

RESEARCH PROBLEM STATEMENT

DATE: 08/22/2018	PROJECT AREA: Planning
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TITLE: ARDOT's Efforts to Prepare for Connected and Autonomous Vehicles (CAVs)

PROBLEM STATEMENT:

A nationwide network of Connected and Autonomous vehicles (CAVs) will soon become a reality. The United States Department of Transportation launched a Connected Vehicles Pilot Deployment program in 2015. This program encouraged implementation throughout three regions in the US: Wyoming, New York City and Tampa, Florida. More deployments and pilots have launched since then for both connected and automated vehicles, yielding new opportunities to improve safety, mobility and efficiency of the U.S. transportation system. With these new developments underway, it is important that Arkansas be well positioned for the next stage of opportunities for CAVs. These emerging technologies will impact every aspect of ARDOT. Given the time horizon of CAV implementation and the lifespan, the time for planning is now. Preparation now will place the Arkansas DOT in a good position to capitalize on the emerging technology as it relates to planning, operations, maintenance, design, etc. Preparing for the future will require ARDOT to develop new policies, programs and partnerships. As a result, ARDOT will need to develop and implement a plan to address the impacts of CAVs on Arkansas roadways.

OBJECTIVES:

The primary objective of this research is to develop a strategic roadmap to guide ARDOT in the deployment and sustainment of CAV technologies and solutions. This will be developed through the following four tasks:

- 1) Understand the impact of CAVs on roadways by compiling information from other agencies,
- 2) Address the rapidly changing technologies and the need to deploy these technologies through ARDOT,
- 3) Determine how ARDOT can exploit the huge volumes of data that comes with CAVs, and
- 4) Address impacts that these new vehicles may have on funding.

FORM OF RESEARCH IMPLEMENTATION AND RETURN ON INVESTMENT:

The vision is to capitalize on the safety and operational benefits of CAV technologies to reduce crashes and fatalities on Arkansas roadways. To accomplish this vision, ARDOT needs key resources dedicated to the implementation of a CAV plan.

Estimated Project Duration: 24 Months

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Standing Subcommittee
Ranking

3/6

Advisory Council
Ranking

12/37

Statement Combined with
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