Multiple Faculty Positions for 2024-2025 hiring cycle

Open Rank Tenured/Tenure Track

Edward P. Fitts Department of Industrial and Systems Engineering; NC State University

The Fitts Department of Industrial and Systems Engineering (ISE) at NC State strives to improve society through research and education across a broad spectrum of methods and application areas (see below). The ISE community includes more than 25 faculty, 10 core staff, 350 undergraduate students, and 250 graduate students with approximately 75 Ph.D. students. The ISE department leads three centers and multiple interdisciplinary graduate degrees, where faculty works together in a collaborative, diverse, and collegial environment (ranked 12th in field by US News).

NC State is growing engineering (expected to be 40% over five years) in part to meet growing industry demand for graduates and the growing demand associated with Applied AI. The university is based in Raleigh, NC, which was recently named Best Places to Live by US News and World Report, with proximity to urban areas, beaches, mountains, great restaurants, cultural activities, and more. Our location also represents the eastern point of the Research Triangle and places us close to three major universities, a large number of world-class companies, and several leading research institutes. Our faculty are Fellows of IISE, INFORMS, SME, and additional societies.

Faculty members in ISE at NC State invite applications for multiple tenure-track or tenured faculty positions. It is anticipated that at least one position is at the assistant professor level, although applicants may be considered for appointment at Associate/Full rank, or for a named Chair professorship based on experience. Any position may be affiliated with the Applied AI initiative of the College of Engineering and the anticipated growth, as well as centers (e.g., CAMAL) or interdisciplinary degrees (e.g., Operations Research). There may be sufficient funding to hire in other areas, such as supply chain engineering and sustainability, human systems, or emerging areas of ISE. More detail on positions is provided below.

1. **Position 1 (Opt/AI): applications are invited for faculty candidates in optimization and data analytics including machine learning, or artificial intelligence.** This candidate is likely to be affiliated with the Applied AI initiative of the College of Engineering, e.g., a methodological background in optimization, with impact in any area broadly of interest. Any rank is possible based on experience.

2. **Position 2 (Manu): applications are invited for faculty candidates in Advanced Manufacturing**. The research areas of interest include, but are not limited to advanced manufacturing processes, additive manufacturing, smart and digital manufacturing, manufacturing automation, biomanufacturing, micro/nanomanufacturing, materials and manufacturing, etc. There is a preference for applications for Assistant Professor though any rank is possible based on experience.

3. **Position 3 (Stochs): applications are invited for faculty candidates in stochastics, queueing, reinforcement learning, or artificial intelligence under uncertainty.** This candidate may be affiliated with the Applied AI initiative of the College of Engineering. There is a preference for applications for Assistant Professor though any rank is possible based on experience.

Applicants are expected to have a PhD degree in Industrial Engineering or one of several closely related fields. Teaching responsibilities will include graduate and undergraduate instruction as well as supervision of graduate student research. Applicants will be expected to develop a sponsored research program. General research responsibilities for faculty include a commitment to original and independent work and

pursuing interdisciplinary collaborations, both within and external to NC State. We are particularly interested in candidates who can contribute to the mission or vision of NC State and support the values of the institution (strategicplan.ncsu.edu).

In ISE, innovative research is conducted within and across areas, along with interdisciplinary collaborations across the university and beyond. In addition to degrees in ISE, the department leads a Master's in Engineering Management degree (https://mem.grad.ncsu.edu), collaborates on graduate degrees in Operations Research (www.or.ncsu.edu), and supports the Integrated Manufacturing Systems Engineering (www.imsei.ncsu.edu) Master's degree. The department houses two funded centers that are public-private partnerships, including the Ergonomics Center of North Carolina (www.theergonomicscenter.com), which is the only center of its kind at a U.S. public research institution, and the Center for Additive Manufacturing and Logistics (camal.ncsu.edu), which is one of the most advanced manufacturing and 3D printing laboratories in the country. The newly established Bezos Center for Alternative Proteins is also led by an ISE faculty member.

The ISE department is supported by world-class laboratory facilities for computing, manufacturing, and human factors and ergonomics research, enhanced by the new Fitts-Woolard Hall, located on NC State's Centennial Campus near the award-winning Hunt Library and numerous industry and governmental facilities. Our faculty members are internationally renowned in their fields, and they have extensive collaborations with other departments, universities, medical schools, and other external partners. NC State students 'think and do' with active learning on real-life problems across the entire ISE discipline, and our students become leaders in academia, industry, and government. NC State engineering is expanding, with up to 40% growth in faculty, staff, undergraduate, and graduate students expected over the coming years.

Please submit at https://jobs.ncsu.edu/postings/209256 i) cover letter; ii) CV; iii) research statement; iv) teaching statement; v) names and contact information of three professional references online, and vi) up to three representative publications; and vii) statement on existing or planned outreach, engagement, and/or service (<1 page). Candidates should select the position area with which they are most closely affiliated in the cover letter and application system. Applications will be reviewed on a rolling basis and will continue until the position is filled. Initial review will begin November 1.

Questions may be directed to: ISE Human Resource specialist Jasmine Petway (jpetway@ncsu.edu), search committee co-chairs Jingyan Dong (jdong@ncsu.edu) and Osman Ozaltin (oyozalti@ncsu.edu), or ISE department head, Julie Swann (jlswann@ncsu.edu).

NC State University is an equal opportunity and affirmative action employer. All qualified applicants will receive consideration for employment without regard to race, color, national origin, religion, sex, gender identity, age, sexual orientation, genetic information, status as an individual with a disability, or status as a protected veteran. For any questions or concerns, please contact the Office of Equal Opportunity at 919-513-0574.

For individuals with disabilities requiring disability-related accommodations in the application and interview process, please contact the Office of Institutional Equity and Diversity at 919-515-3148.

If you have general questions about the application process, you may contact Human Resources at (919) 515-2135 or workatncstate@ncsu.edu.

Final candidates are subject to criminal & sex offender background checks. Some vacancies also require credit or motor vehicle checks. Degree(s) must be obtained prior to the start date in order to meet qualifications and receive credit.

NC State University participates in E-Verify. Federal law requires all employers to verify the identity and employment eligibility of all persons hired to work in the United States.