OBJECTIVE AND TARGET

SafeCOP project addresses safety-related issues in cooperating cyber-physical systems, characterised by wireless communications, multiple stakeholders, and variable operating environments.

These systems, characterised by wireless communications, multiple stakeholders, and variable operating environments, are called Cooperative Open Cyber-Physical Systems (CO-CPS).

Vehicle Control Loss Warning

Control Loss Warning systems are designed to detect and alert on controll loss situations. They can be applied to a platoon of vehicles travelling along a motorway, using V2x communication technology.

The On board units (OBUs) are used to manage the internal communications and the communication between nodes. Nvidia Jetson Tx2 collects data from the robot and runs the platooning algorithm.

The final demonstrator shows how a node of the platoon can recognize a loss in its main functionalities (accelerator, brakes or direction) and warn the other nodes to take some actions in order to prevent crashes between the nodes. In this context, the runtime manager implemented by ISEP keeps the integrity of the CO-CPS messages in a save state.