Computer Science

N E W S L E T T E R

HKBU
Computer Science Department
計 算 機 科 學 系

CONTENTS

香 港 浸 會 大 學
HONG KONG BAPTIST UNIVERSITY

1 New MSc Programme in
Information Technology Management

The Department is going to offer a new MSc programme in Information Technology (IT) Management commencing from September 2005.

This course provides a further education opportunity in the rapidly changing IT field. It focuses on IT management, and students will learn the current information technologies on both the technological and managerial sides. After completing this course, the students will acquire:

- the current IT methodologies for designing and developing IT systems; and

- the management skills for leading and managing IT projects.

Applicants should normally:

a. possess a Bachelor's degree in science, engineering, business or other relevant fields from a recognized university or comparable institution or a qualification deemed to be equivalent; and

b. be proficient in English (Applicants not using English as the medium of learning in their Bachelor's degree course are required to provide evidence of good English proficiency (e.g., they have taken English proficiency subjects in the universities, or obtained satisfactory results in TOEFL or the College English Test in the Mainland)).

For exceptional cases in which applicants have other qualifications but substantial experience in IT, we will determine their suitability based on individual merits and interviews.

Students can select full-time or part-time study mode. Normally, full-time study mode lasts for one year while part-time study mode lasts for two years. Students are required to attend classes on weekday evenings or Saturdays. Please refer to the website: http://www.comp.hkbu.edu.hk/msc for more information.

The Accreditation Panel with the department staff

Professor Lotfi A. Zadeh, The Father of Fuzzy Logic

Prof. Lotfi A. Zadeh, the great alumnus of HKBU Computer Science Department

We are very honoured to have Professor Lotfi A. Zadeh, one of the most influential computer scientists of our time (also known as The Father of Fuzzy Logic), as the alumnus of our department, commencing from November 2004.

Professor Zadeh is a Professor in the Graduate School, Computer Science Division, Department of EECS, University of California, Berkeley. He is also the Director of Berkeley Initiative in Soft Computing (BISC). Professor Zadeh is a Fellow of the IEEE, AAAS, ACM, AAAI, and IFSA. In 1952, Prof. Zadeh, in cooperation with John R. Ragazzini, made important contributions to the development of the z-transform approach to the analysis of sampled-data systems. Before 1965, he was recognized both nationally and internationally as one of the leading contributors to the foundations of modern systems theory and its applications. In 1965, Prof. Zadeh published his famous article on "Fuzzy Sets", which initiated a new direction of research as well as new extensions to artificial intelligence, linguistics, logic, decision analysis, control theory, and theory of computation. This seminal work brought a multiplicity of studies conducted in a great number of research centres and groups around the world. For his distinguished contributions to the fields and community, he has received numerous prestigious decorations and awards, including around 20 honorary doctorates from universities in Europe, USA, and Canada, the IEEE Education Medal, the IEEE Richard W. Hamming Medal, the IEEE Medal of Honor, the ACM 2000 Allen Newell Award, the AIM Information Science Award, the SOFT Scientific Contribution Memorial Award of the Japan Society for Fuzzy Theory, and the Web Intelligence Consortium (WIC) Outstanding Contribution Award, to name a few.

On November 9, 2004, Professor Zadeh received from Hong Kong Baptist University (HKBU) his first Honorary Doctorate degree in Asia. It was also for the first time that HKBU awarded an Honorary Doctorate degree to a computer scientist.

3.1

HKBU-CSD Postgraduate Research Symposium (PG Day)

The Department has initiated and launched the HKBU-CSD Postgraduate Research Symposium (PG Day). The purpose is to enhance the research atmosphere and share the research experience and ideas among the postgraduate students. Commencing from January 2005, the PG Day will be held biannually in each January and July.

The first PG Day was held on January 10, 2005, in which a total of 16 submissions from PhD and MPhil students were received and orally presented. This event has received very positive feedback from the Faculty members and the students. "The PG Day provides us an opportunity not only to know more about others' work, but also to exchange research ideas with each other, which has broadened our research horizon", said by one student.

The Dean of Science Faculty, Prof. Rick W. K. Wong and the Department Head, Prof. Jiming Liu, were invited to address a speech in the opening ceremony. Both of them were much impressed by this wonderful event. "PG Day would become one of the landmark events of the Department", Prof. Wong said.

The details of the programme and the proceedings can be found at:

http://www.comp.hkbu.edu.hk/~pgday

The first HKBU-CSD Postgraduate Research Symposium

Croucher Advanced Study Institute (ASI) —— Recent Development on Biometric Authentication

The Department of Computer Science of Hong Kong Baptist University hosted the Croucher Advanced Study Institute (ASI) that was sponsored by Croucher Foundation from 6 to 11 December 2004 at Lam Woo Conference Centre. Six pioneer world-famous scientists, the best players in this field, reported the latest development in biometric authentication in the six-day intensive programme. The six well-known scientists are:

The President and Vice-Chancellor of HKBU, Prof. C.F. Ng (at the fourth position from the left), gathering with the ASI Professors and our colleagues

- Prof. Rama Chellappa, University of Maryland at College Park, USA, on Face Recognition

- Prof. John Daugman, Cambridge University, UK, on Iris Recognition

- Prof. Anil Jain, Michigan State University, USA, on Fingerprint Recognition

- Prof. Josef Kittler, University of Surrey, UK, on Multi-biometrics

- Prof. Réjean Plamondon, Ecole Polytechnique Montreal, Canada, on Signature Verification

- Prof. Tieniu Tan, Chinese Academy of Sciences, China, on Gait Recognition

Each scientist had given lectures on the fundamental concepts, current state-of-the-art and practical system development to future directions for a specific biometric. More than 100 applications were received and finally sixty of them were selected as ASI students. All ASI students had been working on biometrics or related research and most of them are Ph.D. qualified, in which around 40% are university professors. During the ASI period, other than lecture hours, there were lots of chances for interaction between participants and lecturers in the poster session and other informal gatherings like coffee break or lunch hours. The ASI has provided a stimulating environment for all ASI students to learn the latest development on automated biometric authentications, exchange their views and the chance for in-depth face-to-face discussions. It also triggers new ideas and paves way for further collaborations.

Details of this programme can be found at:

http://www.comp.hkbu.edu.hk/~asi04

3.3

The First Artificial Intelligence Contest in Hong Kong

Prof. Zadeh with a winning team of AI Contest from a secondary school

Prof. C.F. Ng presents the award to one of the contest winners, Mr. Xinge YOU

Intelligence@Society Contest, organized by the Department of Computer Science, HKBU, aimed to further increase the awareness of the general public on the development and impact of Artificial Intelligence (AI) technologies to our daily lives. This event, held in Lam Woo International Conference Centre at Hong Kong Baptist University on November 10, 2004, was a big success in virtue of the enthusiastic and enjoyable participation of teams from eight secondary schools and eight universities (both local and Mainland), with the projects ranging from intelligent video recorders, intelligent mobile phones to intelligent vehicles.

This contest consisted of two sections: one for secondary schools and another for universities. The former emphasized the presentation of an innovative idea on applying AI in the society, whereas the latter featured the demonstration of related software prototypes. Such a contest was the first time in Hong Kong.

In this grand event, we were especially honoured to have Professor Zadeh, The Father of Fuzzy Logic, as the Honourary Judge. Professor Zadeh also delivered a Distinguished Lecture on "Fuzzy Logics Systems: Origin, Concepts, Trends", in which over two hundred participants enthusiastically attended to gain the valuable research experience and insightful perspectives.

During the event organization, there were a number of positive responses from the local secondary schools, universities and sponsors including Association for Computing Machinery Hong Kong Chapter, Hong Kong Institution of Engineers Electronics Division, and IEEE (Hong Kong) Computational Intelligence Chapter. The judges for the contest were from local Universities.

Through this contest, we hope that the penetration of the AI technologies into our society will continue to flourish via the integration of the real creativity and intelligence of our next generation.

For more information about the Intelligence@Society, please visit :

http://www.comp.hkbu.edu.hk/~ai04

3.4

Annual Conference/Exhibition of the Hong Kong Institution of Science

Co-organized by the Faculty of Science and School of Chinese Medicine, the 2004 Hong Kong Institution of Science (HKIS) Annual Conference/ Exhibition was held in Hong Kong Baptist University on 30 October 2004. The theme of Year 2004 was "Science Advancement in Hong Kong". Our department has actively participated in this big local event, including technical supports on the Hong Kong Young Scientists Award selection and presentation as well as the HKIS Annual Conference/Exhibition.

The recipients of Hong Kong Young Scientists Award together with the HKIS organizers and guests

3.5

Roundtable on New Frontiers in Informatics

Roundtable on New Frontiers in Informatics (NFI), organized by the Department of Computer Science at Hong Kong Baptist University, is a gathering of minds to share their experiences and visions on emerging intelligent information technologies. Each time it features a group of invited speakers, who are the pioneers or active researchers in their respective fields. This year, the NFI Roundtable, chaired by our Department Head, Prof. Jiming Liu, was held on 27 September 2004, in which six local and overseas scholars shared their valuable research experience and insightful perspectives with the audience on a variety of topics below:

Prof. Pawan Lingras shared his vision on emerging IT technologies with other minds

- **Web Intelligence and Brain Science**

  by Prof. Ning Zhong, Head of Knowledge Information Systems Laboratory, Department of Information Engineering, Maebashi Institute of Technology, Japan

- **Research Issues in Knowledge Grid and Grid Intelligence — A Service-Oriented Perspective**
  by Dr. William Kwok-Wai Cheung, Department of Computer Science, Hong Kong Baptist University

- **China Knowledge Grid Research Plan**

  by Prof. Hai Zhuge, Institute of Computing Technology, Chinese Academy of Sciences, China

- **Granular Computing**

  by Prof. Yiyu Yao, Department of Computer Science, University of Regina, Canada

- **Information Retrieval Challenges in Web-Based Liberated Learning**

  by Prof. Pawan Lingras, Chair, Department of Mathematics and Computing Science, Saint Mary's University, Canada

- **Learning and Mining the Chaotic Web**

  by Dr. Chun-Hung Li, Department of Computer Science, Hong Kong Baptist University

Through this public forum, academics and students from the interdisciplinary fields have benefited a lot from one another.

3.6

Orientation Meeting for Freshmen

The Department held an Orientation Meeting for our fresh undergraduate students on 1 September 2004. The purpose is to welcome the students and let them know more about the Department, including the Department's expectations, regulations and facilities.

Prof. Jiming Liu, Department Head of Computer Science, is sharing the experience with the fresh undergraduate students

My Visit at HKBU in Autumn 2004

I have had the honour to be a visiting research scholar at Hong Kong Baptist University's Department of Computer Science during autumn semester 2004. I would like to share with you some of my impressions of the stay. The Department has a research staff of many faculty members who I have had the privilege to meet and work with on several occasions. As an outsider and participant in research seminars I immediately noticed the high quality of research pursued and in particular the dedication to solving the important research problems. I make my comparison based on a previous stay at another HK university and my background and experience from the United States (where I was educated) and Europe where I live and work (University of Oslo, Norway). The HKBU, CS Department is one of the most forward going Computer Science Department I have been at. This is the result of a leader with a clear vision, creativity and a group of faculty members who are eager to push state-of-the-art a step further.

In particular I wish to single out my regular lunch meetings with Drs. Cheung , Li, and Wong, and my 2 1/2 months close collaboration with Drs. Cheung (William) and Wong (Kelvin). We have worked together with another faculty member from the Language Centre (Dr. Lee, Cynthia) to develop "A Computer Supported Essay Critiquing System". I am particularly impressed by the speed we were able to do so (version 1), both to create a solid conceptual framework to work from (based on integrating existing state-of-the-art research in new ways) a computer environment that will support both individual and collaborative learning for English Composition. We have already submitted two papers based on this research and my colleagues have written and submitted a new proposal (Teaching Development Grant) which, if accepted, will allow me to continue collaborating with HKBU after I have returned to Norway.

I want to give special thanks to Dr. Cheung (William) and Prof. Liu (Jiming) for their effort in bringing me to Hong Kong in the first place. This was the result of (Internet and F2F) communication that was been going on for more than 1 1/2 years, which allowed me to successfully apply and receive a travel grant from my University to visit Hong Kong.

Finally, my thanks go to Prof. Liu for his support of my stay and his quick feedback when I first contacted CS departments at Hong Kong Universities. By the time I had finished sending the emails, Prof. Liu had already responded with a positive reply, encouraging me to come for a visit. I received only one positive reply from the other HK institutions (which was not a CS dept.). The HKBU, CS Department's commitment to international collaboration and excellence in research is most visible and admirable.

Best luck for the future,

Dr. Anders Mørch
Associate Professor
Department of Informatics and Education
InterMedia, University of Oslo, Norway

E-mail: anders.morch@intermedia.uio.no

5 Awards

Epson Foundation Scholarship

Our two final-year undergraduate students: Mr. Jing Du and Mr. Tak-tai Fung, received the Epson Foundation Scholarship in 2004-2005 upon their outstanding academic performance.

Scholarship recipients:
Mr. Jing Du and Mr. Tak-tai Fung

Dr Joseph KY Ng received the IEEE Computer Society Meritorious Service Award

Dr. Joseph K.Y. Ng has received the IEEE Computer Society Meritorious Service Award at COMPSAC 2004 in recognition of his exemplary service to the activities of IEEE (Hong Kong) Chapter of Computer Society and sustained contributions to promoting IEEE Computer Society in Hong Kong.

Dr. Joseph K.Y. Ng receives the
IEEE Computer Society
Meritorious Service Award

Distinction Award and Merit Award Received in Internet Technologies Exposition and Conference 2004

The Department nominated two honours projects to participate in the competition in the Internet Technologies Exposition and Conference held in July 2004 in Hong Kong. Among more than 400 final-year projects in the local universities, our two projects won the Distinction Award and Merit Award, respectively.

The Distinction Project is entitled "Interior Design Consultant System", carried out by Wong Pui-Tak and supervised by Dr. William Cheung. The Merit Project is entitled "The EC-Tailor System: A Dynamic E-commerce Website Generator", carried out by Chui Chun-kit and supervised by Dr. Zheng Sun.

In 2003, two projects of our students won the Merit Awards in the same competition.

Mr. Wong Pui Tak and Mr. Chui Chun-kit
receive the Merit Awards

IEEE International Conference on e-Technology, e-Commerce, and e-Service

29 March 2005 - 1 April 2005

URL: http://www.comp.hkbu.edu.hk/~eee05/home/

International ICT Expo 2005, the Hong Kong Convention and Exhibition Centre (organizer: Hong Kong Trade Development Council)

14 April 2005 - 17 April 2005

URL: http://ictexpo.com

The 11th IEEE International Conference on Embedded and Real-Time Computing Systems and Applications

17-19 August 2005

URL: http://www.comp.hkbu.edu.hk/rtcsa2005/

The 2005 IEEE/WIC/ACM International Joint Conference on Web Intelligence and Intelligent Agent Technology

19-22 September 2005

URL: http://www.comp.hkbu.edu.hk/~wi05

2005 International Conference on Computational Intelligence and Security

15-19 December 2005

URL: http://www.comp.hkbu.edu.hk/~cis05

7 Employment **Opportunities**

The Department of Computer Science seeks outstanding applicants for Associate Professor/ Assistant Professor positions (depending on qualifications), and invites applications for Lecturer/ Instructor positions (depending on qualifications) commencing from Fall 2005. The Department, with 15 faculty members, presently offers B.Sc., M.Sc., M.Phil, and Ph.D. programmes. The recruitment details are available through the Personnel Office web site [http://www.hkbu.edu.hk/~pers].

Closing Date:

    31 March 2005 (or until the positions are filled)

Department of Computer Science
Hong Kong Baptist University

Kowloon Tong, Kowloon
Hong Kong

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