

# Call for Master Thesis at the Institute for Transport Studies

## Working Title

Understanding the role of physical obstacles and different road geometric conditions on bio metric readings of e-scooter users

## Starting Situation / Framework Conditions

With the rise of interest in creating human-centred city, it is important to understand on how the residents appreciate and interact with their built environment on their daily travelling. Such experience matters in influencing residents' perceptions on whether a particular urban condition is considered as 'being safe', 'being accessible' and 'being accommodating', etc., and the subsequent decision that come with such perceptions, e.g. risk-taking and/or risk-avoidance behaviours towards other road users on the given locations.

Whilst such tasks can be quite subjective, the last few years, there have been a good number of measurement tools which can provide approximation of one's level of stress. The validity of using such measurement in decision making process, however, is still a subject of debate. This thesis aims to contribute to that debate by aiming to map and validate one's subjective and measured experience whilst travelling on daily basis.

## Aim of the Master Thesis

- to compare and analyse the differences between personal subjective evaluation with objective biometric measurement readings, during travel activities;
- identify location, time, and circumstances where the objective tools outputs are (not) reliable/comparable with individual's subjective assessments.

## Methods

- To conduct own primary data collection of own travel experience to different parts of the cities, with an e-scooter, over one month.
- Mapping the biometric readings into spatial and temporal analytical platform
- Analyse the differences/similarities between own subjective data with own biometric data, and map the differences on different spatial and temporal locations.
- Withdraw conclusion and develop recommendation on the usability of biometric tool in measuring one's level of stress whilst travelling.

## Co-operations

- Depending of the individual choice of the research questions and the quality of the work, a presentation may be possible to an audience of experts and practitioners in the mobility sector, including DAVeMoS' partners e.g. Stadt Wien.

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## Notice

Language: English

