



Analysis and Prediction of Stunting Rate in East Java Province Using Support Vector Regression and Decision Tree Method

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Received: October 22, 2024; Revised: November 16, 2025

Abstract: Currently, in the health sector, Indonesia is facing several problems that the government is focusing on, one of which is stunting. The problem of stunting is a focus for the government since it ranks second after the problem of maternal mortality during childbirth. Stunting is a term used in the health sector describing a condition of growth failure in children under five due to chronic malnutrition in the first 1000 days of life. The causes of stunting can be identified from low nutritional intake and health status of pregnant women at risk of giving birth to babies with low body weight and below-standard baby length. With the current advances in the field of information technology, the stunting rate can be estimated using a machine learning method. There are numerous machine learning methods for prediction, such as Support Vector Regression (SVR), Decision Tree, K-Nearest Neighbour (K-NN) and many more. In this study, we aim to compare two prediction methods, namely Support Vector Regression (SVR) and Decision Tree, and determine how both methods succeed in predicting well. The Support Vector Regression (SVR) method achieved the best error value of 0.137 and the Decision Tree method had the best error value of 0.164.

Keywords: *stunting; prediction; machine learning; Support Vector Regression; decision tree.*

Mathematics Subject Classification (2020): 62J05, 70-10, 90Bxx.

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