**CONTENTS**

**TITLE PAGE NO**

**CHAPTER 1**

INTRODUCTION2

**CHAPTER 2** 4

**ARM PROCESSOR**

2.1 INTRODUCTION TO ARM 4

2.2 ARM7 TDMI 4

2.3 LPC2148 MICROCONTROLLER 10

2.3.1 FEATURES OF LPC2148 MICROCONTROLLER 11

2.3.2 LPC2148 MICROCONTROLLER ARCHITECTURE 12

2.3.3 PIN DIAGRAM 12

2.3.4 ARCHITECTURAL OVERVIEW12

**CHAPTER 3**

**HARDWARE COMPONENTS**

3.1 BLOCK DIAGRAM 18

3.2 REGULATED POWER SUPPLY 18

3.2.1 INTRODUCTION 18

3.2.2 BLOCK DIAGRAM 19

3.3 BRIDGE FULLWAVE RECTIFIER 23

3.4FILTRATION 25

3.5 REGULATION 26

3.6 IR SENSOR 28

3.7 TEMPERATURE SENSOR 32

3.8 GAS SENSOR 35

3.9 VIBRATION SENSOR 37

3.10 WIFI MODULE 39

**CHAPTER 4**

**SOFTWARE TOOLS**

4.1KEIL COMPILER 43

4.2 FLASH MAGIC 48

4.3 PROJECT IMPLEMENTATION51

**CHAPTER 5**

**CONCLUSION** 55