

## INTISARI

Penelitian berjudul "Sistem Presensi Cerdas Anggota LINMAS Berbasis *Website* dengan Validasi Radius Lokasi Menggunakan *Geolocation* (Studi Kasus: Kelurahan Sudiroprajan)" bertujuan merancang dan membangun sistem presensi digital untuk mendukung pencatatan kehadiran 13 anggota LINMAS pada *shift* Pagi, Siang, dan Malam serta menguji fungsionalitas dan penerimaan pengguna. Ruang lingkup dibatasi pada Kelurahan Sudiroprajan dengan pengembangan *website* menggunakan Laravel 10 dan *database* MySQL, aplikasi *mobile* Flutter berbasis *WebView*, serta fitur manajemen pengguna, jadwal *shift*, presensi masuk dan keluar berfoto dan *GPS*, cuti/izin, laporan kehadiran, serta rekap penggajian dan kas LINMAS. Metode pengembangan yang digunakan adalah *Rapid Application Development (RAD)*, sedangkan pengujian dilakukan dengan *Black Box Testing* dan evaluasi kuesioner pengguna. Hasil penelitian menunjukkan bahwa sistem berhasil dibangun dan mampu mencatat kehadiran secara digital dengan bukti foto serta validasi radius *geolocation* sejauh 200 meter dari titik acuan Kantor Kelurahan Sudiroprajan. Pengujian *Black Box Testing* terhadap *login*, manajemen data, jadwal, presensi, cuti/izin, ekspor laporan Excel, validasi lokasi, rekap penggajian, dan perhitungan kas LINMAS dinyatakan *valid* sesuai harapan. Evaluasi oleh 5 responden menghasilkan skor rata-rata 4,66 dengan persentase 93% sehingga termasuk kategori Sangat Baik. Dengan demikian, sistem dinyatakan mampu meminimalkan kelemahan presensi manual seperti titip absen, rekapitulasi lambat, data fisik rawan hilang atau rusak, sulit dipantau secara *real-time*, dan laporan kehadiran yang tidak efisien, serta menjawab kedua rumusan masalah penelitian.

Kata kunci: presensi LINMAS, *geolocation*, Laravel, Flutter, *Black Box Testing*

## **ABSTRACT**

*The study entitled "Smart Attendance System for LINMAS Members Based on a Website with Location Radius Validation Using Geolocation (Case Study: Sudiroprajan Urban Village)" aims to design and develop a digital attendance system to support attendance recording for 13 LINMAS members on Morning, Afternoon, and Night shifts, and to examine system functionality and user acceptance. The research scope is limited to Sudiroprajan Urban Village, with a website developed using Laravel 10 and MySQL, a mobile application built with Flutter WebView, and main features covering user management, shift scheduling, check-in and check-out attendance with photo and GPS, leave, permission, or sick-leave management, attendance reporting, and payroll as well as LINMAS cash recapitulation. The development method used is Rapid Application Development (RAD), while testing is conducted through Black Box Testing and user questionnaire evaluation. The results show that the system was successfully developed and is able to record attendance digitally with photo evidence and geolocation radius validation within 200 meters from the reference point at the Sudiroprajan Urban Village Office. Black Box Testing of login, data management, scheduling, attendance, leave or permission, Excel report export, location validation, payroll recapitulation, and LINMAS cash calculation produced valid results as expected. Evaluation involving 5 respondents yielded an average score of 4.66 with a percentage of 93%, categorized as Very Good. Therefore, the system is concluded to minimize the weaknesses of manual attendance, such as proxy attendance, slow recapitulation, vulnerable physical records, limited real-time monitoring, and inefficient attendance reporting, and to answer both research problem statements.*

*Keyword: LINMAS attendance, geolocation, Laravel, Flutter, Black Box Testing*