Motivation

- Platoon-based Vehicular Cyber-Physical System (PVCPS) has enabled a new platoon-based driving paradigm, in which a lead vehicle is driven manually, while the following vehicles follow the lead vehicle in a fully automatic fashion.

- The control message dissemination is vulnerable to eavesdropping attacks due to the broadcast nature of radio channels.

Testbed

- The CoopKey testbed for PVCPS security is built with a platoon of 4 mobile nodes.

- The Crossbow TelosB wireless transceiver mounted on a 1m-high plastic pole is placed on top of the node.

- Bit mismatch rate (BMMR) is the ratio of the number of secret bits that mismatch between the lead node and the following nodes to the key length.

Reference
