

HKIE Electronics Division Activity Report

The Latest Development in 3G Mobile



Professor Yue was presenting the 3G Seminar to the participants

On 12 January 2005, the EN division organized a technical seminar on "The Latest Development in 3G Mobile". The guest speaker Prof. OnChing Yue, MobiTec Director, Chinese University of Hong Kong, gave a talk on the latest development on Third generation mobile.

Professor Yue opened the talk by providing an overview to the MobiTec. The main focus of this research center is on such area as End-to-End 3G Data Applications QoS, Multimedia Applications overl WLAN, Sensors for Healthcare and Logistics.

Professor Yue then went on to elaborate on the origin of mobile radio telephone. The cellular concept was proposed by Bell Labs dated back to 1960. By means of frequency reuse, the cellular system can support more customers. Also, the cellular system provided handover between cells so that a customer can use their mobile while moving. Third generation (3G) is evolved from 2G, namely, GSM and IS-95B. GSM is a European standard while IS-95B is an US standard.

The evolution for IS-95B will be IS-2000 while that for GSM is UMTS. The vision for 3G is that it could support universal global roaming, multimedia, increased data rates, increased capacity, and IP architecture. There is a number of traffic class in 3G including voice, streaming (media), interactive (web browsing), background (download).

Before the end of the talk, Professor Yue discussed about the enhanced feature of UMTS including High Speed Downlink Packet Access (HSDPA) where the download speeds will be up to 10Mbit/s. There will also be IP-Based Multimedia Services which is based on SIP and PS bearers.

he talk ended with an interactive Q&A and a souvenir was presented to Professor Yue by the chairman of the technical seminar, Ir. Alan Mok.



Ir Alan Mok (L), chairman of the Technical Seminar, presented the souvenir to the speaker Professor Yue (R)
