Abstract

Rough Set theory is a mathematical theory for classification based on structural analysis of relational data. It can be used to find the minimal reduct. Minimal reduct is the minimal knowledge representation for the relational data. The theory has been successfully applied to various domains in data mining. The core concepts of rough sets such as lower approximation and upper approximation are used to reduce the number of descriptive attributes based on their relative significance.

Heart disease diagnosis is a complex task which requires much experience and knowledge. Traditional way of predicting Heart disease is doctor's examination or number of medical tests such as ECG, Stress Test, and Heart MRI etc. Nowadays, Health care industry contains huge amount of heath care data, which contains hidden information. This hidden information is useful for making effective decisions.

This project deals with the greedy approach to find reduct in a dataset and to use those reduct to generate rules to diagnose heart disease. Experimental results shows that the proposed reduct algorithms find near optimal solution.