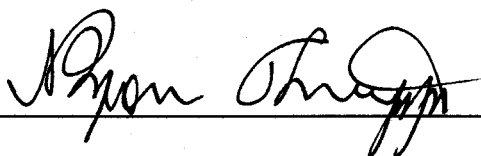Name   :   Mr. Sakda Cherdshant

Thesis Title   :   A Computer Program for The Selection of Optimum Stations and Heights

of Transmission Towers

Major Field   :   Civil Technology

Thesis Advisors :   Assoc. Prof. Dr. Nipon Thiensiripipat , Mr. Wirash Usha ,

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Abstract

The objective of this thesis was to write a computer program for optimum tower spotting for high voltage transmission line design using Dynamic Programming method.   The program name was TLSPOT . This program was written on Visual Basic 4.0 for Windows 95 , run on a micro-computer. The concept for optimum tower spotting is based on the minimum cost . The input data are ground survey data , prohibitive zones , tower characteristics , conductor properties , structure costs , catenary constants and transmission line design criteria. The program will select optimum stations and tower heights for three spans at a time. The optimum stations will be obtained by ranging the minimum to maximum spans for which a span increment is assigned . Later it will process the next three spans along the survey line. The outputs are displayed in text and graphic formats. The results between this program and TLCADD program which is now in use are close within approximately three percents. This Thesis gave fundamental principle and concept of optimum tower spotting. The computer program gave results which met the objective. It should be useful to civil engineers and transmission line designers.

_____ Committee Chairperson