

Heart Failure Identification and Progression by Classifying Cardiac Patients

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Abstract : Heart Failure (HF) has become the major health problem in our society. The prevalence of HF has increased as the patient's ages and it is the major cause of the high mortality rate in adults. A successful identification and progression of HF can be helpful to reduce the individual and social burden from this syndrome. In this study, we use a real data set of cardiac patients to propose a classification model for the identification and progression of HF. The data set has divided into three age groups, namely young, adult, and old and then each age group have further classified into four classes according to patient's current physical condition. Contemporary Data Mining classification algorithms have been applied to each individual class of every age group to identify the HF. Decision Tree (DT) gives the highest accuracy of 90% and outperform all other algorithms. Our model accurately diagnoses different stages of HF for each age group and it can be very useful for the early prediction of HF.

Keywords : decision tree, heart failure, data mining, classification model

Conference Title : ICGSH 2017 : International Conference on Gender, Sex and Healthcare

Conference Location : London, United Kingdom

Conference Dates : February 16-17, 2017