SOFTWARE DEVELOPMENT USING C PROGRAMMING TO CALCULATE THE CABLE WEIGHT IN CABLE DESIGN

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ABSTRACT

The manual calculation performed during designing a cable can be difficult and may create errors. This paper describes developed software that is proposed to perform the calculation of the weight and earth fault current in cable design process. The developed software provides a more accurate and faster results compared to the manual method. The software is developed c programming

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CHAPTER 1

INTRODUCTION

1.1 Introduction

Cable is an important element in electrical distribution. Therefore, designing a cable has to be done carefully to obtain the required cable parameters. Certain specification also has to be followed to obtain a perfect cable.

In designing a cable, several calculations have to be performed to obtain certain parameters. These calculations, when performed manually can be difficult and therefore may create error in the results. Automatic calculation using computer software provides the solutions more easily. C programming is used as the tool in developing the software for calculating the cable weight.

1.2 Scope of Work

The main objective of this project is to develop a program that will be used to calculate the cable weight and earth fault current. During completing this thesis includes the usage and manipulate the components in the C program to develop a program for calculation purposes in designing a cable. In order to develop the software for the above purposes, certain calculation have to perform such as calculating the cable weight.

The cable weight is the main component in designing the cable and it is the first step to be taken. To achieve the result, the consumption of the time and energy factor is very essentials, and this element is considered during developing the program. By using the developed software, the weight of the cable can be obtained and also it provides the result for all type of voltage that is 1KV, 11 KV, and 132 KV that are available in the market nowadays. The developed software also has to consider all the components in cable design such as the