**FACULTY
OF INFORMATION
TECHNOLOGY
CTU IN PRAGUE**

ASSIGNMENT OF MASTER'S THESIS

Title:	Parking lot detection system
Student:	Bc. Jiří Groh
Supervisor:	Ing. Marek Sušický
Study Programme:	Informatics
Study Branch:	Web and Software Engineering
Department:	Department of Software Engineering
Validity:	Until the end of summer semester 2020/21

Instructions

The main goal of this thesis is to design and implement a system that can process video from a surveillance camera and detect the number of full and empty parking lots. The detection will work autonomously - there will be a search of a defined history if there is a car on a specified place or not.

Provide research on existing techniques that can be used for object detection. Based on your findings, choose the best method. It is possible to combine more methods together.

The user will be able to set up an interval in GUI, which is necessary to identify a lot as a parking lot. In GUI, there will be a dashboard with statistics and the current status - how long the cars are there and how long these lots are unoccupied.

Use standard SW engineering methods in the design and implementation of the system.

References

Will be provided by the supervisor.

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

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

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