

Industrial project management - course description

General information

Course name	Industrial project management
Course ID	11.9-WE-INFP-IPM-Er
Faculty	Faculty of Computer Science, Electrical Engineering and Automatics
Field of study	Computer Science
Education profile	academic
Level of studies	Erasmus programme
Beginning semester	winter term 2017/2018

Course information

Semester	6
ECTS credits to win	4
Course type	obligatory
Teaching language	english
Author of syllabus	<ul style="list-style-type: none">dr inż. Małgorzata Mazurkiewicz

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
Lecture	15	1	-	-	Credit with grade
Laboratory	30	2	-	-	Credit with grade

Aim of the course

- To provide basic knowledge about conceptual framework for IT project management, phases of the project life cycle, human resource management and management control.
- To provide knowledge on technology of contemporary industrial control systems of SIEMENS PLC class.

Prerequisites

Principles of programming.

Object oriented programming.

Scope

Introduction to IT Project Management: project conception, the successful project management. The phases of the IT project life cycle: design management, project documentation.

Introduction to PLC technique. PLC Characteristic, construction, operation principle. PLC market review. PLC parameters and models.

Ladder Diagram programming language (IEC-61131-3). Basic elements, programming rules. Language constructions. Combinational systems design. Sequential, parallel and timing systems design.

TIA Portal - modern platform for programming PLC. Basic programming S7-1200 in LD language. Modular and linear program structure - function blocks.

Teaching methods

Lecture, laboratory exercises.

Learning outcomes and methods of theirs verification

Outcome description	Outcome symbols	Methods of verification	The class form
Names and explains concepts related to IT projects management.		<ul style="list-style-type: none">a test with score scale	<ul style="list-style-type: none">Lecture
Organizes work in a project team.		<ul style="list-style-type: none">a preparation of a projectan observation and evaluation of the student's practical skills	<ul style="list-style-type: none">Laboratory
Can solve tasks related to realization of control system based on PLC controllers.		<ul style="list-style-type: none">an observation and evaluation of the student's practical skills	<ul style="list-style-type: none">Laboratory
Knows and can practically apply PLC drivers programming languages.		<ul style="list-style-type: none">an observation and evaluation of the student's practical skills	<ul style="list-style-type: none">Laboratory

Assignment conditions

- Lecture: written test.
- Laboratory: written test.

Recommended reading

1. Kerznel H.: Project Management: A Systems Approach to Planning, Scheduling, and Controlling, Wiley, 2009, ISBN-10: 0470278706.
2. Verzuh E.: The Fast Forward MBA in Project Management (Portable Mba Series), Wiley, 2008, ISBN: 0470247894.
3. L. A. Bryan, E. A. Bryan: Programmable controllers. Theory and Implementation., Amer Technical Pub, 2003.
4. K. Collins: PLC Programming for Industrial Automation, Exposure Publishing, 2006.
5. S. P. Tubbs: Programmable Logic Controller (PLC) Tutorial, Stephen Philip Tubbs, 2005.

Further reading

Notes

Modified by dr inż. Małgorzata Mazurkiewicz (last modification: 08-05-2017 13:06)

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