

Higher Technical Institute
ELECTRICAL ENGINEERING DEPARTMENT

DIPLOMA PROJECT

**DESIGN OF ELECTRICAL SERVICES OF A
MULTISTOREY BUILDING**

BY
KOUZARAS MICHALIS
E/1162

JUNE 1999

HIGHER TECHNICAL INSTITUTE
ELECTRICAL ENGINEERING DEPARTMENT
DIPLOMA PROJECT
DESIGN OF ELECTRICAL SERVICES OF
A MULTISTOREY BUILDING

E. 1168

KOYZAPAS MICHALIS

JUNE 99

HIGHER TECHNICAL INSTITUTE	PROJECT NO 2965
----------------------------------	--------------------

DESIGN OF THE ELECTRICAL INSTALLATION OF A MULTISTOREY BUILDING

Project submitted by:

MICHALIS KOYZAPAS

In part satisfaction of the award of
DEPLOMA OF TECHNICIAN ENGINEER in
ELECTRICAL ENGINEERING OF THE HIGHER
TECHNICAL INSTITUTE, CYPRUS

Project Supervisor
Mr. G.Kourtellis
Senior Lecturer H.T.I

HIGHER TECHNICAL INSTITUTE	PROJECT NO. 2965
----------------------------------	---------------------

ACKNOWLEDGMENTS

I would like to express my sincere gratitude to my project supervisor Mr. George Kourtellis lecturer of H.T.I for his guidance and motivation.

Furthermore I would like to thank the personnel of all companies in the Cyprus market for the technical information's they provided me for this project especially the CYPRUS FORREST INDUSTRIES.

The design represented on the left is the first time that the design was used on the left.

1. To do this, first the design was used on the left.

2. To do this, first the design was used on the left.

- a) power
- b) light
- c) tele
- d) Air

3. To do this, first the design was used on the left.

Terms at

- 1. Three
- 2. Arch
- 3. The code
- 4. CYT

**DEDICATED TO MY
FAMILY WHO OFFERED
ME SO MUCH**

GENERAL INTRODUCTION

The design of the electrical services of a multistorey building are represented in this project. The building it consists of a parking area on the underground floor, a big shop in the ground floor and the mezzanine.

In the first and second floor there are two companies (offices). Finally there is a luxury house on the third floor.

The main objective of this project were

1. To design the complete electrical installation of a building which includes the following
 - a) power
 - b) lighting
 - c) telephone distribution
 - d) Air conditioning
2. To provide lightning protection.
3. To provide all necessary diagrams schedule of materials and costing.

Terms and conditions

1. Three-phase 415V rms. 50Hz, T.T earthing system.
2. Architectural drawing will be provided.
3. The illumination design must be in accordance with CFBS code.
4. CYTA requirements to be taken into consideration.

CONTENTS

ACKNOWLEDGMENTS
SUMMARY
INTRODUCTION

CHAPTER 1 -ILLUMINATION DESIGN

- 1.1 INTRODUCTION
- 1.2 ADVANTAGES OF GOOD ILLUMINATION
- 1.3 USEFUL DEFINITIONS AND UNITS
- 1.4 RULES FOR ENERGY EFFICIENT LIGHTING

- 2 ILLUMINATION DESIGN PROCEDURE
- 2.1 METHODS OF ILLUMINATION CALCULATIONS
- 2.2 CALCULATION PROCEDURE
- 2.3 TYPICAL CALCULATIONS
- 2.4 RESULTS OF ILLUMINATION DESIGN