

## **ABSTRACT**

*Nowadays there is a network technology in the field of telecommunications that has a smaller coverage area but has higher spectrum efficiency so that it can be implemented for indoor network access, the technology is called femtocell. The use of femtocell networks in a distributed user method has the impact of distributed power control so that each user can have control over himself and other users, this method is called Distributed Power Control (DPC). This method is used to minimize the power consumption used for each distributed user. In this study there are 2 scenarios used, namely the 6 user scenario and the 12 user scenario. Where in this study has a convergence point and target SINR of 6.8 dB and 9.9 dB in the first scenario and the second scenario. To find out whether this research can achieve the convergence point and target SINR, it is carried out in 2 conditions, namely non-feasible conditions and feasible conditions.*

**Keywords:** Femtocell, DPC, feasible, SINR