PhD Position in Smart City Laboratory

Webpage: Smart City Lab
Department of Mechanical Engineering
The Pennsylvania State University
University Park, Pennsylvania, USA

Advisor: Satadru Dey, Assistant Professor, Department of Mechanical Engineering.
Email: skd5685@psu.edu.

Position Summary: With rapid growth of urbanization, *Smart Cities* have been gaining attention worldwide. In this context, the research goal of *Smart City Laboratory* is to improve energy efficiency, tighten safety and security, and maintain sustainability of these *Smart Cities* by utilizing control theory, machine learning techniques, and modeling tools. In this position, the student is expected to conduct research on one or more of the following areas related to energy and transportation:

- Control and diagnostics of batteries.
- Security and control of Connected and Autonomous Vehicle systems.
- Modeling and control of transportation networks.

The successful Ph.D. applicant will be awarded a competitive scholarship covering both tuition and living expenses.

Expected Start Date: Fall 2021.

Preferred Experience:

- Strong background in controls, machine learning, and applied mathematics.
- Bachelor's or Master's degree with major/specialization in mechanical, electrical, mechatronics, controls, or any other relevant engineering/science discipline.
- Master's degree is preferred but not required.
- Strong MATLAB and/or Python programming experience.
- Previous publication record is preferred but not required.

Application Process: Interested candidates should email Satadru Dey at skd5685@psu.edu with subject line "PhD Position – Smart City", and include following:

- List of courses taken in controls, machine learning, and applied mathematics.
- Detailed curriculum vitae.
- Academic transcripts (unofficial transcript is fine).
- Copy of previous publications (if any).