Course: Project Internet of Things — credits: 10

Course code	ELVH19IPRJ
Name	Project Internet of Things
Study year	2022-2023
ECTS credits	10
Language	English
Coordinator	P.J. Kamphuis
Modes of delivery	Project-based learning
Assessments	Project Internet of Things - Assignment

Learning outcomes

The student can write an Analysis Phase (What should be done)

The student can write a Design Phase (How should the project be done)

The student can build/make the project in the Implementation Phase

The student can test the project in an Evaluation Phase

Define ethics and explain their relevance for engineering.

Describe and discuss relevant codes of conduct for engineers.

List the main ethical issues raised by the IoT and the characteristics of the IoT that are of relevance in an ethical dimension.

Explain the impacts of modern technologies on privacy.

Describe ethical frameworks for decision-making and explain how they can be applied in engineering settings.

Think critically and provide argumentation relating to ethical issues in engineering and/or technological settings.

Students can explain both sides of an ethical issue and lead a discussion on that topic

Content

Analysis phase:
- Context, Objective, Problem statement, Stakeholders, user requirements, planning)

Design phase:
- Alternatives, how the problem statement can be answered
- Motivation of the best suitable alternative
- Functional diagram
- Technical requirements

Implementation Phase:
- Make/ build of the product/system

Evaluation Phase:
- Make test plans per technical requirement
- Check whether each technical requirement is met

Ethics and privacy

The student:
- Defines ethics, explain their relevance for engineering and engineering codes of conduct.
- Discusses the ethical dimension of the IoT and how this technology can impact privacy.
- Describes ethical frameworks for decision-making and their application in engineering.
- Explains both sides of an ethical issue and lead a discussion on that topic.

Included in programme(s)

Minor Internet of Things
Exchange Internet of Things (autumn)

School(s)

Institute of Engineering

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