

**Title:** Machine Learning for GDP Forecasting: Enhancing Economic Projections in Bangladesh

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**Abstract:** GDP is an important metric for measuring economic performance, directing policy decisions, simplifying investment decisions, and assessing social wellbeing. GDP prediction is important for a country's future development. GDP prediction is critical for shaping economic policies, directing company strategy and affecting financial market performance. Machine Learning with its sophisticated techniques can easily assist in predicting the GDP of any country according to the previous yearly dataset. In this study, machine learning techniques are applied to forecast Bangladesh's GDP in the coming years based on data spanning the previous 43 years. The dataset is collected from Wikipedia and the World Bank. The dataset has nine features and the GDP is highly dependent on these features. Machine learning algorithms like Linear Regression, Random Forest, AdaBoost, KNN, Decision Tree, Lasso are used in this research and the best performing model is always the KNN for all alpha values with the accuracy of 98.40% go along with Random Forest, Decision Tree, AdaBoost, Linear Regression and Lasso with the accuracy of 95.80%, 95.32%, 95.05%, 90.78% and 67.14% respectively.

**Keywords:** GDP , Economy , Remittance , Wikipedia , Bangladesh , Machine Learning

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