

H. T. I.

ELECTRICAL ENGINEERING COURSE  
DIPLOMA PROJECT

DESIGN OF THE ELECTRICAL SERVICES  
OF A TELEPHONE CENTRE

E / 1138

SERGIS SYMEOU

1998

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HIGHER TECHNICAL INSTITUTE	PROJECT NO.  2873
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*I would like to dedicate this project to my girlfriend  
Kika Kyprianou and express my thanks to her for  
helping me with the completion of this project.*

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ACKNOWLEDGMENTS

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## SUMMARY

The electrical installation and services of a Telephone centre are composed from the design of the lighting and power circuits, the design of the fire alarm system, the lightning protection system and finally the telephone installation.

Great concern is given about safety as all the necessary calculations are made. Safety is the most important thing that is taken into consideration when an electrical installation is designed.

Safety for all other external or internal conditions is made(i.e. Fire alarm and lightning protection system).

The telephone system T16 (8/16) was used for this particular design.

The estimation of the cost is based on the running cost of materials used and the present existing labor cost.

## INTRODUCTION

The project, as its title states, is the design of the electrical services of a telephone centre. More specifically, the basic aims to study were the following:

- a. Power**
- b. Lighting**
- c. Telephone Distribution**
- d. To provide lightning protection for explosive areas.**
- e. To provide all necessary diagram schedules of materials and costing including labour.**

The lighting load was determined in accordance with the study of the illumination engineering work. During the illumination design, care was taken so as all requirements comply with the CIBS codes for interior lighting. The selection of the required number, kind of position of any other load, had been taken after an examination of the work carried at each area.

In carrying out the design of the whole installation, the I.E.E (16th edition ) regulation as well as the local regulations established by the E.A.C were taken into account.

The telephone installation was designed by considering all CYTA requirements and regulations.