

## Campus Guide



The **Campus Guide** will demonstrate aspects of a smart city. Several applications shall be developed and deployed to support the collaborative environment of the Karlsruhe Institute of Technology (KIT) in Germany. The OpenIoT framework will enable situation awareness, supporting communication between people, and allowing interactions with, and via, their environment. An example is the “smart meeting” scenario, where people will be able to find live information about meeting rooms, interact with physical or virtual places and objects, and link all these things into a common information model, accessible in a user-friendly way to students, lecturers and administrators.

**Campus Guide** use case will be achieved through the OpenIoT proof-of-concept server environment, several sensors, identification via RFID or QR-Code and state-of-the-art smart phones.

## Silver Angel

The Silver Angel consists of a "**Silver City**" map and an at-home "**Silver Home**" security assistant. **Silver City** shows where other people are in the city in a manner that ensures privacy. It indicates the density of human presence in different city areas. This will assist the elderly in maintaining an active social life.

Users can also authorise other users in their close social network to be able to see when they are near a number of known locations (like home, day centre etc). This is especially important to the elderly who tend to feel insecure when they do not know when relatives are coming to visit them or pick them up. **Silver Home** helps assure the elderly that their home is secure. It consists of a warning system that can generate alerts to a smart phone (or touchpad), when a door or window is left open, or unlocked, for too long.



## Urban Crowdsensing



Today, more than ever before, we need to raise awareness about environmental factors that strongly impact human health. The **Urban Crowdsensing** application will enable citizens to collect and share urban environment-related data while in motion. Volunteers equipped with state-of-the-art wearable air quality sensors and smartphones will continuously contribute sensed data to the OpenIoT cloud while moving through the city. In addition, other available data sources, such as fixed environmental monitoring stations and “humans-as-sensors” will be integrated through the OpenIoT cloud. This will empower all application users, i.e., citizens, to consume personalized environmental information of interest in real-time, typically in their close vicinity. Both citizens and city officials will be able to observe historical environmental data over a larger geographical area to identify specific trends and to devise actions which can ensure safe and healthy living conditions to all citizens.

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