

Materia 4_13: Introduction to Smart Mobility

Materia:	Introduction to Smart Mobility	ECTS:	20
Descriptores	<ul style="list-style-type: none">• Sustainable urban mobility plans. Transport modes. Transport planning strategies. Change travel behaviour.• Smart Mobility. Smart cities. Intelligent Transport Systems. Mobility as a Service. Traffic simulation. Ramp metering.• Infrastructure management systems. Traffic Engineering. Traffic flow. Traffic microsimulation. Level of Service.• Connected and autonomous vehicles. Road infrastructure. Road safety. Digital infrastructure. Building Information Modelling.		
Objetivos generales	This subject has the objective of introducing the sustainable principles applied to transport planning and management. To introduce the cutting-edge concept of Smart Mobility and MaaS and the application of ITS for these purposes. To introduce the basis for an efficient management of traffic demand. To introduce the road infrastructure principles for an adequate performance of autonomous vehicles.		
Competencia específica	CE [4-13] Design and implement a sustainable urban mobility plan, to select the appropriate ITSs to optimize mobility and to analyse traffic operation based on real time data to minimize traffic jams.		
Resultados de aprendizaje	<ul style="list-style-type: none">• Design sustainable urban mobility plans.• Select the appropriate ITSs to optimise mobility.• Analyse and give solutions to improve traffic conditions for a given facility.• Design a road infrastructure minimising CAV disengagements.		
Métodos de evaluación	<ul style="list-style-type: none">• Evaluation: Student participation, project, written test and academic work.• Assessment instruments: rubrics, checklists and assessment scales.		