**TABLE OF CONTENTS**

|  |  |  |
| --- | --- | --- |
| **S. No.** | **Topic** | **Page** |
| 1 | LIST OF ABBREVIATIONS | (I) |
| 2 | LIST OF TABLES | (II) |
| 3 | LIST OF FIGURES | (III) |
| 4 | CERTIFICATE | (IV) |
| 5 | ABSTRACT | (V) |
| 6 | CHAPTER 1: INTRODUCTION | 1 |
| 7 | 1.1 Overview of Autonomous Robots | 1 |
| 8 | 1.2 Path Planning and Obstacle Avoidance | 1 |
| 9 | 1.3 Implementation And Methods | 2 |
| 10 | CHAPTER 2: LITERATURE REVIEW | 3 |
| 11 | 2.1 The Obstacle Avoidance System | 3 |
| 12 | 2.2 Obstacle-Avoiding Robot with IR And PIR Motion Sensors | 5 |
| 13 | 2.3 Obstacle avoidance robotic vehicle using ultrasonic sensor, android, and Bluetooth for obstacle detection | 6 |
| 14 | CHAPTER 3: OBJECTIVE | 8 |
| 15 | CHAPTER 4: PRELIMINARIES | 10 |
| 16 | 4.1 Components | 10 |
| 17 | 4.2 Block Diagram | 10 |
| 18 | 4.3 Hardware Requirements | 11 |
| 19 | 4.4 Algorithm Used for Object Avoidance | 18 |
| 20 | CHAPTER 5: METHODOLOGY AND WORKING | 21 |
| 21 | 5.1 Algorithm | 27 |
| 22 | CHAPTER 6: RESULTS AND SIMULATION | 31 |
| 23 | GANTT CHART | 35 |
| 24 | REFERENCES | 36 |
| 24 | ANNEXURE | 37 |