Convergent Search at the interface of Data Sciences, Medicine, Neuroengineering and Neuroscience

The College of Engineering at Boston University has embarked on a bold new strategic plan that will pursue excellence and impact along convergent and collaborative research themes while remaining committed to our institutional values regarding diversity, equity, and inclusion. The College anticipates two openings for tenure-track faculty positions at the level of Assistant Professor, pending approval by the Provost, focusing on the following convergent themes:

• **AI, Machine Learning, and Autonomy in Medicine and Healthcare.** A successful candidate should have a record of methodological contributions in areas such as AI, Machine Learning, Intelligent, Autonomous, and Secure Systems, a background in either Engineering, Computer Science, or related disciplines, and demonstrated applications in medicine, health, and healthcare. The search is flexible in terms of the candidate’s methodological area of work, including, but not limited to: Data science, Artificial Intelligence, Machine Learning, or Signal Processing; Security of (biomedical) devices, cyber-security, social networks, and medical informatics; Robotics and automation; and Biomedical sensing and bioinformatics. An ideal candidate will have a portfolio of applications that can help bridge the College of Engineering with the BU School of Medicine and the School of Public Health.

• **Data Science in Neuroengineering.** We are seeking a candidate whose research develops or uses methods from data science to advance knowledge of neuroscience in health and disease. Topics may include computational neuroscience, neurosignal processing, machine learning, image processing, artificial intelligence, or, more broadly, data science techniques in neuroscience. The ideal candidate will have a strong publication record in this convergent research theme and will be able to form links among the neuro- and systems-engineering strengths of the College’s Departments of Biomedical Engineering and Electrical and Computer Engineering, as well as the University’s strengths in the Data- and Neuro-Sciences.

Candidates will have a primary appointment in either Electrical & Computer Engineering, Biomedical Engineering, or Mechanical Engineering with commensurate affiliated appointments. Affiliated appointments with the Division of Systems Engineering, the Faculty of Computing & Data Sciences, the Department of Computer Science, appropriate life-science departments and the Medical School will also be considered.

The College of Engineering is ranked 16th among private universities, with all of its individual programs ranked in the top 20. The Department of Biomedical Engineering (BME) is a top-10 ranked department overall and 7th ranked among private institutions. BME is one of the largest departments in the nation, with 38 tenured or tenure-track primary faculty. Research activity by primary BME faculty is over $30M per year and well over $50M when affiliated faculty are included. The Department of Electrical & Computer Engineering (ECE) has 51 faculty and attracts exceptional graduate student and faculty talent at all levels. Research activity by primary faculty reached $40M in 2020. The Department of Mechanical Engineering (ME) has 52 faculty with a large cohort working in robotics research. The Division of Systems Engineering (SE) is a unique interdisciplinary graduate program emphasizing research in analytical and computational methods. Engineering faculty lead and participate in several high-profile, interdisciplinary research centers, including the Biological Design Center, the Precision Diagnostics Center, BUNano, the Neurophotonics Center, the Center for Systems Neuroscience, the Photonics Center, the Hariri Center for Computational Science and Engineering, the Center for Multiscale and Translational Mechanobiology, The Center for Information and Systems Engineering, and the NSF Engineering Research Center in Cellular Metamaterials. The College of Engineering believes that the cultural and social diversity of our faculty, staff, and students is vitally important to the distinction and excellence of our research and academic programs.

Boston University expects excellence in teaching and in research and is committed to building a culturally, racially, and ethnically diverse scholarly community, which is essential to its mission as expressed at [https://www.bu.edu/info/about/diversity](https://www.bu.edu/info/about/diversity). We are proud of our record, including being the first American university to award a PhD to a woman and the university from which Martin Luther King Jr. received his Ph.D. We are dedicated to increasing participation of all talented students, especially women and other underrepresented groups in Engineering.
Candidates must hold a PhD in an appropriate area, have postdoctoral experience, and show potential for leading an independent, vibrant, world-class research program. BU College of Engineering also places high value on excellence in teaching and in community. Candidates will be expected to teach both graduate and undergraduate courses.

For more information, please visit:

Applicants should submit a brief letter of interest, a statement of research accomplishments and goals including how collaborations can enhance their research impact, teaching and diversity statements, a current CV, and contact information of three references at the appropriate link below. For full consideration, applicants should upload materials before December 1, 2021.

Submit applications to https://academicjobsonline.org/ajo/jobs/19046

Boston University is an AAU institution with a rich tradition dedicated to inclusion and social justice and a commitment to broadening participation of underrepresented groups in engineering. We are an equal opportunity employer and all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, disability status, protected veteran status, or any other characteristic protected by law. We are a VEVRAA Federal Contractor.