COURSE DETAIL

SMART MANUFACTURING
Country Sweden
Host Institution Lund University
Program(s) Lund University
UCEAP Course Level Upper Division
UCEAP Subject Area(s) Mechanical Engineering
UCEAP Course Number 153
UCEAP Course Suffix
UCEAP Official Title SMART MANUFACTURING
UCEAP Transcript Title SMART MANUFACTURING
UCEAP Quarter Units 6.00
UCEAP Semester Units 4.00

Course Description

The course is an introduction to manufacturing processes, ranging from machining operations to production quality control and production cost analysis, according to requirements of the Smart Manufacturing. The course provides an overview of systems and methods to monitor the machining operations and control the production quality by in- and post-process measurements. Part of the course is focused on introduction to the development of data acquisition and monitoring systems based on Artificial Intelligence (AI) and Machine Learning (ML) techniques and their implementation in manufacturing processes in academy and industry environments. The course is given as lectures with computer exercises and laboratory sessions and a task to train the student to elaborate on the material presented in the lectures. A project gives the student an opportunity to independently solve a problem for automatized process monitoring and production control. Assumed prior knowledge: MMT012/MMTF20 Production and Manufacturing Methods or MMTA05 Production Systems or MMTF01 Production and FKM015/FKMA01 Materials Engineering, Basic Course.

Language(s) of Instruction
English

Host Institution Course Number
MMTN50

Host Institution Course Title
SMART MANUFACTURING

Host Institution Course Details
https://kurser.lth.se/lot/course-syllabus-en/24_25/MMTN50

Host Institution Campus
Lund

Host Institution Faculty

Engineering
Host Institution Degree
Host Institution Department
Course Last Reviewed 2024-2025

Print