**INDEX**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **S No** | | **Topic** | | |  | | | | | | **Page No** |
| 1 | | Certificate | | | | | | | | |  |
| 2 | | Acknowledgements | | | | | | | | |  |
| 3 | | Abstract | | | | | | | | |  |
| 4 | | Synopsis | | | | | | | | |  |
| 5 | | Chapter-1: Introduction | | | | | | | | | **1 - 11** |
|  | | 1.1 | | | Problems with Existing System | | | | | | 1 – 1 |
|  | | 1.2 | | | Proposed System | | | | | | 2 – 2 |
|  | |  | | | 1.2.1 Aim of the system | | | | | | 3 - 3 |
|  | |  | | | 1.2.2 Objective of the system | | | | | | 4 – 4 |
|  | |  | | | 1.2.3 Scope of the system | | | | | | 5 – 5 |
|  | | 1.3 | | | Methodology of Data Collection | | | | | | 6 - 6 |
|  | |  | | | 1.3.1 Sensor Calibration | | | | | | 6 - 6 |
|  | |  | | | 1.3.2 Test Scenarios Definition | | | | | | 6 - 6 |
|  | |  | | | 1.3.3 Data Acquisition Setup | | | | | | 6 - 6 |
|  | |  | | | 1.3.4 Data Logging and Analysis | | | | | | 6 - 6 |
|  | | 1.4 | | | Methodology of System Design | | | | | | 6 – 6 |
|  | | 1.5 | | | System Requirement Tools | | | | | | 6 – 10 |
|  | |  | | | 1.5.1 Hardware Component Used | | | | | | 6 - 8 |
|  | |  | | | 1.5.2 Software Component Used | | | | | | 8 - 8 |
|  | |  | | | 1.5.3 Language Used | | | | | | 8 - 8 |
|  | |  | | | 1.5.4 Important Components | | | | | | 9 - 10 |
|  | | 1.6 | | | Project Planning Gantt Chart | | | | | | 11 - 11 |
| 6 | | Chapter-2: System Requirements Analysis | | | | | | | | | **12 - 15** |
|  | | 2.1 | | | Project Overview | | | | | | 12 -12 |
|  | | 2.2 | | | Identification of actors & their roles in project | | | | | | 12 - 13 |
|  | | 2.3 | | | Product Functions | | | | | | 14 - 14 |
|  | | 2.4 | | | Constraints | | | | | | 14 - 15 |
| 7 | | Chapter-3: System Design | | | | | | | | | **16 - 20** |
|  | | 3.1 | | | Block Diagram | | | | | | 16 – 17 |
|  | | 3.2 | | | Data Flow Diagram (Context level) | | | | | | 17 - 17 |
|  | | 3.3 | | | Entity Relationship Diagram | | | | | | 18 - 18 |
|  | | 3.4 | | | Use Case Diagram | | | | | | 19 - 19 |
|  | | 3.5 | | | Sequence Diagram | | | | | | 20 - 20 |
| 8 | | Chapter-4: System Development & Implementation | | | | | | | | | **21 – 22** |
|  |  |  | 4.1 | | | Coding Samples | | | | | 21 - 21 |
|  |  |  | 4.2 | | | Prerequisites |  | |  | | 22 - 22 |
|  | 9 |  | Chapter-5: System Testing | | | | | | | | **23 – 24** |
|  |  |  | 5.1 | | | Functional Testing | | | | | 23 - 24 |
|  | 10 |  | Chapter | | | -6 Scope of Improvement, Summary and Conclusion | | | | | **25 - 28** |
|  |  |  | 6.1 | | | System Summary | | | | | 25 – 25 |
|  |  |  | 6.2 | | | Future Scope and Improvisation | | | | | 26 - 26 |
|  |  |  |  |  | |  |  | |  | |  |
|  |  |  | 6.3 | | | Conclusion |  | |  | | 27 - 27 |
|  |  |  | 6.4 References / Bibliography | | | | | | | | 28 - 28 |
|  |  |  |  |  | | | |  | |  |  |