#### BABY ALARM SYSTEM

UTILIZING A TELEPHONE LINE

Project Report Submitted by:

Adonis Christofides

In part satisfaction of the award of Diploma of Technician Engineer in the field of Electrical Engineering of the Higher Technical Institute, Nicosia, Cyprus

Project Supervisor: G. Kourtellis

B.Sc Elect. Engineer Lecturer HTI

External Assessor:

Type of Project: Individual

Group

APRIL, 1991

HER PROJECT NO VOSL 2/70

In modern society as the automation progresses, more and more needs are to be satisfied through the science of electronics. Apparently, modern couples would not like to waste their time by just sitting at home taking care of their baby. They would rather prefer to enjoy a nice meal or an interesting act on the local theatre.

The purpose of this study is to examine the possibility of utilizing a baby alarm system in order to provide appropriate service to the user so that, it can be connected on a telephone line. The purpose of this is to inform the parents whenever they want to have a night out. Of course, an alternative solution is to employ a baby sitter. When, though, the baby sitter or the grand-mother is not available (quite often very expensive), the suggested system is proven to be ideal.

The study begins with a historical evolution. In chapter 2, there is an outline of the objectives to be met, followed by a block diagram. In the same chapter a brief description of the system operation is provided. The major part of this study is chapter 3 where a design procedure is followed, providing the necessary details for the construction of the suggested system. Chapter 4 is outlining the construction difficulties and the

1

modifications in comparison with the original suggestion. Chapter 4 is ended with the provision of the system operation. The discussion progress, in chapter 5, with comments and suggestions. Finally, the project comes to an end with the conclusions drawn from this study.

#### CONTENTS

## Page

INTRODUCTION.....1

#### CHAPTER 1 - BACKGROUND THEORY

1.1 Baby Alarm Systems - An Overview....3
1.2 Facilities - Applications......5
1.3 Communication Systems......6

## CHAPTER 2 - PROPOSED SYSTEM AND OBJECTIVES

2.1	Objectives9
2.2	Block Diagram9
2.3	Operation - Description10

### CHAPTER 3 - PRACTICAL PART - DESIGN

3.1	General14
3.2	Transmitter Section14
3.2.1	Microphone Unit15
3.2.2	Amplification - Level Detection15
3.2.3	Duration/Delay Circuit17
3.2.4	Line Interface18
3.3	Receiver Station19
3.3.1	Selector Unit19
3.3.2	Visual/Alarm Peripheral19
3.3.3	Sound Alarm Peripheral20
3.3.4	Peripheral 3 - Telephone Redial20
3.4	Power Supplies

## CHAPTER 4 - CONSTRUCTION/TESTING

		4.1	Transmitter
		4.2	Receiver
		4.3	System Operation
CHAPTER	5 -	COMMEN	TS/SUGGESTIONS

REFERENCES

# APPENDICES

# Appendix 1 - Data Sheets