

ARTIFICIAL MEDICAL DATA GENERATION FOR THE NEURAL NETWORK CORONARY ARTERY DISEASE DIAGNOSING SYSTEM

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Abstract

In applications of the neural networks in medical diagnosis researchers faced the problem of a finished medical data set which was too small for the network learning and testing. We started our research with 200 results of an exercise test confirmed by an objective coronarography result and we wanted to use neural network for estimating the state of the patient's main coronary vessels. Because the database was small we decided to generate artificial data. In this paper the original method of generating additional artificial data and using it for training and testing of the neural network is described.

Keywords: medical data, neural networks, coronary artery disease, exercise test