

Module Name	Psychoacoustics/ Sound Design
Module Number	Eul-ET-E-PsaSD, Eul-ET-E-PsaSD
Responsible Lecturer	Prof. Dr.-Ing. habil. Ercan Altinsoy ercan.altinsoy@tu-dresden.de
Qualification Objectives	After completing the module, students are able to construct signals that, when perceived as sound, evoke specific physical, affective, or psychomotor reactions. They acquire key qualifications for product development, for example, in the automotive, hearing aid, or machinery industries, as well as in telecommunications and medical technology.
Contents	The module covers the topics of Psychoacoustics and Sound Design. Psychoacoustics includes, for example, the auditory organ as a sound transducer, auditory perception characteristics, systematic relationships between acoustic and auditory events, and auditory-based analysis of acoustic signals such as speech, product sounds, and noise. Sound Design focuses on acoustic signals as carriers of information.
Teaching and Learning Forms	4 hours per week of lectures, 1 hour per week of exercises, and self-study.
Prerequisites for Participation	The competencies to be acquired in the module Basics of Electrical Engineering are required. The following literature is recommended for preparation: *Acoustics for Engineers* by Jens Blauert and Ning Xiang, Springer-Verlag, 2009.
Usability	The module is an elective module within the elective area "Competence Deepening" according to § 6 paragraph 3 of the study regulations and § 33 paragraph 4 of the examination regulations for the main study program in the field of Information Technology in the diploma program Electrical Engineering. Furthermore, it is an elective module within the elective area "Competence Deepening" according to § 6 paragraph 3 of the study regulations and § 33 paragraph 3 of the examination regulations for the main study program in the field of Communication Technology in the diploma program Information Systems Engineering. The module creates the prerequisites for the modules that list it under "Prerequisites for Participation."
Prerequisites for the Award of Credit Points	Credit points are awarded when the module examination is passed. The module examination consists of a written exam lasting 90 minutes.
Credit Points and Grades	7 credit points can be earned through the module. The module grade corresponds to the grade of the examination performance.
Frequency of the Module	The module is offered every winter semester.
Workload	The total workload is 210 hours.
Duration of the Module	The module lasts one semester.