

## ***ABSTRACT***

Gavin Ananda Pangersa Graviana  
12316983

*A construction project is a series of activities related to efforts to construct a building, including basic work in the field of civil engineering. Project management is an effort to plan, organise, direct, and supervise activities in a project in such a way that they comply with the predetermined time schedule and budget. Time and costs greatly influence the success and failure of a job. The benchmark for success is usually a short completion time with minimal costs, without ignoring the quality of the work. The research carried out on the industrial plant project is planned to be completed within 25 weeks. However, in reality, this project experienced delays in the 13th week. Based on planning in the 13th week, work will be completed at 82.944%, but in implementation, only 71.342% was realised, resulting in a deviation of 11.602%. The method used to find optimal costs and time is the crashing method, which involves accelerating the duration of activities located on the critical path that has the lowest cost slope and then calculating the changes in costs that occur due to acceleration. The terminology of the crashing process is reducing work, which will affect the project completion time. The aim and purpose of this final project research is to optimise project scheduling in development using the crashing method, which is explained as follows: Identifying work that is experiencing delays using Microsoft Project software, getting the crashing duration value with the addition of overtime, getting the acceleration curve, as well as the value and percentage of cost increases after crashing. The s-curve after crashing shows that with 1 hour of overtime, it will return the duration to 174 days according to the plan from 181 days due to delays and with additional costs of Rp. 93,416,258, resulting in an increase of 6.742% from the normal cost of Rp. 1,385,674,492 to Rp. 1,479,090,750*

*Keywords: Delay, Crashing Method, Added Working Hours, Cost Increase.*

*(xiv+134+Attachment)  
Bibliography (1987-2016)*