

Abstract

Diabetes is a chronic disease that occurs due to metabolic disorders in the body characterized by excessive sugar levels. Basic health Research states that diabetes cases from 2013 were 6,9% of diabetes cases to 8,5% in 2018. Diabetes cases from 2013 to 2018 increased every year, but with the development of technology such as machine learning, it can diagnose the disease accurately. To overcome this problem, this study uses the Minimal Redudancy Maximal Relevance (MRMR) feature functions to identify and reduce the most optimal attribute/feature dimensions based on the classification results. Comparison performance of 2 classification algorithm models, namely Random Forest and Decision Tree CART (Classification And Regression Tree). The results of the Gula Karya Medika data with the Random Forest method have an accuracy of 0.839241 and Decision Tree CART of 0.849263. Decision Tree CART produces more optimal accuracy predictions than Random Forest.

Keywords : Diabetes, MRMR, Random Forest, Decision Tree CART