

CONFERENCIAS SEMI-MAGISTRALES

“WIRELESS COMMUNICATIONS IN DEVELOPING COUNTRIES: CURRENT PRACTICES, CHALLENGES AND OPPORTUNITIES”

Mieso Denko

*University of Guelph, Ontario
Canada*

Poor communication infrastructure in developing countries has resulted in low telephone and Internet penetration rates and thus limited the delivery of basic and extended services only to major cities. The emergence of wireless communication technologies and mobile computing have become a promising alternative to wired communication systems in overcoming communication challenges in these countries. Recent telecommunication and ICT indicators show that the number of wireless network subscribers has exceeded fixed line subscribers in developing countries. New wireless communication networks such as mobile ad hoc, wireless sensor and wireless mesh networks are creating good opportunities for future communications services. However, there are still administrative and research challenges that should be addressed to fully exploit these opportunities in developing countries. On the administrative side, governments in the respective countries should recognize the role of Information and Communications Technology (ICT) and devise suitable ICT policies & strategies. Such efforts should be done in consultation with wired and wireless network operators, Internet Service Providers, non-governmental organizations and ICT specialists, to facilitate the implementation process. On the research side, academic and industry researchers should invest on the design and deployment of technologies that are low cost, energy efficient, easy to install and maintain. In this presentation, we discuss existing wireless communication technologies, research challenges and opportunities in the context of developing countries.



Mieso Denko received his BSc degree in Statistics & Mathematics from the Addis Ababa University, Ethiopia. He received his MSc degree from the University of Wales, UK, and his PhD degree from the University of Natal, South Africa, both in Computer Science. His current research interests include wireless ad hoc networks, wireless mesh networks, wireless sensor networks, pervasive computing & networking and appropriate communication infrastructure for developing countries. He has published numerous research papers in international journals, conferences, workshops and contributed to book chapters. Currently he is co-editing three books in the above areas. Dr. Denko has been actively involved in professional services as organizer or co-organizer of international conferences, symposiums and workshops as well as TPC member for a number of conferences and workshops. Among these, most recently he was the general co-chair of the IEEE PCAC-07, general vice-chair of ISPA-07 and program vice-chair of IEEE AINA-07. Currently he is a program vice-chair of the IEEE AINA-08, co-organizer and program co-chair of the IEEE MHWMN-07. Dr. Denko is a vice-chair of IFIP WG 6.9-Communication Systems for Developing Countries. He has been involved in IFIP World IT

Forum (WITFOR) commissions since 2003. Currently, Dr. Denko is an Associate Professor of Computing and Information Science at the University of Guelph, Ontario, Canada. He is a senior member of the ACM, a member of the IEEE, ACM SIGMOBILE, IEEE Communications society and IEEE Computer Society.

Mieso Denko, PhD

Associate Professor

Dept. of Computing and Info. Science

University of Guelph, Guelph, ON

N1G 2W1, Canada

www.cis.uoguelph.ca/~denko

E-mail: denko@cis.uoguelph.ca