**TABLE OF CONTENTS**

|  |  |
| --- | --- |
| **Topic** | **Page** |
| LIST OF ABBREVIATIONS | (I) |
| LIST OF TABLES | (II) |
| LIST OF FIGURES | (III) |
| CERTIFICATE | (IV) |
| ABSTRACT | (V) |
| CHAPTER 1: INTRODUCTION | 1 |
| 1.1 Overview of Autonomous Robots | 1 |
| 1.2 Path Planning and Obstacle Avoidance | 1 |
| 1.3 Implementation And Methods | 2 |
| CHAPTER 2: LITERATURE REVIEW | 3 |
| 2.1 The Obstacle Avoidance System | 3 |
| 2.2 Obstacle-Avoiding Robot with IR And PIR Motion Sensors | 5 |
| 2.3 Obstacle avoidance robotic vehicle using ultrasonic sensor, android, and Bluetooth for obstacle detection | 6 |
| CHAPTER 3: OBJECTIVE | 8 |
| CHAPTER 4: PRELIMINARIES | 10 |
| 4.1 Components | 10 |
| 4.2 Block Diagram | 10 |
| 4.3 Hardware Requirements | 11 |
| 4.4 Algorithm Used for Object Avoidance | 18 |
| CHAPTER 5: METHODOLOGY AND WORKING | 21 |
| 5.1 Algorithm | 27 |
| CHAPTER 6: RESULTS AND SIMULATION | 31 |
| GANTT CHART | 35 |
| REFERENCES | 36 |
| ANNEXURE | 37 |