

Northeastern

Department of Civil and Environmental Engineering: Automation in Civil and Environmental Engineering

2018-2019

As part of a strategic initiative in the area of Urban Engineering, Northeastern University seeks faculty candidates for tenured or tenure-track appointments at the assistant, associate, or full professor level in the Department of Civil and Environmental Engineering. Interested candidates may be considered for joint appointments with other departments commensurate with their areas of expertise. The department is in the midst of a significant, multi-year expansion in size and scope, including faculty, facilities, and programs within several disciplines and across disciplinary boundaries.

Advances in automation technologies, fueled by developments in sensors and actuators, IoT, robotics, artificial intelligence (AI), and information theory, have the potential to significantly impact the planning, design, operations, and control of Civil and Environmental Systems. We are looking for individuals with the passion to develop a research and educational program in this emerging area. Examples of application domains of interest include autonomous mobility systems and services; construction automation (e.g., robotic assembly, maintenance/repair of the built environment); robotic/swarm mapping for environmental site assessment; and AI-based process automation and context aware computing (e.g., for tasks undertaken in risky or hazardous environments). Applicants should have a broad background in fields such as sensors, robotics, intelligent control, data analytics, AI, and machine learning, applied to areas in the Civil and Environmental Engineering domain.

Successful candidates are expected to demonstrate a proven ability to develop and sustain a research program with emphasis on interdisciplinary and translational research, teach both undergraduate and graduate classes, and be active, recognized leaders in their discipline.

Candidates should be committed to fostering diverse and inclusive environments as well as to promoting experiential learning, which are central to a Northeastern University education.

For further information see: http://www.civ.neu.edu/civ/search.

Qualifications: A Doctorate degree in civil engineering or a related field is required by the start date as well as excellence in research, teaching, and service. Senior-level candidates should have a demonstrated record of developing transformative solutions to global challenges, sustaining a research program with an emphasis on interdisciplinary and translational research, teaching both undergraduate and graduate classes, and being an active, recognized leader nationally and internationally in the discipline.

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About Northeastern University: Northeastern University is located in the heart of Boston and benefits from the intellectual and cultural vitality of an urban environment. Northeastern is a top-tier research university and premier experiential education institution, and is a National Science Foundation ADVANCE Institutional Transformation site. A university-wide vision for use-inspired transformative research that crosses traditional disciplinary boundaries has resulted in strong cross-departmental ties among the faculty, including joint and affiliate appointments across departments and colleges. The Civil and Environmental Engineering department houses major research centers, including the NIH-sponsored program Puerto Rico Testsite for Exploring Contamination Threats (PROTECT), the NIH-sponsored Center for Research on Early Childhood Exposure and Development in Puerto Rico (CRECE), the NIH-sponsored program on Environmental Influences on Child Health Outcomes (ECHO), as well as the NIST-funded center on Versatile Onboard Traffic Embedded Roaming Sensors (VOTERS). Faculty enjoy collaboration with other research centers and clusters across the College of Engineering, College of Computer and Information Sciences, College of Science, Bouvé College of Health Sciences, College of Arts, Media and Design, and the College of Social Science and Humanities, including the NSF-funded Center for High-Rate Nanomanufacturing (CHN), the Homeland Security Center of Excellence on Awareness and Localization of Explosive-Related Threats (ALERT), the Network Science Institute (NSI), the Marine Science Center (MSC), the Coastal Sustainability Institute (CSI), the Global Resilience Institute (GRI), the George J. Kostas Research Institute for Homeland Security, the Sherman Center for Engineering Entrepreneurship Education, and entrepreneurship programs in the D'Amore-McKim School of Business (DMSB).

Equal Employment Opportunity: Northeastern University is an Equal Opportunity, Affirmative Action Educational Institution and Employer, Title IX University. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, disability status, protected veteran status, or any other characteristic protected by the law. Northeastern University is an E-Verify Employer.

How to Apply: Visit the College website <u>http://www.coe.neu.edu/faculty/positions/</u> and click on Faculty Positions. Applications should be submitted under the position entitled **Automation in Civil and Environmental Engineering** and should include (1) cover letter, (2) detailed resume, (3) research development statement, (4) teaching statement, (5) copy of one sample journal paper, and (6) list of four references with contact information. Screening of applications begins November 1, 2018 and continues until the position is filled. Questions regarding this position should be directed to Taryn Sullivan at <u>cee-auto-search@coe.neu.edu</u>.