

HIGHER TECHNICAL INSTITUTE

**ELECTRICAL ENGINEERING
DEPARTMENT**

DIPLOMA PROJECT

**DESIGN OF THE ELECTRICAL
INSTALLATION OF A MULTISTOREY
BUILDING**

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JUNE 1994

HIGHER TECHNICAL INSTITUTE	PROJECT NO. 2297
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ACKNOWLEDGEMENTS

I would like to express my sincere thanks to my project supervisor Mr. J. Demetriou for his guidance during the whole process of this project.

Also I would like to thank Mr. A. Tsialis and Ms. E. Epiphaniou who have kindly undertaken the responsibility of typing the project.

Finally I would like to thank Mr. Y. Neophytides who has given to me the architectural drawings of the building.

INTRODUCTION

In this project, the Electrical Installation of a multistorey building is represented. The building consists of four shops and thirteen flats. The floors are not identical, except of some parts, as it is shown in the electrical drawings at the back of the project.

The purpose of this project is to represent as good as possible to the reader, the procedure followed for the electrical installation design of such a building. The main objectives are:

1. The study of the illumination design procedure, i.e. calculating and locating the number of lighting fittings in all premises.
2. The calculation of the supply cables, type and rating of protective devices for all circuits. Give information concerning the conduit runs and location of switches and other relevant items.
3. The Telephone Installation design. Schematic and wiring diagrams including information for the conduit runs and location of telephone points and distribution cases.
4. To provide all necessary schedules of materials and costing including labour expenses.

Some information and data

The EAC (Electricity Authority of Cyprus) power supply to the building is a three-phase 415Vrms, 50Hz. The earthing system to be used is the T-T system.

The IEE Wiring Regulations 16th Edition (Also the 15th) were followed in every step of the project procedure, as well as the local EAC conditions of supply.

The illumination design was in accordance with the CIBS code.

CYTA requirements were taken into consideration as well.

The external resistance, Z_e , is taken to be equal to $Z_e = 0.4$ Ohms.

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