Abstract

Today antenna designers are paying more focus on microstrip patch antennas, because of its numerous advantages in field of communication, such as high reliability, light weight, ease of fabrication etc. But despite of its bountiful advantages, patch antennas also experience some drawbacks viz low gain and narrow bandwidth. These drawbacks can be overcome by taking care of some parameters in the design of antennas. There are numerous designing factors affecting the radiating characteristics of antenna such as patch height, feeding techniques, substrate used in manufacturing of antenna etc. The paper is focused on various bandwidth enhancement techniques. The paper comprises of a brief study in feeding techniques, parasitic patch elements, introduction of slots, dual feed, shorting pin, air gap and recently introduced concept of defective ground structure that enhances the gain and bandwidth of antenna without increasing its height.


35. Uzer D. “Investigation on Favourable Methods for Wideband Microstrip Patch Antenna Designs”, PhD. Thesis, Dept. Elect. and Electro. Eng., Graduate School of Natural Sciences, Selcuk University, Konya, Turkey,
38. KS Ruy, AA Kishk, “A dual-polarized shorted microstrip patch antenna for wideband application”, Dept of Electronical Engineering the University of Mississippi, 2008

Index Terms
Computer Science Wireless

Keywords

Microstrip patch antennas, feeding techniques, gain, bandwidth