

# Department of Electrical & Computer Engineering

Texas Tech University | Edward E. Whitacre Jr. College of Engineering

## About the Department of Electrical & Computer Engineering

The ECE Department has earned national and international recognition in Nano-Photonics, Pulsed Power, Nano-Technology, Electric Energy, Radar Technology, and Bio-Medical applications including genomics. The ABET-accredited undergraduate curriculum encompasses electrical engineering and computer engineering. The ECE department houses modern laboratories, classrooms, and computer facilities for both teaching and research. Several classrooms and a large undergraduate teaching laboratory have undergone recent renovations and support state of the art pedagogical methods.

## Points of Pride

- World renowned faculty
- 7 Teaching Academy faculty members
- Faculty & Staff provide personal attention to students inside and outside of the classroom
- Outstanding Project Laboratory sequence highly praised by Accreditation Board & Industry
- Engaged Alumni serve on the Industrial Advisory Board and sponsor student group events
- Large Scholarship Endowments for more than 40 named Scholarships

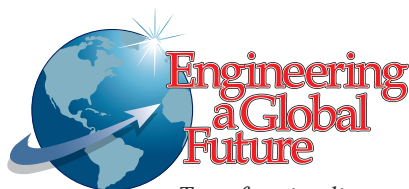
## Academic Success

Our ECE project laboratory sequence prepares students to design projects and work in groups like professional engineers from the very first lab. Graduates

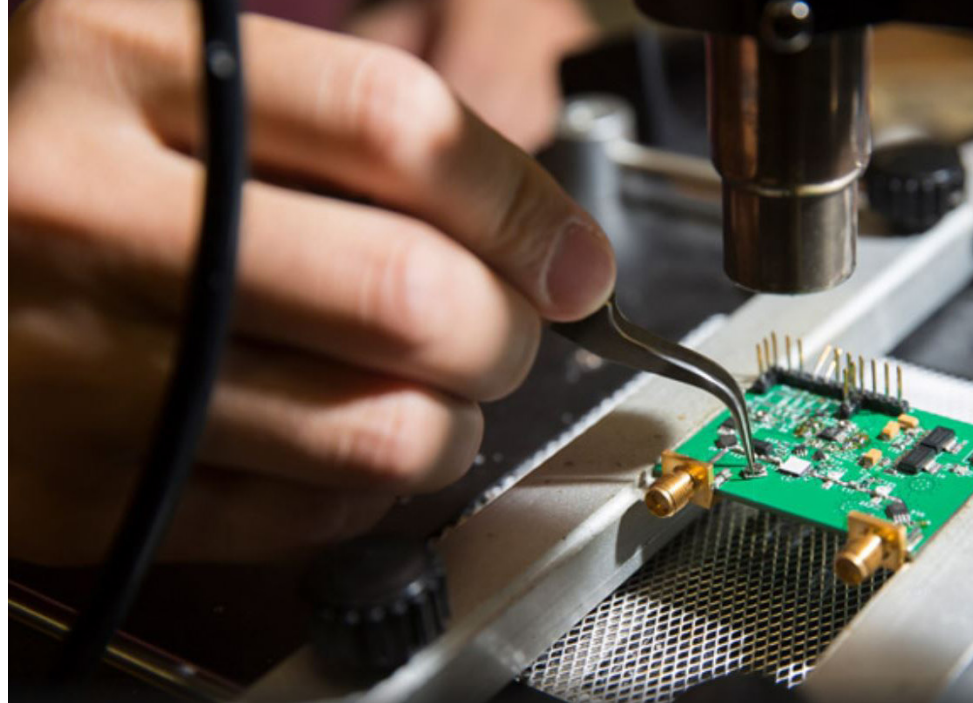
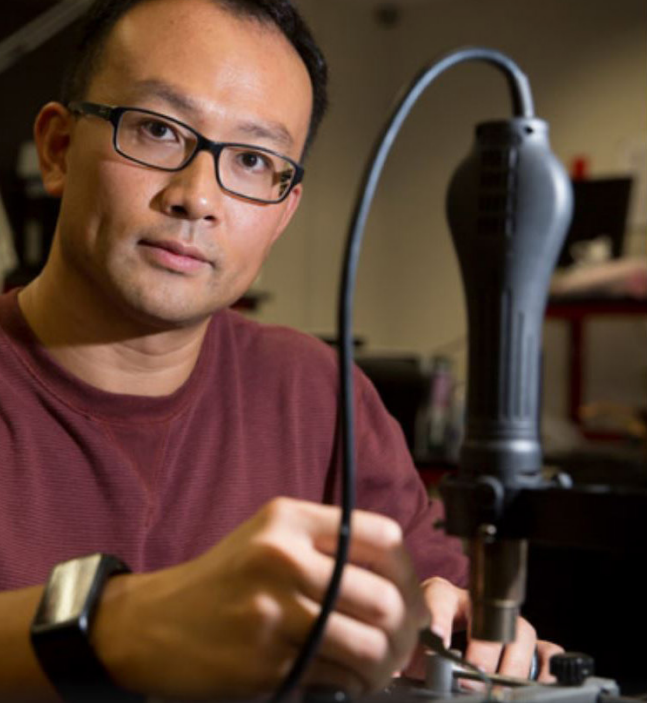
emerge from the lab sequence as confident, competent engineers who are highly sought after by Industry.

## Preparing you for a Global Future

- The Department of Electrical and Computer Engineering (ECE) is very research-active, with competitive awards of more than \$7 million in 2019, representing more than \$250k/per faculty member.
- Graduate students have opportunities for course work and research experience leading to masters and doctoral degrees in electrical engineering.
- The ECE Department has a number of very active research laboratories that are led by world renowned faculty and employ graduate as well as undergraduate students, providing outstanding educational experiences.
- Center for Pulsed Power & Power Electronics: The most prestigious university Pulsed Power Laboratory in the US, founder of the IEEE International Pulsed Power Conference.
- Nano-Photonics Center: World-class lab for advanced lasers, pioneering LED lighting, nuclear radiation detection and many other technologies with national impact.
- GLEAMM: Large laboratory with 10's of millions of dollars in assets for integration of renewable energy technologies like Wind and Solar into the Electric Grid.
- Radar Systems Laboratory: Current research projects include non-contact physiological signal monitoring (heart-rate & breathing), locating humans in smoke filled rooms or after natural disasters, etc.
- MEMS Laboratory: Studies Micro-Mechanical Systems that use chip manufacturing techniques to create micro-actuators for an entire "Classroom on a Chip", invented at TTU.



*Transforming lives; one student at a time*



## Advanced Degrees Offered

- Accelerated B.S./M.S.- Students complete both a Bachelor's and a Master's in 5 years. B.S. program is accredited by ABET
- Master's of Science in Electrical Engineering (Thesis or Non-Thesis)
- Doctorate in Electrical Engineering

## Student Organizations

- Institute of Electrical and Electronics Engineers (IEEE)
- Women in Engineering (WIE)
- Eta Kappa Nu, Electrical Engineering Honor Society
- Tau Beta Pi, Engineering Honor Society
- Robo-Raiders

## Careers

Almost every field today involves electrical and computer engineering, instrumentation and control. As an electrical or computer engineer, you have job opportunities in a very broad field ranging from traditional Electronics Companies, Semiconductor Design, Testing and Manufacturing to Utilities, Energy Companies, Telecommunication Companies, Defense Industry, National Labs, Aerospace companies and more.

### **Fall 2019 Job Placement and Info:**

- 90% of graduating students had full time job offers prior to graduation
- Average salary: \$90,000/year



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Department of Electrical  
& Computer Engineering™