

An Interdisciplinary Graduate Program in

TRANSPORTATION SYSTEMS ENGINEERING



UB's program in transportation systems engineering builds upon the continued excellence of the Department of Civil, Structural and Environmental Engineering and its long tradition of transportation research. The program integrates transportation systems research with research in information and computing technology, extreme event hazard mitigation, and sustainable development. Close connections between a variety of departments and schools on campus as well as nationally recognized centers and programs across UB ensure that students will have access to research opportunities, scholarship opportunities and internships.

Course Offerings

Traffic Flow Theory

Travel Demand Forecasting

Traffic Operations & Design

Transportation
Network Analysis

Discrete Choice Modeling

Transportation Systems
Management & Control

Current Project Topics

- Real-time, Adaptive Network Management and Control
- Dynamic Network Modeling and Simulation
- Integrated Transportation and Land Use Planning
- Transportation Impact Assessment
- Congestion Pricing
- Intermodal Transportation Analysis and Optimization
- Freight Systems and Logistics
- Integrated Infrastructure Management
- Inclement Weather and Emergency Operations
- Collision Avoidance and Cooperative Vehicle Infrastructure Systems
- Transportation Risk Analysis Under Multiple Hazard Situations

Current Faculty Research Interests

Dr. Adel Sadek and Dr. Qian Wang are the program leaders. Dr. Sadek's research interests include transportation systems modeling and simulation, intelligent transportation systems, artificial intelligence applications in transportation, and infrastructure management. Dr. Wang's interests include transportation planning, freight system modeling, and transportation economics. Her focus is on integrating economic and behavioral principles into planning and policy making, to maintain the sustainability of transportation systems.

For More Info, Contact:

- Your Academic Advisor
- Dr. Adel W. Sadek
(716) 645-4367
asadek@buffalo.edu
- Dr. Qian Wang
(716) 645-4365
qw6@buffalo.edu