

Course: Embedded Systems

credits: 5

Course code	ELVH20AEMB	Modes of delivery	Assignment
Name	Embedded Systems		Individual supervision
Study year	2022-2023		Lecture
ECTS credits	5		Practical / Training
Language	English	Assessments	Embedded Systems - Assignment
Coordinator	P.J. Kamphuis		

Learning outcomes

The student understands the basics of a microcontroller in an Embedded setting:

- Design principals of an Embedded systems in Flow Charts
- GPIO read and write
- Serial communication
- Analog communication
- Project to apply and integrate these techniques
- Show the output data on a platform

Content

This course will take the ESP32 microcontroller as an example
For serial communication I2C or SPI will be discussed
Analog communication DAC (write) and ADC (read)
Project Solar Power meter with temperature compensation
Show the real-time output data on a output page

Included in programme(s)

Exchange Technology to Innovate (autumn)
Electrical Engineering Major Sensor Technology
Minor Technology to Innovate

School(s)

Institute of Engineering