Assistant Professor of Advanced Integrated Circuit Design for Biomedical Applications
University of Maine

Job Title Assistant Professor of Advanced Integrated Circuit Design for Biomedical Applications

Department Chemical and Biomedical Engineering

Institution University of Maine
Orono, Maine

Date Posted Feb. 12, 2025

Application Deadline Open until filled

Position Start Date Available immediately

Job Categories Assistant Professor

Academic Field(s) Electrical and/or Electronics
Bioengineering (all Bio-related fields)

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Job Description

Applications are invited for a joint tenure-track Assistant Professor position at the University of Maine (UMaine) in the Department of Chemical and Biomedical Engineering (CBE) (https://umaine.edu/chb) and the Department of Electrical and Computer Engineering (ECE) (ece.umaine.edu). This is a full-time, 50/50 split appointment between the two departments, with the successful candidate expected to

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contribute to both programs at the undergraduate and graduate levels.

We seek candidates with expertise in Advanced Integrated Circuit (IC) Design for Biomedical Applications. Integrated Circuits are essential for modern healthcare technologies, offering advantages in data processing speed, miniaturization, energy efficiency, and precision. Many modern medical devices employ IC technology to enable early diagnosis, treatment, and management of diseases, for a very low cost. Custom integrated circuits are critical components for new medical innovations such as advanced imaging systems, wearable and implantable health monitoring devices, high-precision surgical tools, drug delivery, high throughput sequencing, the brain-machine interface, and bioelectronic medicine. The successful candidate will be proficient in IC design and have experience in developing solutions to biomedical problems. This faculty member will play a pivotal role in advancing new and emerging applications at the intersection of electrical engineering and biomedical engineering.

About the University:

The University of Maine is a community of more than 11,900 undergraduate and graduate students, and 2,500 employees located on the Orono campus, the regional campus in Machias, and throughout the state. UMaine is a land, sea and space grant university, and maintains a leadership role as the University of Maine System's flagship institution. UMaine is the state's public research university and a Carnegie R1 top-tier research institution, dedicated to providing excellent teaching, research and service for Maine, the nation and the world. More information about UMaine is at umaine.edu.

The University of Maine offers a wide range of benefits for employees including, but not limited to, tuition benefits (employee and dependent), comprehensive insurance coverage including medical, dental, vision, life insurance, and short and long term disability as well as retirement plan options. As a former NSF ADVANCE institution, the University of Maine is committed to diversity in our workforce and to dual-career couples.

UMaine is located in beautiful Central Maine. Many employees report that a primary reason for choosing to come to UMaine is quality of life. Numerous cultural activities, excellent public schools, safe neighborhoods, high quality medical care, little traffic, and a reasonable cost of living make the greater Bangor area a wonderful place to live. Learn more about what the Bangor region has to offer here.

Qualifications:
Required:

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- A Ph.D. in Electrical Engineering, Biomedical Engineering, or a closely related field by date of hire.
- Demonstrated expertise in advanced integrated circuit design for biomedical applications.
- A strong research record, including publications in leading journals and evidence of potential for securing external research funding.
- Interest in fostering interdisciplinary collaboration between Electrical Engineering and Biomedical Engineering.
- Demonstrated commitment to teaching excellence at the undergraduate and graduate levels.

Preferred:

- Experience in modern IC design methodologies and a clear research focus on biomedical applications.
- Experience in developing and teaching courses related to IC design and biomedical applications.
- A track record of innovative research in relevant areas such as medical imaging, implantable electronic devices, wearable health monitoring devices.
- Experience with IC packaging, biocompatibility, energy sources/ supply, and safety considerations in biomedical application contexts.

Other Information:

To be considered for this position you will need to “Apply” and upload the documentation listed below:

1.) a cover letter which describes your experience, interests, and suitability for the position
2.) a resume/curriculum vitae
3.) a statement of research interests and teaching interests in the context of biomedical engineering and electrical engineering at UMaine (maximum of 5 pages)
4.) PDFs of the applicants three most significant scholarly publications

Candidates selected to proceed to the final stages of the search process will be requested to provide a list of names and contact information for references.

Incomplete application materials cannot be considered. Materials received after the initial review date will be reviewed at the discretion of the University.

For full consideration, materials must be submitted by 4:30 p.m. EST on March 17, 2025.

For questions about the search, please contact search committee co-chairs Michael Mason and Rosemary Smith at michael.mason@maine.edu and rosemary.smith@maine.edu.

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The successful applicant is subject to appropriate background screening.

Contact Information

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

Contact Michael Mason
Chemical and Biomedical Engineering
University of Maine
Orono, ME 04469

Contact E-mail michael.mason@maine.edu