

Curriculum Industrial Informatics

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Module Name	CP
Module Coordinator	
Course 1	WSH
Instructor	
Course 2	WSH
Instructor	
Total	WSH

Overview • Student's point of view

Students can start their studies in either semester 1 or semester 2.

3rd semester:	Master's Thesis (30 CP)		
2nd semester:	Mandatory (15 CP)	Comp. Opt. (5 CP)	Peer or Group Project (10 CP)
1st semester:	Mandatory (15 CP)	Comp. Opt. (5 CP)	Peer or Group Project (10 CP)

3
(each semester)

Master's Thesis				
Programme Coordinator	30 CP			
Master's Thesis				
MII-Staff (first examiner)	–			
Master's Thesis				
MII-Staff (second examiner)	–			
Total				

30 CP

2
(sep-feb)

Robotic Systems		
Kane	5 CP	
Introduction Robotic Systems		
Kane	2	
Industrial Robotic Systems		
Colombo	2	
Total	4 WSH	

Data Science and Analytics		
Wings	5 CP	
Data Science		
Wings	2	
Analytics		
Wings / Colombo	2	
Total	4 WSH	

Mathematical Modelling of ICPS		
Veltink	5 CP	
Model-based Formal Methods & Tools		
Colombo	2	
Algebraic Formal Methods & Tools		
Veltink	2	
Total	4 WSH	

Innovation Engineering		
Mäkiö	5 CP	
Digital Economy		
Mäkiö	2	
Innovation Management (+ Req. Eng.)		
Mäkiö / Colombo	2	
Total	4 WSH	

Peer Project *		
Programme Coordinator	10 CP	
Peer Project		
Mäkiö	–	
Group Project **		
MII-Staff	2	
Total	– WSH	

30 CP

1
(mar-aug)

Industrial Cyber-Physical Systems		
Colombo	5 CP	
ICPS and Industry 4.0		
Colombo	2	
ICPS Life Cycle Engineering		
Colombo	2	
Total	4 WSH	

Industrial Internet of Things		
Streekmann	5 CP	
IIoT and Data Transport		
Bergmann	2	
IIoT Data Processing		
Streekmann	2	
Total	4 WSH	

Digitalization Engineering		
Colombo	5 CP	
Digitalization of ICPS		
Colombo	2	
Digital Signal Processing		
Batke	2	
Total	4 WSH	

Human Factors and Augmented Reality		
Pfeiffer	5 CP	
Human Factors and Assistance Systems		
Pfeiffer	2	
Augmented Reality		
Pfeiffer	2	
Total	4 WSH	

Group Project *		
Programme Coordinator	10 CP	
Group Project		
MII-Staff	2	
Peer Project **		
MII-Staff	–	
Total	2 WSH	

30 CP

*) The curriculum is shown from the perspective of a student starting in semester 1. The two project types (group and peer) are offered each semester. Note: The group project is a pre-requisite for the peer project.

***) Offering for students starting in semester 2.

Total: 90 CP

Note: Other compulsory optional modules could be offered, in particular by international partners

CP: Credit Points (ECTS)
WSH: Weekly Semester Hour

mandatory module
compulsory optional subject
project/practical module

Remarks for Group Project

The module "Group Project" can be used for practical/lab work in connection with a certain lecture.