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Editorial

To increase the voltage profile and to reduce power loss in the distribution system, shunt capacitors are to be installed at suitable locations in a large distribution system. Placing a capacitor in a Electrical distribution system involves various factors like maximizing energy and peak power loss reduction. The objective function includes cost of power loss, energy loss and capacitor banks. Constraints include voltage limits, number and location of installed capacitors. Location of nodes, where the capacitor should be placed is decided by fuzzy expert system by incorporating a set of rules into it, Loss sensitivity factors are used to select the candidate location for capacitor placement. Optimal size of the capacitor is found using Particle Swarm Optimization and Hybrid Particle Swarm Optimization.

The Phase Detector determines the relative phase difference between the two incoming signals and outputs a signal that is proportional to this phase difference. The phase detector also detects the frequency error; they are called Phase Frequency Detectors (PFD). It is very important block for the PLL Frequency synthesizer.

The present edition of KIET IJCE contains articles on Optimal Capacitor Placement in Radial Distribution System to minimize the loss using Fuzzy Logic Control and Hybrid Particle Swarm Optimization, Design of Optical Patch Antenna on HCG Enhanced SOI Substrate, Design and implementation of Phase Frequency Detector Using Different Logic Gates in 45nm CMOS Process Technology, Loopback Delay Analysis by transmitting and receiving Data Packet of Four Characters for Zigbee Devices, Wireless Sensor Network with the CLOUD: A Future Tech, A Zigbee based Wireless Patient's Monitoring System, Computationally Efficient Optimization of Linear Time Invariant Systems using Haar wavelet, Enhanced Performance of HF OFDM in Wireless Communication, Channel Estimation Using LS and MMSE Estimators, An Improved W-CMSR for Direction of Arrival Estimation.

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. 2, Issue No.1 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 present 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) Volume No. 2, Issue No.1,2014 of International Journal of Communications and Electronics (KIET - IJCE).

I appreciate the efforts on the part of the Editorial Committee in bringing out Volume. No. 2, Issue No.1 of KIET-IJCE on Communications, Networking, Microwave and Electronics techniques.

I understand that the papers contributed for publication in the Volume No. 2, Issue No.1 of 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 Volume. No. 2, Issue No.1of 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. Narendra Kumar
President
KIET - IJCE



Message

It gives me immense pleasure in writing this foreword for the Volume No. 2, Issue No.1 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. 2, Issue No. 1 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.

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 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*.