

HIGHER TECHNICAL INSTITUTE

ELECTRICAL ENGINEERING COURSE

DIPLOMA PROJECT

**DESIGN OF THE ELECTRICAL SERVICES
OF A BUILDING**

E. 1398

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JUNE 2006

**DESIGN OF THE ELECTRICAL
SERVICES OF A BUILDING**

**PROJECT REPORT SUBMITTED BY
CHRISTOS ZISIMOU**

**TO THE DEPARTMENT OF ELECTRICAL
ENGINEERING OF THE TECHNICAL
INSTITUTE
NICOSIA – CYPRUS**

**IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE DIPLOMA OF**

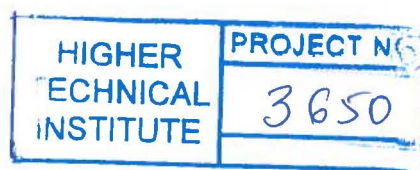
TECHNICIAN ENGINEERING

IN

ELECTRICAL ENGINEERING

JUNE 2006

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ENGINEERING DEPARTMENT, H.T.I.**



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ACKNOWLEDGEMENTS

Also I would like to thank the engineers who helped in providing necessary information such as specifications, technical data, price lists of equipment used or suggesting methods for better presentation of the project.

I would like to express my thanks to my project supervisor, Mr G. Kourtellis lecturer of the Electrical Engineering Department of HTI, for his valuable guidance and assistance for the completion of this project.

SUMMARY

The purpose of this work is to study and examine the design of the electrical services of a building. This building is a Telecommunication station of CYTA. The design must be carried out with care and responsibility as it is directly involved with the safety of people, livestock and property.

The whole design must be carried out in accordance to IEE wiring regulations 16th edition, EAC and CYTA regulations.

The design of the electrical services of the building is explained in detail in the main body of the report. The main body is divided into 12 chapters to simplify the study of the project.

At the end of the report appendices are included giving specifications for the devices and equipments used.

And eventually detailed architectural drawings are provided showing the locations of the equipment used.

INTRODUCTION

Precisely this project examines the electrical services of a building

The report consisted by the following designs:

- Illumination
- Lighting circuit
- Socket outlet circuits
- Power (stand by generator and batteries)
- Fixed electrical appliances
- Air conditions
- Supply cables to the distribution boards and balancing
- Single line diagrams
- Lightning conductor
- Fire alarm
- Intruder alarm
- Telephone system

After the design is completed, costing of materials and equipments used must be evaluated, including labour

The project is undertaken from the following terms and conditions:

- Supply: Three phase 415Vrms, TT earthen system
- Z_e : External earth fault loop impedance = 0.5 Ω
- The whole design is based on IEE wiring regulations 16th Edition, CIBS code for illumination design, EAC conditions of supply and CYTA requirements.