

Abstract

One of the most prevalent and leading causes of cancer in women is breast cancer. It has now become a frequent health problem, and its prevalence has recently increased. The easiest approach to dealing with breast cancer findings is to recognize them early on. Early detection of breast cancer is facilitated by computer aided detection and diagnosis (CAD) technologies, which can help people live longer lives. The major goal of this work is to take advantage of recent developments in CAD systems and related methodologies. As a result, early detection of breast cancer is critical, and with effective treatment, many lives can be saved. For prediction, random forest, logistic regression, decision tree and K-nearest neighbour were utilized in the previous systems. The proposed work is to provide and predict breast cancer with good accuracy using Support Vector Machine (SVM) technique and Random Forest Algorithm. Support Vector Machine (SVM) is a supervised machine learning algorithm used for both classification and regression. Though we say regression problems as well its best suited for classification. The objective of SVM algorithm is to find a hyperplane in an N-dimensional space that distinctly classifies the data points. Random Forest is one of the most popular and commonly used algorithms by Data Scientists. Random forest is a Supervised Machine Learning Algorithm that is used widely in Classification and Regression problems. It builds decision trees on different samples and takes their majority vote for classification and average in case of regression.