

RANCANG BANGUN SISTEM INFORMASI MONITORING PETUGAS PENANGANAN PRASARANA DAN SARANA UMUM (PPSU) BERBASIS WEB DI KELURAHAN PONDOK LABU

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ABSTRAK

Proses pengawasan dan pelaporan kegiatan petugas Penanganan Prasarana dan Sarana Umum (PPSU) di Kelurahan Pondok Labu masih dilakukan secara manual, di mana ketua regu melakukan pelaporan kegiatan melalui Google Form dan pengiriman foto kegiatan melalui WhatsApp. Cara tersebut menimbulkan kendala dalam memastikan keabsahan laporan, akurasi data lokasi, serta pengawasan kegiatan di lapangan. Penelitian ini bertujuan untuk merancang dan membangun sistem informasi monitoring petugas PPSU berbasis web yang terintegrasi guna mendukung pelaporan kegiatan secara digital. Metode yang digunakan adalah model pengembangan sistem Prototype. Sistem dikembangkan menggunakan bahasa pemrograman PHP, HTML, CSS, framework Laravel, basis data MySQL dan layanan Google Maps API. Data penelitian diperoleh melalui wawancara dengan pihak Kelurahan Pondok Labu untuk menganalisis kebutuhan sistem. Hasil penelitian berupa sistem yang menyediakan fitur pencatatan logbook kegiatan dengan progres pekerjaan, verifikasi lokasi berbasis geolocation dan geofencing untuk pembatasan radius kerja, visualisasi monitoring melalui peta, serta laporan kegiatan secara terstruktur. Hasil pengujian black box & User Acceptance Testing menunjukkan bahwa seluruh fungsi utama sistem berjalan sesuai dengan yang diharapkan dengan tingkat keberhasilan 100%.

Kata Kunci : Geolocation, Monitoring Kegiatan, PPSU, Prototype, Sistem Informasi

DESIGN AND DEVELOPMENT OF A WEB-BASED MONITORING INFORMATION SYSTEM FOR PUBLIC INFRASTRUCTURE AND FACILITIES HANDLING (PPSU) OFFICERS AT PONDOK LABU SUB-DISTRICT

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ABSTRACT

The process of monitoring and reporting the activities of Public Infrastructure and Facilities Handling (PPSU) officers in Pondok Labu Subdistrict is still carried out manually, where team leaders report activities using Google Forms and by sending activity photos via WhatsApp. This approach causes difficulties in ensuring report validity, location accuracy, and effective field monitoring. This study aims to design and develop a web-based monitoring information system for PPSU officers to support digital activity reporting. The research method used is the Prototype system development model. The system is developed using PHP, HTML, CSS, the Laravel framework, MySQL database, and Google Maps API service. Data were collected through interviews with the Pondok Labu Subdistrict to analyze system requirements. The result of this study is a system that provides features for activity logbook recording with work progress, geolocation and geofencing-based location verification for radius restriction, map-based monitoring visualization, and structured activity reports. Based on Black Box Testing and User Acceptance Testing, all main system functions run as expected with a success rate of 100%.

Keywords: Geolocation, Information System, Monitoring, PPSU, Prototype