SA/BA: Sensing with Android

The ubiquity of mobile phones makes them very attractive as a mobile sensing platform. New generation mobile phones like the iPhone or Android-based phones already have some integrated sensors (GPS, accelerometer). Additional external sensors, e.g. for temperature, air pollution or heart rate, can sense a person's environment. Measurement data can then be sent to the mobile phone where it is further processed by an application or forwarded to a central server using the mobile phone's Internet connection. At our lab, we developed different external sensors that can connect to Android phones.

The large amount of available internal and external sensors offers a whole new field of smart applications. However, these sensor based applications and smart services can only reach the masses, if the according user interfaces are as simple as possible and easy to use, even for non-technical persons. The goal of this thesis is to develop the software basis for an unobtrusive and easy-to-use sensing platform on Android smart phones. We envision many different possible theses in that field. If you are interested in Android programming and want to contribute to this exiting field, please contact us to discuss potential theses.

Type of work: Programming

Required Skills: Good programming skills (Java) are required and some experience in software design is advantageous

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