The Department of Landscape, Spatial and Infrastructure Sciences, Institute for Transport Studies is currently seeking a

Postgraduate Research Associate
Project employment
(Reference code: 118)

<u>Extent of employment:</u>   30 Hours per Week
<u>Duration of employment:</u>   10/2020 (negotiable), limited to 09/2022
                                     (with the option of a limited extension until 2024)

Gross monthly salary and pay grade in terms of collective agreement
for university staff (payable 14 times per year): B1, € 2.196,80

The researcher will be part of the core team of a research group which aims to utilise sensors and mobile data sources to analyse the society needs and societal impacts for digitalised and automated mobilities, co-sponsored by the Austrian Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology (BMK). The researcher will have opportunity to develop him*herself and expertise within the research group and the research institute in the field of transport data analysis, behavioural and choice modelling, and will actively engage with relevant local stakeholders.

Responsibilities

- To develop demand analysis and develop a decision support to evaluate the impacts of automation and digitalisation utilising mobile data and sensors
- Working with existing transport modellers in the region to improve the existing transport modelling framework, in particular to anticipate the mixed use of traditional demand analysis and new type of datasets
- Contribute to ongoing and the acquisition of new third party funded projects at the institute
- To write publication of results in journals and active participation at (inter)national conferences
- To support the teaching and other institute's daily research and learning activities

The researcher will be focused on analysing and/or capturing the movement patterns of travellers using alternative data sources. This can range from developing multipurpose tools and/or platform, which aims to analyse and promote any behavioural changes, to exploring hybrid approach in travel modelling, combining traditional choice model and big data analysis.

Required skills and qualifications

- Degree in Computer Science or Transport Planning or Transport Engineering or Media Technology
- Some knowledge on Machine Learning, NLP (Natural Language Processing), Computer Vision, Data Mining or similar
- Some knowledge on with relevant scientific software packages (Python, TensorFlow, Theano, Torch, Caffe, R, Matlab/Octave,…)
- Some programming, software engineering and development skills
- Abilities to write and publish high quality scientific papers
- Good oral and writing skills in English are required
- Interest in mobility behaviour and research in the transport field
- Have interest to learn German

universität des lebens

Desirable skills and qualifications

- Some experience in Transport and/or Mobile based data collections and analysis, or alike, is a very strong merit
- Some experience in modern software development techniques, version control and deployment tools, databases/SQL, programming languages (e.g. Java), Big Data and HPC frameworks is a strong merit
- Being proficient in German language and being familiar with Austrian transport research landscape are important assets
- Experience of working with transport demand models is a merit
- Experience with analysing complex human decision making processes is a merit
- Experience in lecturing on relevant subject and supervision would be a plus

Applications can be submitted until: 31st of August 2020

University of Natural Resources and Life Sciences Vienna seeks to increase the number of its female faculty and staff members. Therefore qualified women are strongly encouraged to apply. In case of equal qualification, female candidates will be given preference unless reasons specific to an individual male candidate tilt the balance in his favour.

Please send your job application to Personnel department, University of Natural Resources and Life Sciences, 1190 Vienna, Peter-Jordan-Straße 70; E-Mail: kerstin.buchmueller@boku.ac.at. **(Reference code: 118)**

We regret that we cannot reimburse applicants travel and lodging expenses incurred as part of the selection and hiring process.

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