Vak: Introduction to Cyber-Physical Systems — credits: 5

Vakcode	SEVM26ICPS
Naam	Introduction to Cyber-Physical Systems
Studiejaar	2026-2027
ECTS credits	5
Taal	Engels
Coördinator	W. Da Silva Costa
Werkvormen	Hoorcollege Projectonderwijs
Toetsen	Introduction to Cyber-Physical Systems - Opdracht

Leeruitkomsten

At the end of this module the student:

- Identifies each parameter necessary for the models.
- Describes the physical system using linear and nonlinear dynamical system models.
- Designs the communication framework between the cyber- and physical world.
- Designs and builds a digital twin and optimizes the accompanying models.
- Controls the physical system with the digital twin.

Inhoud

The course covers the following topics:
linear and non-linear dynamical system models, model simulation tools, and knowledge-based systems (expert systems). In this course, the student learns how to design and build a digital twin to control a physical system with the digital twin.

Opgenomen in opleiding(en)

Smart Systems Engineering

School(s)

Engineering, Life Sciences & ICT

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