Computer Science

Department

Newsletter

50th Anniversary 五十周年校慶 50th Anniversary 卓越·創新·培育全人 Innovate for Whole Person Excellence

Awards

Prof. Tang Yuan Yan received the First Class of Natural Science Award of Technology Development Centre, Ministry of Education of the People's Republic of China.

Prof. Tang Yuan Yan received it (教育部自然科學獎) in November 2005 for his outstanding research work entitled "The theory and research method for digital document and image analysis and recognition" (數字文本圖像分析與識別的理論和方法研). For more information, please refer to http://www.comp.hkbu.edu.hk/en/news

A Patent Received by Prof. Joseph K.Y. Ng

Prof. Joseph K. Y. Ng together with his two German partners, Prof. Wolfgang Halang and Dr. Thomas Erdner and his graduate student Mr. Stephen Ka Chun Chan received a patent issued by the German PatentOffice for their research work entitled "Clock Synchronization in Nodes on a Ring Bus".
For details, please refer to http://www.comp.hkbu.edu.hk/en/news

Research Centre for Ubiquitous Computing Supported by RGC Central Allocation Scheme 2005/2006

The research team with Prof.Joseph K. Y. Ng as Principal Investigator and members from this University and Hong Kong University of Science and Technology and Hong Kong Polytechnic University has received a research grant of $3.6 Millions from the Research Grants Council (RGC) to set up a Research Centre for Ubiquitous Computing in Hong Kong.

"Ubiquitous Computing" means the processing of any data at any time and anywhere through any network using any device. In order to realize ubiquitous computing, the research centre will focus on the research areas like location-aware computing, mobile data management, RFID/sensor networks, middleware, and embedded systems software development. The research centre aims not only at excelling in the research field, but also turning its research results into products and services which will benefit the industry and the society at large. For more information about the Research Centre for Ubiquitous Computing, please contact Prof. Joseph Ng at jng@comp.hkbu.edu.hk
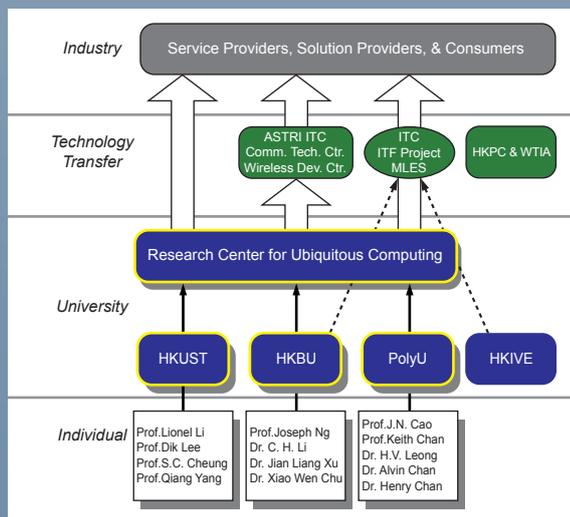
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Available at http://www.comp.hkbu.edu.hk/en/news

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Dr. Y.M. Cheung
Dr. Ernest C. M. Lam
Dr. Kelvin C. K. Wong
Mr. Melvin S. T. Chan
Ms. Leah L. N. Poon

Hong Kong Baptist University
Department of Computer Science

M.Sc. Programme in IT Management

The Department of Computer Science of the Hong Kong Baptist University offers a new attractive M.Sc. programme in IT Management. This programme focuses on IT Management with emphasis on both technological and managerial sides so that students learn the state-of-the-art methodologies in hot areas of IT Management. Its content is up-to-date and fulfills the needs of the IT industry as it is backed by an Advisory Committee composed of industry leaders and prominent professors from

Hong Kong and overseas.

The courses will be taught in English by highly qualified professors with Ph.D. degrees. Some topics may be taught by professors from the Business Faculty and industry leaders from the local IT industry.

Applicants must possess a Bachelor's degree in science, engineering, business or other relevant fields from a recognized university or equivalent qualification. They can select either two-year part-time or one-year full-time study modes. The programme is supported by the Continuing Education Fund provided by the HKSAR Government, and each eligible student can obtain a reimbursement of at most

HK$ 10,000. Further, the programme also provides a significant number of scholarships (with the amount up to HK$ 20,000) to those with good performance.

The programme commences in each September. For further information about the programme as well as the application procedures and due date, please visit:
http://www.comp.hkbu.edu.hk/msc/itm
or contact us at
Tel: (852) 3411 7079,
E-mail: msc@comp.hkbu.edu.hk

Events and Activities

Scholarship Ceremony for MSc in IT Management

Department of Computer Science held the Scholarship ceremony for students of MSc in IT Management programme in the Staff Canteen on March 4, 2006. The recipients of Distinction Scholarship are Hui Pui Sze and Leung Sui Wing, and the recipients of Merit Scholarship are Wong Wing Kee, Yim Chi Yuen, Tang Kwok Cheong and Lee Tak Chung. After the presentation of Scholarships, staff and students had lunch and a sharing session. Every one enjoyed the event very much.

The Third Postgraduate Research Symposium (PG Day)

The third Postgraduate Research Symposium was held on January 9, 2006. The aim of organizing this Symposium biannually is to enhance the research atmosphere and exchange research ideas among the research students. On that day, our invited speaker, Prof. Weidong Kou from IBM, gave a keynote talk entitled "IBM Service Oriented Architecture". Furthermore, all MPhil and PhD students in our department had presented their latest research results. The Symposium provides valuable learning and exchange opportunities to the research students. The details can be found at http://www.comp.hkbu.edu.hk/~pgday

Computer Science Departmental Lunch with New Intake

Department of Computer Science organized a lunch with new students on November 12, 2005. Besides the mentoring session, an alumna from Microsoft, Redmond also gave advices and encouragements to our students. There were 113 students, alumni and staff participated in this tasteful as well as meaningful lunch.

Words of Wisdom

We (myself, my students and startup teammates) had a tremendous belief in XML technologies and its data management solutions back to 1999, when most people in Australia never heard of the nowadays' buzzword "XML". For performance reason, we didn't pick Java (which already had lots of supporting resources and libraries) and followed a wild dream of using hardcore C and C++ instead (which basically had nothing available to be used at that time). We got it wrong many times and rewrote the system several times from scratch - each rewriting involved more than tens of thousands of lines of C codes or many sleepless nights! Thinking that from now, I would never recommend anyone doing that because it's too hard. My office had once been shared with a few graduate students for coding, testing and benchmarking. My sleeping bag was still in my office.

Students apparently never got frustrated if they were working in a motivated environment with lots of courage. The biggest success came when we got 50,000 users for our first free version two months after it was launched. Unfortunately, the whole team contained too many researchers - myself was the most guilty one. We knew how to write a good piece of software; we could write proposals, conduct research, produce and publish good research results; but we missed the skill of commercialization - which would require the entrepreneurial mind. The entire XML database project failed to secure the commercial investment during the dot-com peak and was essentially halted because of the lack of finance.

Two years ago, we realized that the top priority of running a University was not just to improve the education/research quality but to find alternate sources of capital when traditional funding sources are closed off, whether temporarily or permanently. The tension was more severe for computer science departments due to the dot-com bomb, with the effect started surfacing. Myself and my research team heavily involved in commercialization activities, e.g., industry consulting, mentoring MBA students, liaising with industry and private research organizations. We picked up the necessary skills to be an entrepreneur from the ground and re-focused our research activities for addressing the real issues faced by the industry if they wanted to employ XML-related technologies, i.e., Web services. We then saw XML startup companies closing down one after one. Recently, we attempted the commercialization of our XML database technologies yet again. We met our luck finally and secured a decent amount of seeding finance. The commercialization duties had then been passed onto the business professionals that we hired. We can now afford to focus more on research and development research issues. To us, systems research, especially database systems research, is always challenging and fascinating. As described by Prof. David DeWitt from University of Wisconsin, "In systems research, sometimes you get good software artifacts, and sometimes you get lots of papers, and occasionally you get both". In our case we occasionally get some commercialization and industry collaboration opportunities (which may be useful to our research group, the students and the university, under the current funding environment).

Although XML has become wide popular today, there are still many open issues that are both interesting in research and commercially viable. Our group is currently focusing on a universal storage solution for any XML information such that it can be stored in a compact form. This will enable more information to be stored in databases. This is essential for devices with limited resources such as handheld computers or mobile phones. It also reduces the cost/bandwidth of transmitting information between devices. For example, in sensor networks, each node has storage, power, computation, and network bandwidth constraints. Increased software interoperability will be achieved as all XML data will be represented in a single, unified format. For example, an XML data file generated by the Microsoft DOM library can be accessed by the Apache SAX parser. Due to the lack of research into efficient storage schemes, existing XML databases have relatively poor performance (because of their complexity and flexibility). We hope to enhance the performance of these databases. This will further improve acceptance towards XML as the performance burden has been alleviated. Instead of having complicated indexing schemes, the simple data structure behind our solution will hopefully minimize the learning curve usually associated with utilizing proprietary database software. For example, students with a basic knowledge of data structures can master the application of our techniques. In the workplace, XML developers will be able to seamlessly migrate their applications across different systems that use our data structure. Finally, we are currently targeting another commercialization opportunity since our solution can be easily extensible by other implementers of XML technologies.

Upcoming Events

Date(s) of Event	Event
Aug 20 - 24, 2006	The 18th International Conference on Pattern Recognition 2006 (ICPR'06) Hong Kong Convention and Exhibition Centre URL: http://www.comp.hkbu.edu.hk/~icpr06
Dec 18-22, 2006	The joint conference of 1. The 2006 IEEE / WIC / ACM International Conference on Web Intelligence (WI 2006) 2. The 2006 IEEE / WIC / ACM International Conference on Intelligent Agent Technology (IAT 2006) 3. The 2006 IEEE International Conference on Data Mining (ICDM 2006) Hong Kong Convention and Exhibition Centre URL: http://www.comp.hkbu.edu.hk/iwi06

Job Vacancies

Hong Kong Baptist University
Department of Computer Science

Lecturer Position (PR number: PR 246/05-06)

The Department of Computer Science invites applications for a Lecturer position. Applicants must have a PhD degree in Information Systems or closely related fields and a strong commitment to quality teaching. They must be able to teach courses in information systems and IT management at undergraduate and postgraduate levels (e.g., Information Systems Theory and Methodology, Information Systems Management, Electronic Transformation in Business, Information Systems Evaluation and Policy, IT Management, IT Project Management, IT Laws and Ethics, etc.). They must also be able to teach other courses offered by the Department.

The appointee is primarily responsible for teaching and supervising students' projects. He/she is also expected to participate in scholarly/professional activities and undertake administrative duties.

TERMS OF APPOINTMENT: Starting salary will be commensurate with qualifications and experience. Benefits include a gratuity payable upon satisfactory completion of contract, annual leave, and medical and dental benefits. Re-appointment thereafter is subject to mutual agreement.

APPLICATION PROCEDURE: Application, together with curriculum vitae, copies of transcripts, a brief statement of teaching and evidence of quality teaching, should be sent to either: (i) Secretary to Recruitment Panel, Department of Computer Science, Hong Kong Baptist University, Kowloon Tong, Hong Kong [Fax: (852) 3411 7892; e-mail: melvin@comp.hkbu.edu.hk]; or (ii) the Personnel Office, Hong Kong Baptist University, Kowloon Tong, Hong Kong [Fax:(852)3411-5001; e-mail:recruit@hkbu.edu.hk]. Application forms can be downloaded from: [http://www.hkbu.edu.hk/~pers].

Please quote PR number on the application and any subsequent correspondence.

Details of the University's Personal Information Collection Statement can be found at [http://www.hkbu.edu.hk/~pers/job]. The University reserves the right not to make an appointment for the post advertised, and the appointment will be made according to the terms and conditions then applicable at the time of offer.

Closing Date: Until the position is filled.

COMPUTER SCIENCE DEPARTMENT

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