

Alfian Syah Putra. 2025. *Pengembangan Sistem Informasi Absensi Siswa Menggunakan Geolocation Terintegrasi Whatsapp di SMKN 2 Bangkalan*. Skripsi, Program Studi Pendidikan Informatika, Fakultas Keguruan dan Ilmu Pendidikan, Universitas Trunojoyo Madura. Pembimbing: Laili Cahyani, S.Kom., M.Kom.

ABSTRAK

Kemajuan teknologi informasi semakin mendorong penerapan digitalisasi salah satunya disektor pendidikan. Namun absensi siswa disekolah SMKN 2 Bangkalan hingga saat ini masih menerapkan absen secara manual dengan kertas. Penelitian ini bertujuan merancang dan mengembangkan sistem informasi absensi siswa berbasis web yang dilengkapi teknologi *Geolocation* serta terintegrasi *WhatsApp Gateway*. Penelitian menggunakan metode Research and Development (R&D) dengan pendekatan model *Waterfall*, dan pengujian kelayakan sistem menggunakan standar ISO 25010. Sistem dikembangkan menggunakan *PHP*, *MySQL*, dan *JavaScript*, dengan fitur *geolocation* dan kamera selfie, validasi lokasi saat absensi, pengiriman notifikasi otomatis ke *WhatsApp* orang tua, serta pembuatan laporan kehadiran yang dapat dicetak. Hasil uji menunjukkan bahwa sistem memenuhi aspek *functional suitability* dan *portability* setelah dilakukan pengujian oleh 2 validator dengan memperoleh tingkat kelayakan 100%, aspek *usability* setelah dilakukan pengujian kepada 20 pengguna dengan hasil akhir yang telah dihitung dengan tingkat kelayakan sebesar 89% dan aspek *performance efficiency* dengan perolehan nilai performa 65% dan waktu pemuatan halaman (LCP) 5,8 detik. Dengan demikian, sistem informasi absensi ini dapat dinilai layak digunakan serta mampu meningkatkan efisiensi, keakuratan data kehadiran, dan memperkuat komunikasi antara sekolah dan orang tua siswa.

Kata Kunci: Sistem Informasi, Absensi Siswa, *Geolocation*, *WhatsApp Gateway*, *Waterfall*

Alfian Syah Putra. 2025. *Development of Student Attendance Information System Using Integrated Geolocation Whatsapp at SMKN 2 Bangkalan*. Thesis, Informatics Education Study Program, Faculty of Teacher Training and Education, Trunojoyo University Madura. Advisor: Laili Cahyani, S.Kom., M.Kom.

ABSTRACT

The advancement of information technology is increasingly encouraging the implementation of digitalization, one of which is in the education sector. However, student attendance at SMKN 2 Bangkalan is still manually using paper. This study aims to design and develop a web-based student attendance information system equipped with Geolocation technology and integrated with WhatsApp Gateway. The study uses the Research and Development (R&D) method with a Waterfall model approach, and system feasibility testing uses the ISO 25010 standard. The system was developed using PHP, MySQL, and JavaScript, with geolocation and selfie camera features, location validation during attendance, automatic notification sending to parents' WhatsApp, and the creation of printable attendance reports. The test results show that the system meets the functional suitability and portability aspects after testing by 2 validators with a 100% feasibility level, the usability aspect after testing to 20 users with the final result that has been calculated with a feasibility level of 89% and the performance efficiency aspect with a performance score of 65% and a page load time (LCP) of 5.8 seconds. Thus, this attendance information system can be assessed as suitable for use and is able to increase efficiency, accuracy of attendance data, and strengthen communication between schools and parents.

Keywords: *Information System, Student Attendance, Geolocation, WhatsApp Gateway, Waterfall*