**An Approach to forecasting multiple maladies utilizing machine learning algorithms**

P. Renukadevi

Associate Professor,

Department of Computer Science and Engineering,

Paavai Engineering College (Autonomous), Namakkal.

Varun Krishnan V, Nandhakumar M, Suriyasankar P

UG Student,

Department of Computer Science and Engineering,

Paavai Engineering College (Autonomous), Namakkal.

Nowadays, machine learning is utilized across various industries, including healthcare, where it holds notable importance. One way to enhance patient satisfaction is by applying machine learning techniques to healthcare. The "Prediction of multiple diseases utilising a machine learning algorithms" system is based on predictive modelling that considers symptoms entered by the sufferer to forecast the disease. While many existing machine learning applications for health analytics focus on only one disease, such as diabetes, cancer, or skin diseases, there is a lack of a unified system capable of predicting multiple diseases. This article proposes a system capable of predicting several diseases, including diabetes, heart disease, and skin diseases. To achieve more accurate predictions of heart disease risk levels, the project proposes the use of a support vector machine (SVM) as the backbone of computational diagnostic tools. The SVM model is a promising classification method that can predict medication adherence in CVD patients, thereby helping differentiate sufferers and making evidence-based decisions possible. To predict early diabetes risk, bag-adding and boosting methods using DTB algorithms were applied to experimental data. While the bagging method employed random forest classifications, the AdaBoost, MultiBoost, and real AdaBoost algorithms were chosen for boosting. The project's aim is to expand the system to include other diseases such as fever analysis and other skin diseases. The analysis of multiple diseases utilized machine learning algorithms to examine all parameters related to the disease and identify the maximum effect caused by it. Ultimately, this project can help improve the health of many people by allowing their condition to be monitored closely, and necessary precautions can be taken to increase their life expectancy.

Keywords – Multiple maladies prediction, SVM, bagging and boosting, CVD