

[MRD101] ANALYSIS OF SUSTAINABLE DIGITAL CONTROL SYSTEMS

GENERAL INFORMATION

Studies	Master's Degree in ROBOTICS AND CONTROL SYSTEMS		Subject	?
Semester	1	Course	1	Mention / Field of specialisation
Character	OPTIONAL			
Plan	2023	Modality	Face-to-face	Language CASTELLANO/EUSKARA
Credits	3	Hours/week	0	Total hours [!] 23 class hours + 42 non-class hours = 65 total hours

PROFESSORS

MUXIKA OLASAGASTI, EÑAUT

REQUIRED PREVIOUS KNOWLEDGE

Subjects	Knowledge
ELECTRONIC TECHNOLOGY BASIC INDUSTRIAL AUTOMATION MICROPROCESSORS	(No previous knowledge required)

LEARNING RESULTS

LEARNING RESULTS	KC	SK	AB	ECTS
M1R214 - [!] <i>Construir un dispositivo a medida para el control de un proceso o de un sistema autónomo</i>			x	1,8
M1R223 - [!] <i>Capacidad de trabajar en equipos multidisciplinares y en un entorno multilingüe y de comunicar, tanto de forma oral como escrita, conocimientos, procedimientos, resultados e ideas relacionadas con los temas afines al máster</i>		x		0,2
M1R224 - [!] <i>Capacidad para ejercer su profesión con actitud cooperativa y participativa, y con responsabilidad social</i>		x		0,6
			Total:	2,6

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

CONTENTS

1. Introduction
2. Managing the development of control systems
 - 2.1 Alternatives in the development of control systems
 - 2.2 Budget estimation
3. Analysing the impact of control system design
 - 3.1 An introduction to the analysis of the impacts of digital control systems
 - 3.2 Life Cycle Analysis: A quantitative approach for environmental impact assessment
4. Case Studies
 - 4.1 Manufacturing process control systems
 - 4.2 Autonomous systems

LEARNING RESOURCES AND BIBLIOGRAPHY

Learning resources	Bibliography
Topic related web quires	http://katalogoa.mondragon.edu/janium-bin/janium_login_opac_re_in
Slides of the subject	k. pl?grupo=MASTERROBOTIKA11&ejecuta=20&_ST
Technical articles	
Moodle Platform	
Class presentations	