HIGHER TECHNICAL INSTITUTE

ELECTRICAL ENGINEERING COURSE

## **DIPLOMA PROJECT**

# DEVELOPMENT OF A COMPUTERICED MAP POSITION INDICATOR

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## HIGHER TECHNICAL INSTITUTE

**NICOSIA - CYPRUS** 

ELECTRICAL ENGINEERING DEPARTMENT

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## "DEVELOPMENT OF A COMPUTERICED MAP POSITION INDICATOR"

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# DEVELOPMENT OF A COMPUTERISED MAP POSITION INDICATOR

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Project report submitted to the Department of Electrical Engineering of the Higher Technical Institute Nicosia - Cyprus in partial fulfilment of the requirements for the diploma of

# **TECHNICIAN ENGINEER**

### IN

## **ELECTRICAL ENGINEERING**

Project supervisor: Mr M. Kassinopoulos

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### CONTENTS

ACKNOWLED	GEMENTS			
SUMMARY				
INTRODUCT	ION			1
CHAPTER 1				3
COMPUTER I	INTERFACING	<b>PRINCIPLES</b>		
1.1	GENERALLY	ABOUT COMPUTERS		4
1.2	BASIC PARTS OF AN IBM - PC			5
	1.2.1	IBM Bus Expansion Slots		7
	1.2.2	Bus Signals		8
	1.2.3	Power on the Bus		11
1.3	PROGRAMMING LANGUAGE LEVELS			11
	1.3.1	Programming Language Features		14
CHAPTER 2	:			
BLOCK DIAG	GRAM OF THE	WHOLE PROJECT		17
2.1	INTERFACE	CARD		18
	2.1.1	Latch Circuit		19
	2.1.1	Decoding Circuit		19
2.2	EXPLANATIC	ON OF THE WHOLE PROCESS		21
2.3	USE OF PRO	JECT AT THE FIRE STATION		26
2.4	OPERATION	AND ATTENDANCE OF TELEPHONE		
	SERVICE			27
	2.4.1	Telephone Office Competive		27
2.5	ADVANTAGES	OF THE PROJECT COMPARATIVELY		
	WITH THE P	ROCESS OF THE FIRE - BRIGADE		29

Contents

CHAPTE	3R 3	•	
INTERFACING			
3	3.1	GENERALLY ABOUT INTERFACING	32
3	3.2	SCHEMATIC DIAGRAM OF THE CARD SYSTEM	32
3	3.3	OCTAL BUS TRANSCEIVER WITH	
		3-STATE OUTPUTS	34
3	3.4	8 - BIT MAGNITUDE COMPARATOR	36
		3.4.1 Pin Description	37
3	3.5	QUANT 2-INPUT OR GATE	39
3	3.6	ADDRESSING	
CHAPTE	SR 4:	•	
DECODI	(NG		43
4	.1	DIGITAL ELECTRONICS	44
		4.1.1 History	44
		4.1.2 Applications	47
4	1.2	BASIC OPERATIONAL CHARACTERISTICS	
		AND PARAMETERS	
		4.2.1 Explanation of Data Sheet	
		Parametres	48
4	1.3	4-BIT PARALLEL - ACCESS SHIFT REGISTERS	51
		4.3.1 Functional Description	53
		4.3.2 Absolute Maximum Ratings	54
4	.4	BUFFER AND INTERFACE GATES	55
4	.5	4 - TO - 16 - LINE DECODERS	57
4	1.6	HEX INVERTER	60
CHAPTE	R 5:	:	
SOFTWA	SOFTWARE IMPLEMENTATION		
5	5.1	GENERALLY ABOUT PROGRAMMING	64
		5.1.1 The "Quickbasic Version 4.5"	65
5	5.2	QUICKBASIC LANGUAGE PROGRAMMING	66
		5.2.1 Important Details	67
		5.2.2 Advantages of the program	69
5	5.3	USER'S MANUAL	69
			127-27446

5.3.1 Hardware and Software Requirements 75

Contents

CHAPTER 6:		
COSTING AND TESTING		76
6.1 TESTING AND	TROUBLESHOOTING	77
6.2 COSTING		78
6.3 COMENTS AND	CONCLUSIONS	79

REFERENCES

APPENDICES

INTERFACE CARD

SCHEMATICS AND PCBs

SOFTWARE LISTING

Contents

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### DEVELOPMENT OF A COMPUTERISED MAP POSITION INDICATOR

By: Costa Chryso

#### Summary:

The main objectives of this project were to design construct and test Electronic circuit for a Map Position Indicator and an Interface Card for th processing of the data through a P.C. Also to write and test an appropriate software for the operation of the system.

The project relies on both hardware and software. The first four chapters are related to hardware. To be more specific the Computer Interfacing principle are emphasized and various signals are explained, an introduction to interfacing and decoding, the block diagram of the whole project and its explanation, and how this project will help Fire - Brigade stations.

The fifth chapter explains the software implementation, the environment and the listing of the program.

At the last chapter testing is examined and the troubleshooting of the various parts of the interfacing card. The costing and the comments and conclusions.

Summary

### INTRODUCTION

Computers are an essential tools of modern society. In the fourty or 50 years, since their beginnings in back rooms of universities and military research establishments, they have become the centre of an enormous industry. They have found a place in offices and factories, have landed on the moon, and will perhaps soon be as common as watches. Α constant flow of new ideas, new devices, and new applications has kept up the development, pace which shows no signs of slowing down.

In their early days computers had the image of mysterious electronic brains with enormous power and a will of their own. With computers now being sold by the million, and more and more people working with them, much of this mystery has disappeared. Computers are seen to be reliable, fast and efficient, but, like other machines, are capable of occasional breakdown.

This familiarisation with the computers has lead to a point where everything is want to be controlled or just observed by a computer. This project is somehow a Data Acquisition System getting data from the computer and by the proper software control a map position indicator. The program as the interfacing card are the motive power of the system. The circuit is designed for indicating up to 256 points of Nicosia.

The project consists of the software the interforing card, the Latching circuit, the Decording circuit and the Map. The user will be able to understand how it works without any difficulty. On the screen, there will be a program with various suburbs, and the user can choose one of them. After

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this, an address from the suburb will be choosen and it will be indicated on the Map by an LED. Every time, the program returns to the main screen and waiting for new data. Becides, the program has a help-screen if it is needed.

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