Presents the concepts and methods developed for the autonomous vehicle AnnieWAY, winning entry to the Grand Cooperative Driving Challenge of 2011.

Goal of cooperative driving is to improve traffic homogeneity using vehicle-to-vehicle communication to provide the vehicle with information about the current traffic situation.

Contributions:
- Describes algorithms used for sensor fusion, vehicle-to-vehicle communication and cooperative control.
- Analyzes the performance of the proposed methods and compare them to those of competing teams.