FP8-17 Software Programmable Signal Processing Platform Analysis

Course Description

Purpose:

- To give the students a knowledge of methods for real-time implementation of signal processing applications with different cost functions on programmable SW units.
- To give the students a knowledge of structure and functions in a C-compiler for digital signal processors.

Contents:

- Structure of a compiler
- Architecture and instruction set definitions for digital signal processors
- Implementation of a compiler for DSP processors
  - Lexical analysis, Parsing and Diagnostics
  - Register allocation
  - Code selection
  - Code optimization

Prerequisites:

Real time systems (E5-13/D5-13)
Realisation of Signal Processing Systems (SB6-2).

Duration:

1.4 ECTS

Category:

Project theme course (PE- course)