

## **TRAFFIC MODEL FOR ASSESSMENT OF ROUTES OF ELDERLY PEOPLE**

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The paper describes the development of a traffic model for replication and prediction of desired walking and navigation routes that is designed for different user groups such as elderly people and people with mobility restrictions. The model is capable to assess routes on roads and footpaths as well as ways in conjunction with public transport in existing urban environments.

An extensive data collection for people with different mobility restrictions is carried out and the gathered data pool of anonymized routes is assessed and used for the model development. The survey is conducted in Vienna with special handheld devices that save GPS locations, points of interests, barriers and other locations.

The model is based on creation of resistance factors for nodes and legs and analyses routes between representative origins and destinations. It is calibrated and used for simulation of showcase infrastructure improvements and removal of common barriers.

The model can be used as an assessment tool for the existing infrastructure especially in relation to the circumstances and needs of elderly people and is also capable for assessment of traffic infrastructure upgrades on a broader scale. The model can be applied to different sized cities or regions. Based on already known and newly identified barriers and resistance factors it helps to identify and predict best fitting routes and the maximum efficiency of investments. Furthermore locations can be identified that show potential accident risks especially for the group of elderly people.