

# How to Use Mobile-Based Sensing to Crowdsource - Smartphone Application for Long-term Urban Lifestyle and Mobility Monitoring

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## Abstract

The mobility of the people can be mapped through a simple smartphone application that records their movement. The sensors in the smartphones are a low-cost source of the information that after certain interpretation can be the dynamic indicator of the urban life. We can collect data about the life style in the urban structures by using this wide spread and accessible tool. For the successful acquisition of the data is necessary to develop an appropriate marketing strategy. We can get access to this data through the crowdsourcing or by offering attractive and gripping benefits. The data could be used for the intelligent and smart urban planning, as well as for the commercial and marketing strategies.

Proposed application for android-based smartphones comes up with the innovative technology, which monitors the daily routine exercise habits and caloric consumption of the individual - only through smartphone sensors, without any need to buy a special sport-tester tool. To estimate the amount of calories burned in a day is also necessary to know the age, sex, height, weight and the physical strenuousness of the work. Developed application will be connected with biggest Czech application for the calories consumption monitoring. The calories consumption applications are usually very local based because of the differences between typical food and the local habits for every country. The connection makes proposed application unique at the market. The application collects the location data, analyzes the way of user`s movement and the input data entered by user.

The data interpretation into the mobility patterns of the population groups can reveal the impact of the urban structures and infrastructure on the public health, through comparison between anti stress factors (physical activity, enjoying the fresh air) in the different urban structures, locations and topographies.

## Illustration

