

HIGHER TECHNICAL INSTITUTE

ELECTRICAL ENGINEERING DEPARTMENT

DIPLOMA PROJECT

DESIGN OF THE ELECTRICAL SERVICES

OF A BLOCK OF FLATS

E. 1196

BY: PANAYIOTOU CHRISTOS

JUNE 1999

HIGHER TECHNICAL INSTITUTE	PROJECT NO. 2992
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**ELECTRICAL ENGINEERING COURSE**

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# **ELECTRICAL SERVICES OF A BLOCK OF FLATS**

**Project report by**

**PANAYIOTOU CHRISTOS**

**For the fulfillment of the requirements of the diploma for the**

**TECHNICIAN ENGINEERING**

**IN**

**ELECTRICAL ENGINEERING**

**Project supervisor: Mr. A Georgiou**

**Type of project: Individual**

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## **GENERAL INTRODUCTION**

This project deals with the design of electrical services of a specified block of flats.

The block of flats consists of 3 floors and a parking area on the ground floor. The first floor consists of two flats and the other two floors consist of three flats.

## **MAIN OBJECTIVES OF THIS PROJECT**

- 1) To study the illumination engineering work involved.
- 2) To design the complete electrical services for a specified block of flats which includes the following:
  - (a) Power and lighting
  - (b) Telephone installation
  - (c) Burglar alarm
- 3) Lightning protection system
- 4) To provide all necessary diagrams schedule of materials and costing including labor.

## **TERMS AND CONDITIONS**

- 1) Supply voltage 415/240V , 50Hz ,T.T earthing system.
- 2) IEE 16th edition and EAC regulations must be complied with.
- 3) CYTA regulations
- 4) Wiring method: In conduit(method 3)
- 5) Cables: PVC copper cable single core non-armored.
- 6) The efficiency and power factor of high power circuits where not given and must be taken to be 0.8.
- 7) The external earth fault loop impedance is chosen to be 0.5.