ABSTRAK

RANCANG BANGUN *DASHBOARD* ADMIN UNTUK PEMINJAMAN SEPEDA LISTRIK DI UNIVERSITAS LAMPUNG MENGGUNAKAN METODE *RAPID APPLICATION DEVELOPMENT*

Oleh

SELMA KIRANI

Penelitian ini bertujuan untuk merancang dan mengembangkan *dashboard admin* untuk sistem peminjaman sepeda listrik berbasis *website* di Universitas Lampung sebagai bagian dari upaya mendukung program Kampus Hijau. Meskipun Universitas Lampung sudah memiliki program transportasi hijau, sistem peminjaman sepeda listrik yang ada masih kurang optimal dikarenakan belum dilengkapi dengan sistem pengelolaan yang memudahkan admin dalam memantau aktivitas peminjaman. Dalam penelitian ini, metode *Rapid Application Development* (RAD) digunakan untuk mempercepat pengembangan sistem disertai dengan penggunaan *framework CodeIgniter* agar prosesnya lebih efisien. Proses pengujian aplikasi dilakukan dengan metode *black box testing* pada 14 fitur dan total 60 skenario. Hasil pengujian *black box* menyatakan bahwa seluruh skenario memberikan hasil sesuai dengan yang diharapkan. Sehingga, didapatkan kesimpulan bahwa sistem *dashboard admin* yang dikembangkan sudah berjalan sesuai kebutuhan fungsional dan non-fungsional sistem. Implementasi *dashboard* ini diharapkan dapat meningkatkan efisiensi dan efektivitas dalam pengelolaan peminjaman sepeda listrik di Universitas Lampung.

Kata Kunci: Kampus Hijau, *Dashboard Admin*, Peminjaman Sepeda, Sepeda Listrik, *Rapid Application Development* (RAD)

ABSTRACT

ADMIN DASHBOARD DESIGN AND DEVELOPMENT FOR LENDING ELECTRIC BIKES AT LAMPUNG UNIVERSITY USING THE RAPID APPLICATION DEVELOPMENT METHOD

By

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The objective of this research is to design and develop an administrative dashboard for a website-based electric bicycle lending system at Lampung University as part of an initiative to support the Green Campus program. Although Lampung University has already implemented a green transportation program, the existing electric bicycle lending system remains suboptimal due to the absence of a management system that would facilitate the monitoring of lending activities by administrative personnel. In this research, the Rapid Application Development (RAD) method is employed to expedite the system development process, with the CodeIgniter framework utilized to enhance efficiency. The application was tested using the black box testing method on 14 features and a total of 60 scenarios. The results of the black box testing indicate that all scenarios yielded the anticipated outcomes. It can be concluded that the developed admin dashboard system has been implemented in accordance with the functional and non-functional requirements of the system. The deployment of this dashboard is anticipated to enhance the efficiency and effectiveness of the management of electric bicycle loans at the University of Lampung.

Keywords: Green Campus, Admin Dashboard, Bicycle Lending, Electric Bike, Rapid Application Development (RAD)