

Systems Design

Master | Work-friendly

Electronic Systems

Semester 1	ECTS
Systems Design Essentials	5
Advanced Engineering Mathematics	5
Dynamical Systems	5
Signal and Data Analysis	5
Software Development for Embedded Systems	5
Introduction to Machine Learning	5
Total	30

Semester 2	ECTS
Peripheral Devices and Sensors	5
Advanced Control Systems	5
Industrial Automation Systems	5
Signal and Data Processing	5
Advanced Electronic Systems	5
Electrodynamics	5
Total	30

Semester 3	ECTS
High Speed Systems Design	5
FPGA Systems Prototyping	5
Power Electronics	5
Electronics Special Topics	5
Elective Module 1*	5
Elective Module 2*	5
Total	30

Semester 4	ECTS
Master Thesis	25
Master Thesis Seminar & Master Exam	5
Total	30

Total Sum	120
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Robotic Systems

Semester 1	ECTS
Systems Design Essentials	5
Advanced Engineering Mathematics	5
Dynamical Systems	5
Signal and Data Analysis	5
Software Development for Embedded Systems	5
Introduction to Machine Learning	5
Total	30

Semester 2	ECTS
Peripheral Devices and Sensors	5
Advanced Control Systems	5
Industrial Automation Systems	5
Modelling and Simulation	5
Advanced Robotic Systems	5
Computer Vision	5
Total	30

Semester 3	ECTS
Robot-based Production Systems	5
Industrial Control	5
Robot Dynamics and Control	5
Robotics Special Topics	5
Elective Module 1*	5
Elective Module 2*	5
Total	30

Semester 4	ECTS
Master Thesis	25
Master Thesis Seminar & Master Exam	5
Total	30

Total Sum	120
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*** Elective Module 1 and 2: Research project or two of the Modules 1–5**

Research project = Collaboration in one of the Research groups of Carinthia University of Applied Sciences

Module 1: Sustainable Systems Engineering

Module 2: Sustainable Systems Design

Module 3: Integrated Sensors

Module 4: Radio-Frequency Circuits and Systems

Module 5: Electromagnetic interference in power electronics (EIPE)

ECTS = European Credit Transfer System