

Two Tenure Track Faculty (Assistant and/or Associate Professors)

Systems Design Engineering - Complex, Socio-technical and Environmental Systems

The Department of Systems Design Engineering at the University of Waterloo, Canada, addresses multi-scale, interconnected, and therefore highly complex and dynamic, socio-technical systems by bringing to bear methods and theory from engineering and beyond. Exploring the interactions and relationships between systems in the domains of energy, communications, transportation, health care, climate and environment, among many others, embodies great challenges that motivate our interdisciplinary department. Our learning community pursues holistic design on inclusive teams with technical excellence as well as comprehensive problem definition.

The successful candidates for the two tenure track faculty positions, at the rank of Assistant or Associate Professor, are expected to conduct scholarship, teach undergraduate and graduate courses and be active in service to the university, profession and society. Applications and methods that integrate non-engineering disciplines are required. A vision for the future of engineering design that advances equity and ethics is important to the department which also houses the Centre for Society Technology and Values. The successful candidate will have the opportunity to work with campus-wide institutes in these areas and others <https://uwaterloo.ca/research/research-excellence/senate-approved-centres-and-institutes>.

We will hire in multiple methodological and application areas of systems design, including complex systems engineering. In their application, candidates must explain their research methods but also the application areas which drive their academic passion. The approach to mapping, collecting, and using real-world systems data is key. A record of study that addresses relationships among multiple systems is particularly of interest.

Candidates must hold a PhD degree in engineering or a related discipline. Academic diversity in terms of institutions and/or traditional disciplines is explicitly sought. The successful applicant is required to have an engineering license for practice (full) or teaching (limited) in Canada, or to apply for a Canadian engineering license within the first year of joining the University. Due to program accreditation requirements, all new faculty members are required to obtain the license within five years of initial appointment at the University of Waterloo and maintain it during their employment at the University.

Applications received by October 31, 2024, will be given full consideration. However, applications will continue to be reviewed until the positions are filled. References are requested but will only be contacted for applicants invited for an interview. The salary range for this position is \$120,000 to \$190,000. Negotiations beyond this salary range will be considered for exceptionally experienced candidates. All qualified candidates are encouraged to apply; however, Canadians and permanent residents will be given priority. The appointment has a preferred starting date of July 2025 or soon after.

Three reasons to apply: <https://uwaterloo.ca/faculty-association/why-waterloo>

The University of Waterloo's Faculty of Engineering is Canada's largest engineering school, ranking among the top 50 engineering school worldwide with more than \$96 million in research funding per year. The University of Waterloo has 42,000 students and 238,000 alumni in 151 countries. It is home to 74 Canada Research Chairs and is well-known for its 100% creator- owned IP policy. Operating world-renowned co-operative education programs, Waterloo partners with more than 7,000 employers worldwide. The campus covers 1,000 acres in the heart of the Region of Waterloo (population 600,000) which is integral to the Waterloo-Toronto tech corridor.

The University of Waterloo acknowledges that much of our work takes place on the traditional territory of the Neutral, Anishinaabeg, and Haudenosaunee peoples. Our main campus is situated on the Haldimand Tract, the land granted to the Six Nations that includes six miles on each side of the Grand River. Our active work toward reconciliation takes place across our campuses through research, learning, teaching, and community building, and is centralized within our Indigenous Initiatives Office (<https://uwaterloo.ca/human-rights-eguity-inclusion/indigenoussinitiatives>).

The University values the diverse and intersectional identities of its students, faculty, and staff. The University regards equity and diversity as an integral part of academic excellence and is committed to accessibility for all employees. The University of Waterloo seeks applicants who embrace our values of equity, anti-racism, and inclusion. As such, we encourage applications from candidates who have been historically disadvantaged and marginalized, including applicants who identify as Indigenous peoples (e.g., First Nations, Metis, Inuit/Inuk), Black, racialized, people with disabilities, women and/or 2SLGBTQ+.

To apply, individuals are to complete an online application that includes uploading a PDF containing the following in order:

1. cover letter;
2. statement of research experience and vision that includes the modeling and analysis methods used in research inquiry, the social technical and/or environmental system elements being studied as well as how your research is at the intersection of multiple fields (2-page limit);
3. statement of teaching philosophy and interests (one-page maximum);
4. current curriculum vitae.

The link to apply is here: <https://ofas.uwaterloo.ca/job-details/99>

Cover letter is to be addressed to:

Prof. Lisa Aultman-Hall
Chair, Department of Systems Design Engineering
University of Waterloo

If you have any questions regarding the position, the application process, assessment process or eligibility, please contact Alex Pastrok at sydeaac@uwaterloo.ca. The University of Waterloo is committed to accessibility for persons with disabilities. If you have any application, interview or workplace accommodation requests, please contact Alex Pastrok at sydeaac@uwaterloo.ca.