|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **TABLE OF CONTENTS** | | |  |
| **CHAPTER NO.** | **TITLE** | | | **PAGE NO** |
|  | **ABSTRACT** | | | **iv** |
|  | **LIST OF FIGURES** | | | **viii** |
|  | **LIST OF ABBREVIATIONS** | | | **ix** |
| **1** | **INTRODUCTION** | | | **1** |
| **2** | **LITERATURE SURVEY** | | | **5** |
|  | 2.1 | GPS AND GSM BASED ENGINE LOCKING SYSTEM USING SMART PASSWORD | | 5 |
|  | 2.2 | TRACKING AND RECOVERY OF THE VEHICLE USING GPS & GSM | | 6 |
|  | 2.3 | IMPLEMENTATION OF A VEHICLE TRACKING SYSTEM USING SMART PHONE AND SMS SERVICE | | 6 |
|  | 2.4 | GPS BASED VEHICLE TRACKING AND MONITORING SYSTEM- A SOLUTION FOR PUBLIC TRANSPORTATIONS | | 7 |
|  | 2.5 | INTELLIGENT VEHICLE CONTROL AND MONITORING USING GSM &GPS | | 7 |
|  | 2.6 | REAL TIME BUS MONITORING SYSTEM | | 8 |
|  | 2.7 | DESIGN & IMPLEMENTATION OF REAL TIME TRACKING SYSTEM BASED ON ARDUINO INTEL GALILEO | | 8 |
|  | 2.8 | AN IMAGE PROCESSING ALGORITHM FOR VEHICLE DETECTION AND TRACKING | | 9 |
|  | 2.9 | CAR ACCIDENT DETECTION SYSTEM USING GPS & GSM | | 9 |
|  | 2.10 | GPS BASED ADVANCED VEHICLE TRACKING AND VEHICLE CONTROL SYSTEM | | 10 |
| **3** | **EXISTING SYSTEM** | | | **11** |
|  | 3.1 | INTRODUCTION | | 11 |
|  | 3.2 | VEHICLE TRACKING | | 11 |
|  | 3.3 | VEHICLE MONITORING | | 14 |
| **4** | **PROPOSED SYSTEM** | | | **17** |
|  | 4.1 | MAJOR UNIT | | 17 |
|  | 4.2 | GSM MODULE INTERFACE WITH MSP430 MICROCONTROLLER | | 19 |
|  |  | 4.2.1 | PRECAUTIONS BEFORE INTERFACING GSM MODULE WITH MSP430 MICROCONTROLLER | 19 |
|  |  | 4.2.2 | INTERFACING OF GSM MODULE WITH MSP430 | 20 |
|  |  | 4.2.3 | LCD MODULE INTERFACE WITH MSP430 MICROCONTROLLE | 21 |
| **5** | **HARDWARE AND SOFTWARE USED** | | | **25** |
|  | 5.1 | ALCOHOL SENSOR | | 25 |
|  | 5.2 | EYEBLINK SENSOR | | 27 |
|  | 5.3 | MEMS SENSOR | | 28 |
|  | 5.4 | MSP430 MICROCONTROLLER | | 29 |
|  |  | 5.4.1 | ANALOG | 33 |
|  |  | 5.4.2 | TIMERS | 34 |
|  |  | 5.4.3 | SYSTEM | 35 |
|  |  | 5.4.4 | COMMUNICATION AND IINTERFACE | 38 |
|  |  | 5.4.5 | METERING | 40 |
|  |  | 5.4.6 | DISPLAY | 40 |
|  | 5.5 | GSM MODULE | | 41 |
|  | 5.6 | GPS MODULE | | 43 |
|  | 5.7 | MOTOR DRIVER | | 45 |
|  | 5.8 | LCD DISPLAY | | 47 |
|  | 5.9 | BUZZER | | 49 |
|  | 5.10 | ENERGIA IDE | | 50 |
| **6** | **RESULT** | | | **53** |
| **7** | **CONCLUSION** | | | **55** |
| **8** | **FUTURE WORK** | | | **56** |
|  | **APPENDIX** | | | **57** |
|  | **REFERENCES** | | | **71** |