

ABSTRAK

AGIA ARDINI. *Implementasi Metode Rapid Application Development (RAD) pada Pengembangan Sistem Akademik Yayasan Pendidikan (YP) Ummi Lubuk Pakam.* Dibimbing oleh Septian Simatupang, S.Kom., M.Kom dan Rizki Ramadhansyah, S.T., M.Kom

Penelitian ini bertujuan mengatasi inefisiensi dan kurang terstrukturanya sistem akademik manual di Yayasan Pendidikan (YP) Ummi Lubuk Pakam, khususnya dalam pengelolaan data siswa, keuangan, dan pendaftaran. Pendekatan yang digunakan adalah metode *Rapid Application Development (RAD)* untuk membangun Sistem Informasi Akademik (SIA) yang responsif dan terintegrasi. Lingkup pengembangan meliputi modul data siswa, penerimaan siswa baru, nilai, dan keuangan, diimplementasikan menggunakan framework Laravel. Hasil penelitian menunjukkan keberhasilan sistem yang dikembangkan. SIA terbukti mengurangi waktu pengolahan data hingga 62,1% dibandingkan metode manual, menunjukkan peningkatan efisiensi yang signifikan. Selain itu, sistem mencapai tingkat akurasi data sebesar 94,79%, memvalidasi kemampuan metode RAD dalam menghasilkan sistem dengan kesalahan minimal. Kesimpulannya, penerapan SIA berbasis RAD telah berhasil meningkatkan efektivitas, efisiensi, dan akurasi operasional akademik di YP Ummi Lubuk Pakam.

Kata Kunci: Sistem Informasi Akademik, Rapid Application Development (RAD), Laravel, Efisiensi, Akurasi.

ABSTRACT

AGIA ARDINI. *Implementation of the Rapid Application Development (RAD) Method in the Development of the Academic System of the Ummi Lubuk Pakam Education Foundation (YP). Supervised by Septian Simatupang, S.Kom., M.Kom and Rizki Ramadhansyah, S.T., M.Kom*

This study aims to overcome the inefficiency and lack of structure in the manual academic system at the Ummi Lubuk Pakam Education Foundation (YP), particularly in the management of student data, finances, and registration. The approach used is the Rapid Application Development (RAD) method to build a responsive and integrated Academic Information System (SIA). The scope of development includes modules for student data, new student admissions, grades, and finances, implemented using the Laravel framework. The results of the study show the success of the developed system. The AIS has been proven to reduce data processing time by 62.1% compared to manual methods, demonstrating a significant increase in efficiency. In addition, the system achieved a data accuracy rate of 94.79%, validating the RAD method's ability to produce systems with minimal errors. In conclusion, the implementation of the RAD-based AIS has successfully improved the effectiveness, efficiency, and accuracy of academic operations at YP Ummi Lubuk Pakam.

Keywords: Academic Information System, Rapid Application Development (RAD), Laravel, Efficiency, Accuracy.