

Course: Data Communication

credits: 5

Course code ELVH17ADC

Name Data Communication

Study year 2022-2023

ECTS credits 5
Language English
Coordinator G.J. Geertsma

Modes of delivery Assignment

Lecture

Practical / Training

Assessments Data Communication - Written, organised by

STAD examinations

Learning outcomes

- The student applies standard hardware protocols in basic systems (e.g. I2C, SPI, Serial, RS-232)
- The student implements a signal conditioning system for a communication bus (signal format, signal integrity, signal/noise ratio), taking into account the demands for EMC
- The student uses the most important protocols (e.g. HTTP, TCP, UDP, WIFI) in a simple communication system
- The student defends choices for network topologies and routing mechanisms in a large network
- The student designs a basic telecommunication system and explains the important building blocks

Content

In this course you will learn all about communication from one system to the other. You will learn about internet protocols and algorithms but also about how to setup a network of devices. Being able to connecting systems and send the information from one platform to the other is vital to the success of an application. You will learn about connecting sensors with the most used protocols and make your own communication bus to transfer information. While making this own communication bus you will learn about the integrity of a signal and in what format it should be.

Included in programme(s)

Electrical Engineering Major Sensor Technology

School(s)

Institute of Engineering