# EVALUATION OF OPTIMAL MLP STRUCTURE FOR HEART DISEASE DIAGNOSIS

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# ABSTRACT

This thesis presents the investigation on the performance of Artificial Neural Network (ANN) with Multilayer Perceptron (MLP) using Levenberg-Marquardt (LM) Algorithm in heart disease diagnosis. ANN aims to transform the inputs into the meaningful output. ANN is biological inspired and it has dynamic characteristic which is learning. ANN is able to learn through experience and adaptation. It learns the types of input based on their weights and properties. MLP consist of interconnected input layer, hidden layer and output layer. The weight of each value in hidden layers will be considered during the learning process. LM algorithm is used to minimize the error during training and testing process. A transfer function simulation model is developed by using the MATLAB software. This ANN model is developed to facilitate heart disease diagnosis.

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