# Aplikasi Neural Network Untuk Prediksi Runup Gelombang Pada Terumbu Karang

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**Abstract**

**Runup prediction can be used by nearshore population to do disaster mitigation. When the nearshore waves reached certain height, it may endanger human lives, and causes severe damage to buildings. The existence of fringing reef can reduce the wave energy comming from the sea. This paper is using artificial neural network to predict runup height, with 5 hidden layer, 120 neurons each layer, and 120 lookback . The data used in this paper is the laboratorium data from University of Michigan. Based on the hyperparameter optimization, the optimal model configuration has $MSE = 0.113$ on testing data, and $MSE = 0.024$ on training data.**

**Keywords: Mitigation, Runup, Artificial Neural Network, Multilayer perceptron, Guam experiment**