COURSE DETAIL

DYNAMICS AND COMPLIANT DESIGN OF ROAD VEHICLES

Country
Italy

Host Institution
University of Bologna

Program(s)
University of Bologna

UCEAP Course Level
Upper Division

UCEAP Subject Area(s)
Mechanical Engineering Engineering

UCEAP Course Number
185

UCEAP Course Suffix

UCEAP Official Title
DYNAMICS AND COMPLIANT DESIGN OF ROAD VEHICLES

UCEAP Transcript Title
DYNMCS&DESGN VHCLES

UCEAP Quarter Units
6.00

UCEAP Semester Units
4.00

Course Description

This course is part of the Laurea Magistrale program. The course is intended for advanced level students only. Enrollment is by consent of the instructor. The course is divided in two modules. The aim of the first module is to provide knowledge about vehicle dynamics. Theoretical and numerical approaches are discussed to this end, as tools that allow students to predict the performance of cars in terms of longitudinal dynamics, lateral dynamics, handling, comfort, and stability. The aim of the second module is to provide the theoretical basis and the practical skills required to design embedded hardware and firmware compliant with industrial standards (safety, interoperability, maintainability). In addition, model-based design and automatic code generation using Matlab/Simulink is considered.

Language(s) of Instruction
English

Host Institution Course Number
B0222

Host Institution Course Title
DYNAMICS AND COMPLIANT DESIGN OF ROAD VEHICLES

Host Institution Campus
BOLOGNA

Host Institution Faculty

Host Institution Degree
LM in ELECTRONIC ENGINEERING FOR INTELLIGENT VEHICLES

Host Institution Department
Electrical, Electronic, and Information Engineering

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