



MASTER OF SCIENCE & DOCTOR OF PHILOSOPHY IN ELECTRICAL ENGINEERING

Program Overview

The graduate program in the Department of Electrical and Computer Engineering (ECE) at North Carolina A&T State University is fully accredited by the Southern Association of Colleges and Schools (SACS). We offer two graduate programs: The Master of Science (MS) and the Doctor of Philosophy (PhD) in Electrical Engineering (MSEE).

The MS program was established in 1968, the PhD program in 1994, and the direct-PhD from BS degree in 2009. The graduates of the Master and Doctoral programs in Electrical Engineering are well prepared for research careers in industry, governmental laboratories, and in academia.

For More Information

Please Contact:
Graduate Program Coordinator,
Dr. Jung H. Kim
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Program Structure

Graduate program focuses on the following four research areas:

Computer Engineering

Research includes fault tolerant computing, automatic logic synthesis, and reconfigurable computing. The synthesis area entails the design, simulation, testing, and verification of logic circuits using semi-custom.

Power Systems and Controls

Research includes fundamental problems and applications in modeling, analysis, and control of complex systems such as autonomous vehicles, advance robotic systems, transportation systems, biological systems, smart grids, and machine learning applications.

Communications and Signal Processing

Research includes signal and image processing, computer vision, pattern recognition, satellite communications, and color video modeling.

Electronic and Optical Materials and Devices

Research specializes in molecular beam epitaxial growth of thin-films, nano-hetero structures and characterizations, and devices of compound semiconductor of mixed As-Sb semiconductor materials, also includes RF Integrated circuits, exploration of silicon millimeter-wave/terahertz ICs for 5G wireless communication and RFIDs.

Research Laboratories

- Autonomous Control and Information Technology (ACIT) Institute, <http://acitcenter.ncat.edu/>
- Testing, Evaluation, and Control of Heterogeneous Large-scale Systems of Autonomous Vehicles (TECHLAV) Center, <http://techlav.ncat.edu>
- Autonomous Cooperative Control of Emergent Systems of Systems (ACCESS) Laboratory, <http://accesslab.net/>
- RF Microelectronics Laboratory
- Auto Mobile Pervasive and Embedded Design Laboratory
- Molecular Beam Epitaxy, Characterization and Microelectronics Laboratories



Research Areas

- Wireless sensor networks
- Data mining, soft computing, pattern recognition
- Robotics and Control -Machine Learning
- Pervasive Computing
- Semiconductor materials: growth & characterizations
- Smart micro grids
- Software defined radio

Graduate Placement

Graduates of the M.S. and PhD programs find employment in industry, government agencies and universities. Those employers include **Northrop Grumman, Department of Defense, Cummins** and **Intel**. Some of our graduates pursue academic career and are employed by prestigious universities.

Funding

Faculty in the Electrical and Computer Engineering Department have several research projects funded by **NSF, NASA**, and many **DOD** agencies. In addition to tuition remission, students may receive teaching and research assistantships. A limited number of fellowships are also available. Financial aid is based on merit and availability of funds.



North Carolina Agricultural and Technical State University
THE GRADUATE COLLEGE
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<https://graduateadmissions.ncat.edu>

NORTH CAROLINA AGRICULTURAL AND TECHNICAL STATE UNIVERSITY THE GRADUATE COLLEGE

OUR RESEARCH STRENGTHS

- Aerospace and Transportation Systems
- Biomedical Research
- Biotechnology & Biosciences
- Computer and Computational Sciences
- Defense and National Security
- Energy and the Environment
- Food Science
- Human Health, Nutrition and Wellness
- Leadership and Community Development
- Nanotechnology and Multi-Scale
- Social and Behavioral Sciences
- Transportation and Logistics

AGGIE POINTS OF PRIDE

- Ranked by the Carnegie Classification of Institutions of Higher Education as “doctoral/research university”
- Ranked third within the UNC System in research funding, with over \$56 million in sponsored programs and nearly \$7 million in appropriations for agricultural research and cooperative extension
- Received the National Science Foundation’s prestigious Engineering Research Center (ERC) grant for biomedical engineering and nano-bio applications research totaling more than \$18 million over five years
- Received a National Science Foundation’s Math S-STEM Program in Mathematics grant
- The National Council on Teacher Quality (NCTQ) preparation programs among the top in the state
- North Carolina A&T graduates students in STEM disciplines at nearly twice the rate of the UNC system average
- The Triangle Business Journal has reported that North Carolina A&T State University ranks No. 1 among historically black colleges and universities in North Carolina and No. 4 in the UNC System for the highest return on investment of colleges and universities

ADMISSIONS REQUIREMENTS and DEADLINES

ADMISSION REQUIREMENTS

- Online application
- Application fee
- Transcripts
- Personal statement
- Recommendation letters

* Some programs require standardized test scores and/or on campus interviews

IMPORTANT APPLICATION DEADLINES

	Priority	US Citizen	International
Fall	February 1	July 1	June 1
Spring	September 1	November 1	October 1
Summer	NA	April 1	NA

Earlier deadlines for certain programs apply. Check www.ncat.edu/tgc and click Graduate Admissions–Admission Application Requirements and Instructions.

FINANCING GRADUATE STUDIES

For detailed information on tuition, fees, and related costs of education, assistantships, fellowships, and other financial assistance visit www.ncat.edu/tgc and click Financial Information.

CONTACT INFO

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