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KIET GROUP OF INSTITUTIONS

(An Integrated Campus approved by AICTE)

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Editorial

Image processing of low resolution digital images is very challenging problems. Therefore, the effect of interpolation functions on zooming low resolution images is investigated. MRI Image Enhancement technique is used to enhance the features of images captured by low resolution imaging devices. The image enhancement of MRI Image based on Dual Tree-Complex Wavelet Transform with the Wiener Filter is implemented. Wiener filter is used to remove the artifacts generated by Dual Tree-CWT. Orthogonal FDM technique is frequently used multiplexing technique for 4G communication system as it offers the improvement in bandwidth and efficiency of the system. The analysis for the minimization of peak-to-average power ratio in OFDM environment is carried by using selective mapping technique. Long term evolution (LTE) is a 3GPP (Third Generation Partnership Project) 4G technology which enhances the development in the field of telecommunication by improving the performance of the network for the different types of traffic flows. A survey of LTE system is presented.

Wireless Sensor Networks consisting of a large number of sensor nodes is effective for gathering data. New energy efficient clustering algorithm is proposed for effectively selection of cluster head and data gathering scheme for Wireless sensor networks. Routing in the mobile ad hoc network (MANET) is different from conventional infrastructure network since the nodes not only act as end devices but also act as routers. An improved algorithm is presented to reduce current recovery time by improving reliability of system. Li-Fi using light emitting diodes to further enhance the visible light communication to realize fully networked wireless systems is presented. Machine-to-Machine (M2M) communications enable networked devices and services to exchange information and perform actions seamlessly without the need of human intervention. Meanwhile device-to-device communication (D2D) is seen as a promising idea to increase the performance of wireless networks. The review on the concept of M2M communications using device-to-device communication (D2D) communications in cellular networks is presented. In addition, the applicability of in-band full-duplex (FD) radios in device-to-device (D2D) communication system is investigated. The designing of Operational trans-conductance amplifier (OTA), one of the significant building-blocks of analog Very Large Scale Integration (VLSI), is presented. Single stage operational trans-conductance amplifier is designed in 0.18 micron (i.e., 180 nm) technology with the entire transistor in the saturation region using TANNER EDA tool.

This edition of KIET IJCE contains articles on Image Enhancement using Wavely Transform by Bilinear Method, Minimization of peak to average power ratio by selective mapping technique in OFDM environment, Energy Efficient Routing Protocol for Wireless Sensor Networks, Modern mode of Wireless Communication, MRI Image Enhancement using DT-CWT and Wiener Filter, M2M Communications Using D2D Communications in Cellular Networks, Performance Analysis of 180nm CMOS OTA, Multipath Routing strategy to handle link failure in AODV protocol for MANET, Full-D2D Communications for Up-link/Down-link in Cellular Networks and OFDMA and SC-FDMA in Long Term Evolution (LTE).

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 Volume No. 4, Issue No. 2 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 second 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 introducing Volume No. 4, 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. 4, 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. 4, Issue No. 2 of KIET-IJCE 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. J. Girish
Director
KIET



Message

It gives me immense pleasure in writing this foreword for the Volume No. 4, 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. 4, 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 concept, 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



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 bi-monthly journal 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.

