

## **ABSTRACT**

*The Facility Division at PT. Kereta Api Indonesia (KAI) operation region II Bandung responsible to maintain and fulfill infrastructure needs to run the services which offered by PT. Kereta Api Indonesia (KAI). One of the infrastructures who had vital role to the service is locomotive, because locomotive are used to pull the train. The locomotive selection for every services are Facility Divisions job and responsibility, although in the reality, the locomotive selection process in operation region II Bandung not doing well. The process selection for every service not based on the locomotive's real condition, but based on locomotive's age factor which doesn't have correlation to locomotive performance. This mistake can causing failure in train as damage component who can make train arriving late. Based on that problem, researcher purpose to fixing the locomotive selection process in PT. Kereta Api Indonesia (KAI) operation region II Bandung.*

*In order to represent locomotive real condition, the locomotive selection process do based on locomotive rank with consider several factor which are influence locomotive performance. Those factor are the condition every component and current performance from locomotive which contain of failure and locomotive not passing daily check. Locomotive who get inspection only locomotive CC201, locomotive CC203 and locomotive CC204 series in operation region II Bandung. The rank of locomotive will help facility division, because locomotive rank data will describe real condition from locomotive. Locomotive identification process do with gather importance degree data every locomotive component. This data is proceed by expert choice software in order to know the value from every component, then the class of locomotive will recognize. From this locomotive condition processing data, produce locomotive CC204 13 with superb condition and locomotive CC203 07 with weakness condition. After that we can identify the failure and locomotive who not passing daily check.*

*From the calculation of component condition and actual performance, produce locomotive CC204 14 as the first rank and locomotive CC201 94 as the last rank from all locomotive. Locomotive CC204 will set with the highest service that is Argo Wilis train, and locomotive CC201 94 will set with economic class service that is Kutojaya Selatan train.*

*Based on selection locomotive system in PT. Kereta Api Indonesia (KAI), the selection process based on locomotive age factor can't be good manual for choosing locomotive. Choosing locomotive should be based on real locomotive condition which can be seen from component performance and locomotive actual performance.*

*Keyword: locomotive, expert choice, locomotive component rank*