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IMPLEMENTASI SISTEM LIVE SCORING PERTANDINGAN FUTSAL BERBASIS WEB PADA TURNAMEN ISNU COMPETITION. Dibawah bimbingan much. rifqi maulana, M.Kom. dan wachid darmawan, M.Kom.

56 + xii halaman / 19 gambar / 8 tabel / 14 pustaka (2022–2026)

ABSTRAK

Penelitian ini bertujuan mengimplementasikan sistem *live scoring* pertandingan futsal berbasis web pada Turnamen ISNU Competition untuk meningkatkan efisiensi pengelolaan pertandingan serta penyampaian informasi secara real-time. Metode yang digunakan meliputi observasi, wawancara, pengembangan sistem menggunakan framework Laravel dengan arsitektur Model-View-Controller (MVC) dan basis data MySQL, serta pengujian menggunakan Black Box Testing, User Acceptance Testing (UAT), dan Web Stress Testing menggunakan Locust. Hasil penelitian menunjukkan bahwa sistem berhasil mengelola data tim, jadwal pertandingan, pembaruan skor secara real-time, klasemen otomatis, dan bagan *knockout*. Pengujian UAT memperoleh tingkat keberhasilan 100% pada seluruh fungsi utama, sedangkan pengujian beban menunjukkan rata-rata waktu respons sebesar 252 ms dengan keterbatasan performa yang dipengaruhi oleh sumber daya *shared hosting*, bukan oleh logika aplikasi. Kontribusi penelitian ini adalah menyediakan solusi digital yang meningkatkan efektivitas, transparansi, dan akurasi pengelolaan turnamen futsal serta mendukung transformasi digital dalam penyelenggaraan kompetisi olahraga di lingkungan sekolah.

Kata kunci: *live scoring*, futsal, Laravel, sistem berbasis web, turnamen.

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Abstract

This study aims to implement a web-based live scoring system for futsal matches in the ISNU Competition Tournament to improve match management efficiency, accelerate information dissemination, and minimize errors in score recording and standings calculation. The research employed observation and interviews, followed by the development of a web-based application using the Laravel framework with the Model-View-Controller (MVC) architecture and a MySQL database. System evaluation was conducted through Black Box Testing, User Acceptance Testing (UAT), and Web Stress Testing using Locust. The results indicate that all major features, including team management, match scheduling, live scoring, automatic standings, and knockout bracket generation, functioned properly, achieving a 100% success rate in UAT. Stress testing recorded an average response time of 252 ms, while failures under heavy load were primarily caused by shared hosting resource limitations rather than application logic errors. The implemented system successfully provides fast, accurate, and real-time match information through online access. This study contributes an appropriate technology solution that supports the digitalization of futsal tournament management, improves organizer efficiency, enhances information transparency, and delivers better services for participants and the public.

Keywords: live scoring, futsal, Laravel, web-based system, tournament.