

MS in Civil Engineering | PhD in Engineering Systems | Fall 2026

Dr. Agnimitra Sengupta's research group is seeking to recruit highly qualified and motivated students for fully funded graduate research assistantship positions beginning in the Fall 2026 semester at Penn State Harrisburg. Assistantships are available to students admitted to the M.S. in Civil Engineering or Ph.D. in Engineering Systems programs. These positions provide students with hands-on research experience and the opportunity to work closely on externally funded projects, with the goal of producing high-quality scholarly publications and preparing students for careers in academia and industry.

Research Focus

The research group focuses on data-driven methods to improve the safety, performance, and reliability of transportation systems. Research activities span two closely related areas:

(1) Operations & Safety: Research focuses on understanding and modeling traffic system behavior to support safety- and operations-oriented decision making. Key directions include traffic flow modeling and short-term demand prediction, uncertainty-aware prediction for traffic operations and control, multimodal traffic safety involving vehicles, pedestrians, and bicyclists, and video-based surrogate safety measures and conflict analysis.

(2) Infrastructure Systems: Research focuses on autonomous, reliable, and scalable infrastructure evaluation frameworks that reduce inspection uncertainty and improve maintenance planning. Key topics include AI-based interpretation of nondestructive evaluation (NDE) data, domain adaptation from laboratory to real structures, integrated infrastructure condition prediction to support asset management.

Funding & Benefits

Qualified candidates will receive full financial support, which typically includes:

- A competitive stipend
- Tuition coverage in accordance with Penn State assistantship policies
- Health insurance benefits during the academic year
- Opportunities for continued funding through sponsored research projects

Application & Eligibility

Applicants with degrees in civil engineering, mechanical engineering, computer engineering, systems engineering, or closely related fields are encouraged to apply. Prior experience or strong interest in machine learning, data analytics, computer vision, optimization, or statistical modeling is highly desirable. Detailed program requirements, application procedures, and deadlines are available at: [CE \(MS\)](#) and [Engineering Systems \(PhD\)](#).

Applicants are strongly encouraged to apply [here](#) by January 15 for full consideration for funding.

Contact Information

Interested students should contact Dr. Sengupta with a CV and a brief research statement.

Dr. Agnimitra Sengupta
Assistant Professor of Civil Engineering
Penn State Harrisburg
avs6897@psu.edu
+1 717 948 6124