

Subject name: Mobile networks		NEPTUN-code: KHTMN11AND	Weekly hours: 2 lectures
Credits: 3 Req.: Assignment		Prerequisites:	
Subject leader: Dr. Dóra Maros	docent	Faculty and Department: Kandó Kálmán Faculty of Electrical Engineering, Department of Telecommunications Techniques	
Description of Subject			
<p>The evolution of mobile network (1G-5G), data rates and technologies. Duplexing and DMA technologies, frequency bands and band aggregations.</p> <p>Problems of radio propagation (fading, ISI) in different frequency bands. Cell and frequency planning. System topologies (GSM, UMTS, LTE) and core network elements. Logical and Physical channels: broadcast, common and dedicated channels. Bursts and frames, synchronization. Authentication, authorisation and ciphering procedures. Traffic cases: CS and PS attach/detach (IMSI flag), location management, roaming cases. Measurements on radio channels, handover procedures.</p>			