IEEE 802 LAN/MAN Standards Committee Plenary Session
July 2008 Tutorials

Tutorial #1

Date: Monday, July 14, 2008
Time: 18:30 – 20:00
Location: TBD
Title: Handover with Broadcast Technologies
Sponsored by: Vivek Gupta; IEEE 802.21 WG Chair

Presenter(s) Name:	**Affiliation:**	**Email Address:**
Burak Simsek	Fraunhofer Institute	burak.simsek@fokus.fraunhofer.de
Juan Carlos Zuniga	InterDigital Communications	JuanCarlos.Zuniga@InterDigital.com
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Abstract:
Mobile digital television has been gaining momentum during the last few years leading to a variety of products based on different standards such as DVB-H, Mediaflo and DMB. Similar to IEEE 802 technologies, broadcast technologies have their limitations in terms of available coverage and therefore they need to support handovers with other technologies. Additionally, those broadcast technologies are mostly collocated with other technologies such as IEEE 802 and 3GPP/3GPP2 in the mobile device, leading to a need for strong coordination for optimum handover management. In this sense, the IEEE 802.21 specification is a very good candidate to provide broadcast technologies with the needed mechanisms for realizing optimized inter-technology handovers. The presentation would cover an overview of different broadcast technologies followed by a discussion of handovers between broadcast technologies and IEEE 802 technologies such as 802.16/802.11 and 3GPP technologies.

Tutorial #2

Date: Monday, July 14, 2008
Time: 20:00 – 21:30
Location: TBD
Title: Presentations from Host Candidates for future 802 Plenary at non-North American Venues
Sponsored by: Dr. Everett (Buzz) Rigsbee; Executive Secretary, IEEE-802 LMSC

Presenter(s) Name:	**Affiliation:**	**Email Address:**
TBD		

Abstract:
A chance to see and hear some descriptions of the future plenary choices we will be asked to choose from. Further details are TBD at this time.

Tutorial #3

Date: Tuesday, July 15, 2008
Time: 18:30 – 20:00
Location: TBD
Title: Neighbourhood Area Networks (NAN)
Sponsored by: Robert Heile, IEEE 802.15 WG Chair

Presenter(s) Name:	Affiliation:	Email Address:
Chris Knudsen	Pacific Gas & Electric	cxkq@pge.com
George Flammer	Silver Spring Networks	gflammer@SilverSpringNet.com
David Su	NIST	
Austin Harney	ADI; Magnus Pedersen (ATMEL)	

Abstract:
The ad-hoc wireless networks, classified as Neighbourhood Area Networks (NAN), are being increasingly applied to meet the requirements of utility smart-grid applications, industrial wireless applications, and compatible home area network applications. The business case is well established and technology feasibility is also well established via several major trials by several utility, oil and gas companies. Several companies have put forward a proposal to the IEEE 802.15 Working Group to undertake efforts to develop standards for the NAN networks either by amending the current 802.15.4 standard or as a stand-alone standard. The purpose of the tutorial is to brief the IEEE 802 membership about the status of the NAN application space, requirements, underlying technologies, tests and results.

Tutorial #4

Date: Tuesday, July 15, 2008
Time: 20:00 – 21:30
Location: TBD
Title: Wireless and Wired Network Requirements for Safety in Healthcare
Sponsored by: Robert Heile, IEEE 802.15 WG Chair

Presenter(s) Name:	Affiliation:	Email Address:
Elliot B. Sloane	Villanova University, IEEE EMB	ebsloane@villanova.edu
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Abstract:
Healthcare is a $2 trillion market in the US, and it is projected to likely exceed $4 trillion, or 25% of the US GDP by 2015. Most medical devices in hospitals have wired network data access capability, and some are beginning to move to wireless modes to allow more flexible and efficient resource deployment in the healthcare enterprise. In 2005, the US Secretary of health has launched a nationwide networking framework for electronic medical records, and in 2009, that network will begin to have the capability to support home care monitoring, which the US is expected to use to help create "medical home" capabilities to help moderate expensive in-hospital care. Most pilot BAN/PAN/LAN/MAN/WAN medical device networks in use today were built on IEEE 802.x technologies, but healthcare users are discovering that current QOS levels are sometimes not appropriate to sustain large volumes of life-critical medical alarm and alerts or emergency multi-modal data transfer to/from care providers and first responders in ambulances, homes, and public places. (For clarification, life-critical and emergency data often imply a 1-2 minute "countdown to death," and loss, damage, or significant delay of this data can directly harm or kill a patient) The pilot medical data networks currently in use are only carrying a small fraction of the data volume expected by 2010, too, and the risks continue to mount quickly as life-critical data loads continue to increase. This tutorial will explain the basic differences between life-critical and emergency data used in healthcare and other commercial and personal applications, and it will also clarify how, why, and when these life-critical medical uses often collide with other simultaneous and unpredictable network application demands such as VoIP, multi-media, and general data transfer. This tutorial will focus on ways to successfully address the new and important opportunities that networked healthcare applications offer while ensuring that patients are not inadvertently hurt or killed by inappropriate configurations.