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KIET International Journal of Communications & Electronics

VOLUME 3, SECOND ISSUE, JULY-DECEMBER 2015,
ISSN:2320-8996



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Editorial

Although the microstrip antenna has been extensively studied in the past few decades as one of the standard planar antennas, it still has a huge potential for further developments. This issue gives an idea for a Novel UWB modified Hexagonal microstrip antenna with curved partial ground plane (HMSA-CG). This is done for performance improvement of the patch antenna in terms of Gain and Group delay.

In conjunction with above work, a directional high gain cavity back shell monopole antenna for X and Ku band application with improve antenna radiation characteristic and gain despite of reduction in bandwidth is published. It is compact, high gain directive antenna is necessary in microwave imaging and radar application.

Wheelchairs are used by the people who are especially abled due to physiological or physical illness, injury or any disability. Recent development promises a wide scope in developing smart wheelchairs. An accelerometer based hand Motion Controlled Smart Wheelchair which is controlled using hand movements. The system is divided into two main units: Mems Sensor and wheelchair control. The Mems sensor, which is connected to hand on the wheelchair, is an 3-axis accelerometer can read analog data of motion and ultrasonic sensor converts analog data into digital values and gives it to the 8051 microcontroller.

A review theory of non-uniform waveguide effectively examines the various methods adopted for analyzing the propagation processes of waves of various natures. These techniques are used in the solution of practical situations in various fields, such as plasma heating in nuclear fusion, materials processing and radar and satellite communication systems.

The area of wireless sensor networks (WSNs) is one of the emerging and fast growing fields in the scientific world. A wireless sensor network (WSN) consisting of a large number of tiny sensors can be an effective tool for collecting data in diverse kinds of environments. Clustering is introduced to WSNs because it has proven to be an effective approach to provide better data aggregation and scalability for large WSNs. Clustering also proves to be energy efficient as is operated on limited power.

A compact low-pass filter using microstrip stepped-impedance provides a very sharp cutoff frequency response with low insertion loss. This fulfills the demand of newer microwave and millimeter-wave systems to meet the various issues such as cost, performance and size in the field of telecommunication. The use of microstrip provides the advantages of simplicity and ease of fabrication.

Preface

Dear Researchers,

We take this opportunity to welcome you all to the Volume No 3, Issue No. 2 of International Journal of Communications & Electronics (KIET - IJCE). This journal provides a forum for in depth and substantial discussions on the theory, design and implementation of the Emerging technologies in Communications, Networking, Microwave and Electronics techniques, thus providing solutions and strategies for business resilience.

It gives us an immense pleasure to have an amalgam of researchers from the fields of Communication Engineering, Electronics, and related technologies. The purpose of the Journal is to provide a platform to foster interdisciplinary communication among the delegates and to support the sharing process of diverse fields in various concepts and principles related to these domains.

Our appreciation also goes to entire team whose dedication and timeless efforts have gone for number of days for the second issue of the Journal.

**Editors
KIET IJCE**



Message

I am delighted to note that the Department of Electronics and Communication Engineering, KIET Group of Institutions, Ghaziabad is introducing Volume No 3, Issue No. 2 of International Journal of Communications and Electronics (KIET - IJCE).

I appreciate the efforts on the part of the Editorial Committee in bringing out an issue on Communications, Networking, Microwave and Electronics techniques.

I understand that the papers contributed for publication in the Volume No 3, Issue No. 2 are on almost all the current aspects of Communication Systems, Electronics systems, Microwave Engineering, Signal Processing & Applications, Networking Technologies and several others.

I have great pleasure in congratulating the Editors of this issue of KIET - IJCE for their untiring efforts in bringing out this third Volume No 3, Issue No. 2 of KIET-IJCE which will be a valued treasure for all who are pursuing research in Communications, Networking, Microwave and Electronics Engineering areas.

Let me close with warmest regards.

Dr. J. Girish
Director
KIET Group of Institutions



Message

It gives me immense pleasure in writing this foreword for the Volume No 3, Issue No.2 of the KIET International Journal on Communications and Electronics (KIET - IJCE). This journal is targeted towards researchers, professionals, educators and students to share innovative ideas, issues, recent trends and future directions in the fields of Electronics and Communication Engineering.

The Volume No 3, Issue No. 2 of the journal KIET-IJCE includes papers on the theory, design and implementation of the emerging technologies in the field of Communications, Networking, Microwave and Electronics techniques. Furthermore, it will enable the researchers in various domains to foster the exchange of concepts, prototypes, research ideas and the results of research work which could contribute to the academic arena and also benefit business and industrial community.

Dr. Sanjay Sharma
Editor – in - chief
KIET - IJCE

THIRD VOLUME
SECOND ISSUE
(JULY-DECEMBER 2015)

