**HIGHLIGHTS**

The number of patients suffering from diabetes in India are increasing rapidly. One of the major reasons behind this can be that most of the population does not take regular check-ups for diabetes. Hence, they are unable to take proper precautions and have a risk of getting diabetes in the future. The current methodologies followed by the doctors are manual and can be time consuming. The objective of this paper is to predict is the diagnosed patient is diabetic or the diagnosed patient is not diabetic by applying various deep and machine learning algorithms like Perceptron, Logistic regression, Multilayer Perceptron, k-Nearest Neighbor, Naive Bayes, Decision Tree, Random Forest, and Support Vector Machines on Pima Indian diabetes dataset and improve the accuracy of model.