Propositions

attached to the thesis

Time Window Assignment in Distribution Networks

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I

The precedence inequalities introduced in Chapter 2 can be used to speed up solution algorithms for the Time Window Assignment Vehicle Routing Problem.

(Chapters 2 and 3)

II

Using a branch-price-and-cut algorithm to solve the Time Window Assignment Vehicle Routing Problem is competitive with the state-of-the-art, but only if orientation-symmetry is properly addressed.

(Chapter 3)

III

The main ideas presented in Chapter 3 are not specific to the Time Window Assignment Vehicle Routing Problem and can be applied to other vehicle routing problems with consistency considerations or synchronization requirements.

(Chapter 3)

IV

Dynamic time window adjustments have the potential to improve customer satisfaction by effectively communicating delays to the customers.

(Chapter 4)

V

There is no single best algorithm for optimizing dynamic time window adjustments, as different models benefit from different solution approaches.

(Chapter 4)

VI

Providing real-time information to customers does not necessarily improve customer satisfaction.

VII

In the game of Tower Bloxx, the goal is to build a city that gives the highest possible score. Because different plans can lead to the same result, addressing symmetry as in Chapter 3 is highly effective for solving this problem.

VIII

Universities have a responsibility to provide high quality education. In light of this responsibility, teaching skills are not sufficiently appreciated in academia.

IX

It is more effective to explain advanced methods in simple terms than to resort to complicated mathematics.

X

Spending time to help others with their research is an efficient use of time.

XI

Researchers should celebrate when they submit a paper to an academic journal, rather than wait until the paper is accepted for publication.