**1. Machine Learning-Aided Cooperative Localization under Dense Urban Environment**

**Objective:** This work presents decentralized vehicular localization strategies based on machine learning in particularly dense urban settings, with settings that do not allow for the use of GNSS-based localization because of signal obstructions.

**Key Contributions:**

A cooperative localization strategy based on V2X communication

Models challenges such as model dependence, adaptive vehicular interaction, and time-varying mobility.

Introduces the MLCL framework, which includes several neural network units that allow for continuous and accurate localization.

Simulation results prove its superiority in localization accuracy and scalability compared to classical methods.

**Conclusion:** ML-based cooperative localization increases the accuracy of urban vehicular networks; thus, it also can serve as one of the bases for future research top on other themes, such as collective driving control and security.