Postdoctoral Scholar in Cyber-Physical Systems

College of Engineering and Physical Sciences
Department: Electrical and Computer Engineering

Description: Cyber-physical systems integrate computation and physical components. Cyber-physical systems require innovation in a broad area of activity, including real-time systems, human-in-the-loop systems, cyber-security, sensing, controls, signal processing, Internet-of-Things (IoTs), and networking.

The ECE Department already has a strong basis in topics related to cyber-physical systems, specifically in controls engineering, wireless communications, cyber-security, sensors, biomedical engineering, and human-computer interaction. Our strategic plan calls for further strengthening expertise in this broad area. For this reason, we invite applications for a Postdoctoral Scholar with background in one or more topics related to cyber-physical systems.

The Scholar will conduct independent research in one or more areas related to cyber-physical systems. The scholar’s research will be supported by collaboration with faculty in the ECE Department with additional opportunities for collaboration with faculty in other UNH departments, research groups, and laboratories. The scholar will also teach one course per semester in their area of research expertise, and will engage in departmental activities and faculty meetings. In addition, the scholar will receive professional development funds, participate in the UNH Writing Academy, monthly cohort meetings, and have access to additional early career faculty workshops that support their professional development goals.

The postdoctoral experience will provide the skills and experience to prepare the Postdoctoral Scholar to excel in their career path. The Scholar will be assigned two mentors, one mentor an ECE professor whose research closely aligns to that of the scholar and the second mentor also with a related research focus, may be from another department. The mentors will support the development and review of a mentoring plan, based on the guidance of the National Academies of Science and Engineering ¹. This mentoring plan will include the following elements:

- An Individual Development Plan based on the process developed by the FASEB².
- Attending seminars, workshops and individual consultations on how to identify research funding opportunities and write competitive proposals, offered at UNH.

¹ https://www.nap.edu/read/9831/chapter/1
² https://myidp.sciencecareers.org

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- Publications and presentations skills. Both are expected to result from the independent work supported by the scholarship. Mentors will collaborate with the scholar to support this crucial work.
- Network with scholars who are leaders in the mentors’ field. The mentors will involve the scholar in contacts with these leaders when they visit UNH, or during visits to events in the Boston area. The Scholar can network with prominent researchers and practitioners through a variety of events held at UNH, such as events organized by the UNH Research Office, and events organized by ECE faculty such as the ECE Seminar, and the CHIWORK weekly conversations.
- Participate in lectures and panels for postdoctoral scholars and graduate students, such as those organized by the UNH Graduate School, in which speakers are invited to discuss subjects related to career development such as how to apply for a faculty position, career paths outside of academia, tips for negotiating salary and start-up funds, etc.

The University of New Hampshire actively promotes a dynamic learning environment in which qualified individuals of differing perspectives, life experiences, and cultural backgrounds pursue academic goals with mutual respect and shared inquiry. We encourage applications from underrepresented groups.

All 2022 position descriptions

Postdoctoral Diversity and Innovation Scholars website