Prediction of Coronary Heart Disease Using Fuzzy Logic

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Abstract : Coronary heart disease causes many deaths in the world. Unfortunately, this problem will continue to increase in the future. In this paper, a fuzzy logic model to predict coronary heart disease is presented. This model has been developed with seven input variables and one output variable that was implemented for 30 patients in Albania. Here fuzzy logic toolbox of MATLAB is used. Fuzzy model inputs are considered as cholesterol, blood pressure, physical activity, age, BMI, smoking, and diabetes, whereas the output is the disease classification. The fuzzy sets and membership functions are chosen in an appropriate manner. Centroid method is used for defuzzification. The database is taken from University Hospital Center "Mother Teresa" in Tirana, Albania.

Keywords : coronary heart disease, fuzzy logic toolbox, membership function, prediction model
Conference Title : ICAMAM 2022 : International Conference on Applied Mathematics and Analytic Methods
Conference Location : Istanbul, Türkiye
Conference Dates : June 27-28, 2022