

**HIGHER TECHNICAL INSTITUTE**

**ELECTRICAL ENGINEERING DEPARTMENT**

**DIPLOMA PROJECT**

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

**E.1356**

**CHRISTODOULOS  
CHADJICHRISTODOULOU**

**JUNE 2004**

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Christodoulos Hadjichristodoulou

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## **Introduction**

The project deals with the design of electrical services of a multi-storey building (block of flats).

This building consists of 4 floors with 2 flats each floor, small parking, house to the ground floor, store places, machine rooms and garden.

The design of each one of the services in the building was in accordance with the appropriate regulations in the sector. After each one of the regulations was applied care was taken to obey it when selecting the appropriate materials and when calculating all the results used. Here the diversity factor taken into account was considered according to the needs of the building.

## **Main Objectives of the project**

- 1) To design the complete electrical installation of a Multistorey Building which includes the following:
  - (i) power
  - (ii) lighting
  - (iii) telephone and TV distribution
  - (iv) lightning protection
- 2) To provide all necessary diagrams schedule of materials and costing including labour.

## **Terms and Conditions**

1. Three-phase 415 Vrms 50Hz, T.T. erthing system.
2. Architectural drawing will be provided.
3. The IEE Wurring Regulations 16<sup>th</sup> Edition as currently amended and the local EAC conditions of supply must be complied.
4. The illumination design must be in accordance with the CIBS code.
5. CYTA requirements to be taken into consideration.

# ELECTRICAL INSTALLATION

The purpose of the electrical installation is to make available electrical energy wherever is required:

- A) With maximum safety.
- B) With proper capability of supplying the current for the usage required and for possible future extended usage.
- C) With maximum reliability.
- D) With maximum flexibility to provide for change in usage and extension.

In every installation the Electrical Authority provides a main fuse and kwhr meter. These are property of the Authority and they are sealed.

After the kwhr meter the responsibility for the installation lies entirely with the consumer. The electrician is therefore responsible for handing over to the consumer a proper wiring installation, which will be, inspected and tested.