

Robust and Resilient Electric Vehicle Routing and Charging for Forest Transport



The goal of the project is to develop (adjustable) robust optimization algorithms to effectively deal with uncertainty and disruption, in routing and charging scheduling of heavy electric vehicles with a multi-objective setting for forest transport scenarios

Expected Results:

- Mathematical multi-objective optimization models for robust vehicle routing and charging scheduling, and algorithms leveraging robust optimization and adjustable robust optimization.
- Implementation and testing of algorithms through computational experiments under realistic forest transport scenarios, for metrics such as delivery timeliness, cost efficiency, and battery health
- A comparative, benchmarking study of the performance of robust planning versus static planning, for proof-of-concept demonstration of resilient forest transport solutions.

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