

HIGHER TECHNICAL INSTITUTE

ELECTRICAL ENGINEERING COURSE

DIPLOMA PROJECT

DIGITAL COUNTER DEMONSTRATION UNIT

E/979

KYRIACOU ANDREAS

1995

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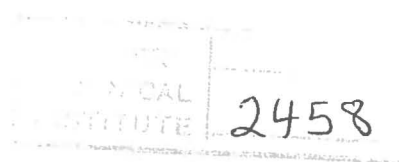
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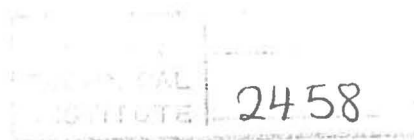
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DIGITAL COUNTER DEMONSTRATION UNIT

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KYRIACOU ANDREAS
TO THE
ELECTRICAL ENGINEERING DEPARTMENT
OF THE
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SUMMARY

The main aspect of this project is to examine the several timer modes of a multipurpose programmable device.

This device is specifically designed to be compatible with a microprocessor control unit. A unit which together with a proper designed interfaced card will give and take information and by this it will control the whole system.

This project is dealing with the design, construction and development of the necessary software to test and control this unit. Any information regarding the parts of this project mentioned above are found in the following chapters.

Note: This project assume that the reader have some background in digital logic and microprocessor

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INTRODUCTION

Microcontrollers are widely used in every aspect of our lives and have begun to play a significant role in all industrialised societies.

Some applications of the microcontrollers are in Traffic lights control, robotics systems and domestic appliances.

In this project the MTB 85-1 microtarget board is used as the microcontroller in the design and construction of the interfaced card on which the whole project depends on. The central element of this microcontroller is the 8085 microprocessor and all the operations performed depend on it.

In addition to that this microtarget board includes the 8155 multipurpose device. This device consists of a timer on which the whole philosophy of counting is done. Furthermore the 8155 has 3 I/O ports which are also used on the interfaced card. Two of them are used as Input ports and the other as Output port.

The MTB 85-1 microtarget board and the interfaced card are described in detail in following Chapters.

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