The Role of Artificial Intelligence in Cultivation of Green Transportation Systems

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Abstract

This paper investigates the vital role of Artificial Intelligence (AI) in fostering sustainability within transportation systems. The study emphasizes the need for efficient solutions, leading to the emergence of green transportation systems that not only reduce the operational costs, but also mitigate emissions and negative environmental impacts. The study focuses on the pivotal role of AI in achieving sustainable transportation systems through route optimization, mode selection, maintenance planning, and infrastructure design. By harnessing the capabilities of AI, this research seeks to propel the transition towards greener, more efficient, and eco-sensitive transportation systems.

Keywords
Transportation systems, Sustainability, Artificial Intelligence, Logistics

Biographies
Farnaz Ghazi Nezami is an Associate Professor in the Industrial and Manufacturing Engineering Department. She received her Ph.D. in Industrial Engineering with a minor in Manufacturing from Wichita State University. Before joining Kettering, she was a teaching faculty at Wichita State University. She has several years of working experience in the automobile industry and service sector. Dr. Ghazi-Nezami teaches a wide range of courses in industrial engineering, and her research interests include applied optimization, supply chain and operations management, and statistical data analysis.

Catharine Carlson graduated with a BS degree in Industrial Engineering from the Industrial and Manufacturing Engineering Department at Kettering University in September 2023. She has more than two years of working experience as an Industrial Engineer.

Skyler Chinn is an undergraduate student in the Industrial and Manufacturing Engineering Department at Kettering University. Her working experience lies in the area of supply chain management in self-driving car companies.