# HIGHER TECHNICAL INSTITUTE

# ELECTRICAL ENGINEERING DEPARTMENT PROJECT

# DESIGN OF THE ELECTRICAL SERVICES OF A LEATHER FACTORY

E.1205

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# **CHAPTER 1**

# **INTRODUCTION**

The purpose of this project is to design the electrical installation of a leather factory. An electrical installation includes illumination and lighting calculations, socket outlet and fixed appliances load calculations, machine load calculations, telephone installation and fire and burglar alarm. All the above are divided into chapters and are examined carefully based on the 16 <sup>th</sup> edition of IEE Regulations.

A brief explanation of the chapters is showed below.

#### CHAPTER 2

It deals with the illumination calculation and with the lighting load calculations.

#### CHAPTER 3

It includes socket outlet load calculations.

#### CHAPTER 4

It deals with the fixed appliance loads that are in the factory.

#### CHAPTER 5

It includes machine load calculations.

#### CHAPTER 6

It deals with the telephone installation of the factory.

#### CHAPTER 7

It deals with the distribution board ratings and the cables used.

#### CHAPTER 8

It includes the fault level calculations of the factory.

#### CHAPTER 9

It includes the power factor correction calculations.

#### CHAPTER 10

It deals with the fire alarm system.

#### CHAPTER 11

It deals with the burglar alarm system.

#### CHAPTER 12

It deals the costing of the installation that includes material and labour cost.

#### CHAPTER 13

Conclusions.

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