

Road Transport

Transport on roads can be roughly grouped into goods and persons transports. As Europe moves towards reducing detrimental impact on the environment, transport encompasses multiple opportunities to contribute significantly to these efforts. The transport sector should reduce its carbon emissions and pollution while ensuring inclusive mobility. To achieve a sustainable transport sector is a significant challenge, but also a huge opportunity for the EU: to reduce impact on the environment, provide healthier and cleaner alternatives to mobility of goods and people and increase the uptake of sustainable alternative transport fuels for land, waterborne and air both in the EU and globally.

Period:	Period 2
Course coordinator:	Prof. David Sanchez - University of Seville - email: ds.us@es
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Educational management portal:	moodle.unitus.it
Objectives:	Familiarise the students with the main characteristics of the vehicles used to transport people and freight by road, in particular the powertrains used Provide an insight into road transport technologies that are more sustainable Provide a holistic view of how current infrastructures would have to change to enable more sustainable means of transport by road
Programme:	<ul style="list-style-type: none"> ● Vehicles used for road transport: light vs. heavy transport ● Fuels and emissions of road vehicles. Legislation More sustainable energy sources/carriers: electric vehicle, hydrogen car, biofuels ● Generation, distribution and storage of biofuels ● Fast chargers for electric vehicles"
Pre-requisites:	Fundamentals of Thermodynamics, in particular energy conversion systems for power generation.
Study material:	<ul style="list-style-type: none"> ● Lecture slides; ● Reading material; ● Additional literature handed out during the course / made available via Blackboard.