## **INDEX**

## **ABSTRACT**

| 1. INTRODUCTION                                     | 1  |
|---|----|
| 1.1 INTRODUCTION OF CHAPTER                         | 2  |
| 1.2 BACKGROUND                                      | 2  |
| 1.3 APPLICATION IN GENERAL FORM IN DIFFERENT AREAS  | 3  |
| 1.4 CHALLENGES IN EXISTING SYSTEM                   | 4  |
| 1.5 CONTENT OF PROJECT WORK                         | 6  |
| 1.6 CONCLUDING REMARK                               | 9  |
| 2. LITERATURE SURVEY                                | 10 |
| 2.1 INTRODUCTION OF CHAPTER                         | 11 |
| 2.2 EXISTING WORK                                   | 11 |
| 2.3 THEORY OF WORK                                  | 12 |
| 2.4 PROPOSED WORK CONVERTED TO CONCEPT              | 14 |
| 2.5 GAP ANALYSIS                                    | 15 |
| 2.6 PROBLEM IDENTIFICATION                          | 16 |
| 2.7 OBJECTIVES OF PROJECT                           | 18 |
| 2.8 CONCLUDING REMARK                               | 18 |
| 3. REQUIREMENT ANALYSIS                             | 19 |
| 3.1 INTRODUCTION OF CHAPTER                         | 20 |
| 3.2 INTRODUCTION OF PROJECT                         | 20 |
| 3.2.1 Purpose                                       | 20 |
| 3.2.2 Scope   | 20 |
| 3.2.3 Definitions, Acronyms, and Abbreviations      | 21 |
| 3.2.4 Overview                                      | 21 |
| 3.3 FUNCTIONAL REQUIREMENTS                         | 21 |
| 3.3.1 <functional 1="" requirement=""></functional> | 23 |
| 3.4 EXTERNAL INTERFACE REQUIREMENTS                 | 24 |
| 3.4.1 User Interfaces                               | 24 |
| 3.4.2 Hardware Interfaces                           | 24 |
| 3.4.3 Software Interfaces                           | 25 |
| 3.4.4 Communications Interfaces                     | 25 |
| 3.5 NON FUNCTIONAL REQUIREMENTS                     | 26 |

| 3.5.1 Performance   | 26 |
|---|----|
| 3.5.2 Reliability   | 26 |
| 3.5.3 Availability  | 26 |
| 3.5.4 Security  | 26 |
| 3.5.5 Maintainability   | 27 |
| 3.5.6 Portability   | 27 |
| 3.6 CONCLUDING REMARK   | 27 |
| 4. DESIGN METHODOLOGY   | 28 |
| 4.1 INTRODUCTION OF CHAPTER                                   | 29 |
| 4.2 MODEL APPROACH  | 29 |
| 4.3 INTRODUCTION OF DESIGN METHODOLOGY                        | 30 |
| 4.4 OVERALL SYSTEM DESIGN                                     | 32 |
| 4.4.1 Higher Level Design                                     | 32 |
| 4.4.2 Lower Level Design                                      | 32 |
| 4.5 CLASS DIAGRAM   | 33 |
| 4.6 STATE-TRANSITION DIAGRAMS OR ENTITY RELATIONSHIP DIAGRAMS | 34 |
| 4.7 CONCLUDING REMARK   | 35 |
| 5. SYSTEM DESIGN  | 36 |
| 5.1 INTRODUCTION OF CHAPTER                                   | 37 |
| 5.2 SYSTEM ARCHITECTURE                                       | 38 |
| 5.3 UML DIAGRAMS  | 39 |
| 5. 3.1 USE CASE DIAGRAM                                       | 39 |
| 5.3.2 ACTIVITY DIAGRAM  | 40 |
| 5.3.3 SEQUENCE DIAGRAM  | 41 |
| 5.4 DATABASE DESIGN   | 42 |
| 5.5 CONCLUDING REMARK   | 42 |
| 6. PROJECT SCHUEDULE  | 43 |
| 7. IMPLEMENTATION DETAILS                                     | 45 |
| 7.1 INTRODUCTION OF CHAPTER                                   | 46 |

| 7.2 SOFTWARE USED              | 46 |
|--------------------------------|----|
| 7.3 HARDWARE USED              | 47 |
| 7.4 TECHNOLOGY DETAILS         |    |
| 7.5 CONCLUDING REMARK          | 48 |
| 8. TESTING                     | 49 |
| 8.1 ERROR AND DEBUGGING REPORT | 50 |
| 9. RESULT                      | 53 |
| 9.1 PROJECT CODE AND SNAPSHOTS | 54 |
| 10. CONCLUSION                 | 64 |
| 11. FUTURE SCOPE               | 66 |
| 12. REFERENCES                 | 68 |

## FIGURE INDEX

| Sr. No. | FIGURE NAME                 | PAGE. No. |
|---------|-----------------------------|-----------|
| 4.4.1   | Higher Level Design         | 32        |
| 4.4.2   | Lower-Level Diagram         | 32        |
| 4.5     | Class Diagram               | 33        |
| 4.6     | Entity Relationship Diagram | 34        |
| 5.2     | System Architecture         | 38        |
| 5.3.1   | Use Case Diagram            | 39        |
| 5.3.2   | Activity Diagram            | 40        |
| 5.3.3   | Sequence Diagram            | 41        |
| 5.4     | Database Design             | 42        |