

## **ABSTRACT**

IBC (Building Indoor Coverage) is a picocell network is a solution to strengthen the signal inside the building. Because in general the signal received from the building and mikrocell makrocell (outdoor network) has a low signal quality, this is caused by losses of buildings and structures within BTS tower is far enough away so that the coverage area does not reach into the building. So that the signal received by the user to be less satisfactory.

To overcome this we need a solution so that the signal conditions that exist at the Polytechnic Telkom to be good. One way is to build the IBC (Indoor Building Coverage). Of these weaknesses, the best solution is to improve the received signal power in the building of the Polytechnic Telkom HSDPA with IBC design. For IBC design at the Polytechnic Telkom HSDPA using TEMS software in performing Drivetest. Also using coreldraw software to cover all the existing space. then simulate the RPS software.

By considering the number of students that there are 3000 people  $\pm$  it requires a large capacity. Where the calculation results obtained capacity is the number of cells required cell 19 which is divided into four floors that exist. Based on the simulations performed so obtained average received power in the halls of the Polytechnic Telkom is at -67.95 dBm. With details of the ground floor of -68.03 dBm, at 1st floor -73.92 dBm, 2nd floor of -60.71 dBm and 3rd floor of -69.15 dBm. This represents a significant change in other words, this design shows satis factory results.

Key words: HSDPA, IBC, Indoor, Walk Test.