315MI DIGITAL SIGNAL PROCESSING

Aims

Knowledge and understanding of the elementary principles and the most significant algorithms for the processing of digital discrete signals in one dimension. Applying knowledge and understanding, in particular, about signal representation in the data and in the frequency domains, FIR and IIR digital filters and their realization. Ability to evaluate and discuss the diverse aspects of the themes mentioned above. Ability to acquire in the future new knowledge and competences in this field.

Teaching Format

Lessons about theory and applications, exercises also using suitable computational tools, seminars.

Assessment

Oral exam aiming at the practical applications of the acquired knowledge, rather than their abstract mathematical formulation: description of the actual behaviour of a filter, exact and approximate design techniques, etc.