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 M

Host Institution Course Details
https://www.unibo.it/en/teaching/course-unit-catalogue/course-unit/2022/484404

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

Course Last Reviewed
2022-2023

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