# ABSTRACT

Wi-Fi stands for Wireless Fidelity, which is a wireless data communication medium that can be used to communicate or transmit programs and data with high speed capabilities. Wi-Fi application. Based on the data from the test and analysis results obtained frequency = 2.4 GHz, bandwidth value = 249 MHz, return loss = -20.13 dB, VSWR = 1.21, and gain = 5.442 dBi. Increased return loss, bandwidth, VSWR and gain by optimization are also used for the design of proximity coupled microstrip antennas in order to obtain more optimal simulation and design results. Increased return loss = 50.22%, bandwidth = 24.5%, VSWR = 26.44%. However, there is a decrease in gain of 14.16% in the iteration and simulation results. This happens because of the consequences of the application of peripheral slit.

Keywords: Circular Microstrip Antenna, Proximity Coupled, Wireless Fidelity (Wi-Fi), Peripheral Slit