

# Electrical & Systems Engineering

The Department of Electrical & Systems Engineering offers doctoral-level and master's-level degrees in Electrical Engineering and in Systems Science & Mathematics. At the doctoral level, both the PhD and DSc degrees are available; these typically require four to five years of full-time study leading to an original research contribution. At the master's level, the programs require 30 credit units of study and have both a course option and a thesis option.

Research activity in the department is focused in the following four areas:

## Applied Physics

- Nanophotonics
- Quantum optics
- Engineered materials
- Electrodynamics

## Devices & Circuits

- Computer engineering
- Integrated circuits
- Radiofrequency circuits
- Sensors

## Systems Science

- Optimization
- Applied mathematics
- Control
- Financial engineering

## Signals & Imaging

- Computational imaging
- Signal processing
- Optical imaging
- Data sciences

Students working in any of these areas will enjoy the benefits of programs that balance fundamental theoretical concepts with modern applications. In our department, students find ample opportunities for close interactions with faculty members working on cutting-edge research and technology development.

Prospective PhD students with previous degrees in engineering who are interested in PhD studies and research in mathematics or statistics are encouraged to apply for PhD studies in Mathematics and Statistics. For more details, visit the Graduate Programs in Mathematics and Statistics webpage.

Phone: 314-935-5565

Website: <https://ese.wustl.edu/academics/graduate-programs/index.html>