

Vak: Modelling and Simulation

credits: 4

Vakcode ELVH16AMS
Naam Modelling and Simulation
Studiejaar 2022-2023
ECTS credits 4
Taal Engels
Coördinator B.D. Williams

Werkvormen Hoorcollege
Practicum / Training
Toetsen Modelling and Simulation - Opdracht

Leeruitkomsten

-The student:

- translate a range of problems from a real-world situation into a mathematical form – i.e. a mathematical model;
- translate a mathematical model of a real world situation into a simulation;
- translate the results of a mathematical model and simulation back to the real-life situation;
- select the correct first order physical components for modelling a complex problem;
- discuss the validity of a mathematical model and suggest possible improvements;
- find the response to a step input for 1st and 2nd order systems using simulation;
- designing control systems using simulation and keeping in mind design parameters;
- determine the impact of discretization parameters by deriving and solving a difference equations;
- perform simple numerical integration and differentiation using a simulation environment.

Inhoud

Opgenomen in opleiding(en)

Elektrotechniek Major Sensor Technology

School(s)

Instituut voor Engineering

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