Stan Caldwell, Executive Director

Traffic21

A transportation research institute of Carnegie Mellon University

Mobility21

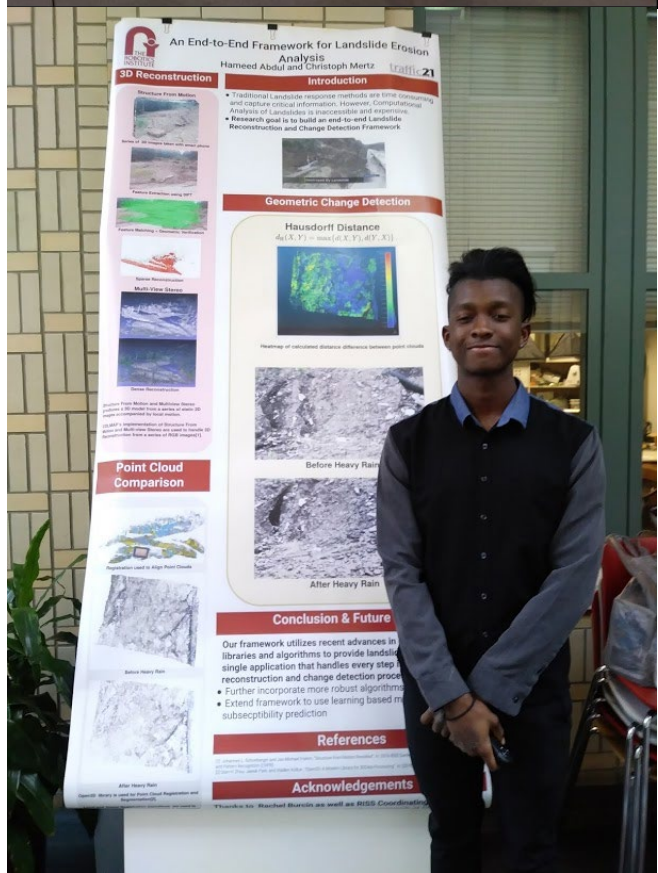
A USDOT NATIONAL UNIVERSITY TRANSPORTATION CENTER

Carnegie Mellon University

Penn
University of Pennsylvania

THE OHIO STATE UNIVERSITY

CCAC



New Executive Education Program

MANAGING AI IN TRANSPORTATION CERTIFICATE PROGRAM

Carnegie Mellon University
HeinzCollege
INFORMATION SYSTEMS • PUBLIC POLICY • MANAGEMENT

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Course Motivation

Public and Private Transportation Organizations Impact by AI Today

Hype of AI Creating Misconceptions

Gap in AI Education Opportunities for Current Transportation Managers

Organizations Need Strategic Approach Managing AI

Students who complete this program will be able to:

- Describe the current landscape of AI and other disruptive technology in the transportation sector
- Understand the risks/benefits of AI utilization to stakeholders
- Determine the best way to introduce and manage AI within a transportation organization
- Understand the components of an enterprise AI strategy and the tactics for building AI capabilities in an organization

DETAILED AGENDA

- Session 1: Overview of Technology and AI Impacts in Transportation Today
- Session 2: AI in Traffic Control Devices
- Session 3: AI in Connected/Autonomous Vehicles
- Session 4: AI and Predictive Analytics: How to Make Better Decisions with Transportation Data
- Session 5: AI in Transportation Asset Management
- Session 6: Equitably Applying AI for Safe and Efficient Transportation
- Session 7: Developing and Implementing an Enterprise AI Strategy

Trends Driving Intelligent Transportation Systems

*Intelligent Transportation Systems are enabled by **information** and **communication** systems.*

- Sensors
- Data Analytics (real time and predictive)
- Cyber Physical Systems
- Cloud and Edge Computing
- Internet of Things
- 5G and Advanced Wireless

Primary Technologies Disrupting Transportation

- Automation
- Connectivity
- Shared Use
- Electrification

Parallel but separate paths!

AI Driving Emerging Technologies

Intelligent Transportation Society of America
Standing Committee on Emerging Technology

Task Forces Driven by AI:

- Personal Delivery Devices
- Electric Vertical Take Off and Landing (eVTOLs)
- Digital Twinning

Goals of Managing AI in Transportation

- Understand the Opportunity of AI
- Know the Risk and How to Mitigate It
- Promote and Manage Expectations Inside and Outside of the Organization

Policy and Related Market Implications of AI in Transportation

Citizen concerns with both public and private applications of AI.

- Privacy
- Equity
- Security