

# Entrance Requirements

Final year bachelor students or students who meet the entry requirements for master level university studies in their home country

- ✓ Automotive Engineering,
- ✓ Mechanical Engineering,
- ✓ Electromechanical Engineering,
- ✓ Electronics/ICT,
- ✓ Electronics and Automation,
- ✓ Industrial Technology,
- ✓ Industrial Engineering,
- ✓ Industrial Electrical Engineering.

## How to Apply

**Dates:** from February 1<sup>st</sup> till May 1<sup>st</sup> 2016

**Places:** 20

**ECTS credits:** 3

**Application form and documentation at:**

<http://bit.ly/2016summerschool>

**Fees :** 700€ ( including social activities, food and accomodation)

Tuition is free

Other expenses are the students' own responsibility.



# Advanced Summer Course in Sustainable Automotive Engineering

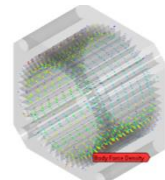
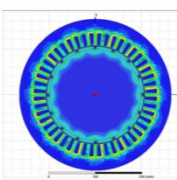
04/07 - 15/07/2016  
Bordeaux University

université  
de BORDEAUX



*The skills and knowledge to design tomorrow's vehicles*

Programme developed by a consortium of 4 European partners in Belgium, France, Spain and United Kingdom



# Want to get an insight into some Innovative Automotive Technology?

# Topics on Advanced Innovative Automotive Technologies



## Objectives

The aim of this course is to enhance your engineering competences for the automotive industry. You will study some of the innovative technologies which in the areas of energy consumption and driving safety and which will be the key components of future vehicles.

## Learning outcomes

The course will help you :

To understand the basics of multi-physical modelling and concretely the influence of electric machinery vibrations in road vehicles.

To identify conception variables, parameters, technical specifications and optimization of multi-criteria problems.

To model electrical and hybrid powertrains and to evaluate optimal technologies for electrical motorization

To identify and to compute the vibrational comfort parameters used to measure comfort levels in road vehicles.



Four interlinked topics will be examined during this summer course :

- 1 Human Comfort is complex and difficult to be modelled and predicted but decisive in the final perception of the vehicle.
- 2 Electromechanical modelling of electric machines is needed to predict the vibrational behavior of the vehicle.
- 3 Meeting complex system specifications often requires trade-off between conflicting objectives and multi criteria analysis.
- 4 The design of HEV and EV powertrains is key for the optimization of the battery life cycle as well as the global behavior of these systems.

[master-greendrive.eu](http://master-greendrive.eu)

- ✓ The course will be held at the laboratory IMS on the campus of Talence in Bordeaux, France.
- ✓ Participants will develop a project each week.
- ✓ Classes given by experienced researchers and project managers working on these topics.
- ✓ Appropriate balance between lecturers, case studies and technological centers and company sites will give you a comprehensive overview on the expected engineering skills for the future.

