Group project - course description

General information

Course name	Group project
Course ID	06.9-WE-AutP-GP-Er
Faculty	Faculty of Computer Science, Electrical Engineering and Automatics
Field of study	Automatic Control and Robotics
Education profile	academic
Level of studies	First-cycle Erasmus programme
Beginning semester	winter term 2021/2022

Course information

Semester	6
ECTS credits to win	4
Course type	obligatory
Teaching language	english
Author of syllabus	• dr inż. Emil Michta, prof. UZ

Classes forms

The class form	Hours per semester (full-time)	Hours per week (full-time)	Hours per semester (part-time)	Hours per week (part-time)	Form of assignment
Project	60	4	-	-	Credit with grade

Aim of the course

- to familiarize students with the practical course of design work in the field of automation and robotics
- familiarizing with the principles of team project work and project management methods
- familiarizing with the principles of selecting the project's executive team
- familiarizing with the rules of project schedule and cost estimation
- familiarizing with the principles of obtaining materials for the project
- practical implementation of the project by the group
- familiarizing with the principles of project description and its presentation

Prerequisites

Interpersonal communication, Small and medium enterprise management.

Scope

Determining the purpose of the project task and its description. Defining the assumptions and scope of the project task. Getting to know the purpose of the project and determining the requirements. Selection of software tools supporting project implementation. Division of the design task into specific tasks and their assignment to individual persons or groups. Establishing project implementation schedules. Acceptance of the specification of the requirements and the schedule by the project team and supervisor. Analysis and evaluation of existing thematically similar solutions available in the literature, technical documentation or on the Internet. Collecting bibliography and documentation useful for carrying out project tasks. Development of the project task implementation concept. The guardian accepts the concept. Performing project tasks. Verification of the completed project. Acceptance of the completed project by the supervisor. Description of the completed project. Development of project applications and indication of further work on improving them. Presentation and defense of completed projects in the forum of other project groups.

Teaching methods

Project: discussion, consultation, work in groups, during meetings with the lecturer held in the laboratory the principles of project implementation are determined, their subject matter and they are evaluated.

Learning outcomes and methods of theirs verification

Outcome description	Outcome symbols	Methods of verification	The class form
Is able to assess the usefulness of routine methods and tools for solving simple engineering tasks, typical for electronics, and choose and use appropriate methods and tools		• activity during the classes • an observation and evaluation of activities during the classes • an observation and evaluation of the student's practical skills	• Project
Is able to obtain information from literature, databases and other sources; is able to integrate the information obtained, interpret it, as well as draw conclusions and formulate and substantiate opinions		• activity during the classes • an observation and evaluation of activities during the classes • an observation and evaluation of the student's practical skills	• Project

Outcome description	Outcome symbols	Methods of verification	The class form
Is aware of the importance of professional behavior, compliance with professional ethics and respect for the diversity of views and cultures		• activity during the classes • an observation and evaluation of activities during the classes • an observation and evaluation of the student's practical skills	• Project
Can - when formulating and solving tasks involving the design of electronic components, systems and systems - see their non-technical aspects, including environmental, economic and legal		• activity during the classes • an observation and evaluation of activities during the classes • an observation and evaluation of the student's practical skills	• Project
Can work individually and in a team; knows how to estimate the time needed to complete the task; can develop and implement a work schedule to ensure that deadlines are met		• activity during the classes • an observation and evaluation of activities during the classes • an observation and evaluation of the student's practical skills	• Project
Is able to use specialist knowledge to organize simple tasks related to the specialty		• activity during the classes • an observation and evaluation of activities during the classes • an observation and evaluation of the student's practical skills	• Project
Is aware of the responsibility for own work and readiness to comply with the principles of teamwork and taking responsibility for jointly performed tasks		• activity during the classes • an observation and evaluation of activities during the classes • an observation and evaluation of the student's practical skills	• Project
Has basic knowledge necessary to understand the non-technical conditions of engineering activities; knows the basic principles of health and safety at work in force in the electronics industry		• activity during the classes • an observation and evaluation of activities during the classes • an observation and evaluation of the student's practical skills	• Project

Assignment conditions

The condition of getting credit is obtaining positive grades from all group and individual tasks to be implemented under the group project. In addition to the evaluation of the group project, individual achievements of individual students are also assessed.

Components of the final grade = project: 50% + individual grade: 50%

Recommended reading

1. Kerzner H.: A Guide to the Project Management Body of Knowledge: PMBOK® Guide (Sixth Edition), 2017
2. Lewis J.: Fundamentals of Project Management. WorkSmart, Third Edition, 2016

Further reading

Notes

Modified by dr hab. inż. Wojciech Paszke, prof. UZ (last modification: 12-07-2021 07:56)