

Tárgytematika / Course Description Noise and Vibration Control

AJNM_KMTA001

Tárgyfelelős neve /

Teacher's name: dr. Kozma Katalin

Félév / Semester: 2024/25/1

Beszámolási forma /

Assesment: Vizsga

Tárgy heti óraszám /

Teaching hours(week): 2/1/0

Tárgy féléves óraszám /

Teaching hours(sem.): 0/0/0

OKTATÁS CÉLJA / AIM OF THE COURSE

The subject deals with the noise and vibration issues in the environment. The goal of the subject is that the students should be able to understand the basics of the technical acoustics, can perform simple noise- and vibration measurements and understand and apply the main legal and technical problems connected to the planning of environmental protection.

TANTÁRGY TARTALMA / DESCRIPTION

Main topics of the lectures:

- Basic concepts and metrics of technical acoustics and physical noise protection 1.
- Basic concepts and metrics of technical acoustics and physical noise protection 2.
- Sound propagation and influencing factors, environmental noise and noise sources (road, railway)
- Effects of noise on human health, animals and vegetation
- Possibilities, physical and technical background and metrics of noise reduction
- The process of noise measurement and noise mapping
- Basic vibrational concepts, metrics and mechanisms of action
- Vibration measurement and vibration reduction options

SZÁMONKÉRÉSI ÉS ÉRTÉKELÉSI RENDSZERE / ASSESSMENT'S METHOD

Two tests during the semester.

KÖTELEZŐ IRODALOM / OBLIGATORY MATERIAL

- Lecture notes
- Randall F. Barron (2002): Industrial Noise Control and Acoustics. - CRC Press

AJÁNLOTT IRODALOM / RECOMMENDED MATERIAL