

**Advance Wireless Technology Group (AWTG)
Presents a one day Course on
HSDPA, WiMax & Future Wireless
Networks**

*Course presenter
Professor Hamid Aghvami*

Objectives

To provide participants with the latest information and knowledge of HSDPA techniques and deployment, and advances in wireless networks

Who should attend

Project managers, marketing managers, researchers, engineers, plus those already involved in the second/third generation mobile systems

Prof. Hamid Aghvami

Hamid Aghvami joined the academic staff at King's College, London University in 1984. In 1989 he was promoted to Reader, and Professor in Telecommunications Engineering in 1992. He is presently the Director of the Centre for Telecommunications Research at King's. Professor Aghvami carries out consulting work on Digital Radio Communications Systems for both British and International companies. He has published over 350 technical papers and given invited talks all over the world on various aspects of Personal and Mobile Radio Communications as well as giving courses on the subject worldwide. He was Visiting Professor at NTT Radio Communication Systems Laboratories in 1990 and Senior Research Fellow at BT Laboratories in 1998-1999. He is currently Senior Adviser to AWTG in EMEA.

He leads an active research team working on numerous mobile and personal communications projects for third and fourth generation systems. These projects are supported both by the government and industry. He is a distinguished lecturer and a member of the Board of Governors of the IEEE Communications Society. He has been member, Chairman, Vice-Chairman of the technical programme and organising committees of a large number of international conferences. He is also founder of the International Conference on Personal Indoor and Mobile Radio Communications (PIMRC). He is a Fellow of the Royal Academy of Engineering, Fellow of the IET and Senior Member of the IEEE.

High Speed downlink Packet Access & Future Networks

Registration and Coffee

8.30 am- 9.00 am

HSDPA

9.00 am-12.30 pm

This part covers all technical and planning aspects of HSDPA including:

- *Introduction to packet transmission of R99*
- *Introduction to HSDPA*
- *Marketing aspect of HSDPA*
- *HSDPA channel configuration*
- *HSDPA features*
 1. *Adaptive modulation/coding*
 2. *HARQ*
 3. *Fast Node B scheduling*
- *Some important issues related to the HSDPA performance*
- *HSDPA protocol layer architectures*
- *Node B MAC architecture*
- *Mobility*
- *Performance criteria*
- *QoS support on HSDPA*
- *Issues related to HSDPA planning and optimisation*

Lunch

12.30pm – 2.00pm

Mobile WiMax

2.00pm-5.00pm

- *Introduction to OFDM*
- *OFDMA access Technique*
- *Scalable OFDMA*
- *OFDMA frame structure*
- *Mobile WiMax classes*
- *Handover schemes*
- *End-to-end WiMax architecture*
- *Frequency planning*
- *Uplink & downlink link budgets*
- *Mobile WiMax application*

Interworking of Networks

- *Heterogeneous Wireless Access Environment concept*
- *Convergence, integration and inter-working*
- *Degree of coupling between radio access networks*
- *Interworking of cellular networks with WLANs*
- *Interworking of cellular networks with Broadcast Networks*
- *Sceneries and business models*
- *New services and applications*