



MOTORVEHICLE  
UNIVERSITY OF  
EMILIA-ROMAGNA

— **S&W SCHOOLS**

FUTURE OF  
AUTOMOTIVE FOR  
INTELLIGENT MOBILITY

# AGENDA 2023

FUTURE OF AUTOMOTIVE FOR INTELLIGENT MOBILITY

Mon,  
13 November

3.15 - 4.00 pm: **Welcome and Organization** (Vittorio Ravaglioli, Director of the School)  
4.00 - 5.45 pm: **Decision Making for Safety-Critical Autonomous Vehicles** (Marco Pavone - Stanford University)  
5.45 - 7.30 pm: **Automotive Basics - Vehicle Layout** (Andrea Petruccioli - UNIMORE)  
7.30 - 9.15 pm: **Green Ammonia Combustion: Emissions and Advanced Ignition Concepts** (William Northrop - University of Minnesota)

Tue,  
14 November

5.45 - 7.30 pm: **In Vehicle Connectivity** (Carlo Augusto Grazia - UNIMORE)  
7.30 - 9.15 pm: **Low Carbon Vehicles in FoA** (Alberto Bellini - Unibo)

Wed,  
15 November

5.45 - 7.30: **Energy Modeling, Simulation, Optimization and Control of Advanced Vehicles - I** (Stefano Nuzzo - UNIMORE)  
7.30 - 9.15 pm: **Machine Learning in Automotive** (William Northrop - University of Minnesota)

Thu,  
16 November

4.00 - 5.45 pm: **Cloud and Slicing for Automotive** (Carla Raffaelli - Unibo)  
5.45 - 7.30 pm: **Automotive Basics - Development Process and Intellectual Property** (Isabella Ferrari - UNIMORE)  
7.30 - 9.15 pm: **Pollution, Vehicle Emissions and Unfair Practices. Dieselgate** (Matteo De Pamphilis - Unibo)

Fri,  
17 November

4.00 - 5.45 pm: **Python for Data Management and ML in Automotive I** (Alex Marchioni - Unibo)  
5.45 - 7.30 pm: **Python for Data Management and ML in Automotive II** (Alex Marchioni - Unibo)  
7.30 - 9.15 pm: **5G for Automotive** (Riccardo Trivisonno - Huawei Technologies Company)

Mon,  
20 November

4.00 - 5.45 pm: **Introduction to Advanced Manufacturing** (Silvio Defanti - UNIMORE)  
5.45 - 7.30 pm: **Soft Skills and Project Management I** (Roberto Verdone - UniBo)  
7.30 - 9.15 pm: **Soft Skills and Project Management II** (Roberto Verdone - UniBo)

Tue,  
21 November

4.00 - 5.45 pm: **Intro to Connected Vehicles** (Alessandro Bazzi - Unibo)  
5.45 - 7.30 pm: **The Role of Innovative Combustions in Mobility** (Kalyan Srinivasan - University of Alabama)  
7.30 - 9.15 pm: **Alternative Fuels** (Kalyan Srinivasan - University of Alabama)

Wed,  
22 November

4.00 - 5.45 pm: **Introduction to Powertrain Modeling and Control I** (Nicolò Cavina - Unibo)  
5.45 - 7.30: **Introduction to Powertrain Modeling and Control II** (Nicolò Cavina - Unibo)  
7.30 - 9.15 pm: **Optimization Based Maneuvering and Coordination of Autonomous Vehicles** (Giuseppe Notarstefano - Unibo)

Thu,  
23 November

4.00 - 5.45 pm: **Advanced Manufacturing Technologies I** (Silvio Defanti - UniMoRe)  
5.45 - 7.30 pm: **The Pathway Toward Sustainable Power Units** (Carlo Bussi - Ferrari)

Fri,  
24 November

4.00 - 5.45 pm: **Advanced Manufacturing Technologies II** (Silvio Defanti - UniMoRe)  
5.45 - 7.30 pm: **Motorcycle Vehicle Dynamics** (Alberto Martini - UniBo)

Mon,  
27 November

4.00 - 5.45 pm: **H2 ICEs** (Enrico Corti - Unibo)  
5.45 - 7.30 pm: **Modelling an condrol of H2 ICEs** (Enrico Corti - Unibo)  
7.30 - 9.15 pm: **Chassis Design: Virtual Delivery and Type Approval Test** (Sara Mantovani - UNIMORE)

Tue,  
28 November

4.00 - 5.45 pm: **Alternative Powertrains for Future Sports Cars I** (Daire Corrigan - Bugatti Rimac)  
5.45 - 7.30 pm: **Alternative Powertrains for Future Sports Cars II** (Daire Corrigan - Bugatti Rimac)  
7.30 - 9.15 pm: **FoA and Antennas** (Andrea Notari - ASK Industries)

Wed,  
29 November

4.00 - 5.45 pm: **Topology Optimization for Advanced Manufacturing** (Massimiliano de Agostinis - Unibo)  
5.45 - 7.30: **Fatigue Behaviour of Advanced Manufactured Parts** (Massimiliano de Agostinis - Unibo)  
7.30 - 9.15 pm: **Optimal Control in Automotive** (Alberto Cerofolini - Ferrari)

Thu,  
30 November

4.00 - 5.45 pm: **Automotive and Private Law** (Enrico Al Mureden - Unibo)  
5.45 - 7.30 pm: **Safety Rules and Liability Rules Between Traditional Cars and Driverless Cars** (Enrico Al Mureden - Unibo)  
7.30 - 9.15 pm: **Short-Range Vehicular Connectivity** (Vincent Martinez - NXP)

Fri,  
1 December

4.00 - 5.45 pm: **Legal Clinic on the Tesla Case** (Emanuela Maio - UniPr)  
5.45 - 7.30 pm: **Energy Modeling, Simulation, Optimization and Control f Advanced Vehicles I** (Davide Barater - UniMoRe)  
7.30 - 9.15 pm: **Energy Modeling, Simulation, Optimization and Control f Advanced Vehicles II** (Davide Barater - Unimore)