

# Course: Sensor Application Specialisation

credits: 5

Course code SEVM19SAS

Name Sensor Application Specialisation

**Study year** 2022-2023

ECTS credits 5
Language English

**Coordinator** P.M. Gomes Lourenco

Modes of delivery Lecture

Project-based learning

**Assessments** Sensor Application Specialisation -

Assignment

# Learning outcomes

At the end of this module the student is able to:

- Explain the physical, chemical or biological principles of smart sensors systems suitable for the specialisation field.
- Based on current scientific literature, choose the best type of smart system suitable for detection and/or analysis of a given signal relevant for the application considered.
- Describe smart sensor system requirements specific to the application domain.
- Describe how a smart system solution constitutes an innovation in the specialisation domain, if possible using a solution related with their plan for the graduation project.
- Describe the impact of an innovation on the responsible use of natural resources and the needs of all relevant components of biological systems and human societies, if possible using a solution related with their plan for the graduation project.

#### Content

The student chooses for a specialisation in one of the following areas: health, energy or high-tech systems.

The student is expected to bring content to the course, either in the form of presentations of selected peer reviewed papers, discussion of state-of-the-art innovations or visits to the professional field. Other options can be discussed with the lecturer.

## Included in programme(s)

**Smart Systems Engineering** 

### School(s)

Institute of Engineering