SCITT SOUTHERN COLORADO INSTITUTE OF TRANSPORTATION TECHNOLOGY

COLORADO STATE UNIVERSITY PUEBLO

ARTIFICIAL INTELLIGENCE AND TRANSPORTATION

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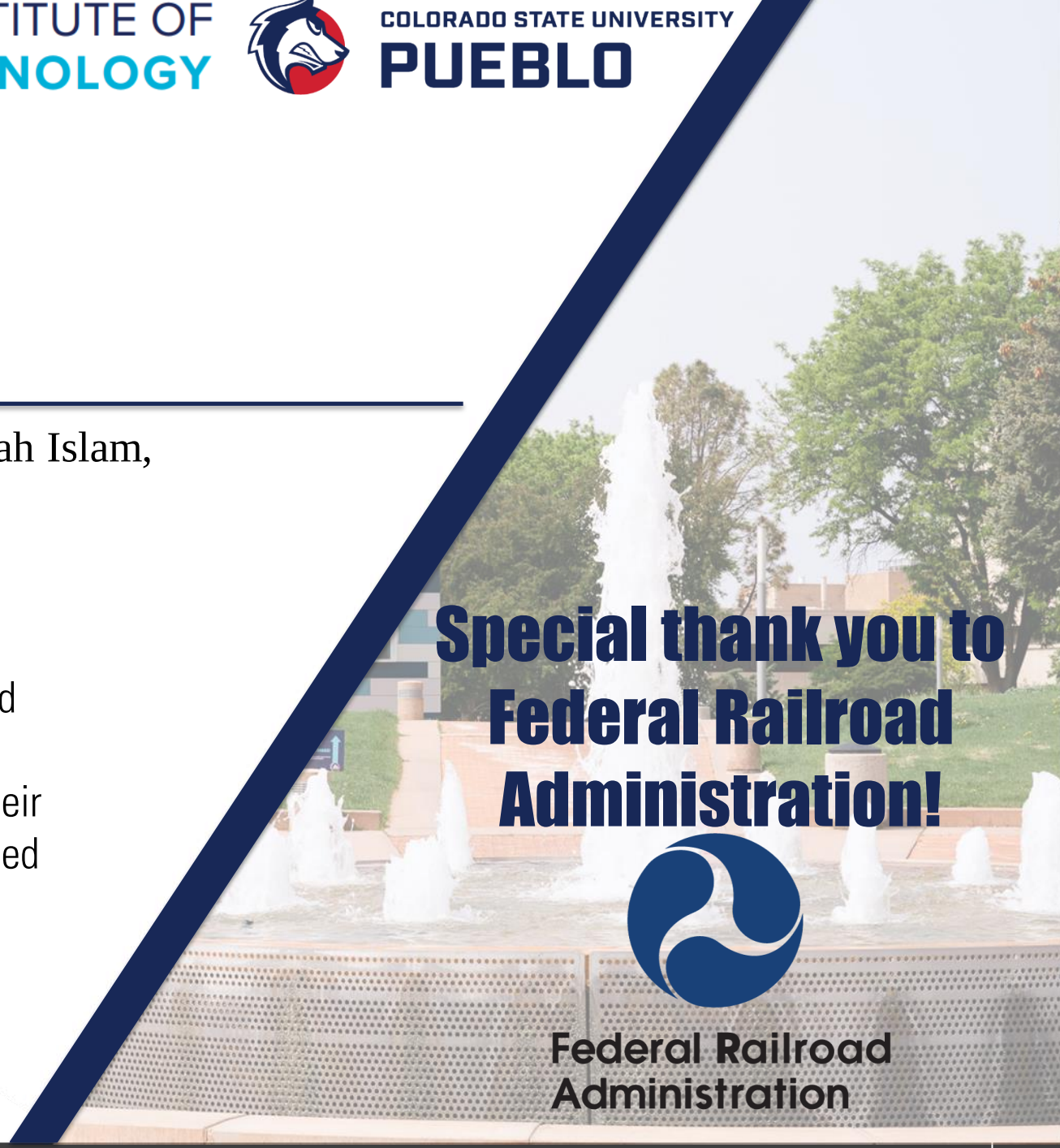
Project Details: Middle schoolers explored real-world transportation issues through creative projects that encouraged research, problem-solving, and teamwork. This presentation gave them the chance to practice public speaking and share their innovative ideas. Join us as they showcase what they've learned about using AI in transportation field.

May 23, 2025



Introduction:

Definition: Artificial Intelligence (AI) refers to the simulation of human intelligence in machines that are programmed to think and learn.

Importance: AI is revolutionizing transportation by enhancing safety, efficiency, and sustainability.

Scope: From autonomous vehicles to intelligent traffic systems, AI is reshaping how we move.

Autonomous Vehicles:

Overview: Self-driving cars use AI to navigate and operate without human intervention.

Benefits:

-Reduced traffic accidents

-Improved traffic flow

-Increased mobility for non-drivers

Example: Companies like Waymo and Tesla are leading in autonomous vehicle development.

AI in Freight and Logistics:

Route Optimization: AI analyzes traffic patterns and weather to determine the most efficient delivery routes.

Predictive Maintenance: AI predicts vehicle maintenance needs, reducing downtime and costs.

Example: Uber Freight uses AI to match truckers with continuous loads, minimizing empty miles and reducing fuel consumption.

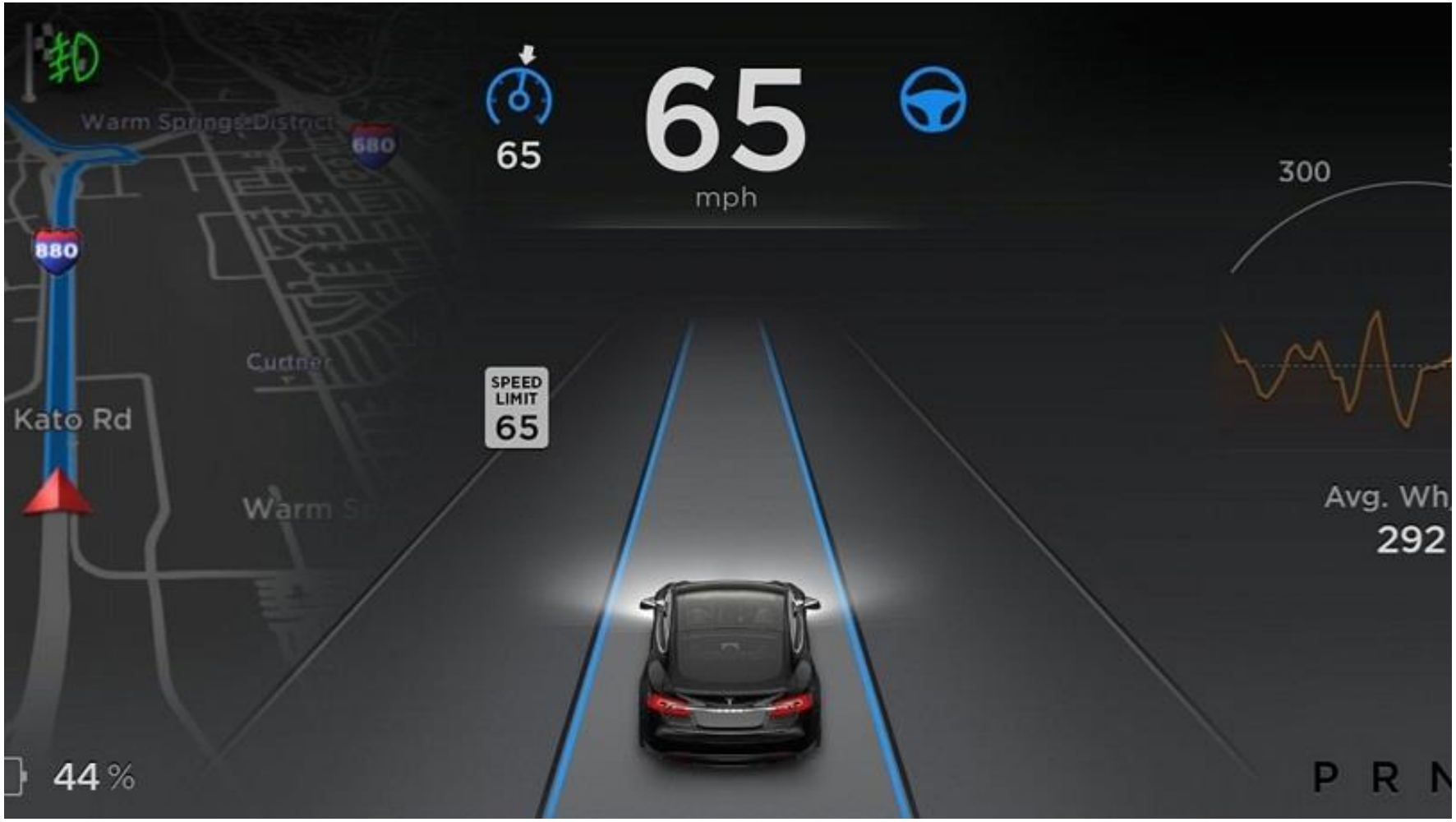
Public Transportation Enhancement:

Dynamic Scheduling: AI adjusts bus and train schedules based on real-time passenger data.

Smart Ticketing: AI-powered apps provide real-time updates on schedules and delays.

Example: Cities like London and New York employ AI to optimize public transit services.

The Tesla model Y is heavily reliant on AI because of its self-driving and autonomous capabilities.



THANK YOU!

Citations/Credits:

Tesla Model Y Image:
https://www.pcmag.com/news/dont-judge-self-driving-tech-based-on-one-fatal-crash

Navigating The Future of AI in Self-Driving Cars:
https://www.udacity.com/blog/2023/11/ai-in-self-driving-cars.html?

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