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KIET International Journal of Communications & Electronics

VOLUME 4, FIRST ISSUE, JAN-JUNE 2016, ISSN:2320-8996



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Editorial

Stable local feature detection and representation is a fundamental component of many image registration and object recognition algorithms. This issue gives an idea about examining (and improving upon) the local image descriptor used by SIFT. This also demonstrates the techniques that are more distinctive, more robust to image deformations, and more compact than the standard SIFT representation with increased accuracy and faster matching.

Recent advancement in wireless communications and electronics has enabled the development of Clustering routing protocols in wireless sensor network. Currently proposed clustering algorithms for Wireless Sensor Networks are examined. Comparisons on the performance between the various schemes in terms of the power and quality aspects is made. A review paper in the issue will provide the reader with a basis for research in clustering schemes for Wireless Sensor Networks.

Wireless communications services, cellular communication systems are going towards small cells with small transmit powers. Meanwhile device-to-device communication (D2D) is seen as a promising idea to increase the performance of wireless networks. In D2D, users in vicinity communicate directly without going through base station. A review on the concept of M2M (Machine-to-Machine) communications using D2D communications in cellular networks is given.

Quantum-dot cellular automata (QCA) technology has become an alternative to CMOS technology for future digital designs because it gives low power dissipation, high density and no leakage current compared to CMOS Designs. Until now, parameters and area-delay cost functions are directly used from CMOS technology to compare QCA designs. This is not an appropriate approach because both the technologies are different. Therefore a comparative approach, several cost parameters are proposed which helps in evaluation of QCA Designs.

The microwave photonics can be defined as the study of optoelectronics devices and system operating at microwave frequency. The modulation and transmission in the frequency band between 100 GHz and 10THz is the area of interest. The transmission in microwave band has lot of loss and it can be compensated by using optical communication modulated by microwave frequencies. So combination of radio wave technology and photonics has become a necessity.

In this issue, a variety of antenna designs such as with vias and without vias are implemented and analysed to extend the bandwidth of proposed ZOR antenna which can be used for wireless applications like WLAN, WiMAX, Bluetooth etc. An ultra-wideband planar monopole antenna with tri notch along with a metamaterial structure has also been proposed with substrate height of 0.8mm. The antenna consists of semicircular radiating patch and a CSRR loaded ground plane. Another design of antenna for X-band and Wi-Max (Worldwide Interoperability for Microwave Access, 3.2–3.8 GHz) applications is also proposed. In proposed antenna slots created in ground plane and top patch provides wide bandwidth (4.6GHz) in X-band. This design approach is meant for satellite communication, amateur radio, military communication and middle band of Wi-Max applications. A metamaterial-inspired dual-mode antenna using rectangular type CSRR is proposed, and it is proposed that an increase in series capacitance will decrease the resonant frequency at which ZOR mode is achieved using rectangular type CSRR.

Preface

Dear Researchers,

We take this opportunity to welcome you all to the Volume No 4, Issue No. 1 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. 1 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. 1 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. 1 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 Group of Institutions



Message

It gives me immense pleasure in writing this foreword for the Volume No 4, 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 4, Issue No. 1 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

FOURTH VOLUME
FIRST ISSUE
(JAN-JUNE 2016)

