

## HKIE Electronics Division Activity Report

**WCDMA and Beyond**

On 13 November 2006, the Electronic Division organized a technical seminar on "WCDMA and Beyond". The speakers, Kaman Lau, Product Manager, Systems Solutions Division, Ericsson Limited, gave a talk on the latest development on Wideband Code Division Multiple Access (WCDMA).

Kaman Lau, our honorable guest, opened the talk by providing an overview to current mobile market. Kaman elaborated that mobile penetration in West Europe already reached 100% (source Yankee Group 2006). However, the mobile data market is far from saturated. Currently, some 17% of mobile revenue is coming from data while the predication is that by 2010, it will be 26%, according to the Yankee Group. The evolution for the WCDMA is High Speed Packet Access (HSPA). HSPA is based on such new technology as Multiple Input Multiple Output (MIMO), High order modulation, MultiMedia Telephony (MMTel) enhancement. With HSPA, the data rate can be increased to 14M for down link and 5.8M for up link. Along with the throughput improvement, the capacity will also be increased – 2 to 5 time for down link and 1.2 to 2 time for up link. Kaman also presented the Adaptive Multirate (AMR) Wideband with a live demonstration of a pre-recorded voice clip. As a new standardized voice codec for GSM and UMTS, AMR Wideband can significantly improve the voice quality – better than the PSTN. The AMR Wideband will transfer a wider voice spectrum 100Hz-7000Hz over the same channel as opposed to current technology which is 300Hz-3400Hz.

The seminar ended with a question-and-answer session and a souvenir was presented by Ir Oliver Choi, Chairman of Electronic Division.



Ir Oliver Choi (left) present a souvenir to Kaman Lau.