

# Signal Optimization as a Safety and Operations Countermeasure

Advisor: Dr. Fahmida Rahman



## Project Goal

- Evaluate whether existing signal timing at signalized intersection(s) contains inefficiencies or latent safety risks and do a literature review to identify optimization strategies using field-collected dataset.

## Key Tasks

- Collect existing-condition field data in NJ
- Identify ineffective or “wasted” green time
- Diagnose hidden operational and safety risks
- Do a Literature Review for signal optimization strategies
- Evaluate signal optimization as a safety countermeasure emphasizing low-cost, no-infrastructure solutions