Department: 04 Electrical Engineering and Information Technology

Course title: Embedded Systems

Hours per week (SWS): 4

Number of ECTS credits: 5

Course objective: Development of Embedded Systems with microcontrollers

Prerequisites: Knowledge of any programming language, "C" preferred

Recommended reading: Course material will be provided by the instructor

Teaching methods: lecture, intensive hands-on laboratory

Assessment methods: 6 laboratory assignments, 1 final exam

Language of instruction: English

Name of lecturer: Prof. Dr. Alfred Irber

Email: irber@ee.hm.edu

Link: http://www.ee.hm.edu/fk/prof/irber/index.html

Course content:
- Architecture of the Infineon C166 microcontroller family
- CPU of the Infineon C164 microcontroller
- Address- and memory - organization
- Interrupts
- In-/Output Units
- General Purpose Timer 1
- Ports
- Asynchronous Serial interface
- Capture Compare Unit 2
- A/D - Converter
- Systems support
- Clock
- Power Consumption
- Realtime Clock
- Watchdog Timer
- CAN-Interface
- Real time operating system

Remarks