# UNIVERSITAS INTERNASIONAL BATAM

*Thesis*
*Civil Engineering Faculty*
*2018/2019*

***ANALYSIS PRODUCTIVITY OF CASTING CONCRETE READYMIX WITH USING CONCRETE BUCKET AND CONCRETE PUMP ON STOREY BUILDING (CASE STUDY: GRAND MALL BATAM DEVELOPMENT PROJECT)***

*NPM: 1511053*
*CALVIN*

## *ABSTRACT*

*In this research discuss the productivity and time of casting concrete readymix on the work of columns, beams and slab of storey buildings, especially on the 2nd floor and 3rd floor using a concrete bucket and concrete pump. Therefore it can be identified that work tools and manpower have an effect on the casting that will be produced. At casting of productivity, it can be seen how significant the influence of the tools and manpower to productivity produced. so to find out which factors have the most influence on increasing productivity.*

*There have two types of data used, that is qualitative (by distributing questionnaires to parties that related with casting implementation) and quantitative (direct observation in the field). Regression analysis is used to obtain a linear relationship between variables X with variable Y. Which is variable X is height every floor while variable Y is casting productivity.*

*The result of analysis shows that the casting productivity value by using the concrete bucket on the 2nd floor, which is 3.84 $m^3$ / hour and 3rd floor which is 3.80 $m^3$ / hour, while using the concrete pump on the 2nd floor is 12.15 $m^3$ / hour and the third floor is 11.41 $m^3$ / hour. The comparison of casting time every one $m^3$ with using concrete bucket and concrete pump on 2nd floors and 3rd floor is (10.40; 4.57) minutes, (10.63; 4.80) minutes.*

*The results of simple analysis regression linear by using a concrete bucket are obtained with the equation y = -0.0096x + 3.9502, and the results of regression analysis by using a concrete pump are obtained by the equation y= -0.1258x + 13.418.*

***Keywords**: Productivity, Readymix, Concrete Bucket, Concrete Pump, Regression*