Computer Engineering (Electrical Engineering), PhD

ESCENEPhD

Develop the knowledge and skills needed to solve complex interconnected hardware and software challenges in support of efficient ubiquitous computing found in smartphones and elsewhere. This transdisciplinary program integrates coursework in electrical engineering and computer science to foster agile and innovative thinkers.

Program Description

Degree Awarded: PHD Computer Engineering (Electrical Engineering)

Computer engineering is a transdisciplinary program that builds on the fundamentals of computer science, electrical engineering, applied mathematics, and physical sciences. Graduates of this program have the knowledge and skills necessary to fundamentally advance and develop new paradigms for the design, system integration, testing, evaluation and deployment of state-of-the-art hardware and software for systems that include computing, communications and networking (wired and wireless), control functions, sensing, signal processing and actuation.

The PhD program is intended for students with excellent ability in mathematics and physical science who are interested in gaining an in-depth knowledge of the foundational principles of engineering and pursuing a career in academia, research or highly technical entrepreneurial innovation. This doctoral program provides a broader and more in-depth preparation than the MS programs, in anticipation of a demonstrated ability to independently pursue more creative and substantive innovation with higher impact.

At a Glance

- College/School: Ira A. Fulton Schools of Engineering
- Location: Tempe campus
Degree Requirements

84 credit hours, a written comprehensive exam, an oral comprehensive exam, a prospectus and a dissertation

Required Core (6 credit hours)
CSE 551 Foundations of Algorithms (3)
EEE 554 Random Signal Theory (3)

Concentration and Electives (54 credit hours)

Research (12 credit hours)
CEN 792 Research (12)

Culminating Experience (12 credit hours)
CEN 799 Dissertation (12)

Additional Curriculum Information
Electives are selected in consultation with the academic unit. Students must complete at least 18 credit hours of approved graduate courses from science, engineering or mathematics and at least 24 credit hours of approved computer engineering courses.

A maximum of six credit hours of CEN 790 Reading and Conference may be applied to the plan of study.

This program requires a qualifying exam. Students should see the academic unit for information on timeline and satisfactory progress standards.

Admission Requirements

Applicants must fulfill the requirements of both the Graduate College and the Ira A. Fulton Schools of Engineering.

Applicants are eligible to apply to the program if they have earned a bachelor's degree (or equivalent) or a graduate degree from a regionally accredited institution of recognized standing in a related field such as computer engineering, computer science, computer systems engineering or electrical engineering.

Applicants must have a minimum of a 3.00 cumulative GPA (scale is 4.00 = "A") in the last 60 hours of their first bachelor's degree program, or applicants must have a minimum GPA of 3.50 (scale is 4.00 = "A") in the MS or MSE coursework for acceptance into the doctoral program.

All applicants must submit:
1. graduate admission application and application fee
2. official transcripts
3. GRE scores
4. proof of English proficiency

Additional Application Information
An applicant whose native language is not English (regardless of current residency) must provide proof of English proficiency. A TOEFL is required for applicants whose native language is not English:
https://admission.asu.edu/international/graduate/english-proficiency.

Students who hold a U.S. ABET-accredited undergraduate degree are not required to submit GRE scores.

Contact Information

Electrical Engineering Program | GWC 209
askee@asu.edu | 480-965-3424

Admission Deadlines