

Vak: Fundaments of Programming

credits: 4

Vakcode	ELVP17AFPRO	Werkvormen	Hoorcollege
Naam	Fundaments of Programming		Individueel
Studiejaar	2021-2022		Opdracht
ECTS credits	4		Practicum / Training
Taal	Engels	Toetsen	Fundaments of Programming - Opdracht
Coördinator	P.J. Kamphuis		

Leeruitkomsten

At the end of this study unit the student:

- visualises the logical steps of an algorithm with a flowchart / PSD in preparation for further implementation;
- implements the logic of the structure of a flowchart / PSD by using basic programming skills and techniques that are typical for a programming language (e.g. C). (variables , declarations, data types, constructions, statements);
- creates a clear, structured and documented programme by means of the application of subroutines;
- creates programmes which exchanges data with external sources (e.g. files, analogue / digital input and output);
- implements multidimensional arrays in order to store large amounts of data of the same data type;
- designs a basic GUI in order to control / visualise an automated process by means of an IDE;
- tests and debugs the programmes by designing and implementing a test plan.(modular testing , debugger , validation).

Inhoud

In this study unit you will learn the fundamentals of programming which will be the starting point of all the programming material throughout the program of Electrical Engineering, and will be used in various related study units, e.g. Object-Oriented Programming, Embedded Systems and Robotics.

You will start by logically analyzing a problem by means of its objectives and problem statement. Using basic programming skills, you will create structured programs that can exchange data with external sources/hardware and visualize/control the process using a user-friendly graphical interface (a GUI). You will learn how to store large amounts of data and test/debug your programs.

Opgenomen in opleiding(en)

Exchange Technology to Create (autumn)
Minor Technology to Create
Elektrotechniek Major Sensor Technology

School(s)

Instituut voor Engineering

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