

Scope Statement

Project Name	Smart Traffic Vendor project	Date	August 31 st , 2022
Project Manager	This is a collaboration between Cox and ASU		

Project Objectives

The primary goal of the project is to publish a white paper that compares the accuracy and performance of AI-based traffic monitoring devices built by different vendors in the market.

Project Description and How it Meets the Objectives

Technology evaluation, performance evaluation (including vendor performance claims), and economic benefit analysis are the three basic evaluation methodologies utilized in the analysis of various vendor systems. Other elements evaluated while evaluating a vendor's product include improvements in the road safety index, the emissions index, and the efficiency with which traffic congestion is addressed, among others. These methods, together with the Bill of Materials (BOM), Mean Time Between Failures (MTBF), Multiple Objects Tracking Precision (MOTP), and Multiple Objects Tracking Accuracy (MOTA), will be used to evaluate the accuracy and efficiency of various manufacturers' traffic monitoring systems.

Project Benefits

A comparison of various market solutions gives us a clear picture of the current stage of development of AI-based smart traffic systems, as well as insights into how to improve current systems to address the issues that humans face. This, in turn, will help the state Department of Transportation (DOT) understand current vendors and support them with the implementation of Smart Traffic systems across the state, which will reduce traffic congestion.

Project Requirements

The project's prerequisites include Purchasing hardware from vendors for research purposes. Inquiring with the vendor about existing data and, if accessible, requesting it. Investigating the system's software and hardware components. Confirm the type of data being collected, who is collecting it, and the privacy implications. On-campus device testing as a real-time test case scenario.

Project Deliverables

A white paper comparing the various AI-based smart traffic devices on the market is one of the project's deliverables.

Project Does Not Include

The project makes no changes to the device's software or hardware. It also excludes AI-based algorithm testing and development. These things are excluded in the project.

Success / Acceptance Criteria

The variables defining the project's success are intended to test the equipment, effectively evaluating their efficiency and performance, and publishing a white paper based on the results.

Estimated Project Schedule	
Milestones	Estimated Date of Completion
1. Project Start	5 August 2022
2. Scope Statement	2 September 2022
3. Research on Florida's DOT's policies	10 September 2022
4. Updates on the procurement of equipment from vendors	20 September 2022
5. Literature review & vendor platform purchase	30 September 2022
6. Creating a set-up for evaluation	10 October 2022
7. Evaluating different vendor technologies strength and weakness	30 October 2022
8. Conduct preparation studies for future real-world performance evaluation	25 November 2022
9. Scientific White Paper drafting	1 December 2022
10. White Paper Review	20 December 2022
11. Deliver Final report / Presentation	30 December 2022
Total Estimated Length of Project	147 Days (21 weeks)

Project Constraints

The assumptions include the notion that the devices are ready for full-time application on the streets; that the hardware and software are dependable in terms of privacy and security. Other assumptions include the fact that the devices will not disrupt with the movement of vehicles and will provide an efficient technique of regulating traffic congestion.

Project Assumptions

The assumptions include the following, the notion that the products are ready for full-time implementation on the streets; when it comes to privacy and security, the hardware and software are reliable. The other things included are that the devices will not cause any issues for drivers on the road, and they would provide an efficient method of regulating traffic congestion.

Decision	
<input type="checkbox"/> Approved	<input type="checkbox"/> Rejected
<input type="checkbox"/> Approved with modifications	<input type="checkbox"/> Deferred
Required Modifications	
Additional Comments	

Approver's Printed Name

Date

Title

Signature