

ABSTRAK

Fa'omasi Hia, Wilhelmus. 2026. Rancang Bangun Sistem Prediksi Kinerja Publikasi Dosen Menggunakan Model Time-Series Machine Learning (Studi Kasus: Prodi Teknik Informatika Universitas PGRI Madiun). Skripsi. Program Studi Teknik Informatika, Fakultas Teknik, Universitas PGRI Madiun. Pembimbing (I) Puguh Jayadi, S.Kom., M.Kom. Pembimbing (II) Yessi Yunita Sari, S.Kom., M.Cs

Penelitian ini bertujuan merancang dan membangun sistem penilaian kinerja dosen berbasis web di Program Studi Teknik Informatika Universitas PGRI Madiun yang terintegrasi dengan analisis prediktif menggunakan machine learning time-series untuk memprediksi tren publikasi ilmiah. Metode yang digunakan adalah pendekatan kuantitatif dengan pengembangan Agile, menggunakan Django dan MySQL serta model Linear Regression dan Decision Tree yang dievaluasi dengan RMSE, MAE, dan MAPE. Hasil penelitian menunjukkan bahwa sistem mampu meningkatkan efisiensi, objektivitas, serta memberikan informasi prediktif yang mendukung pengambilan keputusan strategis. Kata kunci: kinerja dosen, machine learning, time-series, sistem berbasis web.

Kata kunci: kinerja dosen, publikasi ilmiah, *machine learning*, *time-series*, sistem berbasis web, prediksi.

ABSTRACT

Fa'omasi Hia, Wilhelmus. 2026. Design and Development of a Lecturer Publication Performance Prediction System Using a Time-Series Machine Learning Model (Case Study: Informatics Engineering Study Program, Universitas PGRI Madiun). Undergraduate Thesis. Informatics Engineering Study Program, Faculty of Engineering, Universitas PGRI Madiun. Advisor (I) Puguh Jayadi, S.Kom., M.Kom. Advisor (II) Yessi Yunita Sari, S.Kom., M.Cs.

This study aims to design and develop a web-based lecturer performance evaluation system in the Informatics Engineering Study Program at Universitas PGRI Madiun, integrated with predictive analysis using time-series machine learning to forecast scientific publication trends. The method used is a quantitative approach with Agile development, utilizing Django and MySQL, as well as prediction models such as Linear Regression and Decision Tree evaluated using RMSE, MAE, and MAPE. The results show that the system improves efficiency, objectivity, and provides predictive insights to support strategic decision-making.

Keywords: lecturer performance, scientific publication, machine learning, time-series, web-based system, prediction.