

FOREWORD

Over the years technology has been growing exponentially paving ways for tremendous improvement in all the sectors. The value of the growth is felt by all of us in almost all fields. But there are pitfalls in effective utilization of the expertise of the emerging technology.

Understanding the above state of affairs, Kongu Engineering College has been providing various platforms that include organizing conferences, seminars, workshops both national and international level frequently in the emerging areas of technology. In this series evolved the thought process of this International Conference on Intelligent Computing and Communication for Smart World (I2C2SW 2018).

I congratulate and appreciate all the faculties of school of Communication and Computer Sciences in giving emphasis for this scenario.

I am happy that the conference has attracted a good response from India and abroad. I would like to thank the committee members who have spared their valuable time organize the conference successfully.

I would like to reassure that the management of Kongu Engineering College will continue to provide all the support for fostering such activities.

Let us hope that the conference will open up new vistas of Research and Development.

A.Venkatachalam
Correspondent
& Chief Patron I2C2SW'18
Kongu Engineering College

PREFACE

A reliable, economically competitive and environmentally sustainable smart technology is the cornerstone of a modern society. The Industry 4.0 builds on the digital revolution and combines multiple technologies that are leading to unprecedented paradigm shifts in the economy, business, society, and for individuals. This Industry 4.0 fosters a "Smart World".

Within modular structured smart factories, cyber-physical systems monitor physical processes, create a virtual copy of the physical world and make decentralized decisions. Over the Internet of Things, cyber-physical systems communicate and cooperate with each other and with humans in real-time both internally and across organizational services offered and used by participants of the value chain. It involves the transformation of entire systems.

There are challenges in the implementation of Industry 4.0 like IT security issues, Lack of adequate skill-sets, need to maintain the integrity of production processes. Through this International conference on Intelligent Computing and Communication for Smart World (I2C2SW-18), a foundation has been laid to discuss on the challenges and current trends prevailing in the communication field.

The two day conference addresses all the emerging technology areas like Intelligent and High Performance Computing Technologies, Intelligent Control Techniques and Applications, Intelligent Image Processing and Computing, Intelligent Information Systems, Nature Inspired Computing and Optimization, Artificial Neural Networks and Neuro-fuzzy Control, Robotics in Automation and Control, Virtual Reality and Human-Computer Interaction, Smart Sensor Networking, Green Technologies in Information Computing and Communication Systems, Mixed Signal Microelectronic Applications, Intelligent Internet of Things(IOT).

Experts in India and abroad really accepted our request and were enthusiastic to participate in the conference. Their contribution is gratefully acknowledged. The organizing committee supported by the faculty of school of communication and computer sciences has worked ceaselessly as a team with regard to the macro and micro level planning and successfully implemented them. They all deserve appreciation. The proceedings of the conference are recorded and brought out so as to bring as a reference for catalyzing further research efforts.

We are confident that the outcome of the conference will go a long way in catapulting the research and development in the emerging technology areas.

Prof.S.Kuppuswami
Principal & Patron I2C2SW'18
Kongu Engineering College

Message from Advisory Committee Member

I am honored to be part of the event I2C2SW which is held in Kongu Engineering College on December 14th to 15th 2018. This event brings you the collection of 100 novel articles in the area of communication and computing. In addition this event serves as good platform for academic community, industry people for exchange of ideas.

During this meeting, the researchers present most recent discoveries in the area of communication and computing as well as many participants established networks for joint collaborations among the participants.

I wish this volume of papers will be good asset for referring future research works and seed for further enhanced research work. I thank management for encouraging these activities for the benefit of academic community.

Dr. Prakash Duraisamy
Assistance Professor
Computer Science Department
School of Computing
Cleveland State University,USA.

Message from Chairman, IEEE Madras Section

I am happy to share my views of proposed International conference on Intelligent Computing and Communication for Smart world (I2C2SW), Dec 14 and 15 2018 organised by Kongu Engineering College(KEC), Perundurai, Tamil Nadu, India. KEC established in 1984, accredited by NAAC certified grade of “A” institution and affiliated an autonomous institution of Anna University, Chennai, KEC offers 14 UG, 19 PG and 16 research programs in Engineering and Applied Sciences.

It is indeed a remarkable KEC contributions to obtain 68th rank, by competing with premiere education institutions like IITs, NITs & Deemed Universities in India for the year 2018 by NIRF, MHRD and Government of India. The Institution is accredited by NBA for most of its UG programs and certified by ISO. It has the unique management structure comprises of around 30 board members and alumnus. Contributions through Industry-Institute Partnership Cell (IIPC) spearheads to organise various faculty development programs for faculty members from all over India. KEC also takes up the consultancy projects through IIPC, which branded a hallmark for its activities among other education, the institutions.

It is gratifying to note that this conference covers a wide range of futuristic technology in the research areas of multi discipline in nature, few research areas like Artificial Intelligence and Machine Learning Biomedical Signal Processing Robotics in Automation and Control, Virtual Reality and Human-Computer Interaction are most essential papers, invited for the presentation. This conference expects technologists, scientists, professionals and researchers to participate and share their knowledge.

Dear researchers, students, faculties and organisers of I2C2SW-2018, it gives me a great pleasure to extend my warm greetings. IEEE has evolved into a big forum for likeminded young people and it has given them an opportunity to participate, discuss, analyze and solve some of the issues related to their novel research work. During this conference, I expect that the researchers will have the technology updates and additions.

On behalf of IEEE Madras section, and my personal behalf, I wish the organisers and participants to make it a successful program. I expect the conference will be a fabulous success and a grand successful event of the year.



Dr. P A Manoharan
Robotics and Automation Society,
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