

Degrees and Admission

Master of Science

The master's degree program is a broadly based curriculum designed to prepare students for advanced positions in the power, renewable energy, communications and computing industry, as well as for further academic studies. The master's degree requires a minimum of 30 credit hours of graduate-level coursework.

Doctor of Philosophy

The doctorate program is a research-oriented curriculum and requires 60 hours beyond the master's degree, including original research of sufficient quality and importance to merit publication in a refereed journal. Graduates of the program find employment in national laboratories, academic institutions, government facilities and private industries.

Minimum admission requirements

- A bachelor's degree from a college or university accredited by the cognizant regional accrediting agency
- Undergraduate preparation in the proposed major field equivalent to that acquired by a graduate of Kansas State University, or evidence of an appropriate background for undertaking an advanced degree program
- Cumulative GPA of 3.0 or higher on a 4.0 scale, or GPA of 3.0 in the last 60 hours of coursework

Application deadlines

- Jan. 8 for fall (August) enrollment
- Aug. 1 for spring (January) enrollment
- Dec. 1 for summer (June) enrollment

All application materials can be submitted online at k-state.edu/grad/application.

Financial assistance

The Carl R. Ice College of Engineering offers competitive graduate research assistantships (GRAs) and graduate teaching assistantships (GTAs), providing stipend and tuition support. Competitive research grants and contracts support GRAs and the college supports GTAs.

Several graduate student scholarships are available through the college. Graduate students are also eligible for philanthropic and nationally funded graduate fellowships.

International student requirements

Test	Minimum score
IBT TOEFL (internet-based)	79
TOEFL (PBT)	550
IELTS	6.5
Pearson Test of English (PTE)	58

English language program (ELP)

Kansas State University offers English language graduate support courses. ELP academic advisers help students, who are admitted to study in a degree program, make the transition from the ELP into their academic departments. For more information, visit k-state.edu/elp.

Helpful websites

Engineering Research and Graduate Programs
engg.k-state.edu/ergp

Graduate catalog
catalog.k-state.edu/index.php?catoid=2

Cost-of-living and tuition information
k-state.edu/sfa/costofattendance

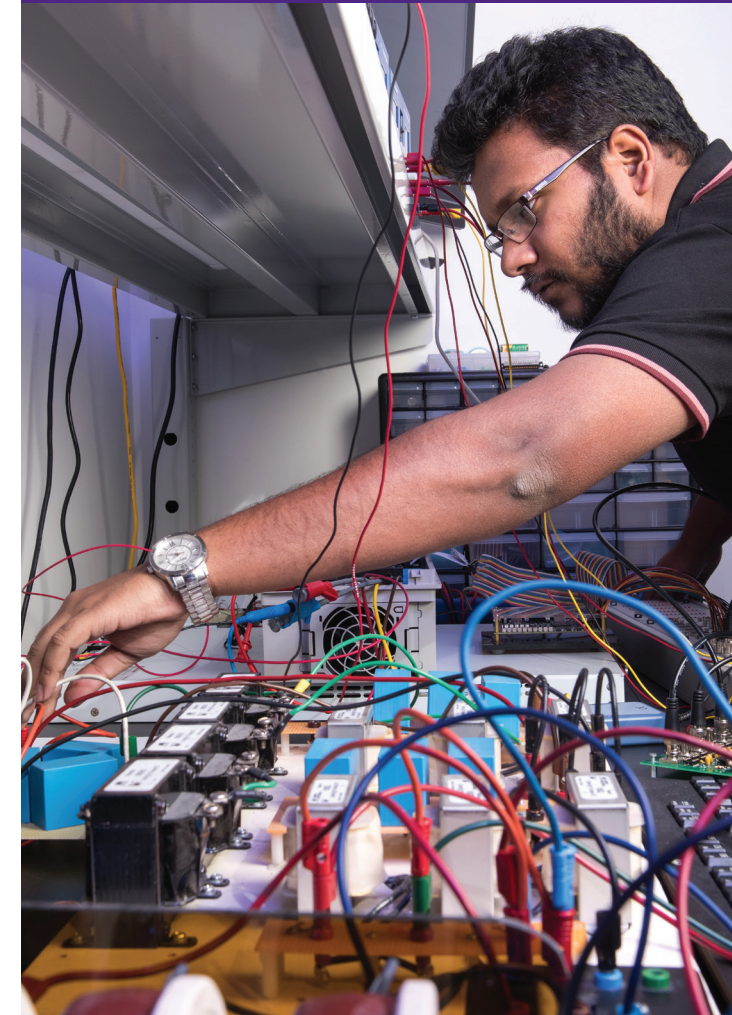
Graduate student life information
k-state.edu/grad/students

Notice of Nondiscrimination

Kansas State University is committed to nondiscrimination in admissions, programs and employment. Inquiries and complaints: Contact Director of Institutional Equity, Kansas State University, 103 Edwards Hall, Manhattan, KS 66506-4801, (Phone) 785-532-6220.

ELECTRICAL AND COMPUTER ENGINEERING

Graduate Program



**KANSAS STATE
UNIVERSITY**

Carl R. Ice College of Engineering

ece.k-state.edu • grad@ece.k-state.edu
785-532-5600

Welcome

I would like to thank you for considering a graduate degree in electrical and computer engineering from Kansas State University. Our graduate programs have been highly ranked, and we have excellent faculty and facilities for our students to be successful.

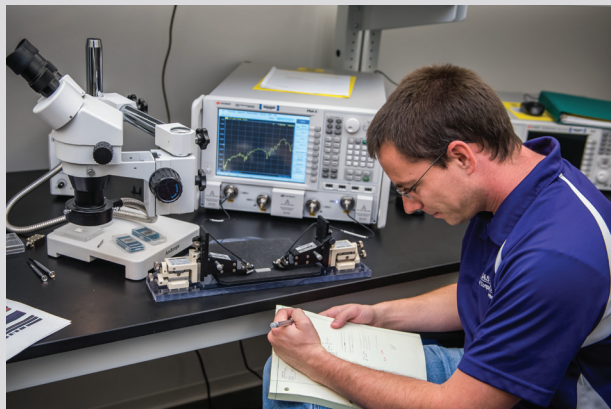


The K-State Mike Wieggers Department of Electrical and Computer Engineering has more than 80 graduate students, 400 undergraduate students and 20 outstanding faculty.

Our graduate students are very accomplished in publishing in journals and conferences, and our graduates have a solid record of finding jobs in academia and industry, both nationally and internationally.

I encourage you to explore our website to learn more about our faculty and their research, and to reach out to those whose activities match your interests. We look forward to hearing from you.

Sincerely,
Don Gruenbacher
Department head and associate professor



Research Areas



Biomedical

Research in this area includes development of devices for both human and animal health care. This includes biomedical sensors, therapeutic medical devices, embedded systems, bio-fabrication, communication circuits, wireless communications, energy harvesting, signal processing, brain-computer interfaces, biosecurity and image processing.

Machine learning, multi-agent systems, modeling and optimization

Research in the artificial intelligence field is focused on the software that makes smart power systems function, with work in areas such as machine learning, game theory, multi-objective optimization and soft computing, among others.

Network science and engineering

Research in this field includes work in cutting-edge network theory problems, and developing real-world solutions to computer network and infectious disease modeling problems.

Power electronics and energy

Research in this area includes work in single-stage boost inverters for three-phase power systems, fault-tolerant cascaded multilevel converters and grid-interactive voltage source inverters. This work intersects with K-State's research into smart grid technology and renewable energy sources.

Power systems and smart grids

Research in the power systems and smart grids area is focused on creating an adaptive, secure and intelligent power grid to help ensure consistent power delivery from a changing grid topology. This includes more distributed, renewables-based power generation and new power demands from emerging markets such as electric cars.

Renewable energy

Renewable energy research at K-State ECE is focused on wind power data and accessibility, helping teach students at primary and secondary schools learn about renewable energy through the Wind for Schools program.

Wireless communications

This research includes work on distributed sensor networks, GPS technology, MC-CMDA systems, software-defined radio, energy harvesting and RFIC inductors, among other fields.

