INTISARI

PERANCANGAN DAN IMPLEMENTASI TAMPILAN SISTEM ASISTENSI PRAKTIKUM BERBASIS WEBSITE DENGAN PENDEKATAN *USER-CENTERED DESIGN*

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Perkembangan teknologi informasi mendorong pengembangan sistem akademik yang lebih efisien, termasuk pada proses pendaftaran, seleksi, dan manajemen asisten praktikum di perguruan tinggi. Saat ini, di lingkungan Program Studi Teknologi Rekayasa Perangkat Lunak UGM, proses tersebut masih dilakukan secara manual sehingga menimbulkan beberapa kendala. Penelitian ini membahas sistem asistensi praktikum berbasis website dengan fokus pada perancangan UI/UX menggunakan pendekatan *User-Centered Design* (UCD) dan implementasi tampilan front-end. Implementasi front-end dikembangkan menggunakan Laravel Blade dan Tailwind CSS, dengan integrasi data melalui REST API yang disediakan oleh pengembang back-end. Evaluasi dilakukan menggunakan metode *System Usability Scale* (SUS) untuk mengukur tingkat kemudahan pengguna serta pengujian responsivitas untuk menilai konsistensi tampilan di perangkat desktop dan *mobile*. Hasil pengujian menunjukkan bahwa sistem yang diberi nama *AssistLab* memperoleh skor SUS rata-rata 82,98 (*Excellent*). Berdasarkan hasil pengujian tersebut, sistem *AssistLab* ini dinilai mampu membantu efisiensi proses pendaftaran, seleksi asisten praktikum, menghadirkan tampilan yang responsif, mudah digunakan, dan berorientasi pada kebutuhan pengguna.

Kata kunci: Asisten praktikum, UI/UX, *User-Centered Design*, *System Usability Scale*, Front-end

ABSTRACT

DESIGN AND IMPLEMENTATION OF A WEBSITE-BASED LAB ASSISTANCE INTERFACE USING A USER-CENTERED DESIGN APPROACH

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Advances in information technology have driven the development of more efficient academic systems, including those used in the registration, selection, and management of teaching assistants at universities. Currently, within the Software Engineering Study Program at Gadjah Mada University, these processes are still carried out manually, which causes several obstacles. This study discusses a website-based laboratory assistant system with a focus on UI/UX design using a User-Centered Design (UCD) approach and front-end interface implementation. The front-end implementation was developed using Laravel Blade and Tailwind CSS, with data integration through a REST API provided by the back-end developer. The evaluation was conducted using the System Usability Scale (SUS) method to measure the ease of use and responsiveness testing to assess the consistency of the display on desktop and mobile devices. The test results showed that the system, named AssistLab, obtained an average SUS score of 82.98 (Excellent). Based on these test results, the AssistLab system is considered capable of helping to streamline the registration process, select lab assistants, and provide a responsive, easy-to-use display that is oriented towards user needs.

Keywords: Lab assistant, UI/UX, User-Centered Design, System Usability Scale, Front-end