

Tárgytematika
Technical acoustics
NGB_TA120_1

Tárgyfelelős neve: dr. Wersényi György

Félév: 2014/15/2

Beszámolási forma: Vizsga

Tárgy heti óraszám: 0/0/0

Tárgy féléves óraszám: 0/0/0

OKTATÁS CÉLJA

Basic overview of technical acoustics to assist electrical engineer students mostly on the field of telecommunications. Students of electrical engineering at least with 3 semesters completed can apply.

TANTÁRGY TARTALMA

Basics of electroacoustics, Physical basics of acoustics, Sound and vibration, Harmonic waves and propagation, Measurement signals and evaluation, Linear and non-linear transmission, Transformations and windowing, Filters, Properties of the hearing system, Masking effects, thresholds. Psychoacoustic measures and phenomena, Directional hearing, Speech, Electroacoustic transmission Transducers and impedances, Basics of microphones, loudspeakers, amplifiers, Transfer functions, directional characteristics, measurements, Room acoustics and measurements, Reflections and the reverberation time (RT) Measurement and calculations of the RT, Measurement of acoustic parameters.

SZÁMONKÉRÉSI ÉS ÉRTÉKELÉSI RENDSZERE

Exam

KÖTELEZŐ IRODALOM

Compulsory Literature:

Everest, F. Alton: The Master Handbook of Acoustics (4th Ed.)

Referenced Literature:

Blauert, Jens: Acoustic Communication
Vorländer, Michael: Auralization
Brüel & Kjaer documentation and figures