

PROJECT REPORT

**Project Submitted by
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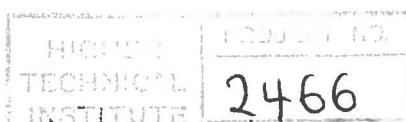
DEVELOPMENT OF A PROGRAMMABLE LOGIC CONTROLLER BASED PACKING MACHINE

**In partial fulfilment of the requirements of the award of the
Diploma of the Technician Engineer in Electrical Engineering of the
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CYPRUS**

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SUMMARY

TITLE: Development of a Programmable Logic Controller (PLC) Based Packing Machine

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The report investigates the programming capabilities of a "ladder language". It also examines the characteristics and capabilities of Programmable Controllers. Then an application program using the Programmable Controller for the control of a cigarette packing machine is made. Finally the program analysis, costing and comparison with conventional methods are given.

The application program is based on the Allen-Bradley SLC 500 Programmable Controller's instruction techniques and the P.L.C. of the H.T.I

INTRODUCTION

The main objective of this project is to develop an application program using the programmable controller for the control of a Cigarette packing machine.

For this reason a "ladder diagram" was constructed using the "ladder language".

This report also gives an overall description of the Programmable Logic Controller (PLC's) as far as their characteristics, capabilities and programming are concerned.

More particularly the whole project is divided into six (6) chapters each one subdivided into subsections.

An introduction on PLC's is made in Chapter 1 where the definition, history, Advantages and disadvantages of PLC's are described.

Chapter 2 describes the components and modules that make up a PLC system. More over this chapter gives a brief idea about the internal operation of the PLC's.

Programming languages, and especially the Ladder diagram language are examined. In addition the basic PLC function are analysed.

These can be found in chapters 3 and 4.

Chapter 5 refers to the actual case study problem and to the explanation of the ladder PLC program rung by rung.

Chapter 6 provides costing and comparison with conventional methods.

The main purpose of this report is to provide a basic and outlined knowledge on PLC's and their applications. Moreover it intends to get the reader familiar by dealing with a certain application and giving the explanation of the Program and an overall costing of the system.