COURSE DETAIL

MOTORCYCLE VEHICLE DYNAMICS
Country Italy
Host Institution University of Bologna
Program(s) University of Bologna
UCEAP Course Level Upper Division
UCEAP Subject Area(s) Engineering
UCEAP Course Number 176
UCEAP Course Suffix
UCEAP Official Title MOTORCYCLE VEHICLE DYNAMICS
UCEAP Transcript Title MOTORCYCLE DYNMCS
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 focuses on procedures and methods for modelling, identifying, designing, and analyzing dynamic motorcycle models. Topics include analytical tools to understand the basic mechanical systems, numerical tools to simulate complex mechanical systems, and experimental tools to identify critical parameters. The course discusses topics including motorcycle kinematics, suspensions, tire modelling, motorcycle dynamics, numerical modelling of the motorcycle dynamics, and experimental tests and model validation. The course consists of theoretical lectures, lectures and seminars held by experts from academic and industry, and classroom exercises with numerical tools and simulation software.

Language(s) of Instruction
English

Host Institution Course Number
86466

Host Institution Course Title
MOTORCYCLE VEHICLE DYNAMICS

Host Institution Course Details
https://www.unibo.it/en/teaching/course-unit-catalogue/course-unit/2021/429168

Host Institution Campus
BOLOGNA

Host Institution Faculty
ENGINEERING

Host Institution Degree
Laurea Magistrale in Mechanical Engineering and Advanced Automotive Engineering

Host Institution Department
ENGINEERING

Course Last Reviewed
2021-2022

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