

ABSTRACT

OPTIMIZATION OF WORK PROJECTS WITH CPM

(Case Study: Construction Project of Faculty of Engineering, Gorontalo State University

by

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Infrastructure development work at Gorontalo State University is centrally located in Gorontalo. The project is executed by PT.ADHI KARYA (Persero) Tbk. The work takes 150 days. Considering the delayed execution, it is necessary to accelerate work schedule. It is intended that the project complete on time or even earlier than the planned time, thus the costs can be reduced as small as possible.

Acceleration time on the project will certainly affect the costs of execution. In this case, the faster the project is executed, the higher the costs will be. On the contrary, the delay on the project will cause the higher costs. Hence, there is need for an optimization of time and costs. The optimization is obtained from the Crash using Programme Network Planning systems CPM method.

The research shows that optimum duration is 12 days or 138 weekdays. Initial execution costs are from Rp. 7.136.060.119,65, to Rp. 7.133.806.119,00. Therefore, CPM method has saved Rp. 2,254,000.00.

Key words: Optimization, CPM method, Crash Program.