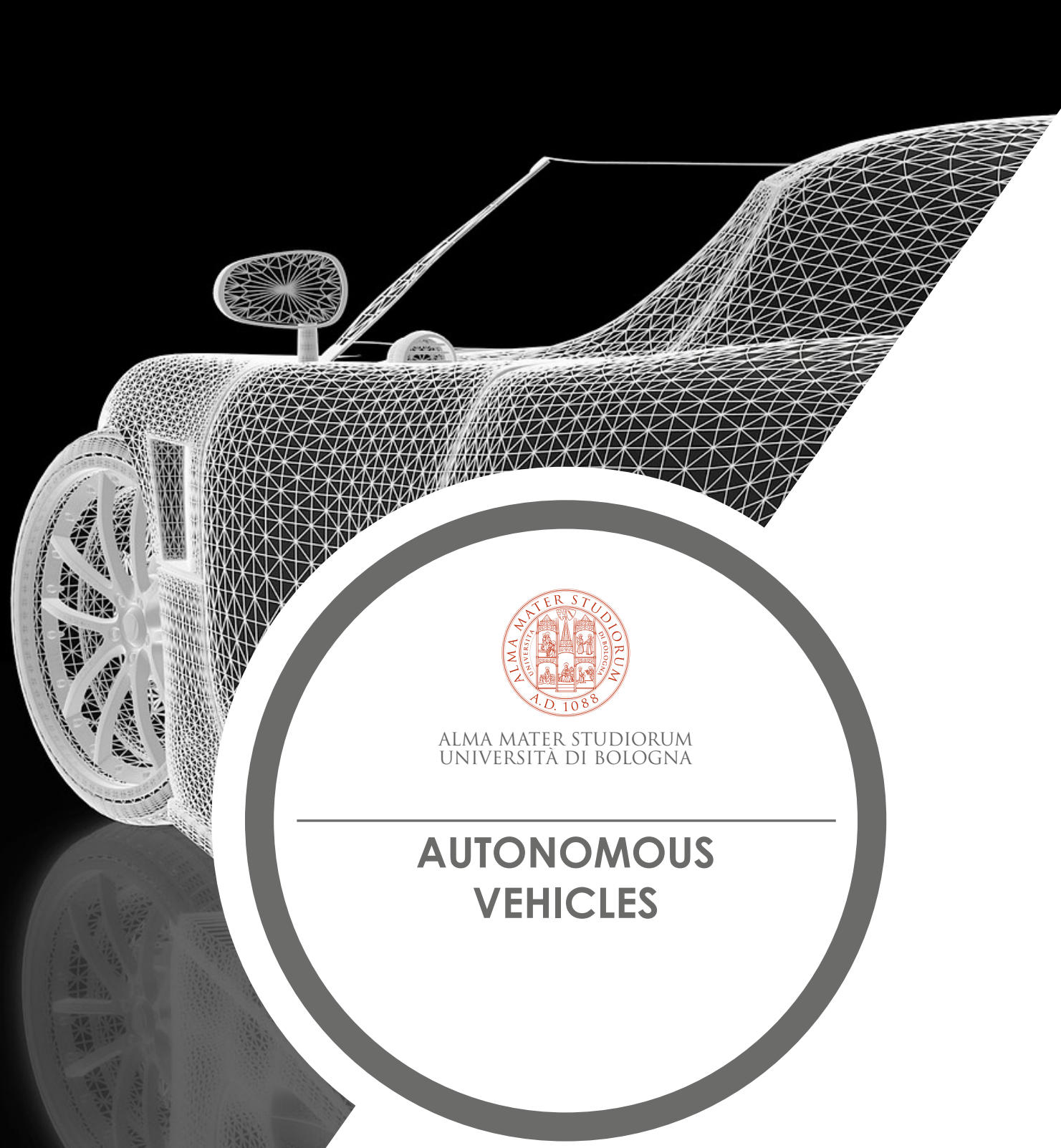

ALMA MATER STUDIORUM
UNIVERSITÀ DI BOLOGNA

AUTONOMOUS VEHICLES

The urgent need for autonomous vehicles is due to safety and energetic demands. The technology is being developed and it is almost available: its application to semi- and fully-autonomous vehicles could save thousands of lives and significantly improve life quality in urban areas.

The research of the University of Bologna covers a wide range of issues:

- Vehicle Informatics and Connectivity, including secure application platforms for vehicular applications, Intelligent vehicle
- Vehicle Human Machine Interface and Infotainment systems
- Gamification for Improving Driver Behavior and policy enforcement
- Vehicular networks, Vehicular Sensors and Big Data for Mobility
- Automatic and Autonomous Drive
- Connectivity for V2I- Vehicle to Infrastructure, V2V – Vehicle to Vehicle and V2G – Vehicle to smart Grid interfacing
- Data Analytics and Advanced Prediction Models
- Augmented reality, computer vision, object identification, ranging and context analysis in computer assisted and autonomous vehicles

HIGHTLIGHTS

Vehicular network protocols (V2V and V2I) design and tuning, analysis of critical scenarios.

Software and sensors development for intelligent and autonomous vehicles.

Product safety and product liability issues related to autonomous vehicles.

PhD Course in Automotive Engineering for Intelligent Mobility.

In collaboration with University of Modena and Reggio Emilia and University of Parma, to train highly qualified personnel with multidisciplinary skills, able to direct the development and research, also in the industrial field, of innovative vehicles, creating a meeting point in the third level of education between mechanical, industrial, electronics, telecommunications, controls, electrical, IT, logistics and civil engineering.