Hanne Gunby and Susanne Gustavsen
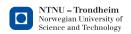
Optimizing bus routes using AI-methods

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Artificial Intelligence Group
Department of Computer and Information Science
Faculty of Information Technology, Mathematics and Electrical Engineering

NTNU – Trondheim
Norwegian University of
Science and Technology

Abstract

Acknowledgements

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Chapter 1

Introduction

AtB is responsible for planning, ordering and marketing public transport throughout Sør-Trøndelag county.

1.1 Motivation

- Why do we want to do this?

- What makes this interesting?

AtB goes with deficit. AtB går med underskudd.

A known problem is rush traffic (takes time to get to work, and not good for the environemt - global warming etc). To mimimize the rush traffic with making more users take public transport, the users must be satisfied. Full busses makes users less satisfied. The passengers can allow to stand on the bus for a maximum of 15 minutes (AtB surveys). New lines has high costs and it takes time for these busses to fill up.

We want to To satisfy more users and not increase the costs. ==¿ optimize.

The current solution of AtB consist of an experience based route network. There has never been done any analysis and it has never been optimized. Optimalisering = nyhetsverdi.

1.2 Goals and Research Questions

This is the main message to the readers

- Which AI methods is best suited for optimization?

- Which factors play the greatest role, regarding optimalization?

- Does this solution help optimizing the bus routes? (Is this solution better than the existing solution) . . .

1.3 Report Overview

- What does this thesis contain

- Give results in a general way

Chapter 2

Related Work

Chapter 3

The Model

This is the main structure of what you built. - Not at code level, but you can include pseudocode. Explain the system in a way the reader understands it. Include diagrams and the algorithms used.

Chapter 4

Results

4.1 Statistical Results

4.2 Individual Runs Results

Chapter 5

Analysis

In this section you should explain why you got the results you did.

Chapter 6

Discussion

Low level answers to the results. Discuss what you managed, and why you had sucess / not success. Show that you understand.

6.1 Future Work

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