UNIVERSIDAD DE CASTILLA - LA MANCHA

GUÍA DOCENTE

1. General information

Course: COMPUTER CONTROLLED SYSTEMAS
Code: 56412
Type: CORE COURSE
ECTS credits: 6
Degree: 356 - UNDERGRADUATE DEGREE PROGRAMME IN ELECTRICAL ENGINEERING (CR)
Academic year: 2023-24
Center: 602 - E.T.S. INDUSTRIAL ENGINEERING OF C. REAL
Group(s): 20
Year: 3
Duration: C2
Main language: Spanish
Second language: English
Use of additional languages:
English Friendly: Y
Web site:
Bilingual: N

Lecturer: **VICENTE FELIU BATLLE** - Group(s): **20**

Building/Office	Department	Phone number	Email	Office hours
Edificio Politécnico, 2-A02	INGENIERÍA ELÉCTRICA, ELECTRÓNICA, AUTOMÁTICA Y COMUNICACIONES	Vía Teams	vicente.feliu@uclm.es	

Lecturer: **FRANCISCO RAMOS DE LA FLOR** - Group(s): **20**

Building/Office	Department	Phone number	Email	Office hours
Edificio Politécnico, 2-C02	INGENIERÍA ELÉCTRICA, ELECTRÓNICA, AUTOMÁTICA Y COMUNICACIONES	Vía Teams	francisco.ramos@uclm.es	

2. Pre-Requisites

Not established

3. Justification in the curriculum, relation to other subjects and to the profession

Not established

4. Degree competences achieved in this course

Course competences

Code	Description
CB01	Prove that they have acquired and understood knowledge in a subject area that derives from general secondary education and is appropriate to a level based on advanced course books, and includes updated and cutting-edge aspects of their field of knowledge.
CB02	Apply their knowledge to their job or vocation in a professional manner and show that they have the competences to construct and justify arguments and solve problems within their subject area.
CB03	Be able to gather and process relevant information (usually within their subject area) to give opinions, including reflections on relevant social, scientific or ethical issues.
CB04	Transmit information, ideas, problems and solutions for both specialist and non-specialist audiences.
CB05	Have developed the necessary learning abilities to carry on studying autonomously
D07	Applied knowledge of electronic power.
D08	Knowledge of the principles of automatic regulation and its application to industrial automatization.

5. Objectives or Learning Outcomes

Course learning outcomes

Description

Use the main information support tools

6. Units / Contents

Unit 1:
Unit 2:
Unit 3:
Unit 4:
Unit 5:

7. Activities, Units/Modules and Methodology

Training Activity	Methodology	Related Competences (only degrees before RD 822/2021)	ECTS	Hours	As	Com	Description
Class Attendance (theory) [ON-SITE]	Lectures	CB01	1.2	30	N	-	
Problem solving and/or case studies [ON-SITE]	Problem solving and exercises	CB01 CB02 CB03	0.4	10	N	-	

Class Attendance (practical) [ON-SITE]	Practical or hands-on activities	CB01 CB02 CB03	0.6	15	N	-	
Formative Assessment [ON-SITE]	Assessment tests		0.2	5	Y	Y	
Study and Exam Preparation [OFF-SITE]	Self-study	CB01 CB02 CB03 CB04 CB05	3.6	90	N	-	
		Total:	**6**	**150**			
		Total credits of in-class work: 2.4					**Total class time hours: 60**
		Total credits of out of class work: 3.6					**Total hours of out of class work: 90**

As: Assessable training activity
Com: Training activity of compulsory overcoming (It will be essential to overcome both continuous and non-continuous assessment).

8. Evaluation criteria and Grading System

Evaluation System	Continuous assessment	Non-continuous evaluation*	Description
Mid-term tests	60.00%	0.00%	
Projects	20.00%	20.00%	
Assessment of activities done in the computer labs	20.00%	20.00%	
Final test	0.00%	60.00%	
Total:	**100.00%**	**100.00%**	

According to art. 4 of the UCLM Student Evaluation Regulations, it must be provided to students who cannot regularly attend face-to-face training activities the passing of the subject, having the right (art. 12.2) to be globally graded, in 2 annual calls per subject , an ordinary and an extraordinary one (evaluating 100% of the competences).

9. Assignments, course calendar and important dates

Not related to the syllabus/contents	
Hours	**hours**
Formative Assessment [PRESENCIAL][Assessment tests]	5
Unit 1 (de 5):	
Activities	**Hours**
Class Attendance (theory) [PRESENCIAL][Lectures]	2
Study and Exam Preparation [AUTÓNOMA][Self-study]	2
Unit 2 (de 5):	
Activities	**Hours**
Class Attendance (theory) [PRESENCIAL][Lectures]	9
Problem solving and/or case studies [PRESENCIAL][Problem solving and exercises]	2
Class Attendance (practical) [PRESENCIAL][Practical or hands-on activities]	2
Study and Exam Preparation [AUTÓNOMA][Self-study]	20
Unit 3 (de 5):	
Activities	**Hours**
Class Attendance (theory) [PRESENCIAL][Lectures]	7
Problem solving and/or case studies [PRESENCIAL][Problem solving and exercises]	2
Class Attendance (practical) [PRESENCIAL][Practical or hands-on activities]	4
Study and Exam Preparation [AUTÓNOMA][Self-study]	25
Unit 4 (de 5):	
Activities	**Hours**
Class Attendance (theory) [PRESENCIAL][Lectures]	5
Problem solving and/or case studies [PRESENCIAL][Problem solving and exercises]	3
Class Attendance (practical) [PRESENCIAL][Practical or hands-on activities]	3
Study and Exam Preparation [AUTÓNOMA][Self-study]	16
Unit 5 (de 5):	
Activities	**Hours**
Class Attendance (theory) [PRESENCIAL][Lectures]	7
Problem solving and/or case studies [PRESENCIAL][Problem solving and exercises]	3
Class Attendance (practical) [PRESENCIAL][Practical or hands-on activities]	6
Study and Exam Preparation [AUTÓNOMA][Self-study]	27
Global activity	
Activities	**hours**
Class Attendance (practical) [PRESENCIAL][Practical or hands-on activities]	15
Problem solving and/or case studies [PRESENCIAL][Problem solving and exercises]	10
Formative Assessment [PRESENCIAL][Assessment tests]	5
Study and Exam Preparation [AUTÓNOMA][Self-study]	90
Class Attendance (theory) [PRESENCIAL][Lectures]	30
Total horas:	150

10. Bibliography and Sources

Author(s)	Title/Link	Publishing house	Citv	ISBN	Year	Description

Katsuhiko Ogata	Sistemas de Control en Tiempo Discreto	Ed. Pearson, Prentice Hall		1996
M. Sami Fadali, Antonio Visioli	Digital Control Engineering	Academic Press	9780123943910	2012
C.L. Phillips, H. Nagle	Sistemas de Control Digital. Análisis y Diseño	Gustavo Gili	978-8425213359	1993
Oscar Reinoso; José María Sebastián; Rafael Aracil y Fernando Torres	Control de Sistemas Discretos	Mc Graw Hill	9788448142049	2004
C. Valdivia Miranda	Sistemas de control continuos y discretos	Paraninfo	978-8428307444	2012
K.J. Aström y B. Wittenmark	Computer-Controlled Systems. Theory and Design	Prentice Hall		1997