



## Semesterarbeit/Masterarbeit

# Development of a flight mission planning application for an eVTOL aircraft

### Interdisciplinary

#### Description:

Looking for an enthusiastic and self-motivated student with strong background in software development on the android OS. You will be developing an efficient and modular application for flight mission planning on the ground control station of a state-of-the-art conceptual electric hybrid UAV configuration. The aim is to develop an interactive flight planning application that can run on any android device, allows the user to define physically feasible flight paths by considering aircraft limits and displays information about fly-zones along with the weather conditions. The developed application interacts with the on-board flight control computer through a remote-link and feeds flight path information in terms of waypoints to the flight control software. You will also be responsible to demonstrate the interaction between the android device and the flight control computer. You will be participating and contributing in the joint development of autonomous flight control software for an eVTOL aircraft.

#### Work packages:

- WP1: Design of the graphical user interface for the flight mission planning application
- WP2: Development of the flight plan visualization algorithm
- WP3: Extraction algorithm for the no-fly zones and weather conditions
- WP4: Installation on target hardware and demonstrate interaction with the flight control computer
- WP5: Debugging and Testing
- WP6: Documentation

#### Requirements:

- Excellent grades
- Good knowledge and experience with android software development
- Experience with embedded systems is a plus
- Self-motivated and ability to achieve given tasks independently

#### Application:

- CV/Resume
- Grade sheets
- Short description of any previous experience (in ca. 4-5 sentences)

#### Start: Immediately

