

SMART SENSORS

1.1. Identification

University:	Universidad Politécnica de Valencia											
School:	Escuela Técnica Superior de Ingeniería del Diseño											
Course:	Smart Sensors											
ECTS:	4											
Semester:	<i>Winter</i>					<i>Summer</i>				X		
Category	<i>Fundamental course</i>					<i>Specialisation course</i>				X		
Module	<i>MFI</i>		<i>MFII</i>		<i>MFIII</i>		<i>MSI</i>		<i>MSII</i>		<i>MSIII</i>	X
Teachers:	Carlos Ricolfe											
Language:	<i>English</i>	X	<i>Italian</i>		<i>Swedish</i>		<i>Spanish</i>					

1.2. Learning-outcomes

- knowledge about the fundamentals of smart sensors, instrumentations and networks.

1.3. Competencies

▪ General

- to have critical understanding of technical and scientific tools
- to work and manage teams
- communication skills (both written and oral)
- to work in an international context

▪ Specific

- to understand the systems of smart sensors.

1.4. Contents

Systems of smart sensors: sensors and instrumentation. Signals and signal processing. Recognition of patterns. Sensorial systems multi and networks. Sensorial integration.

1.5. Teaching Methodology

- Lecture sessions
- Practical sessions: “cooperative work” for solving problems
- laboratory sessions

1.6. Evaluation

- written exams
- oral evaluation of the problems solved by “cooperative work”
- oral evaluation of laboratory work

1.7. Bibliography

- Gert van der. Horn, Johan H. Huijsing “Integrated Smart Sensors: Design and Calibration”. Springer