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Department of Electronics and Communication Engineering KIET GROUP OF INSTITUTIONS

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Accredited by NAAC with Grade 'A', NBA Accredited and ISO 9001-2000

13-Km Stone, Ghaziabad-Meerut Road,
Ghaziabad-201206, UP, INDIA

Ph: 0120-2675314/315, Tele- 01232-227978

www.kiet.edu

Editorial Board

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KIET Group of Institutions

(NAAC 'A' Grade, NBA Accredited and ISO 9001-2000)

13-Km Stone, Ghaziabad-Meerut Road,

Ghaziabad-201206, UP, INDIA

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KIET Group of Institutions

(NAAC 'A' Grade, NBA Accredited and ISO 9001-2000)

13-Km Stone, Ghaziabad-Meerut Road,

Ghaziabad-201206, UP, INDIA

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KIET Group of Institutions

(NAAC 'A' Grade, NBA Accredited and ISO 9001-2000)

13-Km Stone, Ghaziabad-Meerut Road,

Ghaziabad-201206, UP, INDIA

Editor in Chief

Dr. Sanjay Sharma

Professor & Head, ECE Department

KIET Group of Institutions

(NAAC 'A' Grade, NBA Accredited and ISO 9001-2000)

13-Km Stone, Ghaziabad-Meerut Road,

Ghaziabad-201206, UP, INDIA

Email ID: - drsanjaysharma15@gmail.com



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Editorial

In present scenario telecommunication systems require antennas having smaller dimensions than those in the conventional ones. For many years, various antennas for multi band operation have been studied for communication and video transmission systems. To fulfill the present need fractal antennas provides the better alternatives and are preferred over conventional patch antennas as these are not only small and lightweight, for easy installation, but also because they have wideband. There are a variety of approaches that have been developed over design, the years, which can be utilized to achieve one or more of these design objectives. For instance, an excellent overview of various useful techniques for designing compact (i.e., miniature) antennas may be found.

ISRO developed a satellite based navigation system, called Indian Regional Navigation Satellite System (IRNSS), with a constellation of 7 satellites and complementary ground infrastructure. Two spare satellites are also planned. The IRNSS is expected to provide positional accuracies similar to the Global Positioning System (10 m over Indian landmass and 20 m over the Indian Ocean) in a region centered around the country with a coverage extending up to 1,500 km from India between longitude 40° E to 140° E and between latitude $\pm 40^\circ$. IRNSS was featured with highly accurate position, velocity and time information in real time for authorized users on a variety of vehicles. Data with good accuracy for a single frequency user with the help of Ionospheric corrections. All weather operation on a 24 hour basis.

The edition of KIET IJCE contains articles on Driver Requirement for Power MOSFET: A Study, Slotted T- Shape Antenna for Video Transmission, Guarantee QoS in Coexistence of High Altitude Platform System and WiMAX Terrestrial System, Beamforming Algorithm for Smart Antenna in WCDMA Network, IRNSS Architecture and Applications, IRNSS Architecture and Applications, Comparative Analysis of Nano-Scaled Low Power 10t Sram Cell At Various Technology Nodes, Work Piece Gauging using Image Processing, Performance Evaluation of Energy Detector for Cognitive Radio Network.

We take this opportunity to thank all those contributors, reviewers in making this issue a memorable one. Suggestions and feedback from our readers are welcome for the overall improvement of quality of the Journal.



Preface

Dear Researchers,

We take this opportunity to welcome you all to the third issue of International Journal of Communications & Electronics (KIET - IJCE). This journal will provide 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 third issue of the Journal.

Editors



Message

I am delighted to note that the Department of Electronics and Communication Engineering, KIET Group of Institutions, Ghaziabad is publishing (online) Third issue of International Journal of Communications and Electronics (KIET - IJCE).

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

I understand that the papers contributed for publication in the third issue 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 KIET - IJCE for their untiring efforts in bringing out this third issue which will be a valued treasure for all who pursue research in Communications, Networking, Microwave and Electronics Engineering areas.

Let me close with warmest regards.

Dr. Narendra Kumar
President
KIET – IJCE



Message

It gives me immense pleasure in writing this foreword for the third issue 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 third issue of the journal KIET - IJCE includes papers on the theory, design and implementation of the emerging technologies in the fields of Communications, Networking, Microwave and Electronics techniques. Furthermore, it will enable the researchers in the 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.

I am sure that this issue would greatly benefit researchers, students and faculty. Young scientists and researchers will find the contents of the issue helpful to set roadmaps for their future endeavors.

Dr. Sanjay Sharma

Editor – in - chief

KIET - IJCE



ABOUT THE KIET - IJCE

International Journal of Communications and Electronics solicits original research papers addressing theoretical and practical implementations in Electronics and Communication system applications for the Upcoming Edition of IJCE. It is the vision of IJCE to publish research articles in all areas of human study without financial restriction to readers using the open access model of publication. We strongly believe that the open access model will spur research across the world especially as researchers gain unrestricted access to high quality research articles. IJCE is a Quarterly and if the manuscript does not suit in the current issue then it can be considered for the next upcoming issue. Authors are invited to submit their original manuscripts.

ABOUT THE DEPARTMENT

Department of ECE grooms the students to excel in the field of technology. Our students are trained in both software and hardware skills and basic Inputs are provided to make them self-confident to work in industry and get encouragement for higher studies & research. The department also contributes to the society by accomplishing technical projects that caters to the various requirements of the present day world. The students are also encouraged to participate in various technical and extra-curricular events. The department has qualified and dedicated faculty members to provide good technical support to all the students. The department of ECE has a vision to become a centre of excellence in the field of Electronics and Communication Engineering. All our faculty and students are dedicated to achieve this goal with full vigor, enthusiasm and good ethical values. Department is running B.Tech. (ECE), M.Tech. (ECE). Department is involved in high quality research on several domains like Optical Integrated Circuits, Signal Processing and Communication, Semiconductor Device Characterization and Integration, Advanced Microwave Techniques, and other emerging fields under *AICTE Modrobs Projects*.