



**FACULTY
OF INFORMATION
TECHNOLOGY
CTU IN PRAGUE**

ASSIGNMENT OF MASTER'S THESIS

Title: Cross-platform mobile application for safer drone operations
Student: Bc. Jan Matějka
Supervisor: Ing. Lukáš Brchl
Study Programme: Informatics
Study Branch: Web and Software Engineering
Department: Department of Software Engineering
Validity: Until the end of winter semester 2021/22

Instructions

The thesis aims to analyze, design, and implement a mobile application for safer drone operation. Its primary function is to provide the user with information about flight zones and other drones. The application will also include user registration and login functionality, adding drones, flight planning, and flight history. The application should be implemented in the Flutter framework for Android and iOS and will integrate with the existing backend of Dronetag s.r.o. company.

- Do research about existing solutions for safe drone operation
- Study the existing Dronetag backend interface
- Analyze, design and describe the application architecture
- Use the existing Dronetag backend to implement the mobile app
- Implement a sufficient number of tests to cover key application functionalities
- Document the code
- Test the application from a user perspective
- Evaluate the resulting application and propose its future extension

References

Will be provided by the supervisor.

Ing. Michal Valenta, Ph.D.
Head of Department

doc. RNDr. Ing. Marcel Jiřina, Ph.D.
Dean

Prague February 17, 2020