Course: Simulation Technology credits: 2

Course code	ELVH17GST
Name	Simulation Technology
Study year	2022-2023
ECTS credits	2
Language	Dutch, with parts in English
Coordinator	J. Zijlstra
Modes of delivery	Practical / Training
Assessments	Simulation Technology - Skills test

Learning outcomes

- Student can explain what a differential equation is
- Student can draw up a differential equation
- Student can apply differential equations to a basic electric system
- Student can apply differential equations to a basic rotating system
- Student can indicate the relationship between differential equations and Laplace transform
- Student can explain the control principles P, I, and D in a feedback system
- Student can work with system transfers
- Student can apply differential equations to a control system in the Laplace domain

Content

- System equations, differential equations
- Laplace theory
- Overshoot, rise-time
- Stable and instable systems
- Proportional, differential and integrating controllers
- Simulation of a variation of physical systems and simulation of controlling a dynamic system

Included in programme(s)

Electrical Engineering Major Electronics

School(s)

Institute of Engineering

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