UNIVERSITY OF CALIFORNIA, SANTA CRUZ
Department of Electrical and Computer Engineering
Assistant Professor (IoT/Intelligent Sensors)

The Department of Electrical and Computer Engineering https://www.soe.ucsc.edu/departments/electrical-computer-engineering at the University of California, Santa Cruz (UCSC) invites applications for a tenure track Assistant Professor position in Internet of Things/Intelligent Sensors. We seek outstanding applicants that work in the broad field of electrical and computer engineering with research interests focused on, but not limited to Internet of Things (IoT), Mixed Signals, Intelligent Sensors, and RF communications that use sensor systems to obtain the data and a network of sensors to collect the "Big Data". Mixed-signal design is the combination of both analog and digital circuits on the same integrated circuit. It is a crucial ingredient interfacing the analog world to our digital computing infrastructure through the integration of sensors, sensor conditioning, and off-chip RF wireless communication. Reducing size, cost, and power consumption by co-integrating these functions is a key enabling factor as system-on-a-chip solutions become more prominent. For mixed-signal CMOS RF, needs are emerging in the areas of sensing and RF data transfer, and both are vital elements in the exploding IoT. A key area for interest is socially responsible agricultural technology, where IoT technology promises to reduce inputs of polluting chemicals, fertilizer, and water while increasing yields to feed the growing human population, an issue that is becoming more salient as the effects of climate change become more apparent. This position would extend campus strengths in natural and social science research in agroecology associated with the Center for Agroecology and Sustainable Food Systems (CASFS), supporting sustainable, organic, small-scale farming systems and the well-being of the agricultural communities.

The Department of Electrical and Computer Engineering is part of the Baskin School of Engineering at UC Santa Cruz. Our school has nationally and internationally known researchers in many areas. UC Santa Cruz is a member of the AAU, an association of the top research universities in the US, and is home to many centers and research institutes including the UCSC Genomics Institute (https://hausslergenomics.ucsc.edu), the W.M. Keck Center for Nanoscale Optofluidics (http://cfno.soe.ucsc.edu), the Center for Molecular Biology of RNA (http://rna.ucsc.edu/rnacenter/), and the Cyber-Physical Systems Research Center (https://cps.soe.ucsc.edu/). Our campus is the nearest University of California campus to Silicon Valley and has close research ties with the local computer industry. Nestled in a redwood forest above the city of Santa Cruz, our beautiful campus has a long history of embracing groundbreaking interdisciplinary work. Our proximity to Silicon Valley, and our satellite campus there, afford opportunities and avenues for collaboration with researchers working in the many research and development labs in Silicon Valley, as well as with the other San Francisco Bay Area universities.

The Electrical and Computer Engineering department strives to support a creative and forward-looking research program with faculty members collaborating in many areas of electrical and computer engineering and beyond. The department houses BS (ABET accredited), MS, and Ph.D. degree programs in Electrical and Computer Engineering, as well as a BS degree program in Robotics Engineering. Our faculty includes eight IEEE fellows, two AAAS fellows, two OSA fellows, one ACM fellow, and one fellow of the National Academy of Inventors.

We expect this hire to spark close collaborations between the Electronic Circuits and Energy Systems, Photonics and Electronic Devices, Robotics, Controls, and Cyber-Physical Systems, Signals, Image Processing, and Communications researchers in the Baskin School of Engineering and promote cross campus collaborations with the division of Physical and Biological Sciences and the division of Social Sciences. This hire's laboratory will be housed in the newly renovated Westside Research Park Campus. The successful candidate is expected to develop a research program, advise graduate students in their research area, obtain external funding, develop and teach courses within the

undergraduate and graduate curriculum, perform university, public and professional service, and interact broadly with the large number of researchers in Silicon Valley industrial research and advanced development labs. The successful candidate should be able to work with students, faculty, and staff from a wide range of social and cultural backgrounds, genders, and sexual orientations.

We welcome candidates who understand the barriers facing traditionally underrepresented groups in higher education, and who have engaged in teaching, research, professional and/or public service contributions that promote diversity, equity, and inclusion. These can take a variety of forms such as, but not limited to, effective pedagogical strategies used for the educational advancement of students in underrepresented groups; demonstrated contributions to the advancement of access and equal opportunity in education; and participation in activities that support the recruitment, retention, and success of scholars and students.

ACADEMIC TITLE
Assistant Professor (tenure track)

SALARY
Commensurate with qualifications and experience; academic year (nine-month basis).

BASIC QUALIFICATIONS
A PhD (or equivalent foreign degree) in Electrical Engineering, Computer Engineering, Electrical and Computer Engineering, Physics, Mechanical Engineering, or other relevant field; demonstrated record of research and teaching. It is expected that the degree requirement will be completed by June 30th, 2022

POSITION AVAILABLE
July 1, 2021, with academic year beginning September 2021. All Ph.D. requirements must be completed by June 30, 2022 for employment beyond that date. Position contingent on budgetary approval.

APPLICATION REQUIREMENTS
Applications are accepted via the UCSC Academic Recruit online system; all documents and materials must be submitted as PDFs.

APPLY AT https://recruit.ucsc.edu/apply/JPF00973
Please refer to Position # JPF00973-21 in all correspondence.

Required Documents/Materials
- Letter of application that briefly summarizes your qualifications and interest in the position
- Curriculum vitae
- Statement of Contributions to Diversity, Equity, and Inclusion: statement addressing your understanding of the barriers facing traditionally underrepresented groups and your past and/or future contributions to diversity, equity, and inclusion through research, teaching, and service. Candidates are urged to review guidelines on statements before preparing their application: https://apo.ucsc.edu/diversity.html
  Initial screening of candidates will be based on statements of contributions to diversity, equity, and inclusion
- Statement of research plans
- Statement of teaching interests and experience
- 3-4 publications (3 publications are required; a maximum of 4 will be accepted)

- 3 confidential letters of recommendation*

Reference Requirement

Applications must include confidential letters of recommendation***** (a minimum of 3 are required and a maximum of 3 will be accepted). Please note that your references, or dossier service, will submit their confidential letters directly to the UC Recruit System.

*All letters will be treated as confidential per University of California policy and California state law. For any reference letter provided via a third party (i.e., dossier service, career center), direct the author to UCSC's confidentiality statement at http://apo.ucsc.edu/confstm.htm.

RECRUITMENT PERIOD

Full consideration will be given to applications completed by January 25, 2021. Applications received after this date will be considered only if the position has not been filled.

11.19.20