

ABSTRACT

Maintenance Department of Indonesian Aerospace is one of departments with the task of doing the process of machinery maintenance. In existing condition, Maintenance Department have had information system that supports the operational of maintenance management, which is Computerize Maintenance Management System (CMMS). However, because of several factors, the use of CMMS has not fully supporting maintenance process and there are limitations in managing employee's knowledge. The research objection is designing Material Management module of Indonesian Aerospace Maintenance Knowledge Management System.

Designing of Indonesian Aerospace Maintenance KMS is using waterfall method and developed to be a web based system by PHP CodeIgniter framework. The stages that must be passed in waterfall method are requirements definition, system and software design, implementation and unit testing, and integration and system testing. The choosing of PHP CodeIgniter framework is expected to facilitate system development in the future. Designing of Indonesian Aerospace Maintenance KMS is also considering KM Triad aspects which are the success factor of KMS implementation.

Indonesian Aerospace Maintenance KMS has functionality that meets KM Cycle stages, which consist of creation, storage, retrieval, and application. Indonesian Aerospace Maintenance KMS divided into several modules. This research focuses on Material Management module. Result of system testing that performed and user acceptance test indicate that Indonesian Aerospace Maintenance KMS functionality have gone well and meets design, reliability, responsiveness, and trust aspects on the user side.

Indonesian Aerospace Maintenance KMS have designed based on KM Cycle. Further research can be done to develop Indonesian Aerospace Maintenance KMS. It aims to enhance the features of Maintenance KMS in accordance with Maintenance Department needs and integrate the system of other departments at Indonesian Aerospace.

Keywords: Knowledge Management System, KM Cycle, Waterfall