# Hierarchical clustering for solving Travelling Salesman Problem

## Alice Y. Yang

School of Electrical & Information Engineering, University of the Witwatersrand, Private Bag 3, 2050, Johannesburg, South Africa

**Abstract:** The purpose of this document is to provide an easy-to-use template/style sheet to enable authors to prepare papers in the correct format and style for the final year laboratory project. This document may be downloaded from the School of Electrical and Information Engineering web site and can be used as a template. To ensure conformity of appearance it is essential that these instructions are followed. The abstract should be limited to 50-200 words, which should concisely summarise the paper.

Key words: Four to six key words in alphabetical order, separated by commas.

#### 1. INTRODUCTION

This document is a "template" for LATEX. An electronic version of this document is available in MS Word, LaTeX or PDF format to use as a template at http://school.eie.wits.ac.za/elen417. In LATEX, type over the sections of this document or use the included style files with your own source document.

The length of the finished paper should not exceed 6 pages of A4 size paper. Do not change the font sizes or line spacing to squeeze more text into this page limit. Use *italics* for emphasis; do not underline.

- [4] P. Vas. "Simulation and monitoring of induction motors with motor asymmetry." In *Proceedings* of the 6th International Conference on Electrical Machines, pp. 435–439. Manchester, May 1992.
- [5] A. Oppenheim and R. Shafer. *Discrete-time signal processing*, chap. 3, pp. 82–112. USA: Prentice-Hall Inc., first ed., Aug. 1989.

#### 2. Literature Review

#### Solutions

P	Optimal	Hierarchical clustering	Lower tier clustered
att48	33522.0	41328.0	41131.0
eil51	426	531.0	544.0
berlin52	7542.0	9413.0	9930.0
st70	675	847.0	
eil76	538	685.0	
sgb128		24376.0	
tsp225		5150.0	

## 3. CONCLUSION

A conclusion may review the main points of the paper, but do not replicate the abstract as the conclusion.

## **REFERENCES**

- [1] S. M. Graham, A. Joshi, and Z. Pizlo. "The traveling salesman problem: A hierarchical model." *Memory & cognition*, vol. 28, no. 7, pp. 1191–1204, 2000.
- [2] G. H. Muller and C. Landy. "Detection of broken rotor bars, Part 1 - new theory." SAIEE Transactions, vol. 95, no. 1, pp. 7–18, Mar. 2003.
- [3] L. Finn, R. Mulholland, and G. Gibbon. "Design and implemention of a prototype computer based rehabilitation device for the lower extremities." *SAIEE Transactions*, vol. 95, no. 1, pp. 29–32, Mar. 2003.