



**FACULTY
OF INFORMATION
TECHNOLOGY
CTU IN PRAGUE**

Assignment of master's thesis

Title: Vehicle Routing Problem with Time Windows solved via Machine Learning and Optimization Heuristics
Student: Bc. Adam Zvada
Supervisor: doc. Ing. Pavel Kordík, Ph.D.
Study program: Informatics
Branch / specialization: Knowledge Engineering
Department: Department of Applied Mathematics
Validity: until the end of summer semester 2022/2023

Instructions

The thesis will follow these steps:

- Research state of the art methods for solving VRPTW using optimization heuristics
- Research a various solution which leverages machine learning techniques for solving VRPTW
- Implement selected method for VRPTW using optimization heuristics
- Implement selected method for VRPTW using machine learning techniques
- Benchmark implemented methods on a public dataset and discuss their results in detail.

Electronically approved by Ing. Karel Klouda, Ph.D. on 11 February 2021 in Prague.