Teaching activities and project contribution

MISCE project

Mechatronics for Improving and Standardizing Competences in Engineering

Competence: Automation Technology

Workgroup: University of Cagliari

University of Cassino and Southern Lazio

This document describes the teaching activities developed during MISCE project related to the competence "Automation Technology"

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Visit https://misceproject.eu/ for more information.

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1 Teaching activities

The teaching activities undertaken are described below:

- Activity A: Using the "Test-Bed" to identify the correct procedure to connect the PC and the PLC.
- Activity B: Using the "Test-Bed" to upload the software on the PLC.
- Activity C: Using the "Test-Bed" to change the recipe via HMI.

2 Summary of teaching interventions

Table I summarizes the teaching interventions undertaken using the Test-Bed for contributing to Automation Technology competences.

Table I. Summary of teaching activities

University	Degree	Subject	Course	Semester	Activity/Interventions	Number of students	Number of professors
University of Cagliari (Cagliari, Italy)	Mechanical Engineering	Mechatronics	23/24	2	A/1; B/1; C/1	20	1
University of Cagliari (Cagliari, Italy)	Mechanical Engineering	Industrial Robotics	23/24	2	A/2; B/1; C/1	5	2
University of Cagliari (Cagliari, Italy)	Mechanical Engineering	Applied Mechanics	23/24	1	A/1; B/1; C/1	12	2
University of Cassino and Southern Lazio (Cassino, Italy)	Mechanical Engineering	Mechanics of actuation	23/24	2	A/1; B/1; C/1	10	1
University of Cassino and Southern Latio (Cassino, Italy)	Mechanical Engineering	Kinematics and Dynamics of Mechanisms	23/24	2	A/1; B/1; C/1	8	2
University of Cagliari (Cagliari, Italy)	Mechanical Engineering	Mechatronics	24/25	2	A/1; B/1; C/1	22	1
University of Cagliari (Cagliari, Italy)	Mechanical Engineering	Industrial Robotics	24/25	2	A/2; B/1; C/1	6	2
University of Cagliari (Cagliari, Italy)	Mechanical Engineering	Applied Mechanics	24/25	1	A/1; B/1; C/1	20	2
University of Cassino and Southern Lazio (Cassino, Italy)	Mechanical Engineering	Mechanics of actuation	24/25	2	A/1; B/1; C/1	9	1
University of Cassino and Southern Latio (Cassino, Italy)	Mechanical Engineering	Kinematics and Dynamics of Mechanisms	24/25	2	A/1; B/1; C/1	8	2

3 Contribution to the project KPIs

Table II summarises the contribution of "Automation Technology" case of study to the project KPI.

Table II. Summary of the contribution to the project KPI

KPI	No.
Number of devices	1
Number of competencies covered for these devices	1
Functionality of the digital repository	1
Number of degrees	1
Number of subjects	5
Number of teaching interventions over the students	30
Number of competences covered in these experiences	1
Number of students involved	120
Number of HEIs teacher involved	3
Number of Professionals involved	1