

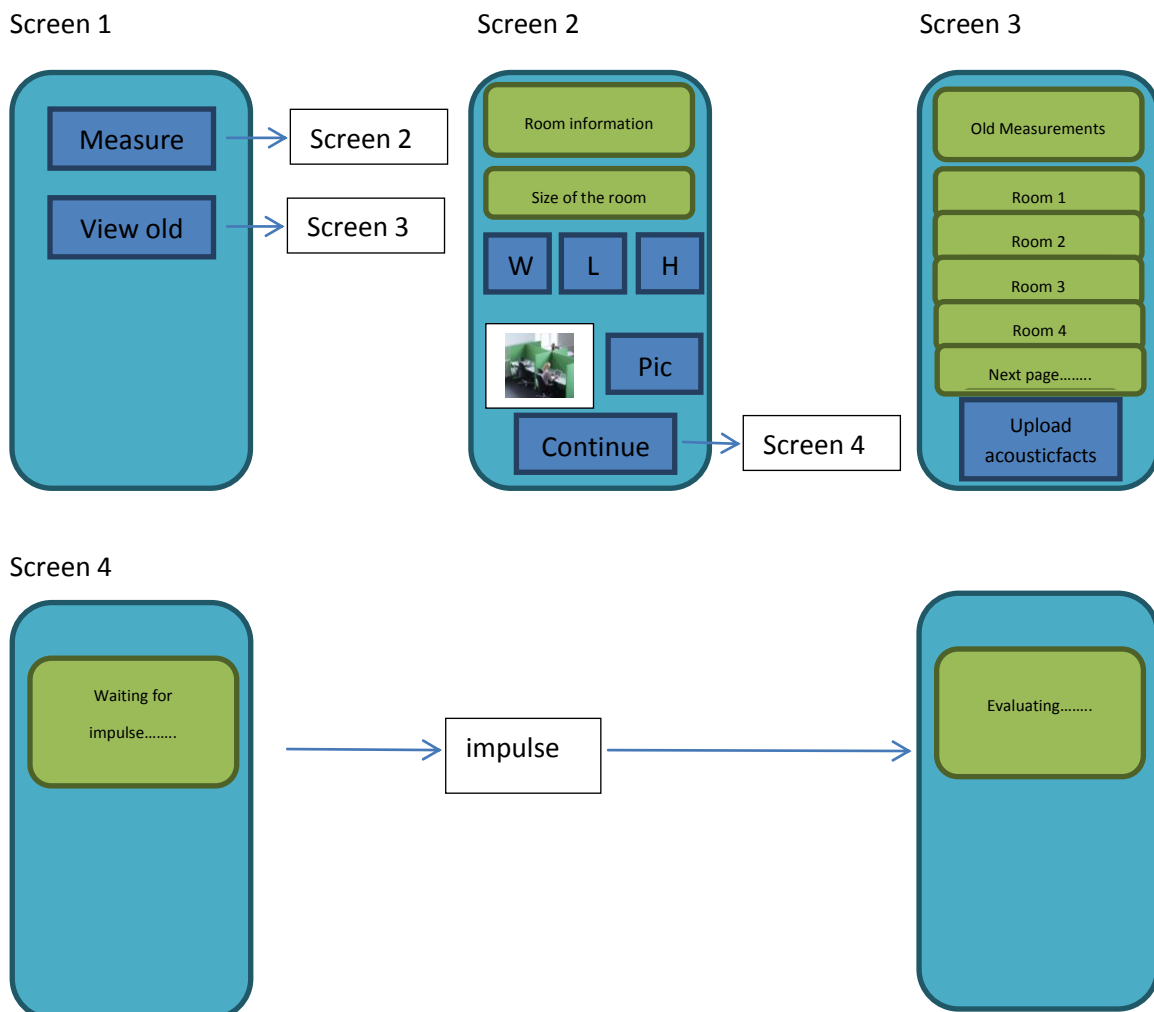
Offer: Master thesis project

Development of Smartphone app for reverberation time measurements in rooms with furniture

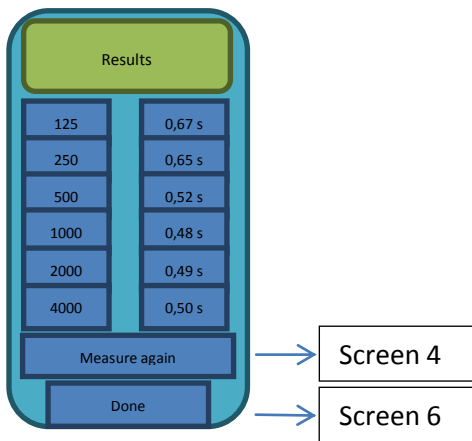
This project is aimed to develop an app in order to encourage users to measure reverberation time in any room that might be in need of acoustic measures. The app should measure impulse response of the room. It should be possible to take pictures that can be uploaded and connected to the actual measurement. It has to evaluate measurements in the octave bands 125-4000 Hz and it should be able to use a manual impulse source.

The project includes the following parameters

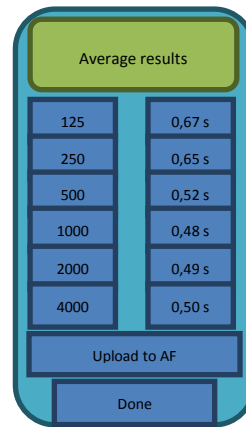
1. Build up an app according to the flow chart in the attached appendix. It should be user friendly and encourage multiple measurements.
2. Validate the measurement accuracy by comparing the results with a “professional measurement equipment” (Brüel&Kjaer) in at least three different rooms of various shape.
3. It should be possible to upload the measured results to an external webpage.
4. Possible extension: Create a 3D model of room from pictures



Screen 5



Screen 6



For more information, please contact Delphine Bard, delphine.bard@construction.lth.se .