

**IEEE 802 LMSC PLENARY SESSION
TUTORIAL SCHEDULE
MONDAY NOVEMBER 7, 2011**

TIME: 6:00 – 7:30 PM

ROOM: Centennial Ballroom II, Ballroom Level

TUTORIAL SPONSOR (WG Chair):

Apurva Mody, 802.22 WG Chair

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1. TITLE OF TUTORIAL: Introduction to IEEE Std. 802.22-2011 and its Amendment PAR for P802.22b: Broadband Extension and Monitoring

2. NAME OF PRESENTERS, THEIR AFFILIATIONS AND CONTACT INFO:

Presenter(s) Name:	Affiliation:	Email Address:
Apurva Mody	BAE Systems	apurva.mody@baesystems.com
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3. ABSTRACT: (a brief paragraph describing content of the presentation)

The recently completed standard IEEE std. 802.22-2011, is the first IEEE 802 standard for wireless communications in the television white spaces (TVWS), specifically for wireless regional area networks (WRAN). Since the propagation characteristics of UHF/VHF frequencies are favorable for long range communications, the standard focuses on coverage of typically 10 to 30 km, and maximum 100 km. However, the concept of wireless communications in TVWS is relatively new and requires complying with various regulatory requirements.

The PHY and MAC technologies defined in the standard are optimized for such long range communications in the context of WRAN. In addition the standard, for the first time in IEEE, introduces a new plane in the architecture- the cognitive plane. The cognitive plane is responsible for complying with various regulatory requirements, such as: incumbent protection, management of database access, sensing, geolocation peripherals etc. In the first part of the tutorial, we will be introducing an overview of the technologies embedded in IEEE std. 802.22-2011 such as the overview of the standard, the current PHY and the MAC capabilities.

The second part of the tutorial is to educate the IEEE 802 community as to why a new amendment to the IEEE std. 802.22-2011 is needed and what it will do. This second part will focus on the ongoing efforts for the proposed P802.22b PAR for accommodating enhanced broadband and monitoring applications where we will go over the new use cases such as monitoring applications in wide variety of situations such as hazard monitoring, homeland security monitoring, broadband enhancements for multimedia services and to support more users than what the current 802.22-2011 Standard can accommodate. We will introduce the specific use cases that are being considered, high level system requirements, as well as, the contents of the PAR and 5C for the amendment project P802.22b.

**IEEE 802 LMSC PLENARY SESSION
TUTORIAL SCHEDULE
MONDAY NOVEMBER 7, 2011**

TIME: 7:30 – 9:00 PM

ROOM: Centennial Ballroom II, Ballroom Level

TUTORIAL SPONSOR (WG Chair):

Bruce Kraemer, 802.11 WG Chair

Sponsor Email: bkraemer@marvell.com

1. TITLE OF TUTORIAL: Smart Grid Update - 2011

2. NAME OF PRESENTERS, THEIR AFFILIATIONS AND CONTACT INFO:

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ABSTRACT: (a brief paragraph describing content of the presentation)

IEEE participants involved in several of the major Smart Grid initiatives around the world will summarize project status and expectations. This has been requested by 802 attendees and represents an update of information from a similar Smart Grid tutorial given 2 years ago.