CS6100 Course Project
Report

Chriostofides' short-cutting heuristics for Euclidean Travelling salesman problem

Submitted in partial fulfillment of
the requirements for the award of the degree of

Bachelor of Technology
in
Computer Science and Engineering

Submitted by

Roll No	Names of Students
CS17B005	A. Subhash
CS17B011	D. Varun Teja
CS17B012	D.M.S Krishna
CS17B021	P. Jaitesh

Under the guidance of
Prof. B. V. Raghavendra Rao

Department of Computer Science and Engineering
IIT Madras

Abstract

Several $O(n), O(n^2)$ shortcutting heuristics are described which are used in Christofides' algorithm for solving n-city travelling salesman problems whose cost matrix satisfies the triangularity condition. The Christofides' algorithm invovles computation of a shortest spanning tree of the graph G defining the TSP, and finding the minimum cost perfect matching of a certaing induced subgraph of G.

Contents

List of Figures

Chapter 1

Problem Definition

¡Problem Definition here¿

Chapter 2

Introduction

2.1 Background and Recent Research

2.1.1 ¡any sub section here¿

2.1.2 Literature Survey

¡Sub-subsection title¿

some text[1], some more text

¡Sub-subsection title¿

even more text[1], and even more.

2.2 Motivation

[1] ¡footnote here¿

Chapter 3

Work Done

3.1 Short-cutting heuristics

3.1.1 ¡Sub-section title¿

3.1.2 ¡Sub-section title¿

some text[2], some more text

3.1.3 ¡Sub-section title¿

3.1.4 ¡Sub-section title¿

Refer figure 3.1.

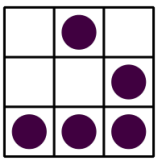

Figure 3.1: ¡Caption here¿

3.1.5 ¡Sub-section title¿

3.2 ¡Section title¿

Chapter 4

Future Work

¡Future work here¿

Chapter 5

Conclusion

¡Conclusion here¿

Acknowledgments

¡Acknowledgements here¿

¡Name here¿

¡Month and Year here¿
National Institute of Technology Calicut

References

[1] ¡Name of the reference here¿, `<urlhere>`

[2] ¡Name of the reference here¿, `<urlhere>`