



VIGNAN INSTITUTE OF TECHNOLOGY AND SCIENCE

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(Approved by AICTE, New Delhi, Affiliated to JNTUH, Hyderabad)



AN AUTONOMOUS INSTITUTION

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

B.TECH IV YEAR I SEM SECTION-C A.Y:2025-26

MAJOR PROJECT ABSTRACT

TITLE OF MAJOR PROJECT: Analysis of Disease Risk Prediction of an individual based on Daily habits using Deep learning

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ABSTRACT:

Health is one of the most important parts of human life, and diseases can affect people at any stage without warning. Many health problems come from poor daily habits such as smoking, overeating, lack of exercise, and stress, while others are linked to genetics and environment. Earlier research has mainly focused on predicting single diseases like diabetes or heart problems, or on studying the effect of lifestyle habits on mental health. However, these works often have some gaps: they do not cover both physical and mental health together, they only give results without showing reasons, and they do not provide practical guidance to improve health.

In this study, a large dataset of 100,000 records containing lifestyle, physical health, family history, working hours etc. Descriptive and Diagnostic analytics are first applied to understand the overall patterns in the data. For prediction, advanced models such as XGBoost (ensemble learning) and deep learning models like ANN or GNN are employed to classify individuals as healthy or at risk of disease. The system shows which factors like BMI, stress, or smoking increase a person's health risk and also gives simple tips for improving health through diet, exercise, and stress control, helping individuals understand their risk and track their progress over time.

Block Diagram:

