1DESIGN AND ANALYSIS OF FRACTAL MICROSTRIP ANTENNA

A report on major project work

Submitted in the partial fulfillment of the requirements for

the award of the degree of

BACHELOR OF TECHNOLOGY

in

ELECTRONICS AND COMMUNICATION ENGINEERING

by

U GURUNAG SAI	**B15EC062**
CHVS BHARGAVA REDDY	**B15EC065**
S ANANYA	**B15EC075**
L JAGAN	**B16EC196L**

Under the guidance of

Sri B.KOMURAIAH

Asst prof, Department of ECE.

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING
KAKATIYA INSTITUTE OF TECHNOLOGY & SCIENCE, WARANGAL
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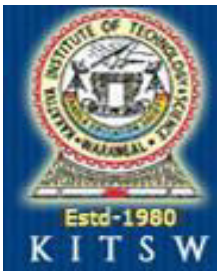
DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING



CERTIFICATE

This is to certify that the project work entitled "**DESIGN AND ANALYSIS OF FRACTAL MICROSTRIP ANTENNA**" is the bonafide project work carried out by **U Gurunag Sai, CHVS Bhargava Reddy, S Ananya** and **L Jagan** bearing Roll Nos**. B15EC062, B15EC065, B15EC075** and **B16EC196L** respectively, in partial fulfillment of the requirements for the award of degree of the Bachelor of Technology from Kakatiya Institute of Technology and Science, Warangal during the academic year 2018-2019.

Project Guide

Sri B.KOMURAIAH,
Assistant Prof,
Dept. of ECE,
KITS, Warangal.

Head of the Department

Dr. G. RAGHOTHAM REDDY
Professor & Head,
Dept. of ECE,
KITS, Warangal.

DECLARATION

We declare that the work presented in this project report is original and has been carried out in the Department of Electronics & Communication Engineering, Kakatiya Institute of Technology and Science, Warangal, Telangana, and to best of our knowledge it has been not submitted elsewhere for any degree.

U GURUNAG SAI

Roll No. B15EC062

CHVS BHARGAVA REDDY

Roll No. B15EC065

S ANANYA

Roll No. B15EC075

L JAGAN

Roll No. B16EC196L

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U GURUNAG SAI

CHVS BHARGAVA REDDY

S ANANYA

L JAGAN

ABSTRACT

Antenna is a transducer designed to transmit or receive electromagnetic waves. Microstrip antenna usually means an antenna fabricated using microstrip techniques on a printed circuit board (PCB). It consists of a conducting patch of any planar or non planar geometry on one side of a dielectric substrate with a ground plane on other side. It is a popular printed resonant antenna for narrow-band microwave wireless links that require semi-hemispherical coverage. Due to its planar configuration and ease of integration with microstrip technology, the microstrip patch antenna has been heavily studied and often used as elements for an array.

For the same patch antenna a new geometry of a rectangular microstrip patch antenna that improves the performance of a conventional microstrip patch antenna. This antenna is designed to operate at 5.38 GHz with enhanced bandwidth of 11.15%. For the desired result, a triangular notch is inserted into the patch antenna. The proposed geometry provides improvement in other radiation parameters like gain, efficiency and impedance behavior, when it is compared with conventional antenna.

Software Requirements:

ANSYS HFSS (High Frequency Structure Simulator).

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