|  |  |  |
| --- | --- | --- |
| **TABLE OF CONTENTS** | | |
| **CHAPTER NO** | **TITLE** | **PAGE NO** |
|  | **ACKNOWLEDGMENT** | iii |
|  | **ABSTRACT** | iv |
|  | **LIST OF SYMBOLS** | v |
|  | **LIST OF FIGURES** | vii |
|  | **LIST OF ABBREVIATIONS** | viii |
| **1** | **INTRODUCTION** | **1** |
|  | 1.1 DOMAIN OVERVIEW | 1 |
|  | 1.2 OVERVIEW OF THE PROJECT | 2 |
|  | 1.3 OBJECTIVE OF THE PROJECT | 2 |
| **2** | **LITERATURE SURVEY** | **4** |
|  | 2.1 REVIEW OF LITERATURE | 4 |
|  | 2.2 PROBLEM STATEMENT | 6 |
| **3** | **SYSTEM ANALYSIS** | **7** |
|  | 3.1 EXISTING SYSTEM | 7 |
|  | 3.1.1 DISADVANTAGES | 7 |
|  | 3.2 PROPOSED SYSTEM | 8 |
|  | 3.2.1 ADVANTAGES | 8 |
| **4** | **REQUIREMENT ANALYSIS** | **9** |
|  | 4.1 FUNCTIONAL REQUIREMENTS | 9 |
|  | 4.2 NON-FUNCTIONAL REQUIREMENTS | 9 |
|  | 4.3 HARWARE REQUIREMENTS | 9 |
|  | 4.4 SOFTWARE REQUIREMENTS | 12 |
| **5** | **DESIGN ENGINEERING** | **14** |
|  | 5.1 ARCHITECTURE DIAGRAM | 14 |
|  | 5.2 DATA FLOW DIAGRAM | 14 |
|  | 5.3 USE CASE DIAGRAM | 15 |
| **6** | **MODULES DESCRIPTION** | **16** |
|  | 6.1 IMPORTING NECESSARY LIBRARIES | 16 |
|  | 6.2 DATA PREPROCESSING | 16 |
|  | 6.3 MODEL DEVELOPMENT | 16 |
|  | 6.4 MODEL EVALUATION | 16 |
|  | 6.5 MODEL DEPLOYMENT | 17 |
|  | 6.6 SSD ALGORITHM | 17 |
| **7** | **DRONE TECHNOLOGY** | **18** |
|  | 7.1 INTRODUCTION | 18 |
|  | 7.2 WORKING PRINCIPLE | 19 |
|  | 7.3 COMPONENTS | 19 |
|  | 7.4 CLASSIFICATION OF DRONE | 24 |
|  | 7.5 FLIGHT CONTROLLER | 25 |
|  | 7.5.1 PIXHAWK FLIGHT CONTROLLER | 26 |
| **8** | **IMPLEMENTATION** | **27** |
| **9** | **SNAPSHOTS** | **43** |
|  | 9.1 SAMPLE INPUT | 43 |
|  | 9.2 SAMPLE OUTPUT | 43 |
| **10** | **CONCLUSION AND FUTURE ENHANCEMENT** | **44** |
|  | 10.1 CONCLUSION | 44 |
|  | 10.2 FUTURE ENHANCEMENT | 44 |
|  | **REFERENCES** | **45** |