

## **ABSTRACT**

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Study Program : Construction Management  
Title : ***TOWER CRANE NEEDS-BASED OPTIMIZATION Of  
LEAN CONSTRUCTION In HIGH-RISE BUILDINGS***  
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Along with the need for multilevel building in Indonesia, then the necessary equipment for the transportation of the material which is very important, namely Tower Crane. Waste (*waste*) at the storied building is 57%, to be able to overcome the implementation *Lean Contruction area* became the choice of the researchers on the study.

In the study carried out analysis statistics using analysis of Relative Important Index (RII) in order to get the 12 most influential factor of the results of this research is to minimize the waste to maximise the movement, balance the movement (flow), resources, labor, selection of versatile models *draw value stream folder*, compare results, the number of TC, single, double jieb jieb, location of unused material.

Research results from a case study of optimization needs of tower crane on high-rise building project of Pensions, obtained results of Kartika time amounting to 3.85% efficiency and cost-efficiency of 36.37%.

**KEYWORDS** : *Tower Cranes, Lean Construction, , Relatively Important Index, Time Efficiency, Cost Efficiency*