Comparison between techniques feeding for simple rectangular, circular and triangular patch antenna at 2.45 GHz

ABSTRACT

In this paper, several simple microstrip antenna designs such as rectangular, circular, and triangular antennas for wireless communication applications are designed and simulated by the finite element method. In addition, this paper presents a comparative study between these compact antennas fed by microstrip, probe and proximity feeding techniques. These antennas are operating at a resonance frequency of 2.45 GHz and they are suitable for ISM and WLAN bands.

EXISTING SYSTEM

- Despite the great development of these antennas in recent decades, they suffer from several limitations.
- To overcome its main disadvantage of narrow bandwidth, there are various techniques for increasing the bandwidth of MSAs.
- The main techniques used to increase bandwidths are to cut slots of different shapes , such as an U-shaped slot, a V-shaped slot, an L-shaped slot, or a pair of rectangular slot or any shaped slots.

PROPOSED SYSTEM

- The overall goal of a design is to achieve specific performance at a requested operating frequency.
- In this paper, rectangular, circular and triangular patch antennas are designed and compared.
- The cavity consists of two perfect electrical conductors at the top and bottom to represent the patch and the ground plane, and a perfect cylindrical magnetic conductor around the circular periphery of the cavity.

SYSTEM REQUIREMENTS

HARDWARE REQUIREMENTS:

- Processor - intel core i3
- RAM - 2GB
- Hard Disk - 20 GB

SOFTWARE REQUIREMENTS:

- Ansoft HFSS(High Frequency Structure Stimulator)

REFERENCE

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