Teaching activities and project contribution

MISCE project

Mechatronics for Improving and Standardizing Competences in Engineering

Competence: CAD Software

Workgroup: RzuT UNICA, UCLM, UNICAS

This document describes the teaching activities developed during MISCE project related to the competence ‘CAD Software.

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1 Teaching activities

The teaching activities undertaken are described below:

The CAD Software module has been successfully implemented as part of practical training for students of both first- and second-cycle engineering programs. The activities were conducted across several study programs, including mechanical engineering, and production engineering.

- Activity A - Exercise 1: Solid Modeling in CAD- Software comparison– focused on developing basic skills in 3D modeling and technical drawing (E1).
- Activity B - Exercise 2: Designing a Simplified Mechatronic Device Using Parametric Modeling – aimed at applying parametric design techniques to create a flexible mechatronic model.

2 Summary of teaching interventions

Table I summarizes the teaching interventions undertaken using the CAD software materials for contributing to CAD software competences.

Table I. Summary of teaching activities

University	Degree	Subject	Course	Semester	Activity/Interventions	Number of students	Number of professors
Rzeszow University of Technology (Poland)	Management and Production Engineering	. CAD/CAM Systems 2	23/24	6	A/2, B/2	28	2
Rzeszow University of Technology (Poland)	Mechanics and Machine Design	CAx Systems	23/24	1	A/2, B/2	24	2
Rzeszow University of Technology (Poland)	Mechanics and Machine Design	Integrated Manufacturing Systems	23/24	2	A/2, B/2	25	2
Rzeszow University of Technology (Poland)	Mechanics and Machine Design	CAM systems	24/25	7	A/1, B/1	14	1
Rzeszow University of Technology (Poland)	Mechanics and Machine Design	CAx systems	24/25	1	A/3, B/3	43	3
Rzeszow University of Technology (Poland)	Management and Production Engineering	Integrated Manufacturing Systems	24/25	2	A/2, B/2	24	2

3 Contribution to the project KPIs

Table II summarises the contribution of 'CAD Software' case of study to the project KPI.

Table II. Summary of the contribution to the project KPI

KPI	No.
Number of devices	0
Number of competencies covered for these devices	1
Functionality of the digital repository	1
Number of degrees	2
Number of subjects	3
Number of teaching interventions over the students	24
Number of competences covered in these experiences	1
Number of students involved	158
Number of HEIs teacher involved	3
Number of Professionals involved	1