

# Automotive Engineering for Sustainable Mobility

## An English Taught Master Program

### For further information

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## UNIVERSITY OF PITESTI



Faculty of Mechanics and Technology  
Department Automobiles and Transport



*Master Program in English*

- Energy Management & Control for Sustainable Mobility
- Electric Vehicle, Hybrid Electric Vehicles
- Numerical Simulation

# Automotive Engineering for Sustainable Mobility

## An English Taught Master Program

### A DIFFERENT IDEA

On the one hand, mobility is one of the fundamental aspects of social cohesion as it gives everyone access to employment, training, public services and leisure. Equally, mobility is the motor for economic development. On the other hand, mobility tends to cause the degradation of the environment.

Therefore, an obvious question appears: how to ensure mobility for all of us in order to enable us to access jobs, education, healthcare and leisure and at the same time to protect our environment and the quality of life?

Clearly, now, more than ever, the requirement is to satisfy the demand for travel by using cleaner methods of transport, which generate less pollution. Even though it does not seem to be a new problem, this is actually the real challenge the specialists have to think about.

**This English-taught Master's Degree Program** entitled "Automotive Engineering for Sustainable Mobility" is meant to address this challenge.

The Master program is organized at the **Faculty of Mechanics and Technology** of the **University of Pitești** starting with 2011.

### WHAT WILL THIS DEGREE DO FOR YOU?

- give access to the knowledge on the latest and most promising new technologies related to sustainable mobility
- provide a valuable background for future PhD studies
- enable to enroll in the PhD preparation directly in the 2nd year, thus skipping the 1st year
- prepare your career for Research and Development in the Automotive Engineering field

### WHO MAY APPLY?

Students from any part of the world, holding a bachelor's degree in mechanical engineering should apply to this program.

The candidates must present evidence of the required Degree as part of the application procedure.

As the courses will be taught in English, the candidates have to prove knowledge of English language to the interview, which will be organized in order to make the final selection).

**Starting date:** 1<sup>st</sup> of October



## ACADEMIC CURRICULUM

### 1<sup>st</sup> YEAR

No.	Course name	Semester - Credits
1.	Numerical methods for automotive engineering	I - 30
2.	Applied mechanics for automotive engineering	
3.	Automotive fuels and energy conversion	
4.	Documentation, capitalization of information and professional communication	
5.	English language	
6.	Ethics and academic integrity	
7.	Research activity (practical work) I	
8.	Materials and sustainable manufacturing	II - 30
9.	Road vehicle dynamics	
10.	Test beds, measurement and control basics	
11.	Transmissions and alternative drivetrains. Hybrid vehicles	
12.	Operations management	
13.	English language	
14.	Research activity (practical work) II	

### 2<sup>nd</sup> YEAR

No.	Course name	Semester - Credits
15.	Vehicle mechatronics	III - 30
16.	Vehicle thermal comfort	
17.	Engine calibration	
18.	Vehicle reliability	
19.	Computer aided engineering for automotive applications	IV - 30
20.	Research activity (practical work) III	
21.	Research activity (practical work) IV	
22.	Master's thesis preparation	

## University of Pitești

**The University of Pitești** is a multidisciplinary university, founded in 1962. It is located in Pitești (1 hour northwest of Bucharest, Romania's capital and close to the well-known Dacia-Renault plant) and is one of the long appreciated state-run universities with a remarkable tradition in the Automotive Engineering field.

**The Faculty of Mechanics and Technology** is one of the six faculties of the University of Pitești and is actively participating in the development of the Romanian technical higher education. Its prestige is owed to the almost 50-year-long teaching activity and scientific research of competent faculty staff who, together with the Faculty's graduates, have managed to make the existence of a technical faculty in Pitești well-known. Currently, the activity of the Faculty of Mechanics and Technology is conducted on all the three levels of academic training (Bachelor, Master and PhD).

The primordial mission of the faculty is to offer high quality education with the purpose of developing the students' intellectual capacities, moral character and field of knowledge, as essential premises for the creation of a professional elite. At the same time, the Faculty of Mechanics and Technology takes the responsibility to conduct high-level scientific research in order to disseminate authentic engineering culture, as a condition for social and economic progress.

*Today the ambition of the Faculty of Mechanics and Technology is to continue its tradition of excellence in the Automotive Engineering field and to succeed in establishing itself as the leading Romanian faculty in the field of sustainable mobility.*