

## **ABSTRACT**

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### **OPERATIONAL VEHICLE MAINTENANCE COST MODULE ON PT.OHL MAIN APPLICATION**

(xv + 90 pages : 34 figures; 23 tables; 2 appendices)

This thesis discuss the development of a module that manages all maintenance activities at PT.OHL. This module is built to enhance the current application that do not have the features to manage the cost of maintenance and to manage the activities of vehicle registration renewal. Lack of proper documentation, difficulties in finding vehicle maintenance data and no integration with current application are often causing confusion for both staff and company in managing the cost of maintenance activity. This module is intended to help PT.OHL in managing their vehicle maintenance activities.

The development of the module begins with an analysis of the current system to discover the problem and to determine the requirements for the application to be built by using interview and literature studies. The analysis result are modelled using UML 2.0 diagrams consisting of use case diagram and activity diagrams. Then, the data management system is designed along with the interface of the system. After the designing phase completed, the implementation of the system is conducted, including the process of building application with Visual Basic.Net language and testing. Circuit analysis, design and implementation are conducted repeatedly in a cycle, better known as the prototyping method, in which every outcome of each cycle will be given to the user to gain feedback. This activity is conducted so that the application is developed in accordance to the needs of user. Furthermore, any necessary changes or revision can be directly carried out without having to start over the design.

With this module, the performance of operational vehicle maintenance activity that runs in PT.OHL can be better because of the data processing such as addition of new vehicle maintenance data can be well organized so the owner of PT.OHL can see the history of each maintenance activity. The information that is presented in this module will have more detail such as the total cost for each vehicle in certain period, detail of any expenses in a maintenance activity, and the history of vehicle registration renewal.

References : 11 (2004-2011)