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# Hybrid Fourier Regression-Multilayer Perceptron Neural Network for Forecasting

**Muhammad Fajar**
Statistician
Badan Pusat Statistik – Statistics Indonesia
www.bps.go.id

**Zelani Nurfalah**
Statistician
Badan Pusat Statistik – Statistics Indonesia
www.bps.go.id

## Abstract

This study aims to compare the forecasting method between Fourier Regression, Multilayer Perceptrons Neural Networks (MPNN), and introducing a new forecasting method hybrid Fourier Regression - Multilayer Perceptrons Neural Networks Model proposed by the author. These methods are applied to forecast the production of big chili. The results show hybrid Fourier Regression - Multilayer Perceptrons Neural Networks Model is more accurate than Fourier Regression and multilayer Perceptrons (MPNN). The MAPE produced by Fourier Regression-MPNN is 4.45. In summary, the use of the hybrid Fourier Regression-MPNN method in forecasting big chili production can help the government to find out the potential production of big chili in the next few quarters and considering some government policies about big chili needs.