

MANAGING AI IN TRANSPORTATION CERTIFICATE PROGRAM

The entire transportation industry is dramatically changing through the influence of disruptive new technologies driven by artificial intelligence (AI). For instance, robotics is being applied to road construction and video analytics for maintenance and asset management, data systems are revolutionized by predictive analytics, commercial automated vehicle applications are already improving safety and efficiency, the Internet of Things (IOT) has connected and integrated all modes of transportation, and there are many implications for policy decision-making.

With all power and potential of this innovative new technology, it comes with significant risk. Issues including public safety, security, privacy, and equity have been well documented even in early transportation AI applications. Today, public and private transportation professionals are expected to understand how to capitalize on the safety and efficiency potential of innovative AI technology and how to mitigate the risks.

For this reason, Carnegie Mellon University's Traffic21 Institute, located within the Heinz College of Information Systems and Public Policy, has developed a unique executive education program on Managing AI in Transportation.

To meet the needs of busy professionals, the Managing AI in Transportation Certificate Program will be delivered as a virtual bootcamp offering to provide transportation managers with a practical guide to getting started with Artificial Intelligence (AI) and understanding how to manage the impact of this disruptive technology to the organization.

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

The curriculum in this 5-day intensive bootcamp will explore critical areas that are required for breaking down organizational barriers and understanding how managing AI can benefit key stakeholders.

DATES

May 3-7, 2021

*See below for full schedule

FEES

Full Rate: \$3,975

Discounted Rate: \$3,250

Applies to CMU alumni, non-profit employees, U.S. government employees, and veterans.

ENROLLMENT

Maximum of 50 students per delivery.

Formal deadline for the Spring 2021 program delivery is **April 16, 2021**.

Please submit your application as soon as possible for consideration.

CONTACT

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PROGRAM SPONSOR

Traffic21
A transportation research institute of Carnegie Mellon University

DETAILED AGENDA

Session 1: May 3 (8:30 a.m. to noon EDT)

Overview of Technology and AI Impacts in Transportation Today

- Application examples
- Risks and benefits
- Policy implications

Session 2: May 3 (1:00 p.m. to 4:30 p.m. EDT)

AI in Traffic Control Devices

- History, current status, future trends in devices
- The role of AI in improving traffic control devices
- Traffic control device optimization with increased IOT connections

Session 3: May 4 (1:00 p.m. to 4:30 p.m. EDT)

AI in Connected/Autonomous Vehicles

- History, current status, future trends of AV
- Societal impact of AV (safety, environment)
- Technology/policy risks of CAVs

Session 4: May 5 (1:00 p.m. to 4:30 p.m. EDT)

AI and Predictive Analytics: How to Make Better Decisions with Transportation Data

- AI enablement for improved decisions
- Analytics use cases
- Data sharing to modify behavior patterns

Session 5: May 6 (1:00 p.m. to 4:30 p.m. EDT)

AI in Transportation Asset Management

- Use cases for AI in asset management
- Optimization best practices
- How to achieve desired cost efficiencies

Session 6: May 7 (8:30 a.m. to noon EDT)

Equitably Applying AI for Safe and Efficient Transportation

- AI approaches to improve mobility and access
- Misuse and/or negative impact of AI to mobility
- Ethical issues of AI

Session 7: May 7 (1:00 p.m. to 4:30 p.m. EDT)

Developing and Implementing an Enterprise AI Strategy

- Enterprise AI strategy components
- Key stakeholders needed
- How to build AI capability and find talent

ABOUT CMU HEINZ COLLEGE

The Heinz College of Information Systems and Public Policy is home to two internationally recognized graduate-level institutions at CMU: The School of Information Systems and Management and the School of Public Policy and Management. This unique colocation combined with its expertise in analytics set Heinz College apart in the areas of cybersecurity, healthcare, the future of work, smart cities, and arts & entertainment.

ABOUT TRAFFIC21

Traffic21 is a multi-disciplinary research institute of Carnegie Mellon University. Its goal is to design, test, deploy, and evaluate information and communications technology-based solutions to address the problems facing the transportation system of the Pittsburgh region and the nation. Housed within the institute is the US DOT funded, Mobility21 National University Transportation Center.

The Pittsburgh region serves as a “learning lab,” deploying solutions that can be applied around the nation and the globe. Traffic21 leverages Carnegie Mellon’s leadership in relevant areas such as intelligent transportation systems, smart infrastructure, cybersecurity, human factors, artificial intelligence, data analytics, and connected and automated vehicles.

