

## **ABSTRACT**

*Telkom University is one of the private universities that has a dormitory program for students as a residential facility in Bandung. The large number of students coming from outside Bandung makes a dormitory program on the campus area of Telkom University as the appropriate residential solution for non-indigeneous students. The dormitory is in the form of a 4-storey building that can be reached using stairs. However, there was actually found another problem that the residents of dormitory who lived in the third and fourth floors found the difficulty when transporting goods that were quite heavy and large in term of going up and down using stairs. In a previous study with the title “The Design of goods-transporting tools through stairs in multi-storey buildings based on system perspective”, it was still found a lack in the part of the system where the chain wheels have not been able to run well yet and also inavailability of the safety system for goods which prevents items from falling off the conveyance. Therefore, it is necessary to redesign the goods transport equipment through stairs by focusing on developing wheel system and also goods safety system. The method used in this redesign is the qualitative method by observing Telkom University dormitories and conducting interviews with a number of dormitory residents. In addition, an analysis of the design of wheel system and safety of the previous conveyance of goods is carried out. The result of this analysis produce products transporting goods that can be used through stairs so as to reduce the risk of accidents when transporting goods in multi-storey dormitories.*

**Keywords:** *Goods Transport Equipment, Stairs, Rubbertrack wheel System*