**ACKNOWLEDGEMENT**

We have been bestowed the privilege of expressing my gratitude to everyone who helped us in completing the disertation work.

We would like to express our sincere thanks to **Mr. Shankar Setty**, Information Science and Engineering, BVBCET, Hubli, for providing us an opportunity to carry out our project work.

We would like to thank **Mr. Nitin Kulkarni**, Senior Professor, BVB-MBA, for his constant guidance and never-give-up attitude towards our project.

We would also like to express our sincere thanks to **Dr.Meena S. M,** Head of Department, Information Science and Engineering department, BVBCET, Hubli, for providing us an opportunity to carry out this project work.

We find our acknowledgement incomplete without thanking **Dr. Ashok Shettar ,** Principal BVBCET, Hubli-31 for the inspiration and co-operation.

**Pavankumar B L**

**Pradeep Channalli**

**Priyanka Patil**

**Vinay Pyati**

ii

ii

i

**ABSTRACT**

We are familiar with the frequent security threats, tampering of answer scripts and delaying of results of the examinations. All these problems are caused by following the conventional method during the process of evaluation. This made us to think about improving the quality of the examination process. In this digital era, many conventional methods are digitized. This led to the development of the idea called as “**Smart Evaluation System**”. The product Smart Evaluation System is a software product which helps us in computerized assessment of the answer scripts. By ensuring security and converting the answer scripts into softcopy one can make sure that the papers cannot be tampered. The academic details of students are stored in the system which facilitates online results. In addition to the above mentioned solution, this system also provides convenience for the evaluators to assess the answer scripts anywhere. Hence the quote “**Evaluation- Anytime. Anywhere**”.

ii

**CONTENTS**

**Acknowledgement I**

**Abstract II**

**List of Tables V**

**List of Figures VI**

**Nomenclature VII**

**Chapter Title Page No**

**No**

**1 Introduction 1**

1.1 Existing System 2 1.2 Motivation for the Project 2

1.3 Problem Statement 2

1.4 Scope 2

**2 Requirement Analysis 3**

2.1 System Model 3 2.2 Functional Requirements 4

2.2.1 Interface Requirements 6

2.2.2 Business Requirements 6

2.2.3 Regulatory/Compliance Requirements 6

2.2.4 Security Requirements 6

2.3 Software Quality Attributes 7

2.4 Database Requirements 7 2.5 System Specification 8

2.5.1 Software Requirements 8

2.5.2 Hardware Requirements 9

2.6 Project Plan 9

2.6.1 Project Scheduling 10

2.6.2 Risk Management 10

**3 System Design 12**

3.1 Architecture Design 12 3.2 Data Design 13

3.2.1 Database Schema 13

3.2.2 Data Dictionary 14

3.3 User Interface Design 17 3.4 Test Plan 17

iii

iii

3.4.1 Scanning of Papers (Valid and Invalid case) 18

3.4.2 Loading Scanned Answer Scripts on Server

(Valid and Invalid case) 19

3.4.3 Display of Papers for Evaluation

(Valid and Invalid case) 20

3.4.4 Display of Papers that are Evaluated

(Valid and Invalid case) 21

3.4.5 Student Registration (valid and Invalid case) 22

**4 Implementation 24**

4.1 Implementation of Database Connectivity and Interaction 24

**5 Results and Discussion 27**

**6 Conclusion and Future Scope 32**

6.1 Conclusion 32 6.2 Future Work 32

**References 33**

iv

**LIST OF TABLES**

**Table No. Title Page No.**

Table 3.1 Data Dictionary of Department Table 14

Table 3.2 Data Dictionary of Subject Table 15

Table 3.3 Data Dictionary of Student Table 15

Table 3.4 Data Dictionary of Evaluator Table 15

Table 3.5 Data Dictionary of Results Table 16

Table 3.6 Data Dictionary of Exam Section Table 16

Table 3.7 Data Dictionary of Login Table 17

Table 3.8 Valid Test Case for Scanning of Answer Scripts 18

Table 3.9 Invalid Test Case for Scanning of Answer Scripts 18

Table 3.10 Valid Test Case for Loading Scanned Answers Scripts 19

Table 3.11 Invalid Test Case for Loading Scanned Answers Scripts 19

Table 3.12 Valid Test Case Display of Papers for Evaluation 20

Table 3.13 Invalid Test Case for Display of Papers for Evaluation 21

Table 3.14 Valid Test Case for Displaying papers after Evaluation 21

Table 3.15 Invalid Test Case for Displaying papers after Evaluation 22

Table 3.16 Valid Test Case for Student Registration 22

Table 3.17 Invalid Test Case for Student Registration 23

v

v

**LIST OF FIGURES**

**Figure No. Title Page No**

Figure 2.1 System Model 4

Figure 2.4 ER Diagram for SES Database 8

Figure 2.6.1 Activity Network 10

Figure 2.6.2 Activity Diagram for Design 10

Figure 2.6.3 Activity Diagram for Coding 11

Figure 2.6.4 Activity Diagram for Testing 11

Figure 3.1 Architecture Design for SES 13

Figure 3.3 User Interface Design for the Proposed System 17

Figure 5.1 Home Page for SES 27

Figure 5.2 Login 27

Figure 5.3 Admin Home Page 28

Figure 5.4 Scanner Interface 28

Figure 5.5 Evaluator Home Page 29

Figure 5.6 List of Papers to be Evaluated 29

Figure 5.7 Answer Script to be Evaluated and the form to enter Marks 30

Figure 5.8 Display of papers that are Evaluated 30

Figure 5.9 Student Registration Form 37

Figure 5.10 View of Result for a Particular Student 37

vi

**Nomenclature**

SES Smart Evaluation System

VTU Vishweshwarayya Technological University

PDF Portable Device File

USN University Student Number

vii