ABSTRACT

Computer Engineering Expertise Management Information System (SIMKKRK) research and community service management module is a website-based information system application that was built to simplify research and community service management systems in the Computer Engineering Expertise Group S1 Computer Engineering Study Program Telkom University. In addition to being able to manage research and community service, SIMKKRK can conduct a simulation of Credit Score Calculation (PAK).

The design and construction of the system is done sequentially in accordance with the techniques of the waterfall method. The stages carried out in the design and development of applications are requirements analysis, design, modeling, and development. At the design stage, making Software Requirement Specification (SRS) documents, making Unified Modeling Language (UML), and designing mockups. The results of the design will be implemented at the development stage. The database used by the SIMKKRK application is MySQL using Hypertext Preprocessor (PHP) version 7.3.3. Application development using the Codeigniter 3.1.1 framework with the Hypertext Preprocessor (PHP) programming language supported with Bootstrap 4 and ajax programming languages. The system provides two classes of users namely the lecturer and the head of the expertise group. Each user can monitor research and community service from the submission stage to the reporting stage.

The results of the implementation of the design were tested with several test methods, namely Blackbox, Beta Testing, and Testing using Catalyst Studio. Blackbox test results can be concluded that all functions specified in the design process have been successful and there are no errors. Functional testing using Katalon Studio has the conclusion that there are no functions or redirect processes that are error or not as expected. Beta Testing conducted by the correspondent of several lecturers from the Computer Engineering Expertise Group and one of them was the Secretary of the Expertise Group stated that the application was good and was running as it should with a few suggestions.

Keywords*: SIMKKRK, Information System, Waterfall Method, UML, Codeigniter.*