GETTING TO KNOW YOU
Innovative Summer Camps at HKUST

Hundreds of Hong Kong secondary school students enjoyed campus life and began to get a feel for university learning at three academic camps held for the first time at HKUST this past summer.

The camps were designed to give secondary students a better understanding of fields they might pursue at university level, as well as a good look at what HKUST has to offer them. Participants’ feedback was overwhelmingly positive, encouraging the faculty to make such camps an annual summer feature.

The six-day Engineering Summer Camp for Honour Students, held from 4 July for more than 200 top Form 6 students, was notable for the efforts made to encourage female students to join the camp and consider the profession. A third of the participants were women, who attended a special dinner highlighting issues concerning women in engineering. Camp participants also visited Hong Kong’s key engineering projects, including the world’s longest combined road-and-rail suspension bridge currently under construction.

On 14 July, the School of Business and Management welcomed 147 Form 6 students and 10 secondary school teachers to a three-day camp on the theme of Exploring Business Studies. Tours of campus facilities, informal meetings with faculty and graduates, and fun activities filled the camp’s agenda.

The Physics Department had a particularly busy summer, entertaining nearly 400 Form 4 and Form 6 students in 10 three-day sessions from 17 July to 19 August. The Physics faculty hoped to show students that a physics degree can teach them problem-solving skills applicable to all fields.

Physics camp participants view a hologram under a laser beam. One of the young women attending the camp said she came "to do experiments our school doesn't have the equipment to do."
A UST Research Park?

As the University moves towards steady state, and with a good team now more or less in place, I have become bold enough to start floating a number of new ideas, all of which will need time and effort to “bake”.

An important challenge the University will soon face is how to facilitate our rapidly expanding activities in applied research, development, executive training, technology transfer, and commercialization of R&D results. Activities like these require their own space, both physical and mental, in which to breathe and grow. Such space should be outside strict academic confines, but in co-existence and close affiliation with the University.

The ideas under discussion include:

- headquarters for our own HKUST RandD Corporation
- an HKUST applied R&D and technology center
- joint R&D laboratories with the Chinese Academy of Sciences
- multinational research institutes
- an incubation center for local high-tech enterprises
- R&D, training, and management facilities for mainland and multinational high-tech corporations
- a technology and management oriented South China Institute
- a technology and management oriented Europe Institute
- a high-end training center for local, mainland, and multinational executives
- headquarters for regional technological associations

In quite a few of these areas, activities are already ongoing.

I envision the materialization of these ideas in three stages.

First, in each case, a concrete model will be developed while activities continue or commence. Where an organization does not yet exist, one will be planned and formed. Such efforts will be a natural extension of current work.

Stage One is likely to take 2 years.

Second, preliminary operation of these organizations will take place on campus in a UST Annex to be designed, constructed, and completed within 2-3 years from now.

The rationale is that each organization in its embryo state will need a home on the campus: a simple, functional, convenient facility where its founders can work; where they can interact with colleagues at UST on a daily basis; and where they can enjoy the use of UST’s library, computer network, R&D facilities, consultancy and professional services, cultural resources, and recreational amenities. In other words, where the embryo can incubate.

One by one the embryos will turn self-sufficient. They would then “graduate” and move out.

At present our academic complex stretches north-to-south on a platform approximately 1/2 kilometer in length. Near the southern end, in accordance with the Master Plan, a site has been reserved for the University’s Phase-3 campus development. Since the Government-controlled timetable indicates that the year 2003 will be the earliest Phase 3 can begin, we will have available until then a connected, vacant, and semi-prepared site for an incubation annex.

The architectural plan for Phase 3 is a straightforward extension of Phase 2. Only minor modifications are needed for the UST Annex. In time, as the embryo organizations move out, the UST Annex can be readily converted for other academic use (including Phase 3). Thus I foresee a seamless continuity and waste-free usage of valuable facilities.

Stage Two will require 2-4 years beyond Stage One.

Third, a sensible and realistic plan will be developed in the meantime for a self-supporting, environmentally exemplary, low-density, low-rise Research Park to be built nearby, preferably on a rambling site adjoining the campus, to house these organizations.

The importance of building research parks in close proximity to technological universities is universally recognized. A research park adjoining our campus would enhance the University’s ability to fulfill its mission, enrich the University’s academic atmosphere, provide up-to-date leadership and top-of-the-line support to future Hong Kong high-tech enterprises, and, furthermore, permit UST to play a catalytic role in technical/industrial cooperation between China and various types of organizations from Asia, America, and Europe.

The building of the Research Park as Stage Three would commence only when it becomes evident that the success rate for incubation will be high, that is, when the success of Stage Two can be demonstrated.

I do not anticipate that Government would provide any assistance for Stages One and Two. Thus, funds will have to be raised from private sources for building the UST Annex. Some seed money is now available from past donations, and additional support has been pledged by a benefactor. But more will be needed. In all likelihood the project will require as much time, and demand as much dedication and hard work, as the founding of the University itself. If the vision appears to make sense, let us begin.
The Chairman of the Hong Kong Securities and Futures Commission, Mr. Anthony Neo, addressed the Asia-Pacific Finance Association’s Second Annual Conference on the timely topic of “Developing Directions of Derivatives Regulation”. Co-organized by HKUST’s Department of Finance and the City University of Hong Kong, the conference was held on 3-5 July and attended by 135 delegates from 16 countries.

Government officials working in the area of environmental protection, academics, and industry representatives had a unique opportunity to learn from the latest research on airborne particulate pollutants at a short-course on aerosols held at HKUST on 23-25 August.

At ISDSS ’95, hosted by HKUST’s Department of Information and Systems Management, keynote addresses were given by Prof. Andrew B. Whinston, HKUST, and Prof. Preston McAfee, University of Texas at Austin. Dr. Tung X. Bui, HKUST, was one of the conference organizers. Held on 22-23 June 1995, the conference was attended by 120 delegates from over 20 countries.

HKUST’s Class of 1998 was officially welcomed by the President, Vice-Presidents, and Deans on 13 September. The fifth HKUST class of incoming undergraduates brings the total undergraduate population to 5,154. The postgraduate population grew by 18% over last year to a total of 1,163.
BUILDING A UNIVERSITY

Department of Civil and Structural Engineering

Mention civil engineering and most people think of bridges and tall buildings. Yet this branch of engineering goes much further than that.

"Civil engineering has made society as we know it possible," says Dr. Neil Mickleborough, Associate Dean of Engineering.

Civil engineers are involved at all stages in the provision of services such as potable water, transportation of people and goods, waste disposal, protection against natural and man-made hazards, and the construction of roads, buildings, and bridges, says Prof. Chih-Kang Shen, Head of the Department of Civil and Structural Engineering since its establishment in July 1991.

Civil engineers are also responsible for planning and managing the infrastructural systems needed to deliver these services. Systems planning and development is in fact where the various subdisciplines of civil engineering can be brought together for long-range, interdisciplinary assessment, a major focus of the department at HKUST.

"Most important for us is how we can integrate all these different subgroups to give students the technical skills, intellectual aspiration, and appreciation of humanity to meet the challenges facing modern-day civil engineers," says Prof. Shen.

Structural Engineering

Structural engineering is a central discipline within the department. In a region where construction and infrastructure development are occurring at breakneck speed, this is hardly surprising.

Prof. Paul Chang Tse-Yung sees two main thrusts for research projects in this area. The first is development of an intelligent system for monitoring the structural health of long-span bridges. "We are developing a system of electronic sensors connected to computers, together with a knowledge-based expert system, to continuously monitor the vibrations of long-span bridges," he says.

"The way a bridge or building vibrates under stress will differ depending on whether it's damaged or not," says Dr. Lambros Kataygiotis, who is working with Prof. Chang.

The sensors could prompt an intelligent computer system to send out an automatic warning or even close a bridge to traffic when vibrations in the bridge reach a critical point under strong winds or typhoons.

The second research thrust is development of an integrated CAD system for tall buildings. Dr. Chun-Man Chan is working on structural optimization by programming an intelligent system to suggest the best design automatically once requirements and limits are defined. "Structural engineering has not yet taken full advantage of the computer technology available to us today," says Dr. Chan, who believes that structural optimization and software integration will make the CAD system a very powerful tool for designers.

In another area of research, Dr. Zongjin Li, a materials specialist, is developing fiber-reinforced concretes to improve on two major weaknesses: low tensile (pulling) strength and low toughness (the amount of energy that it is capable of absorbing). Dr. Li is replacing conventional steel fibers with microfibers of materials such as carbon and polyvinylalcohol to see how the properties and strength of the concrete are affected.

Geotechnical Engineering

Geotechnical engineering, concerned with the properties of soil and its performance when it is built on, tunnelled through, or used in land reclamation, is the foundation on which many of the civil engineering structures are built.

The Chinese phrase for land reclamation literally means "take soil from the mountain to fill the sea" — perhaps a more apt description of the process. Land reclamation plays a central role in the Hong Kong Government's Port and Airport Development Scheme (PADS), providing a unique opportunity to conduct research on a project of unprecedented size.

"Land reclamation traditionally is not terribly high-tech, so there is a big variation in performance. Before, people just dumped the sand in; now we are trying to introduce more engineering control into the process, so that significant engineering structures can be supported directly by the reclaimed land," says Dr. Kin-Man Lee.

Together with Prof. Shen, Dr. Lee is working with the Government's Geotechnical Engineering Office to develop guidelines for the placement of hydraulic land fills.

Dr. Xiang-Song Li is developing a way to measure in situ properties of Hong Kong soils using non-destructive techniques such as spectral analysis of surface waves. As well as applications in site characterization and quality control in land reclamation, this method has potential in analyzing existing retaining walls and soil conditions behind them, helping to improve the safety of Hong Kong's many slopes.
Environmental Engineering

The emphasis here is on two areas: tackling water and wastewater problems, and dealing with land pollution, particularly those problems associated with management of hazardous waste.

Prof. Howard Huang is working to develop innovative and space-saving wastewater treatment technologies that can be implemented by Hong Kong's small industries.

He is also looking to replace conventional treatment of heavy-metal-bearing industrial wastewater with a compact, calcium-stripping technology.

The layer of clay in solid/hazardous waste landfill liners has a vital role to play in preventing the leaking of leachate (contaminated water) into the soil and groundwater around a landfill site. Dr. Irene Lo has spent five years working on an organomodified version of this clay liner to improve its retaining properties.

After successful laboratory testing, Dr. Lo is looking for a spot to construct a small landfill site with the modified clay liner to test its performance in the field. "We are fairly confident based on the laboratory results. If things go well, the materials that are developed are expected to become the material of choice for many lining applications," she says.

Water Resources

Water resources engineering deals with the supply and drainage of water, as well as the associated natural and man-made hazards of floods and droughts.

Visiting Prof. Ben C. Yen is planning to study Hong Kong’s water supply and drainage systems so that improvements can be made in their ability to withstand flooding and to ensure adequate supply.

Dr. Duncan McInnes has also been looking at unsteady flows in sewage systems with the aim of reducing flooding. But his main interest lies in water supply and distribution, particularly the application of information technology to whole systems to improve water distribution through intelligent control.

Disposing of large volumes of wastewater is costly and can have serious consequences for the environment. Coastal communities such as Hong Kong discharge wastewater into the ocean through submerged pipelines which terminate in some form of multi-port diffuser. The presence of the diffuser enhances mixing and helps to rapidly reduce pollutant concentrations.

According to Dr. Mark Davidson, there is still a lot to be learned about the interaction of discharges from multi-port diffusers and the subsequent effects on pollutant dispersal. "Our aim is to improve understanding of the physical mixing processes and thereby improve diffuser design," he says.

Transportation

With traffic congestion the bane of many peoples’ lives, Dr. Hai Yang is seeking to help ease this problem in the territory.

One aspect of his work is the use of optimization models to coordinate the operation of traffic lights in a given traffic network so that efficient utilization of network capacity during peak hours can be achieved.

Another area of interest is the use of road pricing or tolls to reduce queuing and congestion. The novel idea here is to determine how time-dependent and tunnel-dependent tolls affect people’s decisions on when and where to drive.

Future Directions

Plans for the design and construction of a $52-million Environmental/Geotechnical Research Facility are at an advanced stage with completion scheduled for early 1997. The facility will house a 60-meter wind tunnel and a centrifuge for geotechnical characterization and modelling.

The wind tunnel will be used to test models of bridges and buildings under wind stress. The centrifuge, with a radius of 4 meters, will be the first in the world capable of simulating two-dimensional earthquake shaking, allowing stress conditions to be scaled up to equal those in real-life situations.

Local industries will benefit by having a close-at-hand alternative to the current practice of going overseas for wind tunnel and centrifuge testing. Through the provision of such benefits and the skills of its faculty, the Department of Civil and Structural Engineering aims to contribute significantly to the development of Hong Kong and the surrounding region.
A wonderful opportunity to combine academia and business is how Dr. Keith White-Hunt sees the post of Director of the Technology Transfer Centre, the position which he took up on 5 July. Although Dr. White-Hunt has spent most of the last 15 years in business, he has worked hard to keep one foot firmly in the academic world. His most recent position was at the Arabian Gulf University, where he held the endowed chair of His Highness Shaikh Isa Bin Salman Al-Khalifa, Amir of Bahrain, Professor of Technology Management and was responsible for reorganizing and modernizing the principal postgraduate school of management studies in the Gulf State Region.

He has an MSc in industrial technology and management from the University of Bradford in England, a DSc in international business economics from the University of Lodz in Poland, and more than 50 publications to his credit. Much of his time in business, including 10 years as a senior executive based in Silicon Valley, was devoted to starting up new ventures based on new technologies. This experience will be invaluable in his new post, where he sees his principal role as commercializing technologies generated by HKUST’s research activities.

“Our mission is to strengthen Hong Kong’s industrial base,” says Dr. White-Hunt. “Hong Kong’s current wealth is in trade and finance. In order for it to maintain its pre-eminence, Hong Kong must establish a third leg: technology-based industry. The aim of TTC is to do everything it can to develop new technology-based industries here in Hong Kong and to make it the hub of economic activity for the whole of southern China.”

$56.6 MILLION FOR HKUST RESEARCH

HKUST celebrated another year of plenty when Hong Kong’s Research Grants Council (RGC) released this year’s results for the Competitive Earmarked Research Grant awards at the end of June. A new record total of 130 proposals were awarded more than $56.6 million in research funds.

Once again, HKUST received the largest sum of research funds among Hong Kong’s academic institutions, followed by the Chinese University of Hong Kong and the University of Hong Kong.

Of the 205 proposals HKUST submitted to RGC, 130 were awarded grants. This represents a success rate of 63% which is comparable to last year’s results. In addition, almost one quarter of the 205 proposals were given a high rating but were not funded due to a lack of funds. If taken together, 177 proposals or 85% of the total number of proposals submitted were judged to be worthy of funding.

The Department of Chemistry enjoyed the highest success rate (88%) with 14 of its 16 proposals being funded. Other departments with success rates over 80% were the Department of Biology (11/13), the Department of Electrical & Electronic Engineering (18/22), and the Department of Management of Organisations (4/5).

Prof. Eugene Wong, Vice-President for Research and Development, commented that HKUST’s high success rate is an indication of “not only the quality of the people and work here but also the level of support that Hong Kong is providing to research, because they are not independent parameters. Recent economic studies have confirmed that basic research is an important driver of economic growth and this is especially important to Hong Kong, which is in transition from a fairly low-tech-based economy to a high-tech-based economy.”

Prof. Wong also pointed out that “even though RGC remains the dominant funding base, there has been a broadening of the base beyond RGC. It is especially gratifying to note that support for applied R&D is growing. The Industry Department in particular is adding to its support both by increasing funding for Industry Development and Technology Council programs and by adding new programs such as the Applied R&D Scheme and the Cooperative Applied R&D Scheme.”

As for the funds awarded, there was an overall increase of more than $6.5 million as compared to last year. However, this represented only 30% of the funds requested. The School of Science received the highest level of funding with $27.6 million, followed by the School of Engineering with $21.6 million.
As the technology of the information age comes to play an ever increasing role in our lives, the way we watch TV, shop, bank, play, and even learn will change dramatically.

Recently, multimedia specialists in HKUST’s Department of Information and Systems Management were asked to help Hongkong Telecom develop a user interface design to allow people to order groceries from home with a series of clicks on their television remote controls.

To inaugurate its so-called Virtual Mall, a long-range project to be developed over time, Hongkong Telecom plans to introduce video-on-demand, the first of its interactive multimedia services, next summer. Television sets in subscribing households will be connected to a remote server over existing telephone lines through “set-top boxes”. These relatively unobtrusive devices will translate commands made on viewers’ remote controls into signals requesting specific video services, allowing people to view what they want, when they want.

At a recent conference in Atlanta, Georgia, Hongkong Telecom was identified as one of the five telecommunications companies in the world that are best positioned to establish interactive multimedia services. Hongkong Telecom executive Dr. William Lo estimates that by the year 2000 these services will contribute up to 20% of the company’s profits.

Such profits will not be achievable by video-on-demand alone. In the next stage of development, the Virtual Mall will expand to include a home shopping service to enable people to order milk, groceries, pizza, you-name-it from the comfort of their own home.

The technical problem inherent in offering this service is effectively managing the thousands of choices available to consumers. Because of the potential for confusion in coping with such a large product variety, researchers at HKUST were asked to design a quick, accurate electronic platform for supermarket shopping.

A research team in the Department of Information and Systems Management started with a basic 9-square grid that can be navigated using either the nine number keys or up-down-left-right control on a television remote control.

One of the design goals was to limit potential frustration by minimizing the number of clicks required to find a desired grocery item. Studies of windowing environments have shown that such systems should be limited to three levels of selection. For instance, users might select a main category such as “Drinks & juices”, then select a subcategory such as “Chilled OJ”, before finally being able to select an actual product like Mr. Juicy Orange Juice.

Another issue was whether text or graphics or a combination would provide the most effective and efficient interface. Over 700 actual product images were photographed and digitized for the test versions using graphics at one or more of the three levels of selection. Test subjects helped reveal that for users the quickest format to navigate employs either a graphics-graphics-graphics or a graphics-graphics-text configuration.

While many business issues remain to be resolved, the HKUST research team provided Hongkong Telecom with a technical prototype and final report after only three months of intensive work.

Dr. Patrick Chau is excited about the project’s prospects. “While most high-tech products and services fail to find a niche in foreign markets,” he says, “they usually succeed in Hong Kong because, among other reasons, people here like trying new things. This has been the case with mobile phones, pagers, and the Easy Payment System. I want to see if we can add interactive media services to the list of Hong Kong’s success stories.”
NEW CREDIT CARD TO BENEFIT HKUST

Spending money on the new Bank of China–HKUST affinity card is paying off for the University. Under the terms of the new card, which was first issued in September, the bank will donate 0.3% of all card purchases to the University.

On top of that, the bank will donate to the University the equivalent of one year’s card fees for every new cardholder, while waiving the annual card fees for three years for all new cardholders.

HKUST will use the money for teaching, research, and student welfare.

This is the first affinity card to be issued by the Bank of China, Hong Kong Branch.

“We are very eager to have this chance,” says Stephanie Chan, a Deputy Manager in the Banking Department. “We want to further our image in the tertiary education sector.”

The President of the HKUST Students’ Union, Francis Lo, believes the card will serve as a symbol of identity for all members of the HKUST community, especially for the graduates.

BEYOND THE CLASSROOM

During the summer break when most students were taking it easy, eight members of the HKUST Athletics Team pushed themselves to the limit at the prestigious 4th All China Universities Athletic Championships held in August at Southwest Jiaotong University in Chengdu, Sichuan Province. This was the third year for the HKUST team to attend under the leadership of Dr. Neil Mickleborough, Associate Dean of Engineering and the Athletics Team manager.

Games and campfires are an annual feature of the orientation camps, or O-camps, run at the start of the academic year by the individual student societies vying to attract new members. Here, the Science Students’ Association opted for a wet initiation of its new recruits.
Mr. Beetle comes to HKUST from his most recent position as Director of Project Development & Engineering with the Delaware River Port Authority.

He obtained both a BA in government and a BS in civil engineering from Lafayette College. Following two years spent in Pakistan as a U.S. Peace Corps engineer, Mr. Beetle enrolled at Princeton University, where he earned an MPA in economics (1966).

Mr. Beetle brings to the Institute for Infrastructure Development wide-ranging experience as an economic consultant, engineer, and manager in the areas of transport, construction, utilities, logistics, industry, and development. His experience includes design, construction, maintenance and operation of bridges, highways, support buildings, railroads, and electrified rapid transit lines, as well as extensive experience in nationwide marketing and sales of professional services.

Mr. Beetle speaks Urdu-Hindi and French and is studying Putonghua.

Prof. Yu brings to HKUST extensive expertise in impact dynamics and the mechanics of sheet metal forming.

He earned his first degree in mechanics (1964) from Peking University. He continued there with postgraduate studies on plasticity. Following 10 years of work in industry in China, Prof. Yu went to Cambridge University, where he obtained a PhD in engineering plasticity.

He was professor and head of the Solid Mechanics Division in the Department of Mechanics at Peking University from 1984 to 1991. In 1991 he returned to Cambridge as a Royal Society Visiting Fellow. From 1992 to 1995, he was a reader in the Department of Mechanical Engineering at the University of Manchester Institute of Science and Technology.

Prof. Yu has earned a considerable reputation in the field of structural impact dynamics through his work on the dynamic response of curved beams, the effects of large deflection, elasticity, and hardening-softening in structural impact problems.

He has published five books and more than 160 academic papers. This year Cambridge University awarded him an honorary ScD for his contributions.

The inventor of numerous algorithms, Prof. Murty comes to HKUST from the University of Michigan, where he has been a professor in the Department of Industrial and Operations Engineering since 1980.

He earned BS (with honors) and MS degrees in statistics in his native India. In 1961 he received a one-year Fulbright Grant to study at the Case Institute of Technology in Cleveland, Ohio. He then returned to India to work as an assistant professor at the Indian Statistical Institute. In 1965 he entered the University of California at Berkeley, where he earned both an MS and a PhD in engineering science (operations research). Upon completion of his PhD in 1968, he began his outstanding teaching career at Michigan. In 1977-78 the Industrial Engineering Honor Society, Alpha Pi-Mu, named Prof. Murty its Most Outstanding Faculty Member.

The author of five textbooks and dozens of research papers, Prof. Murty is an expert in applied statistics, linear and mathematical programming, graph theory, network flows, and combinatorial and integer programming.

Prof. Li comes to HKUST from the Yale School of Management. He earned his BA (1979) at Fudan University in his native Shanghai, where he was the top student of the 200,000 who took university entrance exams in 1977.

He earned both his MS (1982) and PhD (1984) at Northwestern University, where he began his teaching career as a lecturer. Upon receiving his PhD, Prof. Li went to the California Institute of Technology as a research fellow in economics.

In 1985 he joined the faculty of MIT as an assistant professor. In 1989 he went on to the Yale School of Management as associate professor. He was named full professor in 1994.

He is associate editor of Operations Research and the author of numerous academic articles. His principal areas of research include operations management and strategy, economics of operations, game theory, stochastic processes and control, industrial organization, and managerial accounting.
PROFESSOR DEPARTMENT OF ACCOUNTING

Eric W. Noreen

(艾諾霖教授)

Prof. Noreen holds concurrent professorships at three major institutions, including HKUST. He has been a professor in the Department of Accounting at the University of Washington since 1977. In 1994 he was named the William R. Gregory Faculty Fellow. He is also the Visiting Price Waterhouse Professor of Management Accounting and Control at INSEAD, Europe’s leading graduate school of business.

He earned his BA in math and econ (1968) at the University of Washington. He obtained both his MBA (1974) and PhD in accounting (1977) at Stanford University.

He has received numerous honors throughout his academic career, both as a student and as a teacher. In 1982 he received the Bank of America Faculty Excellence Award. And in 1990 and 1992, he was named INSEAD’s Outstanding Teacher in the MBA program.

He is on the editorial boards of three major accounting and management journals. He has published widely and has made numerous presentations at faculty seminars.

READER DEPARTMENTS OF CHEMISTRY AND CHEMICAL ENGINEERING

Reinhard Renneberg

(任能博教授)

Dr. Renneberg is the first reader at HKUST to hail from Germany, where he pursued biosensor and bioanalytical research for 20 years. He received his PhD in biochemistry (1979) from the Central Institute of Molecular Biology in Berlin. He earned his qualification for professorship in 1990 from the University of Leipzig.

Dr. Renneberg was a member of Germany’s leading biosensor research team. Their biosensors for checking diabetes, physical fitness, and wastewater have been successfully commercialized.

From 1991 to 1995, he was head of the Department of Immunosensors in the newly founded Fraunhofer Institute for Chemical and Biosensors in Muenster. His group developed a novel myocardial infarction sensor and sensors for pesticides.

Dr. Renneberg is co-editor of the leading journal in his field, Biosensors and Bioelectronics. He is the author and co-author of 10 books and 65 research papers, and he holds more than 20 patents.

VISITING PROFESSOR DIVISION OF SOCIAL SCIENCE

Andrew G. Walder

(魏昂德教授)

An award-winning author, Prof. Walder will share his considerable knowledge of China with students and fellow faculty during his year at HKUST. His most recent position was professor of sociology at Harvard University. When he leaves HKUST in 1996, it will be to take up his new post as professor of sociology and senior fellow at Stanford University’s Institute for International Studies.

Prof. Walder earned his BA in political science (1975) at Johns Hopkins University, and his PhD in sociology (1981) at the University of Michigan.

He began his teaching career at Columbia University, where he was an assistant professor of sociology from 1981 to 1987. He then moved to Harvard, where he was the John L. Loeb Associate Professor of the Social Sciences until he was named professor in 1989.


READER DEPARTMENT OF INDUSTRIAL ENGINEERING

Kwok-Leung Tsui

(徐國良教授)

Dr. Tsui comes to HKUST from the Georgia Institute of Technology, where he was an associate professor in the School of Industrial and Systems Engineering.

He has a BSc in chemistry (1979) and an MPh (1981) in mathematics from the Chinese University of Hong Kong. He earned his PhD in statistics (1986) from the University of Wisconsin.

He worked in the Quality Assurance Center of AT&T Bell Laboratories for four years before joining Georgia Tech.

He was a 1992 recipient of the National Science Foundation’s Young Investigator Award.

In 1993 he was elected president of the Atlanta Chapter of the American Statistical Association, which he has also served as secretary and vice-president. In addition, he was Georgia Tech’s representative at the Southern Regional Council on Statistics.

Dr. Tsui’s field of expertise is statistical methods for quality and productivity improvement.
VISITING ASSOCIATE PROFESSOR OF MATHEMATICS

Edward Chang Der-Chen
(張德健博士)

1987 PhD Princeton University (Mathematics)
1991-present Associate Professor, University of Maryland
Fourier analysis, several complex variables, and partial differential equations.

Research Interests:

VISITING ASSOCIATE PROFESSOR OF MATHEMATICS

Yuefan Deng
(鄧越凡博士)

1987 PhD Columbia University (Theoretical Physics)
1989-present Associate Professor, State University of New York at Stony Brook
Parallel computing, molecular dynamics, Monte Carlo methods and their applications to materials and biosystems.

Research Interests:

ASSOCIATE PROFESSOR OF ACCOUNTING

Mark L. Defond
(馬德方博士)

1987 PhD University of Washington (Accounting)
1987-present Associate Professor, University of Southern California
Economic issues in auditing and earnings management.

Research Interests:

ASSOCIATE PROFESSOR OF ACCOUNTING

Brian Wallace Semkow
(山口嵐博士)

1982 PhD Queen's University, Canada (Economics)
1983 LLB University of Toronto Law School
1990, 1991 Member of the California and New York Bars
1994 Associate Professor, University of Calgary
Comparative financial and capital market deregulation and internationalization, and comparative corporate governance and finance.

Research Interests:

ASSOCIATE PROFESSOR OF ACCOUNTING

Siu Fai Leung
(梁兆輝博士)

1987 PhD University of Chicago (Economics)
1994 Associate Professor, University of Rochester
Microeconomics, economics of human behavior, labor economics, and microeconometrics.

Research Interests:

ASSOCIATE PROFESSOR OF INFORMATION AND SYSTEMS MANAGEMENT

Olivia R. Liu Sheng
(劉若慧博士)

1986 PhD University of Rochester (Computers and Information Systems)
1992-95 Associate Professor, University of Arizona
Design, economic and managerial issues of distributed intelligent multimedia information systems; telemedicine.

Research Interests:

ASSOCIATE PROFESSOR OF MARKETING

Kristiann Helsen
(希信基博士)

1990 PhD University of Pennsylvania (Marketing)
1990-95 Assistant Professor, University of Chicago
New products, competition, and international marketing.

Research Interests:
ASSOCIATE PROFESSOR OF SOCIAL SCIENCE

Jean C. Oi

(戴嘉珍博士)

University of Michigan (Political Science)
Associate Professor, Harvard University
Politics and reform in rural China.

1983 PhD
1987-95

Research Interests:

ASSOCIATE PROFESSOR OF HUMANITIES

Angelina C. C. Yee

(余珍珠博士)

Harvard University (Comparative Literature)
Associate Professor, University of Maryland
Chinese and Western narrative and drama; colonial and post-colonial literature; feminism.

1986 PhD
1990-95

Research Interests:

ASSISTANT PROFESSOR OF BIOCHEMISTRY

Zhou Huanxiang

(周煥祥博士)

Drexel University (Physics)
Visiting Associate, U.S. National Institutes of Health
Computer studies of protein structure/function; theories of protein-ligand interactions; calculations of macromolecular hydrodynamic properties.

1988 PhD
1990-95

Research Interests:

ASSISTANT PROFESSOR OF MATHEMATICS

Li Baoqin

(李宝勤博士)

University of Maryland (Mathematics)
Lecturer, University of Michigan
Complex variables and harmonic analysis.

1993 PhD
1994-95

Research Interests:

ASSISTANT PROFESSOR OF MATHEMATICS

Yong Chang Zhu

(朱永昌博士)

Yale University (Mathematics)
Visiting Member, Institute for Advanced Studies, Princeton
Quantum groups, Galois groups, Hopf algebras.

1990 PhD
1993-94

Research Interests:

LECTURER IN COMPUTER SCIENCE

Kok-Wee Gan

(顏國偉博士)

National University of Singapore (Information Systems and Computer Science)
Teaching Assistant, National University of Singapore
Natural language processing, Chinese computing, and computer-aided instructions.

1995 PhD
1992-95

Research Interests:

ASSISTANT PROFESSOR OF ELECTRICAL AND ELECTRONIC ENGINEERING

Roger Cheng Shu Kwan

(鄭樹坤博士)

Princeton University (Electrical Engineering)
Assistant Professor, University of Colorado
Wireless communications, communication networks, and digital signal processing for communication applications.

1991 PhD
1991-95

Research Interests:

ASSISTANT PROFESSOR OF FINANCE

Vidhan K. Goyal

(高偉翰博士)

University of Pittsburgh (Finance)
Visiting Assistant Professor, State University of New York at Buffalo
Corporate finance; corporate governance; inter-firm and financial contracting.

1994 PhD
1994-95

Research Interests: