The PhD in Telecommunications Engineering program offers intensive preparation in design, programming, theory and applications. Training is provided for both academically oriented students and students with professional goals in the business, industrial and governmental occupations requiring advanced knowledge of telecommunications, network theory and technology.

Courses and research are offered in a variety of subfields of telecommunications engineering, including: fault-tolerant computing, parallel processing, digital signal processing, digital communications, modulation and coding, electromagnetic-wave propagation, fiber and integrated optics, lasers, wireless communications, mobile IP, wireless multimedia, DWDM networks, QoS assurance protocols, network design and optimization, telecommunications software, performance of systems, ad-hoc and PCS wireless networks, network security and high speed networks.

The University maintains a large network of computer facilities, including PCs, Unix work stations and specialized computers for research within the program and faculty laboratories. The Jonsson School has developed a state-of-the-art information infrastructure consisting of a wireless network in all buildings and an extensive fiber-optic Ethernet.

Program Description

The PhD in Telecommunications Engineering requires 75 semester credit hours minimum beyond the baccalaureate degree. Full-time and part-time plans are available for professionals seeking an advanced degree. PhD students are expected to complete a major research project culminating in a dissertation.

Various financial support are available to qualified PhD students, including Teaching and Research Assistantships, fellowships and scholarships.

The Jonsson School operates one of the largest internship and cooperative education program of its kind, averaging more than 1,200 undergraduate and graduate placements a year at high-technology companies including Texas Instruments, Verizon, Cisco, AT&T, Alcatel, Qualcomm, Ericsson, Amazon, Apple and Google. A large number of PhD students apply and work in companies as an intern after two semesters in their PhD program.

For complete admission and degree requirements, view the Graduate Catalog at catalog.utdallas.edu.

Career Opportunities

Graduates of the program seek positions such as: Professor; Researcher and Consulting Engineer in the public and private sectors. TE graduates find employment in local, national and international enterprises.

Marketable Skills

Upon successful completion of the PhD in Telecommunications Engineering, graduates will be able to enter the workforce with the following skills:

• Advanced understanding of Telecommunication Engineering
• Ability to propose and develop novel solutions to Telecommunication Engineering problems
• Ability to lead original research and development in Telecommunication Engineering
• Ability to teach/mentor in the Telecommunication Engineering field