

## Department of Computer Science 25<sup>th</sup> Anniversary

# Distinguished Lecture Series



### Prof. Ivan Stojmenovic

IEEE Fellow

Professor, University of Ottawa

## Mobile Cloud and Crowd Computing, Communications and Sensing

October 17, 2013 (Thu) 2:30pm

Y.C. Cheng Lecture Theatre (LT3), Ho Sin Hang Campus, HKBU

**Abstract:** Mobile devices (smart phones, tablets, laptops, embedded boards, robots) can serve as terminals for cloud computing services over intelligent network. Mobile cloud has emerged as a new cloud computing platform that 'puts cloud into a pocket'. Important issues include optimizing the scheduling and transport schemes, access management, and application optimization, for mobile devices to achieve energy saving. This talk will first introduce the development of mobile cloud computing and describe some applications involving multimedia, vision/recognition, graphics, gaming, text processing. It will present the transmission, computation (e.g. task outsourcing), and sensing (e.g. location based services) challenges and solution approaches of green computing in mobile cloud. 'Crowd computing' combines mobile devices and social interactions to achieve large-scale distributed computation. Examples include task farming and social network creation and cooperation. Mobile devices are being equipped with various sensors to provide input for participatory and opportunistic crowd-sourced sensing. Particular emerging concepts are 'vehicular cloud' and 'vehicular crowd', with applications such as cloud server, vehicular data center, and congestion mitigation.

**Biography:** Ivan Stojmenovic received his Ph.D. degree in mathematics. He is Full Professor at the University of Ottawa, Canada. He held regular and visiting positions in Serbia, Japan, USA, Canada, France, Mexico, Spain, UK (as Chair in Applied Computing at the University of Birmingham), Hong Kong, Brazil, Taiwan, China and Australia. He published over 300 different papers, and edited seven books on wireless, ad hoc, sensor and actuator networks and applied algorithms with Wiley. He is editor-in-chief of IEEE Transactions on Parallel and Distributed Systems (2010-3), and founder and editor-in-chief of three journals. He is associate editor-in-chief of Tsinghua Journal of Science and Technology, steering committee member of IEEE Transactions on Emergent Topics in Computing, and editor of IEEE Network, IEEE Transactions on Cloud Computing, IEEE Transactions on Computers, ACM Wireless Networks and some other journals. Stojmenovic is on Thomson Reuters list of Highly Cited Researchers (from 2013; <300 computer scientist), has h-index 59, top h-index in Canada for mathematics and statistics, and >14000 citations. He received five best paper awards and the Fast Breaking Paper for October 2003, by Thomson ISI ESI. He received the Royal Society Research Merit Award, UK (2006), and Humboldt Research Award, Germany (2012). He is Tsinghua 1000 Plan Distinguished Professor (2012-5). He is Fellow of the IEEE (Communications Society, class 2008), and Canadian Academy of Engineering (since 2012), and Member of the Academia Europaea (The Academy of Europe), from 2012 (section: Informatics). He was IEEE CS Distinguished Visitor 2010-11 and received 2012 Distinguished Service award from IEEE ComSoc Communications Software TC. He received Excellence in Research Award of the University of Ottawa 2009. Stojmenovic chaired and/or organized >60 workshops and conferences, and served in >200 program committees. He was program co-chair at IEEE PIMRC 2008, IEEE AINA-07, IEEE MASS-04&07, founded several workshop series, and is/was Workshop Chair at IEEE ICDCS 2013, IEEE INFOCOM 2011, IEEE MASS-09, ACM Mobihoc-07&08.

### Enquiry

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