5. *ABSTRACT*

Along with the development of technology, the use of networks has become a necessity for society. Networks have gone through many evolutions until now the 5th generation network (5G). 5G is a new generation network developed from the previous generation that is currently still widely used, namely 4G LTE (Long Term Evolution). The 5G network is claimed to be 20 times faster than the previous network. This network is not yet widely used by the public but it already exists. Like previous generation networks, 5G networks are also assisted by scheduling algorithms to streamline and organize resources and allocation of use and different processes. In this study, a comparison of the simulation results of the proportional fair and round robin scheduling algorithms will be simulated using the 5G air simulator tools using two test scenarios, namely testing the change in the number of users and testing the change in speed. The results obtained from the two scenarios created show that both scheduling algorithms produce a high packet loss ratio, but proportional fair obtains a higher packet loss ratio compared to round robin. As for the goodput test results, it states that although the goodput results of proportional fair are more balanced than the round robin results, the goodput value of round robin is relatively high compared to proportional fair.

***Keywords**: 5G, 5G air simulator tool, scheduling, fair proportional, round robin, packet loss ratio, goodput*