

## ABSTRACT

Microstrip patch antennas are widely used due to their mechanical strength, being light weight, simpler to fabricate, applicable for both planar and non-planar structures and capable of dual and triple frequency operations. Our objective is to address this by a Triple Band Microstrip Antenna with triple band resonant operations and enhanced bandwidth by changing the width of antenna. Antenna is designed and simulated using Advanced Design System (ADS) software which is based on numerical technique, Method of Moments (MOM). The antenna is proposed to operate on frequencies of 2.57 GHz for 2Gband, 3.85 GHz for Wi-Fi band and 6.03 GHz for WiMax band, fed by microstrip line with input impedance  $50 \Omega$ . Antenna is fabricated using the FR4 dielectric with thickness 1.6 mm and permittivity  $E_r=4.6$ . The dimension of the antenna (i.e) the length and width is suitably functioning to make the antenna operate on the resonant frequency.