

DISEASE PREDICTION USING BIGDATA

A Project Report Submitted to

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY ANANTAPUR,
ANANTHAPURAMU**

In partial fulfillment of the requirements for the award of the degree of

**BACHELOR OF TECHNOLOGY
IN
COMPUTER SCIENCE AND ENGINEERING**

By

| | |
|---------------------|-------------------|
| S.M. AYESHA | 159E1A05K8 |
| P. BHARATHI | 159E1A05I7 |
| Y. VAISHNAVI | 159E1A05O0 |
| V. YAMINI | 159E1A05N1 |

Under the Guidance of

**Mr. K.Rajeev Kumar, M.E.,
Assistant Professor.**



**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
SRI VENKATESWARA ENGINEERING COLLEGE FOR WOMEN**

(Approved by A.I.C.T.E., New Delhi & Affiliated to JNTUA, Ananthapuramu)

Karakambadi Road, Tirupati-517507.

2015-2019

SRI VENKATESWARA ENGINEERING COLLEGE FOR WOMEN

(Approved by A.I.C.T.E., New Delhi & Affiliated to JNTUA, Ananthapuramu)

Karakambadi Road, Tirupati-517507.

Department of Computer Science and Engineering



CERTIFICATE

This is to certify that the project entitled “**DISEASE PREDICTION USING BIGDATA**” is the bonafide work done by **S.M. Ayesha (159E1A05K8), P. Bharathi (159E1A05I7), Y. Vaishnavi (159E1A05O0), V. Yamini (159E1A05N1)**, in partial fulfillment of the requirements for the award of the degree of Bachelor of Technology in Computer Science and Engineering, from Jawaharlal Nehru Technological University Anantapur, Ananthapuramu during the period 2015-2019.

PROJECT GUIDE

Mr. K.Rajeev Kumar, M.E.

Assistant Professor,
Department of IT.

HEAD OF THE DEPARTMENT

Dr. B. Ramasubba Reddy, Ph.D.

Professor & Hod,
Department of CSE.

Submitted for the Viva-Voce examination held on _____.

INTERNAL EXAMINER

EXTERNAL EXAMINER

DECLARATION

We hereby declare that the project report entitled “**DISEASE PREDICTION USING BIGDATA**” done by us under the guidance of **Mr. K.Rajeev Kumar**, and is submitted in partial fulfillment of the requirements for the award of the Bachelor’s degree in **Computer Science and Engineering**. This project is the result of our own effort and it has not been submitted to any other University or Institution for the award of any degree or diploma other than specified above.

| | |
|-------------|--------------|
| S.M.AYESHA | (159E1A05K8) |
| P.BHARATHI | (159E1A05I7) |
| Y.VAISHNAVI | (159E1A05O0) |
| V.YAMINI | (159E1A05N1) |

ACKNOWLEDGEMENT

We are thankful to our guide **Mr. K.Rajeev Kumar** for his/her valuable guidance and encouragement. His helping attitude and suggestions have helped us in successful completion of the project.

We would like to express our thanks to **Dr. B. Ramasubba Reddy**, Head of the Department of **COMPUTER SCIENCE AND ENGINEERING**, for his kind help and encouragement during the course of our study and in the successful completion of the project work.

We have great pleasure in expressing our hearty thanks to our beloved principal **Dr. T.Kalpalatha Reddy** for her valuable suggestions and encouragement to complete this project.

Successful completion of any project cannot be done without proper support and encouragement. We sincerely thank the **Management** for providing all the necessary facilities during the course of study.

We would like to thank our parents, friends and faculty members of CSE department, who have greatest contributions in all our achievements, for the great care and blessings in making us successful in all our endeavors.

S.M.AYESHA (159E1A05K8)

P.BHARATHI (159E1A05I7)

Y.VAISHNAVI (159E1A05O0)

V.YAMINI (159E1A05N1)

CONTENTS

| CHAPTER NO. | DESCRIPTION | PAGE NO. |
|-------------|--------------------------------------|----------|
| | Abstract | i |
| | List Abbreviations | ii |
| | List of Figures | iii |
| 1 | Introduction | 1 |
| 2 | Project Description | 3 |
| | 2.1 Problem Definition | 3 |
| 3 | Computational Environment | 4 |
| | 3.1 Software Specification | 4 |
| | 3. 2 Hardware Specification | 4 |
| | 3.3 Software Features | 4 |
| 4 | Feasibility Study | 20 |
| | 4.1 Technical and System Feasibility | 20 |
| | 4.2 Economic Feasibility | 21 |
| | 4.3 Legal Feasibility | 21 |
| | 4.4 Operational Feasibility | 21 |
| | 4.5 Schedule Feasibility | 21 |
| 5 | System Analysis | 22 |
| | 5.1 Existing System | 22 |
| | 5.1.1 Drawbacks of Existing System | 22 |
| | 5.2 Proposed System | 22 |
| | 5.2.1 Advantages of Proposed System | 23 |
| 6 | System Design | 24 |
| | 6.1 UML Diagrams | 24 |
| | 6.1.1 Class Diagram | 25 |
| | 6.1.2 Use case Diagram | 28 |
| | 6.1.3 Sequence Diagram | 32 |
| | 6.2 Architectural Design | 35 |

| CHAPTER NO. | DESCRIPTION | PAGE NO. |
|--------------------|------------------------------------|-----------------|
| 7 | System Implementation | 35 |
| | 7.1 Implementation Process | 35 |
| | 7.2 Modules description | 35 |
| 8 | Testing | 38 |
| | 8.1 Unit Testing | 38 |
| | 8.2.Integration Testing | 40 |
| | 8.3 System Testing | 41 |
| | 8.4 Acceptance Testing | 41 |
| 9 | Sample Source Code | 44 |
| 10 | Screen Layouts | 53 |
| 11 | Conclusion and Future Enhancements | 59 |
| 12 | Bibliography | 60 |

ABSTRACT

With big data growth in biomedical and healthcare communities, accurate analysis of medical data benefits early disease-treatment-symptom detection, patient care and community services. In this project, we streamline prediction algorithms for effective prediction of chronic disease outbreak in disease-frequent communities. Feature selection is an important technique for data mining. Despite its importance, most studies of feature selection are restricted to batch learning. Unlike traditional batch learning methods, online learning represents a promising family of efficient and scalable big data large-scale applications. The encouraging results of our experiments validate the efficacy and efficiency of the proposed System

LIST OF ABBREVIATIONS

| | | | |
|----------|-------------|----------|------------------------------------|
| 1 | JVM | : | Java Virtual Machine |
| 2 | JDBC | : | Java DataBase Connectivity |
| 3 | UML | : | Unified Modeling Language |
| 4 | IDE | : | Integrated Development Environment |
| 5 | XML | : | Extensible Markup Language |
| 6 | DFD | : | Data Flow Diagram |

LIST OF FIGURES

| FIG NO. | FIGURE NAME | PAGE NO. |
|---------|--|----------|
| 1 | Class Diagram For Information Extraction | 26 |
| 2 | Class Diagram For Relation Identification | 27 |
| 3 | Use case Diagram For Information Extraction | 28 |
| 4 | Use case Diagram For Relation Identification | 29 |
| 5 | Sequence Diagram For Information Extraction | 33 |
| 6 | Sequence Diagram For Relation Identification | 33 |
| 7 | Architectural Design | 34 |