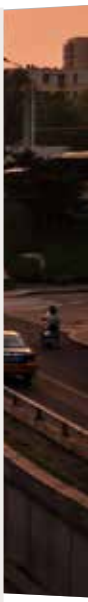
Cooperative Adaptive Cruise Control (CACC)



HOW COULD THIS HELP?

- Improves traffic flow stability and increases throughput
- Saves fuel and reduces emissions

HOW DOES THIS WORK?

- An application aims to dynamically adjust and coordinate cruise control speeds among platooning vehicles to improve traffic flow stability and increase throughput.

TRANSPORTATION NEEDS ADDRESSED

MOBILITY

SOLUTION IMPROVEMENTS

- Unoptimized traffic speeds
- Distracted driving
- Excessive congestion

SOLUTION PITFALLS

- Vehicles must be V2V equipped

INVESTMENT

+ V2X ROADSIDE UNIT COST PER MILE-FREEWAYS
$52,000

+ V2X ROADSIDE UNIT COST PER INTERSECTION-SIGNALIZED CORRIDORS
N/A

+ V2X SIGNAL CONTROLLER COST PER INTERSECTION-SIGNALIZED CORRIDORS
N/A

+ FIBER OPTICS COST PER MILE
$158,000

Disclaimer: all content is for planning purposes only and published as of Summer 2020. Contact the author at shacav@mdot.maryland.gov with any questions or comments.

MDOT MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION