



Post-doctoral Fellow

Date Posted:

Location: UBCO, Kelowna, BC V1V1V7, Canada

Position Information

Salary: \$50,000 – \$65,000/year + benefits + conference travel

Start Date: January 2023

Term: 1 year (12 months), with the possibility of extension (This position has confirmed funding for the next 5 years)

About Us

UBC integrated Transportation Research (UiTR) Laboratory (<https://uitr.ok.ubc.ca/>), formerly known as CeTLUR, is a transportation and land use research facility at the University of British Columbia's Okanagan (UBCO) campus. This research facility is led by Dr. Mahmudur Fatmi, Assistant Professor of Civil Engineering – UBCO. UiTR is dedicated to conducting innovative and interdisciplinary research, that ranges from developing state-of-the-art behavioural models and urban system microsimulation tools, to investigating changes in land use and transportation choices, to designing surveys to collect novel travel behavioural data. The UiTR lab collaborates with scholars around the world, as well as partnerships with the local, provincial and federal government agencies and industries.

Currently, there are multiple research projects funded by the Federal, Provincial and Municipal governments of Canada. For example, for the next 5 years, Dr. Fatmi will be leading a research project funded by the Environment and Climate Change Canada (ECCC) organization, which was recently allocated ~\$3M. The focus of this project will be on the generation of knowledge needed decarbonize Canada's transportation sector. The project scope includes developing a travel survey tool to collect data, and using the resulting data to develop travel behaviour and emission models, an agent-based travel simulation tool and a public participatory tool. The project involves a multidisciplinary team of researchers (i.e., experts from engineering, computer science, geography, and medical science) from the two UBC campuses – i.e., Vancouver and Okanagan. The project also entails working with several municipalities and transit agencies from the Okanagan and Vancouver regions.

UiTR is also participating in another ~\$3.5M research project funded by the ECCC, which focuses on developing agent-based passenger and freight transportation simulation and emission models for different cities in Canada.

Your Responsibilities

UiTR is looking to hire a post-doctoral fellow to join the team. The successful candidate will be responsible for:

- Conducting original, methodological research in deploying an activity-based travel demand forecasting model for the Metro Vancouver and Central Okanagan regions of British Columbia
- Designing and deploying surveys, such as activity-based travel survey and stated experiment survey
- Assisting in the supervision and mentoring of graduate students
- Liaising with project partners
- Assisting with proposal writing, research report writing, and journal and conference paper preparation



Essential Qualifications

- Holds (within past 5 years) a Ph.D. degree in Civil Engineering or a related field
- Experienced in travel demand modelling – e.g., using an activity-based modelling technique
- Demonstrated experience in large-scale regional transportation network modelling
- Excellent organizational and project management skills
- Excellent communication skills, both oral and written
- Comfortable working independently and in team settings
- Demonstrated experience in producing high impact research articles

Assets (Nonessential)

- Experienced in survey design
- Experienced in agent-based modelling for urban systems
- Expertise in using MATSim will be considered a significant asset
- Knowledge of population synthesis
- Knowledge of object-oriented programming
- Skilled in using C++, Java, Python, R, GAUSS, Stata, and/or other programming language/statistical software

How to Apply

If you're interested in applying for this position, submit your CV and cover letter to uitr.lab@ubc.ca addressed to Dr. Fatmi. Please use the subject line: **PDF_LastName**.