



# CERIES

東北大学 電気情報系  
グローバルCOEプログラム

Center of Education and Research for Information Electronics Systems

## GCOE Special Lecture

### Explore Applied Algorithm

Date & Time: February 13th, 2012 14:00 ~ 16:00

Place: Conference Room 103, 1F, South Lecture Room Building,  
Electrical Information and Physics Engineering, Tohoku University

Lecturer: Professor Ivan Stojmenovic, University of Ottawa, Canada

[www.site.uottawa.ca/~ivan](http://www.site.uottawa.ca/~ivan)

14:00 ~16:00

#### Title : Contribution of Applied Algorithms to Applied Computing (Sequel)

There are many attempts to bring together computer scientists, applied mathematician and engineers to discuss advanced computing for scientific, engineering, and practical problems. This talk is about the role and contribution of applied algorithms within applied computing. It will discuss some specific areas where design and analysis of algorithms is believed to be the key ingredient in solving problems, which are often large and complex and cope with tight timing schedules. The talk is based on recent Handbook of Applied Algorithms (Wiley, March 2008), co-edited by the speaker. The featured application areas for algorithms and discrete mathematics include computational biology, computational chemistry, wireless networks, Internet data streams, computer vision, and emergent systems. Techniques identified as important include graph theory, game theory, data mining, evolutionary, combinatorial and cryptographic, routing and localized algorithms.

#### Biography

Ivan Stojmenovic received his Ph.D. degree in mathematics in 1985. He earned a third degree prize at the International Mathematics Olympiad for high school students in 1976. He held regular or visiting positions in Serbia (Institute of Mathematics, University of Novi Sad, 1980-1987), Japan (Electrotechnical Laboratory, Tsukuba, 1985/6), USA (Washington State University, Pullman, WA, and University of Miami, FL, 1987/88), France (Amiens 1998, Lille 2002-2007, Paris 2008), Mexico (DISCA, IIMAS, Universidad Nacional Autonoma de Mexico, 2000/02), Spain (Murcia, 2005), UK (Chair in Applied Computing, EECE, University of Birmingham, 2007/8), Canada (SITE, University of Ottawa, since 1988). He published >250 different papers in referred journals and conferences; >80 of them are in journals with an ISI impact factor, >20 are in IEEE or ACM journals. He (co)edited four books with Wiley: 'Handbook of Wireless Networks and Mobile Computing' (2002), 'Mobile Ad Hoc Networking' (IEEE/Wiley, 2004), 'Handbook of Sensor Networks: Algorithms and Architectures'(2005), 'Handbook of Applied Algorithms: Solving Scientific, Engineering and Practical Problems' (2008). His most significant publications can be seen at [www.site.uottawa.ca/~ivan](http://www.site.uottawa.ca/~ivan). He co-authored over 30 book chapters, mostly very recent. He collaborated with about 100 co-authors with Ph.D. and a number of their graduate students from 24 different countries. He (co)supervised 50 completed Ph.D. and master theses, and published over 120 joint articles with supervised students. His current research interests are mainly in wireless ad hoc, sensor and cellular networks. His research interests also include parallel computing, multiple-valued logic, evolutionary computing, neural networks, combinatorial algorithms, computational geometry, graph theory, computational chemistry, image processing, programming languages, and computer science education. He was cited >3500 times and is in the top 0.56% most cited authors in Computer Science (Citeseer August 2006). One of his articles, on broadcasting in ad hoc wireless networks, was recognized as the **Fast Breaking Paper**, for October 2003 (as the only one for all of computer science), by *Thomson ISI Essential Science Indicators* <http://esi-topics.com/fbp/fbp-october2003.html>. He received: **Best Paper Award**, at the IFIP PWC, 2004 and SENSORCOMM 2007; **Faculty of Engineering's 2004-2005 Award for Excellence in Research, University of Ottawa**; NSERC Collaborative Research Development (CRD) project (2005-8), and NSERC Strategic Grant (2006-9) as Principal Investigator. He presented several tutorials on ad hoc and sensor networks, and gave a number of invited talks. He was Director of the Ottawa-Carleton Institute for Computer Science (2002-2004). He is recipient of the **Royal Society Research Merit Award, UK**, from 2007. He is elected to **IEEE Fellow** status by Communication Society, from 2008.