MONDAY, DECEMBER 5, 2011)

Time	Session	Speaker / Panelist
09:00 - 09:15	**Opening Ceremony for the Knowledge Exchange Conference** **[Room S221]**	Welcome Remarks by **Professor Lap-Chee Tsui**, Vice-Chancellor and President, The University of Hong Kong Officiating Address by **Professor Eng-kiong Yeoh, JP, GBS**, University Grants Committee member and Convenor of the "3+3+4" Group Photo-taking Session
09:15 - 10:15	**Developing a Mature Innovation Ecosystem in Hong Kong** **[Room S221]**	Chairperson: **Prof. Paul K.H. Tam** Pro-Vice-Chancellor and Vice-President (Research), The University of Hong Kong **Creation of a Favourable Ecological Environment for Facilitating Realisation of R&D Results** **Miss Janet Wong, JP** Commissioner for Innovation and Technology, Government of the Hong Kong Special Administrative Region **Bridging the Gap : What Does it Take for Academic Research to be Translated into Innovative Industries?** **Hon. Mrs. Regina Ip, GBS, JP** Member of the Legislative Council, Hong Kong **Is it Possible for Hong Kong to Develop an Asian Apple Tree Ecosystem?** **Ir. Dr. Hon. Samson Tam, JP** Member of Legislative Council (Information Technology), Hong Kong
10:15 – 11:05	**The Tried and Tested Roads of Knowledge Exchange** **[Room S221]**	Chairperson: **Prof. John Malpas** Pro-Vice-Chancellor and Vice-President (Infrastructure), The University of Hong Kong **Knowledge Exchange : A Few Bumps on the Tried and Tested Roads** **Prof. Eugene Wong** Professor Emeritus, College of Engineering, University of California, Berkeley, United States **Seven Principles for Embedding the Knowledge Exchange Agenda** **Prof. Warren Bebbington** Deputy Vice-Chancellor (University Affairs), The University of Melbourne, Australia
11:05 – 11:20	Coffee Break	
11:20 – 12:35	**Making Technology Transfer Thrive** **[Room S221]**	Chairperson: **Prof. Paul Y.S. Cheung** Director of Technology Transfer Office, The University of Hong Kong **Academic Technology Transfer Essentials** **Dr. Alan Paau** Vice Provost for Technology Transfer and Economic Development, Cornell University, United States **A Multi-pronged Approach to Successful Technology Transfer** **Prof. Teck Seng Low** Managing Director, Agency for Science, Technology and Research (A*STAR), Singapore **Making Technology Transfer Thrive and Serve the Public Interest** **Dr. Stephen A. Merrill** Executive Director, Board on Science, Technology, and Economic Policy (STEP), The National Academies, United States

DAY 1 (MONDAY, DECEMBER 5, 2011)

Time	Session	Speaker / Panelist
12:35 – 13:00	**Innovation as a Key Target in China's 12th Five-Year Plan** **[Room S221]**	Chairperson: **Mr. Andrew Young** Vice President, Marketing and Sales, Hong Kong Science and Technology Parks Corporation 十二五时期深圳科技产业发展及深港合作展望 **Ms. Qiu Xuan** Vice Director, Science, Industry, Trade and Information Technology Commission of Shenzhen Municipality, People's Republic of China
14:30 – 16:15	**Knowledge Partnerships**	
	Parallel Session 1A: **Building Successful Business/Industry Partnerships** **[Room S227]**	Chairperson: **Prof. Allan S.C. Cheung** Professor, Department of Chemistry, The University of Hong Kong **From ebXML Gateway to the Challenge of Applied Research in Hong Kong** **Prof. David W.L. Cheung** Head and Professor, Department of Computer Science, and Director of Center for E-Commerce Infrastructure Development, The University of Hong Kong **The Development of Oral Arsenic Trioxide for Cancer Treatment: Academic Success, Economic Implications and Global Perspectives** **Prof. Yok Lam Kwong** Chui Fook-Chuen Professor in Molecular Medicine, Chair of Haematology and Oncology, and Chief of the Division of Haematology, Medical Oncology and Bone Marrow Transplantation, Department of Medicine, The University of Hong Kong **Work Creatively: Facilitating Knowledge Transfer in Arts and Cultural Sector** **Dr. Victor Ming Hoi Lai** Associate Professor, Academy of Visual Arts, Hong Kong Baptist University **Boosting Industry-University Partnership by Academic Collaboration** **Prof. Chiharu Nakamura** Vice President, Kobe University; Director of Center for Collaborative and Technology Development (CREATE), Japan **Establishment of the PolyU Shenzhen Base as a Strategy to foster Industry-University Partnership in the Pearl River Delta** **Prof. Angelina Yuen** Vice President (Institutional Advancement and Partnership), The Hong Kong Polytechnic University **Linguistics, Language Industry and Language in Industry** **Dr. Alex Chengyu Fang** Assistant Professor, Department of Chinese, Translation and Linguistics, City University of Hong Kong
	Parallel Session 1B: **Building Successful Community Partnerships** **[Room S226]**	Chairperson: **Ir. Dr. Alfred Tan** Head, Knowledge Transfer Office, Hong Kong Baptist University **Interactive Engagement with the Community: From Public Education to Academic Research** **Prof. Louis Wing Hoi Cheung** Research Associate Professor, Department of Orthopaedics and Traumatology, The Chinese University of Hong Kong **Knowledge Transfer: Commitment to Public and Partnering for Excellence** **Prof. Vivian Wing Yan Lee** Assistant Dean (student affairs), Faculty of Medicine & Associate Professor, School of Pharmacy, The Chinese University of Hong Kong **Community Arts Development -- Multiple Knowledge Transferring of Inter-School** **Dr. Mee-ping Leung** Assistant Professor, Academy of Visual Arts, Hong Kong Baptist University

DAY 1 (MONDAY, DECEMBER 5, 2011)

Time	Session	Speaker / Panelist
		The Review of Hong Kong's Animal Welfare Laws **Prof. Amanda Whitfort** Associate Professor, Department of Professional Legal Education, The University of Hong Kong **Knowledge transfer in Humanities and Social Sciences: What are they?** **Prof. Daniel Fu Keung Wong** Professor, Department of Applied Social Studies, City University of Hong Kong **A Public Health Approach for Suicide Prevention: from Research to Practice** **Prof. Paul S.F. Yip** Professor, Department of Social Work and Social Administration, and Director, Hong Kong Jockey Club Centre for Suicide Research and Prevention, The University of Hong Kong
	Parallel Session 1C: **Innovation-driven Partnerships in Hong Kong and Mainland China** **[Room S225]**	Chairperson: **Mr. Andrew Young** Vice President, Marketing and Sales, Hong Kong Science and Technology Parks Corporation **A Peptide Targeting Tumor Blood Vessels: From Experimental to Clinical Application** **Prof. Chi Hin Cho** Associate Director, Professor of Pharmacology (Research), School of Biomedical Sciences, The Chinese University of Hong Kong **GPU Computing in Mainland China's Industry** **Dr. Xiaowen Chu** Associate Professor, Department of Computer Science, Hong Kong Baptist University **Prof. Jiming Liu** Head, Department of Computer Science, Hong Kong Baptist University **Capturing Research Value with Application** **Ir. Prof. Alex Wai** Vice President (Research Development), The Hong Kong Polytechnic University **The Roles of Hong Kong in the National Twelve Five Year Strategic Plan** **Prof. William Kam Fai Wong** Associate Dean (External Affairs), Faculty of Engineering; Professor, Department of Systems Engineering and Engineering Management; Associate Director, Centre for Entrepreneurship; Director, Centre for Innovation and Technology, The Chinese University of Hong Kong **Building Mainland China Partnerships at HKUST** **Dr. Claudia Xu** Director of the Technology Transfer Center, Vice President of the HKUST R and D Corporation & General Manager of HKUST R and D Corporation (Guangzhou) Limited, The Hong Kong University of Science and Technology **Organic Light-emitting Diodes** **Prof. Chi-Ming Che** Dr. Hui Wai Haan Chair of Chemistry, Department of Chemistry, The University of Hong Kong
	Parallel Session 1D: **Building Successful School Partnerships** **[Room S224]**	Chairperson: **Prof. Shuk Han Cheng** Professor, Department of Biology and Chemistry, and Director, Office of Education Development and General Education, City University of Hong Kong **Project C.A.R.E.: Primary and Secondary Hong Kong Students' Aggression and Peer Victimization of Bullying** **Dr. Annis Lai-chu Fung** Assistant Professor, Department of Applied Social Studies, City University of Hong Kong **Extending the Boundary of School-University Partnerships** **Prof. Tammy Y.L. Kwan** Assistant Dean (School-University Partnerships) and Associate Professor, Faculty of Education, The University of Hong Kong **Building a Young Writer Community: A Knowledge Transfer Writing Project in Hong Kong** **Prof. Barley Shuk Yin Mak Chan** Assistant Professor, Department of Curriculum and Instruction; Director, Centre for Enhancing English Learning and Teaching, The Chinese University of Hong Kong

DAY 1 (MONDAY, DECEMBER 5, 2011)

Time	Session	Speaker / Panelist
		Enhancing Teacher Professional Development through Professional Dialogue: An Investigation into a University-School Partnership Project on Enquiry Learning **Prof. Winnie Wing Mui So** Head/ Associate Professor, Department of Science and Environmental Studies, The Hong Kong Institute of Education **The Jockey Club Sign Bilingualism and Co-enrolment in Deaf Education Programme: From Sign Linguistics to Inclusive Deaf Education** **Prof. Gladys Wai Lan Tang** Chairman, Department of Linguistics and Modern Languages; Centre Director, Centre for Sign Linguistics and Deaf Studies, Department of Linguistics and Modern Languages, The Chinese University of Hong Kong **Seeding Sustainable Leader Learning Communities** **Prof. Allan Walker** Head/ Chair Professor, Department of Education Policy and Leadership, The Hong Kong Institute of Education
	Poster Session **Parallel Session 1E: Poster Presentations** **[Room S222-223]**	*Posters will be displayed at the Exhibition Room throughout the Conference. Project Co-ordinators or their representatives have been invited to meet with participants during this time-slot.*
16:15 – 16:30	Coffee Break	
16:30 – 17:30	**Panel Discussion** **Arts for Everyone: The Case for Culture in Hong Kong** **[Room S221]**	Chairperson: **Prof. John Bacon-Shone** Associate Director, Knowledge Exchange Office, and Associate Dean (Knowledge Exchange), Faculty of Social Sciences, The University of Hong Kong Panelists: **Prof. Daniel K.L. Chua** Head, School of Humanities, The University of Hong Kong **Mr. Michael Lynch, CBE, AM** Chief Executive Officer, West Kowloon Cultural District Authority, Hong Kong
17:30	End of Day One	

DAY 2 (TUESDAY, DECEMBER 6, 2011)

Time	Session	Speaker / Panelist
09:00 – 09:15	**Opening Ceremony for the "3+3+4" Symposium on Knowledge Transfer** **[Room S221]**	Welcome Remarks for the "3+3+4" Symposium on Knowledge Transfer by **Professor Walter W. Yuen**, Vice President (Academic Development), The Hong Kong Polytechnic University Photo-taking Session
09:15 – 10:05	**Opening Lectures for the "3+3+4" Symposium** **[Room S221]**	Chairperson: **Dr. Alwin Wong** Associate Director, Institute for Enterprise, The Hong Kong Polytechnic University **Knowledge-learning-work: Making Higher Education Fit for Future Needs** **Prof. dr. Maurits van Rooijen** CEO & Rector Magnificus, Nyenrode Business Universiteit, The Netherlands **Innovation and Knowledge Transfer - Expectations and Delivery in Hong Kong** **Sir Brian Fender** President, The Institute of Knowledge Transfer, United Kingdom
10:05 – 10:25	Coffee Break	
10:25 – 12:10	**"3+3+4" Symposium** **Parallel Session 2A: Work-Integrated Education** **[Room S221]**	Chairperson: **Prof. Richard Tsang** Dean of Students and Professor, Department of Cultural and Creative Arts, The Hong Kong Institute of Education **Connecting Students to the Real World: the PolyU Experience** **Mrs. Dorinda Fung** Director of Student Affairs, The Hong Kong Polytechnic University **Towards Enhancement of Professional Practicum Teaching and Learning: A Conceptual Model** **Dr. Tak-yan Lee** Associate Professor, Department of Applied Social Studies, City University of Hong Kong **Designing and Assessing Learning in Transnational Internships** **Dr. Glenn Shive** Executive Director, Hong Kong America Center **Preparing Academic Supervisors and Clinical Mentors for Work-Integrated Learning in Nursing Education** **Prof. Agnes F.Y. Tiwari** Head and Professor, School of Nursing and Assistant Dean (Education), Li Ka Shing Faculty of Medicine, The University of Hong Kong **Enhancing the Self Care Ability through Intergenerational Knowledge Transfer Program in Elder Academy in Tuen Mun** **Mr. Ka Fai Wong** Assistant Professor, School of Science and Techonology, The Open University of Hong Kong
	Translating Knowledge into Solutions for Hong Kong **Parallel Session 2B: Greying Population** **[Room S225]**	Chairperson: **Prof. Alfred Cheung Ming Chan** Director, Asia-Pacific Institute of Ageing Studies, Lingnan University **Capacity Building in Care for Demented Persons** **Dr. David Lok Kwan Dai** Consultant Geriatrician, Prince of Wales Hospital, and Honorary Secretary, Hong Kong Alzheimer's Disease Association **Innovations in Models of Care for Older People with Dementia** **Prof. Timothy Chi Yui Kwok** Professor, Department of Medicine & Therapeutics; Co-Director, CUHK Jockey Club Centre for Osteoporosis Care and Control; Deputy Director/Professor, S H Ho Centre for Gerontology and Geriatrics, The Chinese University of Hong Kong **Evidence Based Elder Care - How Research Contributes to Improve the Quality of Care and Quality of Life of Older People in Long Term Care System** **Prof. Terry Y.S. Lum** Associate Professor, Department of Social Work and Social Administration, and Director, Sau Po Center on Ageing, The University of Hong Kong

DAY 2 (TUESDAY, DECEMBER 6, 2011)

Time	Session	Speaker / Panelist
		Transfer of Ageing Knowledge and Myths **Prof. Sik Hung Ng** Chair Professor of Social Psychology, Department of Applied Social Studies, City University of Hong Kong **Translating a High-level Policy Directive into Layman-understood Items for Ageing Policy Evaluation** **Miss Phoebe Pui Yee Tang** Senior Project Officer, Asia-Pacific Institute of Ageing Studies, Lingnan University **Population Aging and Economic Growth** **Prof. Jow Ching Tu** Associate Professor, Division of Social Science, The Hong Kong University of Science and Technology
	Common Platform for KE Impact Assessments **Parallel Session 2C:** **Beyond the Measurable? Impact Assessment of Non-technology-related Knowledge Exchange** **[Room S227]**	Chairperson: **Prof. John Bacon-Shone** Associate Director, Knowledge Exchange Office, and Associate Dean (Knowledge Exchange), Faculty of Social Sciences, The University of Hong Kong **Evidencing the Difference We Make: Evaluating and Narrating the Impact of UK Arts and Humanities Research** **Prof. Kim Knott** Director of the Arts Innovation and Impact Centre and Professor of Religious Studies, University of Leeds; Director of the Arts and Humanities Research Council's 'Diasporas, Migration and Identities' Programme, United Kingdom **Panel Discussion** Panelists: **Prof. Kim Knott** **Mr. Jerry T. de la Harpe** Executive Director (Engagement and Partnerships), The University of Melbourne, Australia **Prof. Christopher Megone** Director of Enterprise and Knowledge Transfer, Faculty of Arts, University of Leeds, United Kingdom
	Poster Session **Parallel Session 2D:** **Poster Presentations** **[Room S222-223]**	*Posters will be displayed at the Exhibition Room throughout the Conference. Project Co-ordinators or their representatives have been invited to meet with participants during this time-slot.*
13:30 – 15:15	**"3+3+4" Symposium** **Parallel Session 3A:** **Experiential Learning** **[Room S221]**	Chairperson: **Mrs. Dorinda Fung** Director of Student Affairs, The Hong Kong Polytechnic University **Industry and University Partnership** **Prof. Kaye Chon** Dean of School and Chair Professor, School of Hotel & Tourism Management, The Hong Kong Polytechnic University **Enhancing First Year Transition Through a Student-centred, Non-credit Bearing Co-curricular Program** **Dr. Alice Ming Lin Chong** Associate Professor, Department of Applied Social Studies, City University of Hong Kong **Teaching Support for the 3+3+4 Biology in Hong Kong Secondary Schools** **Prof. Siu Kai Kong** Professor, School of Life Science, The Chinese University of Hong Kong **An Experiential Learning Experience in Engineering – The Mingde Projects** **Prof. Peter K. K. Lee** Associate Dean (Special & Mainland Affairs), Faculty of Engineering, and Honorary Professor, Department of Civil Engineering, The University of Hong Kong

DAY 2 (TUESDAY, DECEMBER 6, 2011)

Time	Session	Speaker / Panelist
		A Different Role: Teaching in the Real World **Prof. John C.H. Lin** Assistant Professor, Department of Architecture, The University of Hong Kong **Digital Classroom Project: Service-Learning and Information and Communication Technology's Impacts on Student Learning in Hong Kong** **Dr. Carol Hok Ka Ma** Assistant Director, Office of Service-Learning, Lingnan University
	Translating Knowledge into Solutions for Hong Kong **Parallel Session 3B:** **Making Hong Kong a Great Place to Live – Our Environment** **[Room S225]**	Chairperson: **Prof. Chak K. Chan** Head and Professor, Division of Environment, Professor, Department of Chemical and Biomolecular Engineering & Director of Institute for the Environment, The Hong Kong University of Science and Technology **Drastic Reduction of Electronic Waste through Novel Sustainable Technologies** **Prof. Ron S.Y. Hui** Chair Professor, Department of Electrical and Electronic Engineering, The University of Hong Kong **Green Building as a Solution for Better Life in Hong Kong** **Dr. Taedong Lee** Assistant Professor, Department of Asian and International Studies, City University of Hong Kong **Waste to Energy** **Prof. Gordon Mckay** Acting Head/ Professor of Department of Chemical & Biomolecular Engineering, The Hong Kong University of Science and Technology **Aspects of Waste Water Treatment by Electrochemical Method and Nano-technology: Their Possible Application in Hong Kong** **Dr. Eric Po-keung Tsang** Associate Professor, Department of Science and Environmental Studies, The Hong Kong Institute of Education **Composting a Solution for Organic Waste Management** **Prof. Jonathan Wong** Director, Sino Forest Applied Research Centre for Pearl River Delta Environment, and Professor, Department of Biology, Hong Kong Baptist University **Smart Antimicrobials for Healthy Living Environment** **Prof. King Lun Yeung** Joint-Professor of the Department of Chemical and Biomolecular Engineering and Division of Environment, The Hong Kong University of Science and Technology
	Common Platform for KE Impact Assessments **Parallel Session 3C:** **Impact Assessment of Technology Transfer** **[Room S226]**	**Roundtable Discussion** Moderator: **Prof. Paul Y.S. Cheung** Director of Technology Transfer Office, The University of Hong Kong Discussants: **Mr Tom Hockaday** Managing Director, Isis Innovation Ltd, United Kingdom **Dr. Stephen A. Merrill** Executive Director, Board on Science, Technology, and Economic Policy (STEP), The National Academies, United States **Dr. Alan Paau** Vice Provost for Technology Transfer and Economic Development, Cornell University, United States **Prof. Eugene Wong** Professor Emeritus, College of Engineering, University of California, Berkeley, United States

DAY 2 (TUESDAY, DECEMBER 6, 2011)

Time	Session	Speaker / Panelist
	Open Access **Parallel Session 3D:** **The Great Divide? Open Access vs. Turning Knowledge into Income** **[Room S227]**	Chairperson: **Prof. John Bacon-Shone** Associate Director, Knowledge Exchange Office, and Associate Dean (Knowledge Exchange), Faculty of Social Sciences, The University of Hong Kong **Exploring the Economic Impacts of Open Access to Publicly Funded Research** **Prof. John Houghton** Director of Information Technologies and the Information Economy Program, and Professorial Fellow, Centre for Strategic Economic Studies, Victoria University, Australia **Creative Commons: An Innovative Copyright Model to Promote Creativity and Knowledge Sharing** **Prof. Yuen Ying Chan** Professor of Journalism and Director, Journalism and Media Studies Centre, The University of Hong Kong **Making HKU Research Discoverable & Findable: The HKU Scholars Hub** **Mr. David T. Palmer** Scholarly Communications Team Leader, University Libraries, The University of Hong Kong **Panel Discussion** Panelists: **Prof. John Houghton** **Prof. Yuen Ying Chan** **Mr. David T. Palmer**
15:15 – 15:30	Coffee Break	
15:30 – 17:00	**"3+3+4" Symposium** **Parallel Session 4A:** **Entrepreneurship Programme** **[Room 221]**	Chairperson: **Prof. Simon S.K. Lam** Professor of Management, School of Business, and Associate Dean (Research), Faculty of Business and Economics, The University of Hong Kong **Awakening Entrepreneurship in Knowledge Transforming Societies** **Prof. Ali Beba** Director of Entrepreneurship Center and Consultant, HKUST Business School, The Hong Kong University of Science and Technology **How can Student Business Plan Competitions Effectively Stimulate Knowledge Transfer and Entrepreneurship?** **Prof. Hugh Thomas** Director, Center for Entrepreneurship; Associate Professor, Department of Finance, The Chinese University of Hong Kong **Cultivating Entrepreneurial Learning: An Out-of-Classroom Approach** **Dr. Alwin Wong** Associate Director, Institute for Enterprise, The Hong Kong Polytechnic University **Experience Sharing on Technology Entrepreneurship** **Ir. Allen Yeung** Vice President, Business Development and Technology Support, Hong Kong Science and Technology Parks Corporation **Turning New Business Ideas into Reality, Cases and Lessons from Hong Kong** **Prof. Yanfeng Zheng** Assistant Professor, School of Business, The University of Hong Kong
	Translating Knowledge into Solutions for Hong Kong **Parallel Session 4B :** **Arts and Cultural Development** **[Room 225]**	Chairperson: **Prof. Anthony Y.H. Fung** Director, School of Journalism and Communication, The Chinese University of Hong Kong

DAY 2 (TUESDAY, DECEMBER 6, 2011)

Time	Session	Speaker / Panelist
		Green Art and Community Culture – A Reinvention of Urban River **Prof. Wallace Ping Hung Chang** Associate Professor, School of Architecture; Director, Urban Place Research Unit, School of Architecture, The Chinese University of Hong Kong **Heart Meets Heat – Exchange and Mutual Enrichment in Creativity and Cultural Sensitivity in the International Writers Workshop** **Dr. William Ng** Associate Professor, Department of Religion & Philosophy, Hong Kong Baptist University **Working with Community, Government, Professional and Business Stake-holders: Knowledge Exchange in the Living Preservation of the Blue House Heritage Cluster** **Prof. Mirana May Szeto** Assistant Professor, Department of Comparative Literature, School of Humanities, The University of Hong Kong **Creative Arts & Humanities Education in Hong Kong: Issues and Solutions** **Prof. Matthew Tommasini** Associate Artistic Director, The Intimacy of Creativity - The Bright Sheng Partnership: Composers Meet Performers in Hong Kong; Composer-in-Residence/Adjunct Associate Professor, Division of Humanities, The Hong Kong University of Science and Technology **Future Cinema – Creating New Realities** **Prof. Jeffrey Shaw** Chair Professor and Dean of School of Creative Media, City University of Hong Kong
17:00 – 17:25	**Creating a Transforming Experience through Knowledge Exchange for Society** **[Room S225]**	Chairperson: **Prof. Yoshiko Nakano** Associate Dean, Faculty of Arts, The University of Hong Kong **21st Century Spaces — New Collaborative Approaches in Art and Architecture** **Ms. Yuko Hasegawa** Chief Curator, Museum of Contemporary Art Tokyo, Japan
17:25		End of Day Two

• The programme is correct at the time of printing and is subject to change without prior notice.

POSTER EXHIBITION

City University of Hong Kong

CityU-1.
Wireless Charging Platform
Prof. Ron Shu Yuen Hui
ex CityU staff; previously Chair Professor of the Department of Electronic Engineering, City University of Hong Kong

CityU-2.
UHF RFID Automated Library System - The EasyService Project
Prof. Edward Kai Ning Yung
Chair Professor, Department of Electronic Engineering, City University of Hong Kong
Prof. Steve Hsianghoo Ching
University Librarian, Run Run Shaw Library, City University of Hong Kong

CityU-3.
Radio-Frequency (RF) Technologies in Mobile Satellite Terminal for Chinese Area Positioning System (CAPS)
Prof. Kwai Man Luk
Chair Professor, Department of Electronic Engineering, City University of Hong Kong
Prof. Quan Xue
Professor, Department of Electronic Engineering, City University of Hong Kong
Prof. Chi Hou Chan
Chair Professor, Department of Electronic Engineering, City University of Hong Kong

CityU-4.
3D Sound System
Dr. Peter Wai Ming Tsang
Associate Professor, Department of Electronic Engineering, City University of Hong Kong

CityU-5.
Transgenic Fish Technology to Detect Estrogenic Pollutants
Prof. Shuk Han Cheng
Professor, Department of Biology and Chemistry and Director, Office of Education Development and General Education, City University of Hong Kong

CityU-6.
Mobile Communication Technology to Enhance Video Surveillance
Prof. Weijia Jia
Professor, Department of Computer Science, City University of Hong Kong

Hong Kong Baptist University

HKBU-1.
First Bilingual Improv Comedy Group in Hong Kong
Dr. Lian Hee Wee
Associate Professor, Department of English Language & Literature, Hong Kong Baptist University
Miss Candace Mok
Hong Kong Baptist University

HKBU-2.
HKBU Pulitzer Prize Winners Workshop
Prof. Yu Huang
Associate Dean of School of Communication, Hong Kong Baptist University
Ms. Suk Ling Wong
Executive Officer, Department of Journalism, Hong Kong Baptist University

HKBU-3.
International Writers Workshop
Prof. Ling Chung
Associate Vice-President/Dean of Arts, Office of the Dean of Arts, Hong Kong Baptist University
Miss Diana Au
Project Officer, Office of the Dean of Arts, Hong Kong Baptist University

Lingnan University

LU-1.
Revitalizing Rural Village in Ha Fa Shan Hong Kong through Knowledge Transfer Program
Prof. Alfred Cheung Ming Chan
Director, Asia-Pacific Institute of Ageing Studies, Lingnan University
Miss Phoebe Pui Yee Tang
Senior Project Officer, Asia Pacific Institute of Ageing Studies, Lingnan University
Miss Sandy Chi Yan Tang
Project Officer, Asia-Pacific Institute of Ageing Studies, Lingnan University
Miss Fanny Hiu Yan Chan
Project Officer, Asia-Pacific Institute of Ageing Studies, Lingnan University
Miss Amber Nga Man Chung
Project Officer, Asia-Pacific Institute of Ageing Studies, Lingnan University

POSTER EXHIBITION

LU-2.
Promoting Healthy Diet to Young People against Non Communicable Diseases through Intergenerational Knowledge Transfer Program
Prof. Alfred Cheung Ming Chan
Director, Asia-Pacific Institute of Ageing Studies, Lingnan University
Miss Phoebe Pui Yee Tang
Senior Project Officer, Asia Pacific Institute of Ageing Studies, Lingnan University
Miss Sandy Chi Yan Tang
Project Officer, Asia-Pacific Institute of Ageing Studies, Lingnan University
Miss Fanny Hiu Yan Chan
Project Officer, Asia-Pacific Institute of Ageing Studies, Lingnan University
Miss Amber Nga Man Chung
Project Officer, Asia-Pacific Institute of Ageing Studies, Lingnan University

LU-3.
Enhancing Intergenerational Understanding through the Development of Social Gerontology Programs for Secondary Schools
Prof. Alfred Cheung Ming Chan
Director, Asia-Pacific Institute of Ageing Studies, Lingnan University
Miss Phoebe Pui Yee Tang
Senior Project Officer, Asia Pacific Institute of Ageing Studies, Lingnan University
Miss Sandy Chi Yan Tang
Project Officer, Asia-Pacific Institute of Ageing Studies, Lingnan University
Miss Fanny Hiu Yan Chan
Project Officer, Asia-Pacific Institute of Ageing Studies, Lingnan University
Miss Amber Nga Man Chung
Project Officer, Asia-Pacific Institute of Ageing Studies, Lingnan University

LU-4.
Enhancing Knowledge Transfer through Portfolio-learning
Prof. Alfred Cheung Ming Chan
Director, Asia-Pacific Institute of Ageing Studies, Lingnan University
Miss Phoebe Pui Yee Tang
Senior Project Officer, Asia Pacific Institute of Ageing Studies, Lingnan University
Miss Sandy Chi Yan Tang
Project Officer, Asia-Pacific Institute of Ageing Studies, Lingnan University
Miss Fanny Hiu Yan Chan
Project Officer, Asia-Pacific Institute of Ageing Studies, Lingnan University
Miss Amber Nga Man Chung
Project Officer, Asia-Pacific Institute of Ageing Studies, Lingnan University
Dr. Emily Jr Shiuan Liang
Research Development Officer, Asia-Pacific Institute of Ageing Studies, Lingnan University
Miss Pelletier Pui Man Ho
Senior Project Officer, Asia-Pacific Institute of Ageing Studies, Lingnan University

The Chinese University of Hong Kong

CUHK-1.
Recognition and Active Prevention Technology for Ankle Sprain
Prof. Daniel Tik Pui Fong
Research Assistant Professor, Department of Orthopaedics and Traumatology, The Chinese University of Hong Kong

CUHK-2.
Three-year Development of Translational Research for Stem Cell Therapy in Neurosurgery, CUHK
Prof. Wai Sang Poon
Chair Professor and Chief of the Division of Neurosurgery, Department of Surgery, The Chinese University of Hong Kong
Prof. Gang Lu
Assistant Professor, Division of Neurosurgery, Department of Surgery, The Chinese University of Hong Kong

CUHK-3.
Centrifugal Microfluidic Platform for Bioassay Automation
Prof. Aaron Ho Pui Ho
Professor, Department of Electronic Engineering, The Chinese University of Hong Kong
Dr. Qiulan Chen
Research Assistant, Department of Electronic Engineering, The Chinese University of Hong Kong

CUHK-4.
Development of Hardware Modules for DNA Amplification for New Senior Secondary School (NSS) Biology Teaching and Learning --- Learn by Constructivist Approach
Dr. Kwan Chi Leung
Laboratory Technologist, School of Life Science, The Chinese University of Hong Kong
Dr. Fai Hang Lo
Instructor, School of Life Science, The Chinese University of Hong Kong
Ms. Christy Cheng
Research Assistant, School of Life Science, The Chinese University of Hong Kong
Dr. Patrick Hung Kui Ngai
Instructor, School of Life Science, The Chinese University of Hong Kong

POSTER EXHIBITION

CUHK-5.
Brain-controlled Chinese Text Input
Prof. William Shi Yuan Wang
Wei Lun Research Professor of Electronic Engineering, Department of Electronic Engineering, The Chinese University of Hong Kong
Dr. James W. Minett
Visiting Scholar, Department of Electronic Engineering, The Chinese University of Hong Kong

The Hong Kong Institute of Education

HKIEd-1.
Small Class Teaching and the Inclusive Philosophy behind it as a Catalyst
Dr. Kam-wing Chan
Co-Director, Centre for Development and Research in Small Class Teaching, The Hong Kong Institute of Education
Dr. Kwok-chan Lai
Mr. Yiu-nam Tang
The Hong Kong Institute of Education

HKIEd-2.
Empowering Early Childhood Institutions in Implementing Effective School-based Curriculum
Dr. Doris Pui-wah Cheng
Director, Centre for Childhood Research and Innovation, The Hong Kong Institute of Education
Prof. Margaret Ngai-chun Wong
Ms. Anissa Yin-man Yung
The Hong Kong Institute of Education

HKIEd-3.
Visual Art Education and Community Development Project (VAECD)
Dr. Anissa Siu-han Fung
Associate Professor, Department of Cultural and Creative Arts, The Hong Kong Institute of Education
Mr. Kai-yu Wong
Mr. Hok-kan Chui
Miss Yan-zhi Ding
Miss Mei-sze Tong
The Hong Kong Institute of Education

HKIEd-4.
Learning Circle: The Knowledge Transfer in Enhancing the Pedagogical Practices in Hong Kong Special Schools
Dr. Kenneth Kuen-fung Sin
Director, Centre for Special Needs and Studies in Inclusive Education, The Hong Kong Institute of Education
Dr. Mei-lan Au
Dr. Fuk-chuen Ho
Dr. Zi Yan
Dr. Chi-leung Lai
Dr. Suk-ying Ng
Mr. Chun-wai Lum
Mr. Chung-yee Poon
Ms. Hing-yee Tam
Ms. Kok-wai Tsang
Miss Shui-tai Wong
Miss Ka-wai Leung
The Hong Kong Institute of Education

The Hong Kong Polytechnic University

PolyU-1.
An Innovative Micro Injection Molding Machine
Prof. K.L. Yung
Professor and Associate Head, Department of Industrial and Systems Engineering, The Hong Kong Polytechnic University

PolyU-2.
Rational Design of Engineered Arginine Depleting Enzymes as Multi-potent Anti-cancer Agents
Prof. Thomas Yun-chung Leung
Professor, Department of Applied Biology & Chemical Technology, and Director of Lo Ka Chung Centre for Natural Anti-Cancer Drug Development, The Hong Kong Polytechnic University
Dr. Thomas Wai-hung Lo
Associate Professor, Department of Applied Biology & Chemical Technology, The Hong Kong Polytechnic University

PolyU-3.
Exoskeleton Hand Robotic Training Device
Dr. Raymond Kai-yu Tong
Associate Professor, Department of Health Technology and Informatics, The Hong Kong Polytechnic University

PolyU-4.
Solar Powered Air Conditioning System for Vehicles
Prof. Eric Ka-wai Cheng
Professor, Department of Electrical Engineering, The Hong Kong Polytechnic University

POSTER EXHIBITION

PolyU-5.
Mega-structure Diagnostic & Prognostic System
Prof. Yi-Qing Ni
Professor, Department of Civil and Structural Engineering, The Hong Kong Polytechnic University

The Hong Kong University of Science and Technology

HKUST-1.
Hair Drug Testing Technology: Rehabilitation Service Support for Local Communities
Prof. Karl W.K. Tsim
Professor, Division of Life Science & Director of Center for Chinese Medicine R&D, The Hong Kong University of Science and Technology
Dr. David T.W. Lau
Dr. Wing K.W. Leung
Dr. Annie K.L. Ting
Mr. Zack C.F. Wong
Miss Winki Y.Y. Ng
The Hong Kong University of Science and Technology

HKUST-2.
Characterization of Ambient Air Pollutants in Hong Kong
Prof. Chak K. Chan
Head and Professor, Division of Environment, Professor, Department of Chemical and Biomolecular Engineering, and Director, Institute for the Environment, The Hong Kong University of Science and Technology

HKUST-3.
LAviNet: A Lean, Pervasive and Dynamic Wireless Access Infrastructure Network
Prof. Gary Shueng-Han Chan
Associate Professor, Department of Computer Science & Engineering, The Hong Kong University of Science and Technology

HKUST-4.
Antimicrobial Systems
Prof. King Lun Yeung
Joint-Professor of the Department of Chemical and Biomolecular Engineering and Division of Environment, The Hong Kong University of Science and Technology

The University of Hong Kong

HKU-1.
Refabricating City: Hong Kong-Shenzhen Bi-City Biennale of Urbanism/ Architecture
Prof. Weijen Wang
Associate Professor, Department of Architecture, The University of Hong Kong

HKU-2.
Faculty of Architecture -- Community Project Workshop (CPW)
Ms. Tris Kee
Director of Community Project Workshop, Faculty of Architecture, The University of Hong Kong

HKU-3.
Critical Thinking Web: Opencourseware on Critical Thinking, Logic and Creativity
Prof. Joe Y.F. Lau
Associate Professor, Department of Philosophy, The University of Hong Kong

HKU-4.
Development and Distribution of Asian Business Case Studies
Prof. Ali Farhoomand
Professor of Innovation & Information Management, School of Business, and Director, Asia Case Research Centre, Faculty of Business and Economics, The University of Hong Kong

HKU-5.
Promoting Oral Health of Hong Kong Preschool Children through Educating Their Parents and Kindergarten Teachers
Prof. Chun-Hung Chu
Clinical Associate Professor and Assistant Dean (Research and Innovation), Faculty of Dentistry, The University of Hong Kong
Prof. Edward C.M. Lo
Professor, Faculty of Dentistry, The University of Hong Kong
Dr. Xiao Li Gao
Postdoctoral Fellow, Faculty of Dentistry, The University of Hong Kong
Mr. Alex Man Him Chau
Dental Surgeon, Faculty of Dentistry, The University of Hong Kong
Ms. Ivy Di Wu
PhD Student, Faculty of Dentistry, The University of Hong Kong
Ms. Emily Ming Jiang
PhD Student, Faculty of Dentistry, The University of Hong Kong
Mr. Marcus Ho Tak Fung
PhD Student, Faculty of Dentistry, The University of Hong Kong

POSTER EXHIBITION

HKU-6.
HKU Cantonese Opera Education Research and Promotion Project
Prof. Dorothy F.P. Ng
Assistant Professor, Faculty of Education, The University of Hong Kong

HKU-7.
Lineament Monitoring System II
Prof. Kam Pui Chow
Associate Professor, Department of Computer Science, and Associate Director, Center for Information Security and Cryptography, The University of Hong Kong

HKU-8.
Low-cost Versatile Tracking Device and Technology for Logistic Applications
Prof. Victor O.K. Li
Associate Dean (Research), Faculty of Engineering, and Chair Professor of Information Engineering, Department of Electrical and Electronic Engineering, The University of Hong Kong

HKU-9.
The Power of Using Virtual Reality for Commercial Applications
Prof. Henry Y.K. Lau
Head and Associate Professor, Department of Industrial and Manufacturing Systems Engineering, The University of Hong Kong

HKU-10.
Effective Ventilation for Minimizing Expiratory Droplet Exposure
Prof. Yuguo Li
Head and Professor, Department of Mechanical Engineering, The University of Hong Kong

HKU-11.
A Series of Books on Important Paediatric Diseases for the Public
Prof. Yu-Lung Lau
Associate Dean (Research), Li Ka Shing Faculty of Medicine; Head and Doris Zimmern Professor in Community Child Health, Department of Paediatrics and Adolescent Medicine, The University of Hong Kong
Dr. Tsz-Leung Lee
Honorary Clinical Associate Professor, Department of Paediatrics and Adolescent Medicine, The University of Hong Kong
Dr. Hok-Kung Ho
Honorary Clinical Assistant Professor, Department of Paediatrics and Adolescent Medicine, The University of Hong Kong
Dr. So-Lun Lee
Consultant, Department of Paediatrics and Adolescent Medicine, Queen Mary Hospital

HKU-12.
READ & WRITE: A Jockey Club Learning Support Network
Prof. Connie S.H. Ho
Professor, Department of Psychology, The University of Hong Kong