

[GIG302] INDUSTRIAL COMPUTING

GENERAL INFORMATION

Studies	DEGREE IN COMPUTER ENGINEERING		Subject	COMPUTER ENGINEERING
Semester	1	Course	2	Mention / Field of specialisation
Character	COMPULSORY		Language	EUSKARA
Plan	2022	Modality	Face-to-face	Total hours
Credits	4,5	Hours/week	4	72 class hours + 40.5 non-class hours = 112.5 total hours

PROFESSORS

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UGARTE QUEREJETA, MIRIAM
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REQUIRED PREVIOUS KNOWLEDGE

Subjects	Knowledge
(No specific previous subjects required)	(No previous knowledge required)

LEARNING RESULTS

LEARNING RESULTS	KC	SK	AB	ECTS
GIR204 - To develop software and integration solutions based on adequate knowledge of current theories, models and techniques, as well as available standards and technologies		x		4,02
G-RTR1 - To develop interdisciplinary projects specific to their specialty and of gradual complexity, - becoming aware of respect for human rights and fundamental rights, and analyzing and assessing the impact of the proposed solutions on the SDGs - to acquire and/or apply basic, advanced and /or avant-garde, demonstrating the ability to work in multidisciplinary teams and/or undertake further studies with a high degree of autonomy		x		0,24
G-RTR2 - To express information, ideas and the arguments that support them in an orderly, clear and coherent manner, orally and in writing, based on quality information, self-made or obtained from different sources, using inclusive and non-discriminatory language		x		0,24
Total:				4,5

KC: Knowledge or Content / SK: Skills / AB: Abilities

SECONDARY LEARNING RESULTS

(No secondary learning results)

CONTENTS

1. Introduction 1.1 Basic concepts: Concurrency, real time, system modeling, state machines and fieldb uses.
 2. System modeling and control 2.1 Industrial system modeling techniques. 2.2 Low level contro
 1 (PID, PI, P) 2.3 High level control (State machines, Grafcet, Petri Nets).
 3. PLCs and industrial con
 trollers programming

LEARNING RESOURCES AND BIBLIOGRAPHY

Learning resources	Bibliography
Subject notes	https://labur.eus/biblio-GIG302
Moodle Platform	
Specific Master Software	
Lab practical training	