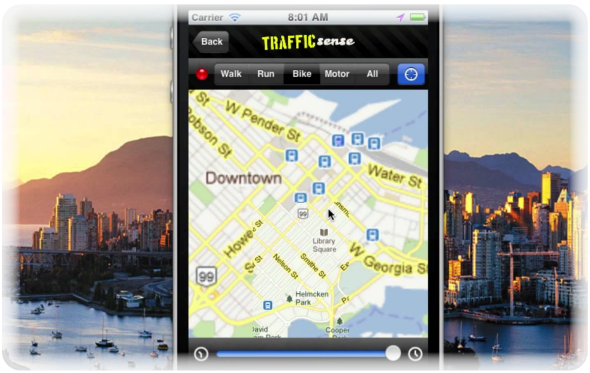
Mobile CrowdSensing

Context



In the recent years, smartphones have become essential for our day life. They are normally equipped with a rich set of sensors, including GPS, microphone, camera, accellerometer and gyroscope among the others. As a consequence, everyone can easy collect and share sensing information. Mobile crowdsensing emerged recently as a promising large-scale data sensing collection paradigm where the collection is usually performed by smartphones. Data is then shared and sent to a central collector running in the cloud. Mobile crowdsensing is projected to become one of the most important technologies contributing to healthcare, monitoring, logistic and organization in future smart cities.

Objectives

Two key aspects in a mobile crowdsensing architecture are the accuracy of collected data and the costs of the sensing operation.

Aims of the project are the analysis of the aforementioned aspects and the development of an efficient mobile crowdsensing architecture based on the analytical findings.

Tasks

- Contribute to the scientific research efforts in developing efficient mobile crowdsensing architectures.
- Develop models and simulation tools.
- Participate in writing of scientific articles that will be presented in international conferences and published in major scientific journals.

Requirements

- Background in the area of communications and optimization
- Strong programming skills (C++)
- Good command of English language is essential
- Ability to work independently as well as in a team

Contact

For inquiries please contact Dr. Dzmitry Kliazovich (dzmitry.kliazovich@uni.lu) or Prof. Pascal Bouvry (pascal.bouvry@uni.lu)