Abstract

Coronary Heart Disease (CHD) is a condition where there is accumulation of coronary artery plaque. This causes the coronary arteries to narrow or become blocked. Coronary arteries are arteries that supply blood to the heart muscle by carrying large amounts of oxygen. This study uses a fuzzy system to diagnose the severity of coronary heart disease. Input variables used in the study are age, sex, cp, trestbps, chol, fbs, restecg, thalach, exang, oldpeak, slope, ca, thal. In making the system used 90 data which is then divided into 2 types of data, namely 70 training data and 20 testing data. The results of the research on the application of fuzzy systems for the diagnosis of coronary heart disease are obtained the level of accuracy in the centroid defuzzification method of 92.8% for training data and 90% for testing data, while for the MOM defuzzification method the training data accuracy rate is 85.7% and data testing of 90%. Based on the results of the study, it can be said that the centroid defuzzification method is better than the MOM defuzzification system for the coronary heart disease diagnosis system, so, it can be concluded that by using a fuzzy system with centroid defuzzification, it is likely correct in diagnosing Coronary Heart Disease (CHD) 92.8%.

Keywords : disease, coronary heart, fuzzy, centroid, MOM, defuzzification