

## **IEEE ANTS 2013 Tutorial - Introduction to LTE Networks**

Long Term Evolution (LTE) is the latest standard for the mobile cellular systems. Marketed as a 4G technology, LTE is designed to provide very high-speed data services to mobile users. This tutorial aims to provide an overview of LTE, covering both Radio Access Network and Core Network aspects.

### **Session 1: LTE Air Interface Overview**

Speaker: **Dr. T. Rama Rao**, SRM University, Chennai.

Dr. T. Rama Rao currently, working as 'Professor & Head' of the Telecommunication Engineering Department, SRM University, Chennai, India. Prof. Rama Rao is a Member of the IEEE; an IETE Fellow; Senior Member of ACEEE, Life Member of the ISCA, Member of IACSIT, Member of ACM and Member of WWRF – Wireless World Research Forum. His research interests are Antennas, Radio Channel Measurements & Modeling, Broadband Wireless Communications and Mobile Cellular Telecommunications.

This part of this tutorial covers the following topics:

1. Wireless systems evolution and standardization activities
2. Motivation for LTE, performance requirements and challenges
3. LTE Key Features and technology basics

### **Session 2: LTE End-to-end Network**

Speaker: **Dr. Nadeem Akhtar**, Centre of Excellence in Wireless Technology, Chennai.

Dr. Nadeem Akhtar is currently working as Principal Research Engineer at the Centre of Excellence in Wireless Technology (CEWiT) in Chennai. He has been associated with CEWiT since January 2008. Dr. Akhtar's current research focuses on LTE technology, particularly in the area of radio resource management. He represents CEWiT at 3GPP RAN standardisation meetings. Dr. Akhtar is also an active member of the Development Organization of Standards for Telecommunications in India (DOSTI).

This part of the tutorial covers the following topics:

1. L2 and higher layer aspects of the LTE Radio Access Network
2. Overview of the Core Network functionalities.