CONTENTS

Chapter No.	CHAPTER	Page No.
	Acknowledgement	**i**
	Abstract	**ii**
1	**Alerting Forest Fire Using Wireless Sensor**	**1-3**
	1.1Introduction	**1-2**
	1.1 Objective	**2**
	1.2 Proposed System	**3**
	1.3 Problem Definition	**3**
2	**Literature Survey**	**4-7**
3	**Methodology**	**8-10**
4	**Design and Implementation**	**11-37**
	4.1 Flowchart	**11-12**
	4.2 Circuit Diagram	**13-30**
	4.3 Software	**30-32**
	4.4 Programming	**33-34**
	4.5 Basic Structure of sketch	**34-35**
	4.6 Hardware and Software requirements	**36-37**
	4.7 Applications	**36**
	4.7 Advantages and Disadvantages	**36-37**

CONTENTS

Chapter No.	CHAPTER	Page No.
5	Results	38-39
6	Testing	40
	Conclusion	41
	Future Enhancement	42
	References	43

LIST OF FIGURES

Figure No.	Name of the Figure	Page No.
1.1	Destruction of Forest due to forest fire at California	01
1.2	Loss of wild life due to forest fire at California	02
3.1	Block diagram of AVR Microcontroller using GPS,GSM Modem, LCD interface and Sensors	08
3.2	LCD Display	09
4.2	Circuit diagram of forest fire sensor	13
4.3	LM35 sensor	14
4.4	MQ2 sensor	15
4.5	Functioning of MQ2 Sensor	16
4.6	Internal figure of MQ2 Sensor	17
4.7	RGB Color	18
4.8	Schematic for red color	18
4.9	SIM800 GSM Model	19
4.10	SIM slot in SIM800 GSM	20
4.11	Circuit diagram of GSM transceiver	21
4.12	Circuit diagram of Buzzer Circuit	21
4.13	Block diagram of Power supply	22
4.14	Circuit diagram of power supply	23
4.15	Bridge rectifier	24
4.16	Arduino Software	25
4.17	NEO 6M GPS Module	27

LIST OF FIGURES

Figure No.	Name of the Figure	Page No.
4.18	ATMEGA32	28
4.19	Pin diagram of LCD display	29
4.20	Selection of Arduino software	31
4.21	Programming section 1	33
4.22	Programming section 2	34
4.23	Pin diagram of ATMEGA328	35
5.1	Model of Forest fire prediction using wireless sensors	38
5.2	Output of forest fire	39
5.3	Image of Message send to respective mobile	39

LIST OF TABLES

Table No.	Names of the tables	Page No.
01	LM35 Pin out	15
02	MQ2 Sensor pin detail	16
03	Pin details of LCD display	30