Perceived Saftey in Piloting for Urban Air Mobility

Background

Urban Air Mobility (UAM) has started to gain increasing interest in future mobility. Unlike conventional transportation such as buses and trains, flying taxis will not be limited to predefined routes, thus avoiding transportation delays. Hence, the vision is to create a network of flying vehicles operating in metropolitan areas to connect short and medium distances.

Experts predict that the first UAM vehicles will lift passengers in the mid 2020th. In fact, the first crewed flight of the German start-up Volocopter successfully ran 2019 in Singapour.

UAM will shift air mobility from the current mass transportation to a relatively private ride with 2-4 passengers, which creates new interesting aspects for HCI research since the passengers are focused.

Research question

To unleash the full potential of UAM, researchers aim to develop automated piloting. Therefore, they enable private people to use this novel transportation.

This thesis aims to conceptualize different approaches for new interfaces that enhance the perceived safety for varying levels of automation. A prototype of a flying vehicle interior should be implemented in VR, and the defined concepts should be evaluated by conducting a user study.

Based on bachelor/master level the scope will be adapted.

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Research interest

Urban Air Mobility
UX in future mobility

Focus in this project

VR Simulation of UAM
Design of new interfaces
Conducting a user study