Canada Research Chair (Tier II), Secure and Reliable Networked Engineering Systems, Department of Electrical and Computer Engineering

The **Department of Electrical and Computer Engineering** in the **Schulich School of Engineering** at the **University of Calgary** invites national and international applications for a **Tier II Canada Research Chair (CRC) in Secure and Reliable Networked Engineering Systems**, with an anticipated start date of July 1 , 2021

The Chair will be appointed at the rank of **Assistant Professor (tenure-track) or Associate Professor (with tenure)**. In alignment with the University of Calgary's Growth Through Focus plan strategic vision and in support of its strategic academic and research priorities of leadership, teaching and research integration, and creating a dynamic environment to promote research excellence, the Chair will actively contribute to research, teaching and curriculum development, and student/postdoc supervision, and is in time expected to grow into a leadership role within the Department, School and the University. Service to the department, faculty, University and community is also expected.

The successful candidate at the **Assistant Professor** level must demonstrate evidence of a track record of publications in high quality journals, prior experience in working with external research funding programs, and effectiveness in teaching and graduate student supervision at the University level.

The successful candidate at the **Associate Professor** level must demonstrate evidence of: a strong track record of publications in high quality journals, securing sustained external competitive research funding, effectiveness in teaching at the University level, and evidence of effective graduate student supervision.

In accordance with the regulations set for Tier II CRC Chairs, applicants must have received their Ph.D. within the last 10 years and be an emerging world-class researcher in a technology area suitable for application to Secure and Reliable Networked Engineering Systems. Candidates who are more than 10 years from having earned their highest degree and who have had career breaks, such as maternity, parental, or extended sick leave, clinical training, etc., may have their eligibility for a Tier II Chair assessed through the program's Tier II justification process. Please contact UCalgary's Office of Research Services for more information: ipd@ucalgary.ca. Further information about the Canada Research Chair Program, including eligibility criteria, can be found the on the Government of Canada's CRC website.

The successful candidate will be expected to establish a strong research program in the area of Secure and Reliable Networked Engineering Systems, with the potential to achieve international recognition in the next five to ten years. They will be expected to attract external competitive funding to support research activities, and to attract excellent trainees, students, and future researchers. A demonstrated ability to teach a range of undergraduate and graduate courses on related topics is required. Candidates must be eligible for registration as a professional engineer with the Association of Professional Engineers and Geoscientists of Alberta (APEGA).

The successful candidate will be an emerging scholar with an original, creative, innovative and forward-looking research program, acknowledged by their peers as having he potential to become a leader in the field. The research program will focus on ensuring the resilience of large-scale networked systems to external attack by developing innovative systems-level approaches. This may be accomplished through one of several novel research themes:

1. Device-level security strategies that maintain reliable performance with appropriate response times;
2. Strategies to proactively and effectively incorporate end-to-end security, reliability, and performance in the design of complex systems;
3. Reliable AI-enabled tools for analyzing and detecting threats at sensor, local network and cloud levels of the system.

The successful candidate will have a mandate to develop a research program that enables secure digital transformation of networked engineering systems. The topic of Secure and Reliable Networked Engineering Systems exemplifies the University of Calgary vision of research that is built around areas of excellence, entrepreneurial thinking, innovation, advanced technology, and strong connections to industry and community.

The Tier II CRC in Secure and Reliable Networked Engineering Systems cuts across four of the University of Calgary Strategic Research Themes. Specifically, Networked Engineering Systems are instrumental to developments in: *Energy Innovations for Today and Tomorrow; Human Dynamics in a Changing World; New Earth-Space Technologies; and Engineering Solutions for Health.*

The successful candidate will benefit from a rich ecosystem, which includes world- class engineering scholars, a focus on entrepreneurship and innovation, and a university community that supports transdisciplinary research, partnerships and collaborations, and supports research and education excellence. The Schulich School of Engineering Strategic Plan, Catalyst for a Connected World, identifies three priorities: 1) enhancing global research impact; 2) expanding access to engineering; and 3) enriching the student experience. The Schulich School of Engineering is a key contributor the University of Calgary Growth Through Focus plan, which emphasizes transdisciplinary scholarship, deeper community integration, and future-focused program delivery. For more information, please visit the Schulich School of Engineering and the Canada Research Chairs website.

How to Apply

Interested candidates are encouraged to submit an application online via the 'Apply Now' link. Please be aware that the application process allows for only four attachments. Your four application attachments should be organized to contain the following (which may require you to merge documents, such as publications):

- Cover letter and curriculum vitae, including the name and contact information of three referees
- Statement of research interests, accomplishments and vision (maximum 3 pages)
- Statement of teaching philosophy (maximum 2 pages)
- Statement on equity, diversity and inclusion (maximum 2 pages)

Applications are accepted until March 7, 2021

Questions may be addressed to:

Dr. Andy Knight
Department Head, Electrical & Computer Engineering
Email: andy.knight@ucalgary.ca

The University of Calgary recognizes that candidates have varying career paths and that career interruptions can be part of an excellent academic record. Candidates are encouraged but not required to provide any relevant information about their experience and/or career interruptions to allow for a fair assessment of their application. Selection committees have been instructed to give careful consideration to, and be sensitive to the impact of career interruptions, when assessing the candidate's research productivity.

The University of Calgary has launched an institution-wide Indigenous Strategy in line with the foundational goals of Eyes High, committing to creating a rich, vibrant, and culturally competent campus that welcomes and supports Indigenous Peoples, encourages Indigenous community partnerships, is inclusive of Indigenous perspectives in all that we do.

The University of Calgary recognizes that a diverse staff/faculty benefits and enriches the work, learning and research experiences of the entire campus and greater community. We are committed to removing historical barriers that have been encountered by some people in our society. We strive to recruit individuals who will further enhance our diversity and will thrive academically and professionally while they are here; in particular, we encourage members of the designated groups (women, Indigenous Peoples, persons with disabilities, members of visible minorities, and diverse sexual orientation and gender identities) to apply. All qualified candidates are encouraged to apply; however Canadians and permanent residents will be given priority. To ensure a fair and equitable assessment, we offer accommodation at any stage during the recruitment process to applicants with disabilities. Questions regarding diversity or requests for accommodation can be sent to Human Resources (hrhire@ucalgary.ca).

To learn more about academic opportunities at the University of Calgary and all we have to offer, view our **Academic Careers website**. For more information about the Schulich School of Engineering visit **Careers in the Schulich School of Engineering**.

About the University of Calgary

The University of Calgary is situated on land adjacent to where the Bow River meets the Elbow River; the traditional Blackfoot name of this place is "Mohkinstsis", which we now call the City of Calgary. Calgary is home for the traditional territories of the Blackfoot and the people of the Treaty 7 region in Southern Alberta and the Me¿tis Nation of Alberta, Region III.

The University of Calgary is Canada's leading next-generation university – a living, growing and youthful institution that embraces change and opportunity with a can-do attitude. Located in the nation's most enterprising city, the university is making tremendous progress on its Eyes High journey to be recognized as one of Canada's top five research universities, grounded in innovative learning and teaching and fully integrated with the community it both serves and leads. The University of Calgary inspires and supports discovery, creativity and innovation across all disciplines. For more information, visit **ucalgary.ca**.

About Calgary, Alberta

Calgary is one of the world's cleanest cities and has been named one of the world's most livable cities for years. Calgary is a city of leaders - in business, community, philanthropy and volunteerism. Calgarians benefit from a growing number of world-class dining and cultural events and enjoy more days of sunshine per year than any other major Canadian city. Calgary is less than an hour's drive from the majestic Rocky Mountains and boasts the most extensive urban pathway and bikeway network in North America.

Posting Date: February 02, 2021
Closing Date: March 07, 2021