

EEE.9-2.7 Digital Audio and Video Broadcasting

Course contents: * Introduction. History of radio/television. Definitions of related physical quantities. EM spectrum. AM/FM modulation. AM/FM receivers. Antennas. EM wave propagation. AM/FM radio emitter and receiver. Stereo emission. Production and transmission of television signal. Scanning. Synchronization. Quality. * Digitization and compression of audio and video signals. DCT, JPEG. MPEG1. MPEG2. MPEG4. * Information processing, cryptography, coding, modulation. MPEG1 System Layer. MPEG2 Transport / Program. FEC/Formating: Energy Dispersal, Outer/Inner Coding. QPSK/QAM, OFDM. Guard Interval. * Digital terrestrial and satellite emission and reception. Low Noise Block Converters (LNBS). DVB-T, DVB-S, DVB-S2. * New technologies and applications.