KAMK • University of Applied Sciences

Embedded C programming

Course description

Embedded C programming
5 ECTS
Grading: pass/fail

Learning outcomes of the course:
On completion of the course student understands the principles of procedural programming. He or she is familiar with the ANSI C programming language and knows the control structures, data types and important standard functions. Additionally, student understands the fundamentals of software development in embedded environment, and is able to design and debug a program for embedded platform.

Course contents:
- C language fundamentals
- Embedded application development using C
- Principles and process of software development
- Modular organization of programs
- Structured algorithms and structured data
- Development environments in programming
- Memory management
- Interrupt service routine (ISR)
- Pointers and references
- How to use subroutines
- Basics of Register based programming
- Debugging and GNU tools
- Software development and testing in embedded systems