



Business Aspects of Broadband Wireless Technologies and Mobile Commerce

21 August 2007

Presenter: Dr Riaz Esmailzadeh

Rialto Hotel on Collins
495 Collins St, Melbourne VIC

Course Topics:

- Introduction and History of Wireless and Mobile Telecommunications
- Wireless Communications Technologies and Their Cost Implications
- Cellular Topologies
- Cost of Spectrum
- Cost of Devices
- Network Design and Operation
- Services, M-Commerce and Business Scenarios

The course will be conducted from 9.00am to 5.00pm. Morning tea will be available at approximately 10.00am to 10.30am, lunch from 12.30pm to 1.30pm and afternoon tea at approximately 3.00pm to 3.30pm.

Registration Fee:

AU\$770 (including GST)

Early bird rates: AU\$616 (incl. GST) register before 21st Jun 2007

Group and PhD student discounts available. Please enquire.

For details of further courses please see our web site:

www.nicta.com.au/short_courses

or contact the NICTA Industry Education Manager.

About Business Aspects of Broadband Wireless Technologies and Mobile Commerce

This **1-day** course gives a detailed description of the business side of broadband wireless and mobile communications technologies, their costs and benefits. The past several years have seen the emergence of numerous technologies all aimed at providing high data rate wireless transmission links. We review the major present standards: WCDMA-HSPA, WiMAX, WLAN and TD-CDMA and their provision of data communications, a topic that is of great importance in the coming decade. We compare technologies with reference to the cost of manufacturing, implementation, network design and operation, and end-user devices/handsets. The mobile telecom value chain is discussed to show how each component adds value to the whole. New services delivered over the present 3G and future 4G systems are discussed focusing on how they facilitate the mobile commerce.

About NICTA and Short Course Program

National ICT Australia (NICTA) is Australia's ICT Centre of Excellence and was established to drive innovation through high quality research, research training and technology transfer. As a world-class research institute NICTA uniquely combines excellence in research, education, commercialisation and collaboration. We are working to ensure that Australia is well placed to benefit from the significant opportunities that ICT research delivers.

NICTA is funded by the Australian Government as represented by the Department of Communications, Information Technology and the Arts and the Australian Research Council through *Backing Australia's Ability* and the ICT Centre of Excellence program. NICTA members are the Australian Capital Territory Government, the New South Wales Government, the University of New South Wales and the Australian National University.

In July 2005 NICTA boosted its education by taking on the short course business of the Cooperative Research Centre for Sensor Signal and Information Processing (CSSIP) and Wedgetail Training, Research and Development Centre (Wedgetail TRDC).

The education model established by CSSIP and Wedgetail TRDC provided scope for delivering in-house programs tailored to specific needs of organizations. NICTA, with its extensive network of world-class researchers, is now offering a greater variety of short courses in an increasing number of locations in Australia and sometimes internationally. NICTA short courses connect research with industry by providing practical information from experts on how to solve key problems in industry and government. The Program offers scientists, engineers and managers technical training with a leading edge in areas such as telecommunications, transport, security, defence, logistics, e-government, mining, finance and biotechnology.

Course Topics

Introduction and History of Wireless and Mobile Telecommunications: Fixed-line Broadband Data Communications; Mobile Communications; Broadband Wireless;
Wireless Communications Technologies and Their Cost Implications: Modulation; Single-carrier and Multi-carrier; System Capacity, Capacity Limit, Coverage, and coverage extension;
Cellular Topologies: Cell Structure; Distributed Base Stations;
Cost of Spectrum: Throughput Efficiency for Data and Voice for WCDMA HSPA, WiMAX, TD-CDMA HSPA, WLAN;
Cost of Devices: Base Station, and Network Nodes Costs; End-user Equipment;
Network Design and Operation: Design and Planning, and Site Cost; Wholesale Operators - Network-less Operators;
Services, M-Commerce and Business Scenarios: Market Size, Revenue Flow, and Value Chain: Cash Flow Scenarios; Infotainment, and Location based services;

There will be ample opportunities for discussion and questions and answers. Morning and afternoon tea/coffee and a light lunch will be provided. Extensive workshop materials will be made available to participants.

Please complete the registration form and send it together with your fee, if appropriate to

Anne-Marie Eliseo, Industry Education Manager,
NICTA, SPRI Building,
Mawson Lakes Boulevard,
Mawson Lakes, South Australia, 5095.
Telephone: (08) 8302 3928
Facsimile: (08) 8302 3115
Email: anne-marie.eliseo@nicta.com.au

Instructor: Dr Riaz Esmailzadeh

Riaz Esmailzadeh is an Associate Professor of Management of Technology at Carnegie-Mellon University, Adelaide, Australia; where he is responsible for teaching Telecommunications Management, Entrepreneurial Project Management and E- and M-Commerce. He is the author of "*Broadband Wireless Telecommunications Business: Costs and Benefits of New Technologies*" (John Wiley and Sons, 2006); and a co-author of "*TDD-CDMA for Wireless Communications*" (Artech House, 2002). He has authored more than 60 technical papers and more than 50 patent applications, 20 of which have so far been granted (US patents). He received his PhD in Electrical Engineering from Keio University, Japan, in 1994, and MBA from IMD, Switzerland, in 2002. He has over 19 years of work experience in various capacities related to telecom research, development, management and education. Riaz was a research engineer in Telstra, Australia, continued at the central research laboratories of Hitachi in Tokyo, and after working at Ericsson in Sweden, founded the research unit at Nippon Ericsson. He then co-founded and was the CTO at Genista Corporation, a telecom software company headquartered in Tokyo. In 2002-2005, he was an Associate Professor at the Information and Computer Science Department of Keio University, Yokohama, Japan. At the same time he acted as the interim CTO and a technical advisor at IPMobile Inc. He returned to Australia in August 2006 to take up his present position.

Registration Form and Tax Invoice* ABN 62 102 206 173

*Upon completion of this form, including the relevant payment, this form will become a Tax Invoice.

Please register me for Business Aspects of Broadband Wireless Technologies and Mobile Commerce on 21 August 2007.

PLEASE PRINT

Date: _____

Title: _____ First Name: _____ Surname: _____

Position: _____ Organisation/Division: _____

Postal Address: _____

Telephone No: _____ Facsimile No: _____ Email: _____

Dietary preference: _____

Course Fees: Early bird rate: AU\$616 (incl. GST)
(Please register before **Jun 21st, 2007.**) Full fee: AU\$770 (incl. GST)

Method of Payment (please tick)

Cheque (payable to National ICT Australia Ltd)

Please forward cheque and a copy of THIS Registration Form to the NICTA Industry Education Manager.

Credit Card: Credit Card No.: _____ Expiry Date: _____

Visa Master Card Name on card: _____

Amount: AU\$ _____ Signature: _____ Tick if receipt required

Electronic Funds Transfer
Please advise by email to Annette Van Bramer
annette.vanbramer@nicta.com.au
when payment is made

BANK	Commonwealth Bank of Australia
ACCOUNT NAME	National ICT Australia Limited
BSB	062 900
ACCOUNT NUMBER	1032 4576
REFERENCE NUMBER	210807

Privacy Clause: The above information is being collected by NICTA and will be added to our contact database and will be used primarily to provide you with further information about NICTA events and services. All information is collected, used or disclosed subject to NICTA's Privacy Policy which can be accessed at <http://nicta.com.au/privacystatement.cfm>. Please tick the box below if you do NOT wish to receive any further mailings from NICTA.

I do not wish to receive any further mailings from NICTA

You can use the following options to access or remove your personal information from NICTA's databases, make a complaint about a breach of privacy or if you have a query relating to NICTA's privacy practices and policies: send an email to comments@nicta.com.au or phone Industry Education Manager on +61 8 8302 3928.