



Speaker:

The demo will be presented by Lorenzo Farina, Matteo Piccoli, Vittorio Todisco, and Alessandro Bazzi (University of Bologna). It derives from a collaboration involving Vittorio Di Paolo (CNIT WiLab), Paolo Burgio, Carlo Augusto Grazia, Federico Gavioli, Salvatore Iandolo, Francesco Moretti, and Antonio Solida (University of Modena and Reggio Emilia), Claudio Casetti, Marco Rapelli, and Francesco Raviglione (Politecnico di Torino).

Title:

Scaled Implementation of V2X-Based Cooperative Intersection with 1:10 Cooperative Connected and Automated Mini-Cars

Abstract:

The demonstration consists of four 1:10 scale cooperative, connected, and autonomous vehicles operating on a figure-eight track with a central intersection. Each vehicle is equipped with wireless communication capabilities based on ITS-G5 technology operating in the 5.9 GHz band. Vehicles exchange status information with a centralized controller, which computes optimal crossing strategies and sends coordination commands in real time. This setup enables vehicles to traverse the intersection at regulated speeds without stopping, ensuring both safety and efficiency.