

# Implementasi Algoritma *Differential Evolution* (DE) untuk Peramalan Curah Hujan di Kabupaten Bandung

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## Abstract

Weather is a phenomenon in the not-too-distant future. Occurs because of different temperatures and humidity between one place and another. Weather forecasting helps activities in all areas of work with changing weather. Weather forecasting can be done with a variety of scientific methods. One of the scientific methods that can be used is Soft Computing (SC). Soft Computing (SC) is one of the Artificial Intelligence (AI) methods that can be used in weather forecasting or weather prediction, has a basic algorithm namely Fuzzy System, Artificial Neural Network (ANN), and Evolutionary Algorithms (EAs). In this journal doing research on rainfall forecasting in Bandung regency, weather forecasting using rainfall data of Bandung Regency for the last 10 years (2005-2015), this data will be Preprocessing first using Weighted Moving Average (WMA) method. On the rainfall forecasting representation will use the Differential Evolution (DE) algorithm. From the test results in the best MAPE, with parameter lamda 0.5 get rainfall prediction with the best MAPE 31.5895%.

**Keywords:** weather, rainfall forecasting, *differential evolution*, *evolutionary alghorithm*