

ABSTRAK

Pengelolaan kehadiran peserta magang di Pusat Data dan Teknologi Informasi Pendidikan (Pusdatikomdik) masih mengandalkan *Microsoft Excel* sehingga proses pencatatan dan pemantauan kehadiran belum berjalan secara optimal. Kondisi tersebut berpotensi menimbulkan kesalahan pencatatan serta menyulitkan penyajian informasi kehadiran secara *real-time*. Penelitian ini bertujuan mengembangkan sistem monitoring kehadiran peserta magang berbasis website yang memanfaatkan teknologi *Face Recognition* dan GPS, serta dilengkapi fitur *logbook* digital dan *dashboard Dashboard Analitik* untuk mendukung pengelolaan dan visualisasi data kehadiran.

Pengembangan sistem menggunakan metode *Rapid Application Development* (RAD) yang mencakup tahapan Perencanaan Kebutuhan, analisis menggunakan metode PIECES, perancangan dengan *Unified Modeling Language* (UML), serta implementasi menggunakan *framework* Laravel dan basis data MySQL. Kualitas sistem dievaluasi melalui *Black Box Testing* terhadap 25 skenario pengujian dan User Acceptance Testing (UAT) menggunakan skala Likert yang melibatkan satu peserta magang dan empat pembimbing/admin. Hasil pengujian menunjukkan seluruh fungsi sistem berjalan sesuai kebutuhan, dengan tingkat penerimaan sebesar 98% dari peserta magang dan 88% dari pembimbing/admin yang termasuk kategori Sangat Layak. Sistem yang dikembangkan mampu mendukung absensi digital berbasis *Face Recognition* dan GPS, menyediakan *logbook* digital, serta menyajikan *dashboard Dashboard Analitik* untuk membantu monitoring aktivitas dan pengelolaan data kehadiran secara lebih efektif, efisien, dan *real-time* di lingkungan Pusdatikomdik.

Kata Kunci: monitoring kehadiran; *Face Recognition*; GPS; *Rapid Application Development*; *Dashboard Analitik*.

ABSTRACT

The attendance management process for internship participants at the Center for Educational Data and Information Technology (Pusdatikomdik) still relies on Microsoft Excel, resulting in less effective attendance recording and monitoring. This condition increases the risk of recording errors and makes it difficult to provide real-time attendance information. This study aims to develop a web-based internship attendance monitoring system utilizing Face Recognition and GPS technologies. The system is also equipped with a digital logbook and a Dashboard Analitik dashboard to support attendance management, monitoring, and data visualization.

The system was developed using the Rapid Application Development (RAD) methodology, which includes Requirements Planning, PIECES analysis, system design using Unified Modeling Language (UML), and implementation using the Laravel framework with a MySQL database. System evaluation was conducted through Black Box Testing involving 25 test scenarios and User Acceptance Testing (UAT) using a Likert scale with one internship participant and four supervisors/administrators. The testing results indicated that all system functions operated as expected. The UAT results showed acceptance rates of 98% from the internship participant and 88% from the supervisors/administrators, both categorized as Highly Feasible. The developed system successfully supports digital attendance using Face Recognition and GPS, provides a digital logbook, and presents a Dashboard Analitik dashboard to improve the effectiveness, efficiency, and real-time monitoring of internship attendance management at Pusdatikomdik.

Keywords: attendance monitoring; Face Recognition; GPS; Rapid Application Development; Dashboard Analitik.