

RANCANG BANGUN PENDATAAN MAHASISWA DAN PENERBITAN SURAT MAGANG SECARA OTOMATIS BERBASIS WEBSITE

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ABSTRAK

Proses pendataan mahasiswa dan penerbitan surat rekomendasi magang di Program Studi D3 Teknik Informatika Politeknik Negeri Bengkalis masih dilakukan menggunakan Google Form dan Microsoft Excel sehingga belum terintegrasi. Kondisi tersebut menyebabkan proses administrasi kurang efisien, berpotensi terjadi kesalahan input data, serta memperlambat proses penerbitan surat. Penelitian ini bertujuan untuk merancang dan membangun sistem informasi berbasis website yang mampu mengintegrasikan pendataan mahasiswa, pengajuan surat, verifikasi, hingga penerbitan surat rekomendasi magang secara otomatis.

Metode pengembangan sistem yang digunakan adalah Waterfall yang meliputi analisis kebutuhan, perancangan, implementasi, pengujian, dan pemeliharaan. Sistem dikembangkan menggunakan PHP dengan framework Laravel dan MySQL sebagai basis data. Hasil implementasi menunjukkan bahwa sistem berhasil menyediakan fitur login sesuai hak akses, pendataan mahasiswa, pengajuan dan verifikasi surat, serta penerbitan surat rekomendasi magang secara otomatis. Berdasarkan hasil pengujian menggunakan metode Black Box Testing, seluruh fungsi utama sistem berjalan sesuai dengan kebutuhan yang telah dirancang. Sistem ini mampu meningkatkan efisiensi proses administrasi, mengurangi kesalahan pengolahan data, serta mempercepat proses penerbitan surat rekomendasi magang di Program Studi D3 Teknik Informatika Politeknik Negeri Bengkalis.

Kata kunci: Sistem Informasi, Surat Rekomendasi Magang, Laravel, Website.

DESIGN OF A WEBSITE-BASED AUTOMATIC STUDENT DATA COLLECTION AND INTERNSHIP LETTER ISSUANCE

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ABSTRACT

The process of student data collection and internship recommendation letter issuance at the D3 Informatics Engineering Study Program, Politeknik Negeri Bengkalis, is still carried out using Google Forms and Microsoft Excel, resulting in a non-integrated administrative process. This condition leads to inefficient administration, increases the risk of data entry errors, and delays the issuance of internship recommendation letters. Therefore, this study aims to design and develop a website-based information system capable of integrating student data collection, letter submission, verification, and the automatic issuance of internship recommendation letters.

The system was developed using the Waterfall methodology, which consists of the requirements analysis, system design, implementation, testing, and maintenance phases. The system was built using PHP with the Laravel framework and MySQL as the database management system. The implementation results show that the system successfully provides role-based login, student data management, letter submission and verification, and automatic generation of internship recommendation letters. Based on Black Box Testing, all main system functions operated according to the specified functional requirements. The developed system improves administrative efficiency, minimizes data processing errors, and accelerates the issuance of internship recommendation letters at the D3 Informatics Engineering Study Program, Politeknik Negeri Bengkalis.

Keywords: Information System, Internship Recommendation Letter, Laravel, Website.