# AN INTERACTIVE COMPUTER-BASED LEARNING USING INTERNET FOR ELECTRICAL ENGINEERING STUDENT (SYNCHRONOUS GENERATOR)

Project report is presented in partial fulfillment for the award of the Bachelor of Electrical Engineering (Honours)
UNIVERSITI TEKNOLOGI MARA



ABDUL RAHMAN BIN MINHAT Faculty of Electrical Engineering UNIVERSITI TEKNOLOGI MARA 40450 SHAH ALAM, SELANGOR.

## **ACKNOWLEDGMENT**

In the name of Allah S.W.T, the Most Gracious, the Praise to Allah, who has given me the strength and ability to complete this project.

I would like to take this opportunity to sincerely express my special gratitude to my supervisor, Puan Bibi Norasiqin Sheikh Rahimullah for her guidance, fullest commitment, encouragement, cooperation and ideas towards the progress of this project.

My sincere gratitude to all my fellows who help me, directly or in directly. Thanks for their suggestion and contribution that made my project successful.

Lastly, thank you very much to my beloved wife Halimi Mohd Khalid and my children who had given support and invocation for my success. Without their support, I will not be able to complete this project.

# **ABSTRACT**

This report describes an Interactive-Computer-Based Learning (ICBL) system using the Internet, which is developed for electrical engineering student in higher educational center. The platform of ICBL is to use the website technique for improving the conventional learning by providing interactive notes, animated graphics, working examples, feedback form and quiz through the web.

# **TABLE OF CONTENTS**

| CHA                | APTER  |                                      |                                     | PAGE |  |
|--------------------|--------|--------------------------------------|-------------------------------------|------|--|
| DEC                | CLARAT | 'ION                                 |                                     | 1    |  |
| DEDICATION         |        |                                      |                                     | 11   |  |
| ACKNOWLEDGMENT     |        |                                      |                                     | 111  |  |
| ABSTRACT           |        |                                      |                                     | iv   |  |
| TABLES OF CONTENTS |        |                                      |                                     | v    |  |
| LIST OF FIGURES    |        |                                      |                                     | VII  |  |
| 1                  |        | INTR                                 |                                     |      |  |
|                    |        | 1.1                                  | Introduction                        | 1    |  |
|                    |        | 1.2                                  | Background Overview                 | 3    |  |
|                    |        |                                      | 1.2.1 The Internet                  | 3    |  |
|                    |        |                                      | 1.2.2 The World Wide Web            | 3    |  |
|                    |        |                                      | 1.2.3 Pages                         | 4    |  |
|                    |        |                                      | 1.2.4 Web Browser and Web Servers   | 4    |  |
|                    |        | 1.3                                  | Scope of the thesis                 | 5    |  |
|                    |        | 1.4                                  | The organization of the Thesis      | 6    |  |
| 2                  | MICI   | MICROSOFT FRONTPAGE 2000 ENVIRONMENT |                                     |      |  |
|                    | 2.1    | Introd                               | 7                                   |      |  |
| 3                  | SOF    | SOFTWARE DEVELOPMENT                 |                                     |      |  |
|                    | 3,1    | Introd                               | 13                                  |      |  |
|                    | 3.2    | Web                                  | 13                                  |      |  |
|                    | 3.3    | Using                                | 15                                  |      |  |
|                    | 3.4    | Build                                | 16                                  |      |  |
|                    |        | 3.4.1                                | Steps creating new page             | 16   |  |
|                    |        | 3.4.2                                | Marquee effect on the word selected | 18   |  |
|                    |        | 3.4.3                                | Hyperlink text                      | 18   |  |

### CHAPTER 1

#### INTRODUCTION

## 1.1 Introduction

In engineering education today, there is a growing movement to integrate into the curriculum several aspects of "real-life" engineering including design, teamwork, and communication skills [1]. Also, the ability to access, synthesize, and present information is quickly becoming a mandatory skill in nearly every profession. One needs to look only as far as the explosion in popularity of the World Wide Web to see how the concept of information is encompassing not only the traditional linear structure (page 1, 2, 3...) but also the computer-based, hypermedia labyrinth. One outlook foresees hypermedia as a pervasive purveyor of information in higher education [2]; however, similar arguments can be extended to nearly all professional fields including engineering. In short, engineering graduates must be equipped with abilities beyond core technical knowledge.

The computer language, HTML, used for Web pages is fairly simple, but it is still capable of producing a range of substantive applications [3], a prerequisite for this project. Consequently, the users could concentrate their efforts on content and developing critical skills rather than learning an esoteric programming language. Another purpose of the Web-authoring exercise stemmed from experience with typical student projects in a written format: after marking, the reports are seldom used again. Many projects are quite good and should be available as a resource or as a basis for further investigation. A Web format extends the utility of projects beyond the end of the semester because they are readily accessible on computer.