

**SOFTWARE FOR TEACHING AID:
ELECTRICAL POWER ENGINEERING CONCEPT**

This project report is presented in partial fulfillment for the award of the
Bachelor of Electrical Engineering (Hons.)

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ABSTRACT

The main objective of this project is to design a software especially for Electrical Engineering students and to assist them in learning the electrical power engineering subject. The project centered on the Computer Aided Education software and it was developed by using Matlab and Simulink programming languages. The text and graphics are included to provide simulation of the electrical power engineering concepts and also to be an interactive teaching notes, diagrams, and interactive graphics. The learning process using this software becomes more stimulating, easier to understand. The potential of the software includes; expanding the contents, assisting and improve the teaching and learning process. All the features in this software are user friendly and interactive.

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CHAPTER 1

INTRODUCTION

1.1 Introduction to Computer Aided Education (CAE)

The increase availability of microcomputers in recent years has driven users toward development of software packages. This is not only integrating the computers in the undergraduate curriculum to a larger extent, but also provide valuable tools for learning and teaching especially in simulation of electrical power systems [1].

In teaching and learning of the electrical power engineering discipline, the real challenge is to enable student to understand its concepts and the relationship with the real life situation. In order to overcome this challenge, a software package called Computer Aided Education (CAE) is developed to provide simulation of electrical power engineering concept, interactive teaching notes, interactive diagrams and animated graphics (limited due to constant), which facilitate the learning process.

CAE is a software for generating and executing lessons by users. The package consists of brief documentation notes, examples, and simulations. This project was implemented using off the shelve software, MATLAB 6.5 packages for documentations, and interface by using Graphical User Interface (GUI) and the simulations by Simulink.

1.2 Objective of this Project

The main objective of this project is to develop a Computer Aided Education (CAE). The CAE is targeted to be used in teaching and learning the electrical