Ph.D. Positions: Coordination and Control of Mobile Multi-Robot Systems
North Carolina A&T State University

Job Title	Ph.D. Positions: Coordination and Control of Mobile Multi-Robot Systems
Department	Electrical and Computer Engineering https://www.ncat.edu/coe/departments/ece/index.php
Institution	North Carolina A&T State University Greensboro, North Carolina
Date Posted	Jun. 15, 2025
Application Deadline	Open until filled
Position Start Date	Available Immediately
Job Categories	Graduate Student
Academic Field(s)	Transportation Engineering Robotics Mechatronics Mechanical Engineering Electrical and/or Electronics Computer Engineering Computer Science Aerospace/Aeronautical/Astronautics
Job Website	https://ioannisraptis.info/
Apply Online Here	https://www.ncat.edu/admissions/graduate/
Apply By Email	

Job Description

Applications are invited for several Ph.D. positions in Coordination and Control of Mobile Multi-Robot

Ph.D. Positions: Coordination and Control of Mobile Multi-Robot Systems
North Carolina A&T State University

Systems. The positions are with the Department of Electrical and Computer Engineering at North Carolina A&T State University (NCAT), and the students will work under the supervision of Dr. Ioannis Raptis.

The research aims to establish a theoretical and computational framework for designing motion coordination algorithms for fleets of mobile robots operating in confined spaces. Applications include traffic management in autonomous intersections, urban aerial mobility, and warehouse automation. The research has analytical, computational, and experimental components. The derived algorithms will be validated using actual aerial and ground mobile robots.

Students from all majors relevant to control systems, computer science or engineering, and applied mathematics are encouraged to apply. Preference will be given to candidates with a strong and demonstrated background in at least one of the following topical areas: control theory, discrete mathematics and algorithms, transportation, and programming.

The assistantships include a tuition waiver and a graduate student stipend. Review of submissions will begin immediately. Interested students are strongly encouraged to apply early, as successful candidates will be hired immediately. The positions are open until filled.

Qualifications:
- B.S. or M.S. (preferably) degree in mechanical engineering, electrical and computer engineering, aerospace engineering, mathematics, computer science, or a closely related area.
- Excellent mathematical background, preferably in control theory, linear algebra, discrete mathematics, and heuristic algorithms.
- Demonstrated programming experience and experience with embedded systems.
- Good programming skills in MATLAB/SIMULINK.
- Very good English communication skills (written and oral).
- Ability and motivation to conduct independent research.

To Apply:
Please email, as a single .pdf document, the following items to Dr. Ioannis Raptis (iraptis@ncat.edu): (i) a cover letter (clearly indicating expected start date, relevant experience, and motivation); (ii) detailed Curriculum Vita; (iii) copies of unofficial transcripts; (iv) GRE and TOEFL (for international students) scores—these standardized tests are mandatory, no exceptions to this requirement; and (iv) copies of relevant publications (if any). Note that only interested candidates who clearly show in their cover letter (or application email) how their background and research interests align with the position will be considered and contacted.

Ph.D. Positions: Coordination and Control of Mobile Multi-Robot Systems
North Carolina A&T State University

Shortlisted student applicants found to have a background relevant to the position will be encouraged to apply to one of the Electrical and Computer Engineering Department's graduate programs, either M.S. or Ph.D., depending on their qualifications. The final decision on acceptance will be made at the department level.

Contact Information

Please reference Academickeys in your cover letter when applying for or inquiring about this job announcement.

Contact Ioannis Raptis
Electrical and Computer Engineering
North Carolina A&T State University
Greensboro, NC

Contact E-mail iraptis@ncat.edu