

Breast cancer is a common cause of female mortality in developing countries. In this paper, we applied six different categorization models for the diagnosis of breast cancer, including the random forest (RF), decision tree (DT), k-nearest neighbors (KNN), logistic regression (LR), support vector classifier (SVC), and linear support vector classifier (linear SVC). The advancements in artificial intelligence (AI) and machine learning (ML) techniques have made it possible to develop more accurate and reliable models for diagnosing and treating this disease. From the literature, it is evident that the incorporation of MRI and convolutional neural networks (CNNs) is helpful in breast cancer detection and prevention. Our research relied on three distinct modules for feature selection: the removal of low-variance features, univariate feature selection, and recursive feature elimination. This disease is classified into two subtypes: invasive ductal carcinoma (IDC) and ductal carcinoma in situ (DCIS).