The School of Engineering in the Faculty of Applied Science at the University of British Columbia, Okanagan, invites applications from outstanding individuals for four (4) tenure stream positions at the rank of Assistant or Associate Professor.

The research undertaken at the School of Engineering strives to reduce environmental footprints and enhance the health and resiliency of our built environment. The Civil Engineering program has also introduced a unique Resilient Infrastructure Management option to train the next generation of engineers. Data analytics is key to this initiative and is an area of strength for the Okanagan campus and the School of Engineering. Four new positions will further strengthen this growing research cluster with applications to civil engineering. Further information on the School is available at https://engineering.ok.ubc.ca/.

Applicants must have a strong research record or demonstrated potential to achieve excellence in research and a commitment to quality teaching at both the undergraduate and graduate levels. Applicants must also have a Ph.D. in Civil Engineering or a related discipline and should either have or be eligible to pursue, registration with Engineers and Geoscientists British Columbia. The successful candidates will be expected to develop an independent, internationally recognized research program, teach at the undergraduate and graduate levels, supervise graduate students at the Masters and Ph.D. levels and provide service to the University and the community.

Environmental Genomics (Job ID 37187)
This position will support the establishment of critical mass in emerging areas of circular economy and wastewater biorefinery with a focus on advanced resource recovery. Integrated high-throughput omics combined with big data processing expertise will complement the existing environmental process monitoring capabilities within the School of Engineering and will provide a deeper understanding of historically “black box” microbial communities in engineered processes.

Specific areas of interest include but are not limited to: environmental microbiology and DNA- and RNA-based molecular biological techniques, including but not limited to reverse-transcription; real-time polymerase chain reaction (RT-qPCR); high-throughput sequencing; metagenomics, metatranscriptomics and bioinformatics. Areas of application include microbial profiling combined with multi-omic analyses to gain insight into community structure, activity and function of mixed culture communities in engineered environmental systems. Experience with microbial ecology of biological wastewater treatment processes is an asset. Applicants with a Ph.D. in molecular biology, microbiology, biotechnology or a related field relevant to environmental sciences/engineering are encouraged to apply.

Hydroinformatics (Job ID 37188)
Water research is a strong focus for the Okanagan campus. This position will support water resource engineering, environmental sustainability and resilient infrastructure management research in the School of Engineering. This position will mainly focus on the applications of information technology and data analytics to solve diverse aquatic problems in the built and natural environment.

Specific areas of interest include but are not limited to: hydraulics, hydrology, open channel flow, urban and stormwater management. Research interests can also include climate change impacts on the water cycle, water sustainability, water distribution and wastewater collection, irrigation engineering, hydro-technical aspects of dams and/or other areas related to water resources engineering. Expertise in stochastic modelling, data analytics, numerical modelling, and geographic information systems will be considered an asset. Applicants with a PhD in Civil Engineering or a related discipline are encouraged to apply.

Geospatial Analytics for Infrastructure Systems (Job ID 37189)
This position will focus on infrastructure systems that are spatially distributed and require geospatial analytics and advanced computational tools. Increasing urbanization and ageing of infrastructure systems combined with climate change require research to improve the construction, management, and maintenance of resilient infrastructure as well as efficient, reliable delivery of services.
Specific areas of interest include but are not limited to: integration of geospatial data analytics for infrastructure management; spatial agent-based simulation modeling in infrastructure management; building information modelling; life cycle management, optimization and multi-hazard resiliency of built environments; complex and interdependent dynamic networks. Expertise in advance application of artificial intelligence, machine learning and modelling will be considered an asset.

**Smart Cities (Job ID 37190)**

The Resilient Infrastructure Management option in our Civil Engineering program incorporates smart cities as a pivotal component of this specialization. The School of Engineering is creating core expertise in big data analytics, Internet of Things, cloud computing, and blockchain technology. This position is intended to augment our strengths in big data analytics, smart energy, and smart cities.

Specific areas of interest include but are not limited to: design and operation of smart cities; urban systems modelling and simulation; modelling of interconnected physical and social infrastructure; analytics (e.g. artificial intelligence, deep learning); application of agent-based modelling in smart cities; sensing and intelligent decision making for interconnected infrastructure (e.g. transportation, water, wastewater and structures); computer vision applications in civil engineering.

**How to Apply**

Applications are to be submitted online at [http://www.hr.ubc.ca/careers-postings/faculty.php](http://www.hr.ubc.ca/careers-postings/faculty.php) to the specific Job Opening ID Number and should include:

- cover letter,
- curriculum vitae,
- statement of teaching philosophy,
- statement of research interests, accomplishments, and vision,
- statement on equity, diversity, and inclusion and how their teaching and research would contribute to a diverse academic environment,
- and a list of four referees.

Adobe Acrobat (.pdf) file format is preferred. Please declare whether you are legally entitled to work in Canada. For assistance, please contact recruitment.apsc@ubc.ca.

The initial closing date for applications is May 31, 2020, but applications will be accepted until the positions are filled. All positions are subject to final budgetary approval. Appointments are expected to commence on or after July 1, 2020.

*Equity and diversity are essential to academic excellence. An open and diverse community fosters the inclusion of voices that have been underrepresented or discouraged. We encourage applications from members of groups that have been marginalized on any grounds enumerated under the B.C. Human Rights Code, including sex, sexual orientation, gender identity or expression, racialization, disability, political belief, religion, marital or family status, age, and/or status as a First Nation, Metis, Inuit, or Indigenous person. All qualified candidates are encouraged to apply; however, Canadians and permanent residents of Canada will be given priority.*

*In support of our commitment to equity and diversity, all candidates will be invited to participate in an online Equity Survey as part of the appointment process.*