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# Predictive Modeling of Gold Prices: Integrating Technical Indicators for Enhanced Accuracy

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pp 390–399 | [Cite this conference paper](#)



## Recent Advances on Soft Computing and Data Mining (SCDM 2024)

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## Abstract

This paper discusses the crucial requirement for reliable gold price prediction, which is necessary for financial market decision-making. We propose a comprehensive approach to develop a robust predictive model capable of predicting both the rise and fall of gold prices. For this, three (3) machine learning (ML) models—Decision Tree Regressor (DTR), Support Vector Regression (SVR),

and Random Forest (RF); must be carefully chosen, and model parameters must be adjusted so that predicted values roughly match actual results. Given this, this paper investigates the influence and effectiveness of incorporating technical indicators in predicting fluctuations in gold prices, which might have an impact on the overall performance of the ML models. By achieving a prediction accuracy rate of at least 80%, the model becomes a favorable tool for informed decision-making and provides valuable insights to investors in the gold markets.

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