



## Topic: Crowd Counting with Limited Smart Phones and Head Mounted Displays

Goal: This project aims at evaluating the performance of different sensing modalities embedded in Smart phones and Head Mounted Displays(HMD) in crowd counting, when the number of phones and HMDs are limited. The result will be an optimization guideline considering on the one hand the availability of sensing systems and on the other hand the changing crowd density.

### Workflow:

Month 1: get familiar with smart phone and HMD, selection of proper devices  
Month 2: ethics control, experiment design  
Month 3: data recording and labeling  
Month 4: data mining algorithms development  
Month 5: crowd modeling and optimization guideline  
Month 6: documentation, paper and thesis writing

### Advantages:

- 1) get familiar with up-to-date wearable devices
- 2) possibility of writing a paper based on the thesis

### Requirements:

- . Experience in or lectures on Data Mining
- . Experience with Andriod programming
- . Experience with Matlab or Python
- . Good written and oral English