

45th Anniversary



香港浸會大學理學院
HKBU Faculty of Science

Special Issue, 2006

the science

the heart of innovation and growth



My Days as Dean

Prof. NG Ching Fai, President and Vice-Chancellor

I have always looked back on my days as Dean of the Faculty of Science with mixed feelings. The closeness among colleagues is still the most touching part of it – we are so close in terms of our small office space as well as our working relationship, that there is no better word than “lean and healthy” can describe. Yes, lean and healthy we had to be in order to survive and advance.

Being the Dean at my time meant a lot of work of consolidation and innovation. Tertiary education in Hong Kong in the late 80's and 90's expanded so rapidly; we saw the increase of publicly funded universities from 2 to 8 before the turn of the century. Our Faculty of Science,



From the left: President NG Ching Fai, Dr. Daniel C. W. TSE, Emeritus President, Prof. Rick WONG and Dr. CHIU Chun Bong, MBE, JP at the Distinguished Lecture Series, 2000

while working hard on a first rate undergraduate degree course, needs to maintain a cutting edge in the new development of various fields in the realm of scientific studies.

Not only do we need to compete with local universities, but also to upkeep our standard to be on par with our international counterparts. Research must be strengthened. I remembered how extra hard our colleagues worked on their research – regardless of the lack of resources at that time. Their dedication towards scholarly pursuit can get through any hardship. During those days, our academic programmes expanded into taught and research postgraduate master and doctorate degrees. There had been so many new and upcoming areas of studies, e.g. Chinese medicine, computer science and information systems. To ensure communication with experts worldwide and foster academic exchanges, I worked hard to support the set up of various centres. All these prepared ourselves well when HKBU was formally granted university status.

When I look back, I look back with pride; amidst fond memories of and heartfelt gratitude towards everyone at the Faculty of Science.



President NG Ching Fai (fifth from right) and other colleagues at the High Technology for Tomorrow Exhibition, 1997



President NG Ching Fai at Department of Chemistry, 1986

How much do you know about the Faculty of Science ?

- The Faculty is the first one in the University to offer
 - the first undergraduate degree course (B.Sc. (Hons) in Combined Sciences in 1986)
 - the first taught master degree course (M.Sc. in Analytical Chemistry in 1992)
 - the first Doctor of Philosophy degree in 1992
- The Faculty has established the largest number of research centres in the University: 13 research centres in different science disciplines
- The 'M.Sc. in Analytical Chemistry' course offered by the Faculty is the first one in Southeast Asia





Inter-disciplinary and Multi-disciplinary Approaches are Important in both Teaching and Research

Reaching its 45th anniversary in 2006, the Faculty of Science has gone through different stages of development together with the University. Over the years, the Faculty has trained up more than 5,000 students who have become professionals in different fields all around the world. Putting equal emphasis on teaching and research, in addition to offering different quality teaching programmes (eight undergraduate degree programmes and five taught master programmes), the Faculty endeavours to establish a research culture. Besides existing research postgraduate students (over 110), the Faculty is active in establishing close collaboration and exchanges with overseas scholars and institutions. Every year, there are over 50 research exchange students and over 110 visiting research scholars coming from different parts of the world to participate in various research activities of the Faculty.



Science Faculty Christmas Party 2003

Prof. Rick Wong, who has been the Dean of Science since 2002, expresses that the future strategic development of the Faculty will be to move towards inter-disciplinary and multi-disciplinary approaches in both teaching and research.

"With increasing complexity of scientific development, solving scientific problems nowadays often require multi-disciplinary and inter-disciplinary knowledge. For instance, some biology problems may require knowledge and know-how in the field of physics," Prof. Wong says. "We shall continue to put equal emphasis on teaching and research. In particular, our programmes will be designed in a way putting particular emphasis on providing students with broad-based science knowledge in multi-disciplinary and inter-disciplinary approaches, and allowing greater flexibility for students to pursue study in a diversity of science disciplines in accordance with student's own interests and career plan. For research, our Faculty is proactive in encouraging and supporting inter-disciplinary, inter-departmental and inter-institutional research and collaborations."

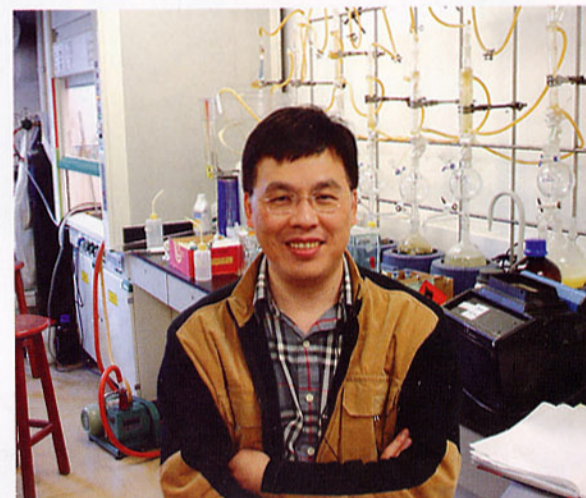
The Faculty has been very active to conduct frontier research, as witnessed by its over thirteen research centres in various disciplines. Prof. Wong adds that

the strategic research areas of the Faculty will focus on environmental science, non-linear and complex systems, analytical science, functional materials, applied mathematics, operations research, pattern recognition and image processing. To nurture undergraduate students who have research interests and talent early, the Faculty will start to provide fellowship to undergraduate students to conduct research projects in the coming summer break.

Prof. Wong supplements that people in general have a misconception that science subjects are very difficult to understand and career path is limited. "Scientific inventions and applications are used everywhere in our daily lives. However, very few people have noticed that. Regarding career prospect of science graduates, on the contrast, they have a lot of choices. With a strong scientific training, our science graduates can take up posts requiring multi-disciplinary / inter-disciplinary scientific knowledge and know-how such as forensic scientists, application specialists, quality control analysts, environmental consultants, logistics executives, etc. They are also competent in various professions such as consultancy, education, finance, information technology, etc., since they are computer literate and numerate, and have acquired various skills including analytical, problem-solving, research, project management, communication and presentation skills which are highly valued by potential employers," says Prof. Wong. "In the coming years, the Faculty will continue to keep close contacts with the educational sector to promote and arouse students' interests and understanding in science."



From left: Prof. CHEAH Kok-wai and Dr. TAM Hoi-lam, Department of Physics, and Prof. Rick WONG, Dean of Science, with the patent granted by the United States Patent and Trademark Office for their research project: "Silicon-based Ultra-violet LED"



Prof. Rick WONG, Dean of Science, at a Chemistry Laboratory

Acknowledgement

Sincere thanks to the following alumni and colleagues who have contributed articles/photos or have offered help to make this special issue possible (names are arranged in alphabetical order):

- Prof. CHAN Wing Hong
- Dr. CHENG Yuk Sun, Andrew
- Dr. CHENG Wai Yan
- Dr. CHOI Ming Fat, Martin
- Mr. HO Ka Nam, Michael
- Dr. HUANG Jian
- Mrs. KWOK Letty
- Dr. LAM Chok Man, Ernest
- Mr. LAM Yat Shing, Kenny
- Ms. LAU Yin Ping, Anne
- Mr. LAW Mow Man, Morris
- Mrs. LEE YIP Sau Ying
- Mr. LI Dong
- Ms. MOK Sin Hing
- Ms. TSANG May Ho
- Mr. WONG Chi Hang
- Dr. WONG Kong Chu, Chris
- Dr. WONG Man Shing, Ricky

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Were you there?



2005 Biology graduates and committee members of Biology Society (2005-06) on Information Day for Undergraduate Admission 2005



Computer Science Society bid farewell to 2005 Computer Science graduates



Experiment demonstration on Open Day 1986



Dr. MOK Man Hung (former Dean of Natural Science and Engineering, second from the left, first row) and Faculty Members of Chemistry with the class of 1975



1985 Chemistry graduates and Faculty Members of Chemistry



All staff and students of Hong Kong Baptist College in 1956



Science students from Biology, Chemistry, Civil Engineering, Mathematics and Physics at the orientation camp at Wu Kai Sha Youth Village in 1973



Mathematics Orientation Camp 2005



1996 graduates of Computing Studies (Information Systems) with staff of Department of Computer Science



1987 cohort of Mathematics students with Mr. LI Men Jan, former Head of Mathematics (Taken in 1990)



1985 cohort of Mathematics students took on 3/F (current 6/F) of Oen Hall



Development of Faculty

1961-1970

61 Faculty of Science was founded. Dr. YUNG Chi Chao was the first Dean of Science.

67-68 In regard to departmental reorganization, Department of Mathematics and Physics was expanded to 3 departments: Department of Biology, Department of Chemistry and Department of Mathematics and Physics.

- 70
- Department of Mathematics and Physics was separated into Department of Mathematics and Department of Physics.
 - Dr. CHEN Loh Kwan became the Dean of Science.

1971-1980



Opening Ceremony of the College Observatory in 1976

71 Department of Civil Engineering was brought into Faculty of Science. The Faculty was renamed as Faculty of Natural Science and Engineering.

72 Dr. CHAN John P. Chieh Yuan was appointed as the Dean of Natural Science and Engineering.

76 Institute of Engineering of the United Kingdom granted our Civil Engineering graduates exemption for Part I of the professional assessment.

77 Dr. MOK Man Hung served as the Dean of Natural Science and Engineering.

1981-1990

82 Prof. Jerry W. BARRETT was appointed as the Dean of Natural Science and Engineering.

85

- The University and Polytechnic Grants Committee asked the University to close down the course in Civil Engineering.
- The Faculty was then renamed as Faculty of Science.

86 First cohort of students of Bachelor degree course, B.Sc. (Hons) in Combined Sciences with majors in Applied Biology, Applied Chemistry, Applied Physics and Mathematical Science, were admitted. The course was reaccredited by the Hong Kong Council for Academic Accreditation in November 1991.

88 Department of Computing Studies was founded.



Computing Studies Society Inauguration Ceremony in 1988



Science Class of Basic Study, 1982

89

- The Grand Opening of Science Tower (renamed as Cha Chi-Ming Science Tower in 1995).
- Prof. NG Ching Fai was appointed as the Dean of Science.
- Centre for Surface Analysis Research (CSAR) was established.
- B.Sc. (Hons) in Computing Studies (Information Systems) was offered.



90 Centre for Waste Recycling & Environment Biotechnology (CWREB) was established.

of Science since 1961

1991-2000

91 B.Sc. (Hons) in Combined Sciences, Applied Computing major was offered.

- 94
- Hong Kong Baptist College was officially renamed as Hong Kong Baptist University on 25 November.
 - M.Sc. in Scientific Computing was offered.



- 97
- Centre for Waste Recycling & Environment Biotechnology was renamed as Institute for Natural Resources and Environmental Management (INREM).
 - Five disciplines of the Combined Sciences course were developed into five individual Bachelor of Science courses.

- 92
- M.Sc. in Analytical Chemistry was accredited by the Hong Kong Council for Academic Accreditation. It was the first Analytical Chemistry master degree course in Southeast Asia.
 - Doctor of Philosophy degree courses in Biology, Chemistry, Mathematics and Physics were offered.
 - Statistics Research and Consultancy Centre (SRCC) was established.

96 Centre of Nonlinear Studies (CNS) was established.

98 Department of Computing Studies was renamed as Department of Computer Science.

00 Prof. Jerry W. BARRETT was conferred the title of Emeritus Professor.



2001-2006

01 M.Sc. in Environmental and Public Health Management was offered.

Various patents have been granted to faculty members in recognition of their advancement in new areas since the start of the 21st Century. Some of the research findings are adopted in the industry. For example, the "Uniform Design" concept developed by Prof. Fang Kaitai and the "Centred L_2 -discrepancy" proposed by Prof. Fred Hickernell, were adopted by the Ford Motor Company in its new engine design process.

- 03
- The following centres were founded:
 - High Performance Cluster Computing Centre;
 - Centre for e-Transformation Research; and
 - Centre for Advanced Luminescence Materials (CALM).

- 05
- M.Sc. in Information Technology Management was offered.
 - Launch of Faculty Logo

- 06
- Prof. FANG Kaitai was conferred the title of Emeritus Professor.
 - The following centres were established:
 - Centre for Mathematical Imaging and Vision (CMIV); and
 - Research Centre for Ubiquitous Computing.

02 Prof. Rick W. K. WONG was appointed as the Dean of Science.

- The followings were established:
 - Peking University - Hong Kong Baptist University Joint Research Institute for Applied Mathematics;
 - Joint Institute of Environmental Sciences of Hong Kong Baptist University (HKBU) and Research Centre for Eco-Environment Sciences (RCEES), Chinese Academy of Sciences (including Dioxin Analysis Laboratory); and
 - Hong Kong Organic Resource Centre (HKORC).



04 Beijing - Hong Kong-Singapore Joint Centre for Nonlinear and Complex Systems was established.



- Institute for Natural Resources and Environmental Management (INREM) was renamed as Croucher Institute for Environmental Sciences (CIES).



45th the science Anniversary



What our Alumni say

HO Ka Nam, Michael P.E., F.ASCE

Civil Engineering

Assistant Director

Engineering and Construction Division,

Public Works & Engineering, City of Houston, Texas



Class '63 Taiwan Graduation Tour Led By Rev. James K. MAU (Pictured On Far Left) in 1963. Michael Ho is pictured on the far right

Geology Class Field Trip, Sek Mun Reservoir, Conducted By WONG Chu Fun (Pictured in Center) in 1962. Michael is pictured 4th from the right



Family picture of Michael Ka-Nam Ho taken after the '1963 Commencement

1963

Fifty years ago, Hong Kong Baptist University was known as Hong Kong Baptist College, founded by the late Dr. Lam Chi Fung, LL.D. with limited resources when I attended HKBC. With the hard work of the faculty members and students, HKBC produced many good graduates that have served society well. After 50 years, I am glad to see that HKBU has become a well known, established university in Hong Kong. Congratulations to my alma mater and best wishes for continued success as HKBU starts another memorable 50 years!

Dr. CHENG Wai Yan

B.Sc. (Hons) in Combined Sciences

(Mathematical Science)

Head of Structuring, Financial Markets Group,

Taipei Fubon Bank

I joined the Baptist family as an undergraduate student in 1986. That was the first year Baptist offered a Bachelor degree ever. I went on to study stochastic analysis in my graduate work. It was some 12 years ago since I got my PhD. Now it is a pain for me trying to read those probability statements in many of the financial mathematics papers I come across. But the joy of studying mathematics and logical mind that guides my work and life was planted many many years ago in my Baptist years. I want to take this occasion to say thank you to Baptist and her Mathematics Department. And big congratulation to the Science Faculty for its 45th anniversary.

1989

Dr. CHOI Ming Fat, Martin

B.Sc. in Chemistry

Associate Professor

Department of Chemistry,

Hong Kong Baptist University



Dr. CHOI (fourth from the left, first row) and 1986 graduates with Prof. Albert LEE and Prof. W.H. CHAN (second and third from the left, first row) in 1986

As a graduate of Baptist University (formerly Baptist College), my bonding with "Baptist" has always been growing stronger and stronger. When I was studying for my A-level, my interest in chemistry had outgrown other subjects. In 1983, I started my first year of study at the "Baptist". Being young, I felt I knew a lot about the subject. But after the first year, my views changed completely and I knew how little I knew. For the years I had in the university, I had learnt a lot from the lecturers and they had inspired me through their teaching. The lecturers were stimulating and their passion for chemistry had paved the way for my pursuit in this field in the future. They played a pivotal role in broadening my perspective and concept in chemical science.

Twenty years had passed quickly since then. Now, as a teaching staff at the "Baptist", I really feel that students nowadays are a lot more fortunate than our times. A lot of facilities and resources have improved tremendously. As most of you feel painful to study experimental subjects due to laboratory work and report writing, I still remember we had to spend hours and hours in the library to collect information and references for writing good laboratory reports. Sometimes, we had to search through all the hardcopies of Chemical Abstracts manually (no computer aid). So, be thankful for the e-database provided by the Department today.

1986 graduates with staff of Chemistry Department in 1985



In my final year of study, I came to know the Lord Jesus Christ. This was the most important decision in my life and changed my attitude towards life till now. I am really thankful to the university for providing a Christian environment for us to explore the true meaning of life.

My time with the "Baptist" has always been pleasant and enjoyable. Thanks to all who have made my life so enjoyable and productive at Baptist University. It is every student's wish for a caring teacher to spark on his interest in learning and to make a positive impact in the lives of students. I personally have benefited from the Department's high quality contributions and these have proved to be very valuable till today. I am especially enthusiastic in providing the same for my students.

LAM Yat Shing, Kenny

B.Sc. (Hons) in Combined Sciences (Applied Biology)

General Manager - China,

Bio-Rad Laboratories (Shanghai) Ltd.

Eighteen years ago, I remember the day I got the notice of admission to the Hong Kong Baptist University, it was the beginning of a new phase of my life. Going to the "O" Camp was my first day with the Baptist University. I remember vividly the excitement when the Biology Department won the championship after our excellent teamwork and performance in numerous rounds of game competition. The valuable experiences gained from the "O" Camp and the 3 years college life in the Baptist University have built up the guiding principles for the rest of my life which are: Energy, Dedication, Teamwork and Leadership.

2006 will make the 50th Anniversary of the Hong Kong Baptist University. It is also virtually the 50th anniversary of higher education in Hong Kong. Alumni and others on campus who have pondered on the Anniversary tend to concur that the celebration should also be a juncture for reflection.

1991

WONG Chi Hang

B.Sc. (Hons) in Computer Science (Computer Systems)

Assistant Information Officer

Hong Kong Police Force (Information Technology Branch (ITB))

I would like to express my sincere wish to the 45th Anniversary of the Faculty of Science. As a graduate of Computer Science in 2002, I am glad to see the current development and achievement that my mother school has. It is my pleasure to be one of the members in the whole family of Baptist University.

2002



Year 1 chemistry students (1983)



1986 graduates with Prof. C.F. NG (first from the left), Dr. Miranda CHEUNG (fifth from the left) and Dr. Margaret WONG-LEUNG (fourth from the right) in 1986

1986



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Dr. CHENG Yuk Sun, Andrew

Physics
Associate Professor
Department of Physics and Materials Science,
City University of Hong Kong

In the fall of 1975, I started my undergraduate study in physics at the then Hong Kong Baptist College. Looking back, this is also the start of my journey in exploring the world of physics. Ever since then, I have been involved in academic research in physics. I have also been keeping my visits to the Department whenever I have the chance. It is exciting to see that both the University and the Department have changed and strengthened over these years. New frontiers of physics research have been carried out, and I am very proud of the progresses.

I began to learn the very fundamentals of physics both theoretical and applied in this small department in those days. I was also given the opportunity to help in the physics laboratory as a student helper in my senior year. The experience has strengthened my interest and ability in physics research. I still remember very clearly the first time that I actually helped in measuring the light pattern of a lamp. Today, I considered much of my research work still related to light and measurement! The solid teaching of engineering mathematics and the theories of physics has always become handy today during my daily work. I think learning with clear understanding of the subject is very important not only in science but also in almost every profession. The many hours that I spent in the library to study together with my dear classmates will always be a joyful memory!

As my University celebrates its 50th Anniversary, I like to share a photo of my laboratory work in my senior year with my two classmates - Pau Ka Lun and Shea Wai Kee. In the picture you will see three youngsters trying to figure out their laboratory exercise and discussing the most "important problem" of the day! Another photo that I like to share is at the press conference for announcing "The Ten Outstanding Young Persons" in 1994. It is with great pleasure that I have the chance to share them in our celebration. Finally, I like to say "Thank you!" to all the HKBU members.



Dr. Andrew CHENG (right) in a physics laboratory



Dr. Andrew CHENG (second from the left, first row)

1979

TSANG May Ho

B.Sc. (Hons) in Combined Sciences (Applied Biology)
Business Manager, Invitrogen (HK) Ltd.

HKBU nourished me not only the scientific knowledge but also the whole person excellence. With such skill equipped, I keep on delivering my professionalism towards my customers in a highly competitive market. Most of them have become my friends.

HKBU, Hong Kong young generations need you, may your spirit be last for longevity.

1992

LI Dong

B.Sc. (Hons) in Mathematical Science
PhD Student, Princeton University

The Mathematics Department of HKBU is one of the best departments in Scientific Computing and Statistics. The curriculum is up-to-date and helps to bring students to research frontiers. The whole department is very active both in teaching and research. This is a supportive and invigorating environment – perfect for students.

2002

MOK Sin Hing

Chemistry
Chairperson
Baptist Chemists

Salute to members of the Science Faculty!

For forty-five years, they have dedicated their hearts and minds into grooming students, not only about building a professional career in science, but also a meaningful life. Many of us, the graduates have now matured and found our position in whatever we have ventured into, be it in research, teaching, marketing, or management. Yet we can't deny, those days in Baptist still bring back lots of sweet memories. That is my strong impression in running the Chemistry alumni association. And I do believe the science alumni have a unique kind of bonding among themselves and with the faculty members, which have lasted through the years. Maybe it's time we should reunite this force for the benefit of our Alma Mater.

1973

Ms. S. H. MOK took at the main entrance of Hong Kong Baptist College in 1976



Science students from biology, chemistry, civil engineering, mathematics and physics had orientation camp at Wu Kai Sha Youth Village in 1973

LAU Yin Ping, Anne

MPhil (Physics)
Project Manager, Education and Manpower Bureau

Life is always a busy game, especially in Hong Kong! In retrospect, the college life in the Baptist "College" twenty years ago was the most enjoyable relaxing time...

Student lounge is the place where you can chat, discuss and argue for your assignments, social issues, religious or ethical topics, or where to go in the holidays...

The observatory is the place where you can peep at the marvelous universe - that's the only chance that I can really see what the "ring" of Saturn looks like...

G03 is the place I go all the time, to coordinate all the sharing or gathering of the Christian Student Union in the college, to conduct interviews for the publication of the newsletters...

Camping is a must item for long holidays, at which I learn roller-skating, playing snooker and star gazing at the totally dark sky...

Back to 2006, the University is celebrating its 50th anniversary, which is the most authentic proof for its contribution to nurturing the manpower for the society! Congratulations!

1996

Dr. HUANG Jian

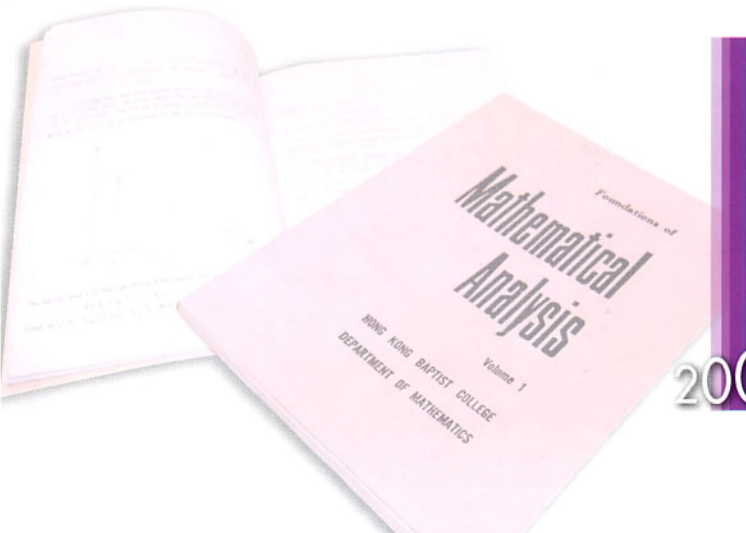
PhD (Computer Science)

I am a former PhD student in the Department of Computer Science, Hong Kong Baptist University (HKBU) and I am now with the Department of Computer Science, Zhongshan University. The three-year studies in HKBU have become my wonderful experience in my whole life. The University has very beautiful campus, good facilities, super excellent teachers, abundant learning materials, environment and resource. I worked as the resident tutor in our student resident hall and organized some popular activities, like postgraduate student high table dinner. I am very happy with my three-year life in the hall and also in HKBU.



Dr. HUANG Jian (left)

2005





50th Anniversary Celebratory Activities of Hong Kong Baptist University

Past Event

May 24-26, 2006



Department of Physics International Conference on the Frontiers of Nonlinear and Complex Systems

The conference featured the latest developments in nonlinear science in celebration of the 50th Anniversary of the Hong Kong Baptist University, the 10th Anniversary of the Centre for Nonlinear Studies and the 60th birthday of Prof. Bambi Hu.

Website: <http://www.hkbu.edu.hk/~cns10>

Upcoming Events

Aug 20-24, 2006

Department of Computer Science The 18th International Conference on Pattern Recognition (ICPR'06)

A multi-track international conference providing a stimulating scientific environment for academics, industrialists and researchers to exchange their views on pattern recognition.

Website: <http://www.comp.hkbu.edu.hk/~icpr06>

Jul 8, 2006

Faculty of Science Science Open Day

The Open day, with the theme: "Science: The Heart of Innovation and Growth", for celebrating the 45th anniversary of our Faculty and the 50th anniversary of our University, aims to arouse general public's interests in science. Exhibition, IT quiz, talks, games, laboratory tours and demonstrations are specially designed for all visitors.

Website: <http://www.sci.hkbu.edu.hk/sapphire/>

Dec 18-22, 2006

Department of Computer Science 2006 IEEE International Conference on Data Mining 2006 IEEE/WIC/ACM International Conference on Web Intelligence 2006 IEEE/WIC/ACM International Conference on Intelligent Agent Technology

Conferences for presenting the state-of-the-art technologies in data mining, web intelligence and intelligent agent technology and fostering the development of innovative technology through exchanges.

Website: <http://www.comp.hkbu.edu.hk/iwi06>

Dec 19-26, 2006

Department of Physics Asian Pacific Conference on Surface Science and Engineering

The conference is intended to serve scientists and engineers studying surfaces or applying surface analytical techniques. It is beneficial for both groups of experts, who could bridge the conventional but reducible gap between basic science and practising technology.

Website: <http://www.hkbu.edu.hk/~sse2006/>

2006

Faculty of Science

Distinguished Lecture Series

Five internationally renowned scholars have been invited to deliver public lectures to share their experiences and discuss new developments in their respective science disciplines :

- Biology** Oct, 2006
Prof. Anthony Norman - From Vitamin D to Hormone D: A Consideration of What is Important for Good Health
- Chemistry** Jun 12, 2006
Prof. Sir John Meurig Thomas - The Unpredictability of Science and Its Consequences
- Computer Science** Sep 15, 2006
Prof. David C. L. Liu - Chessboards, Hat, and Chinese Poetry: Some Rigorous and Not-So-Rigorous Mathematical Results
- Mathematics** Oct 6, 2006
Prof. Stanley Osher - Mathematics in the Real World and the Fake World
- Physics** Dec, 2006
Prof. Steven Chu - The World's Energy Problem and We Can Do About It

Enquiry: 3411 7849 Website: <http://www.sci.hkbu.edu.hk/sapphire/>

