

## **ABSTRACT**

*Project delays often have a significant impact on the project being implemented, both financially and operationally. Longer working hours, cost overruns due to project delays. Overcoming the challenges of such delays, effective project management is required. One of the methods that will be applied in this research is critical chain project management (CCPM) which is a method for advanced scheduling arrangements from theory of constraints (TOC). This project is categorised into FTTM projects. FTTM projects are projects that focus on fibre modernisation or network system provisioning. This research was conducted on one of the FTTM projects, LOP BDG724, which was hampered by a compensation value constraint that had not been resolved. This problem causes delays in project implementation which can ultimately affect the completion time of the project.*

*The critical path or critical chain is a path consisting of several activities that have been made on the project being implemented, if there is a delay it will affect the schedule of the completion of the project. Analysis in the theory of constraints carried out on this project focuses on delays that occur in activity D (Licensing). The next activity that experiences delays is calculated by adding a buffer. In the critical chain given, it can be seen that the critical path in this project. From the design results, namely improvements to the scheduling of activity duration by being 13 days with a percentage of 59,375% efficiency that can be done, can help the implementation of the project so that it does not experience delays with the addition of buffers. CCPM design can ensure critical activities on the project path can be completed on time by identifying based on TOC so as to identify constraints that affect the overall project duration. Using a buffer of 6,5 days or 7 days, the project can minimise delays by not sacrificing the schedule.*

*Key words : Buffer, Critical Chain, Critical Chain Project Management (CCPM), Theory of Constraint (TOC), FTTM, Delays*