

## **ABSTRACT**

This study aimed to determine the effect of the correction on the southern latitudes cooling load calculation method CLTD (Colling Load Temperature Difference) by ASHRAE GRP 158. The cooling load calculation performed on the four spaces that are in the building deli Telkom University. The fourth room that made the object of research has exposed wall Sunlit from different directions. The room p 403 has a north wall as the walls are exposed Sunlit, p 406 has a south wall as the wall is exposed Sunlit, fisika dasar laboratories have the east wall as the walls are exposed Sunlit, and teknik tenaga listrik laboratory has western wall as a wall exposed Sunlit. Cooling load calculation is done in two ways: without correction south latitude and with correction south latitude, which results will be compared to generate an error. The final results of this study showed that the effect of misapplication methods CLTD correction southern latitudes with CLTD without correction southern latitudes was not too pronounced, this is because of Java island located at the south not too far to the equator, error obtained for the space P 403 amounting to 1.834%, P 406 amounted to 2.468%, the fisika dasar laboratory of 0.28%, and teknik tenaga listrik laboratory at 0%.

Keywords: cooling load calculation, CLTD, correction southern latitudes.