Min-Wook Kang, PhD.

Professor of Civil and Transportation Engineering

15 H-Index	878 Citations	$3.8 Million Total Grant Funding

Research Interests

Advanced Traffic Operations
Traffic Data Analysis

AI in Traffic Management and
Transport Infrastructure

Driver Behavior: Distracted,
Fatigued, Dilemma Zone

Experimental Capabilities

Proactive Red Light Protection
Proactive Signal Operations and
Coordination

Simulation Driver Behavior Analysis
Countermeasures Development for
Highway/Intersection Safety

AI-Based
Optimizations
Microscopic Traffic
Simulations
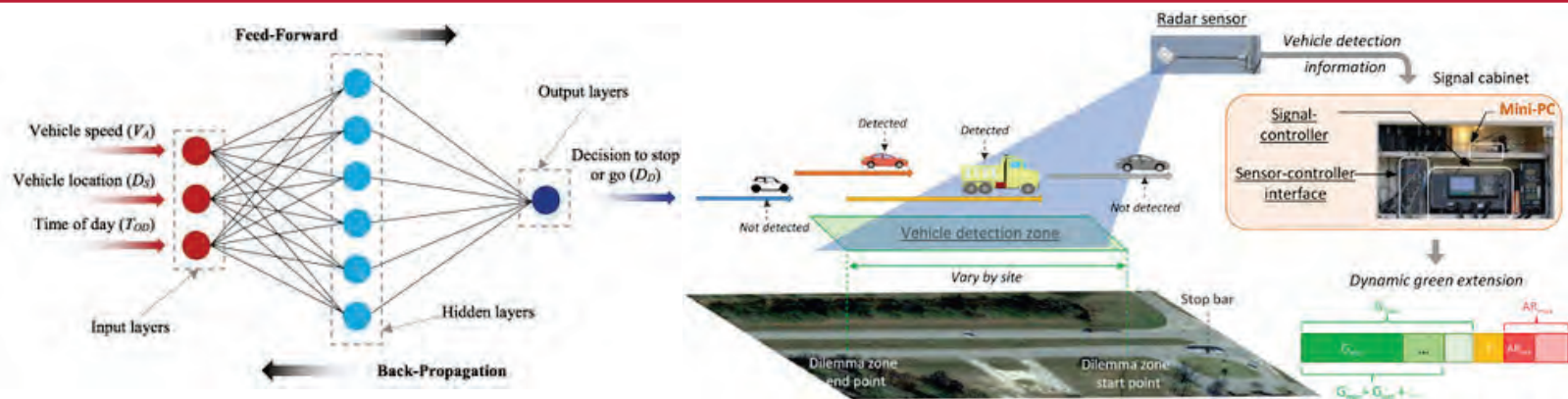
An artificial neural network representing a dynamic system of driver behavior under dilemma zone situations.

Radar sensor-based dynamic dilemma zone protection.

2021
Transportation Research Part C
"Predicting Time-Varying, Speed-Varying Dilemma Zones Using Machine Learning and Continuous Vehicle Tracking"

2022
Transportation Research Record: Journal of the Transportation Research Board
"Machine Learning Based Automated Left-Turn Vehicle Counts with Conventional Presence Mode Long-Loop Detectors: Alabama Case Studies"

2020
World Scientific
"Artificial Intelligence in Highway Location and Alignment Optimization: Applications of Genetic Algorithms in Searching, Evaluating, and Optimizing Highway Location and Alignments"

2023
Transportation Engineering-Elsevier
"Dynamic Dilemma Zone Protection System for High-Speed Signalized Intersections: A Comprehensive Safety-Operational Assessment"