

# Preface

The Organizing Committee is delighted to present the high-quality papers presented in the first International Conference on Intelligent Computing, Communication and Devices (ICCD 2014) being organized by SOA University during April 18–19, 2014. The title was chosen as this converges three upcoming technologies for the next decade. In recent time, “Intelligence” is the buzz word for any discipline and many scholars are working in these areas.

In simple definition, “intelligence” is the ability to think and learn. Looking back to its origin and development, report says, since 1956 artificial intelligence was formally found and has enjoyed tremendous success over the past 60 years. During the 1960s, the subject was dominated by traditional artificial intelligence that follows the principle of physical symbolic system hypothesis to get great success, particularly in knowledge engineering. During the 1980s, Japan proposed the fifth generation computer system (FGCS), which is knowledge information processing forming the main part of applied artificial intelligence. During the next two decades, the key technologies for the FGCS was developed such as VLSI architecture, parallel processing, logic programming, knowledge base system, applied artificial intelligence and pattern processing, etc. The last decade is observing the achievements of intelligence in the mainstream of computer science and at the core of some systems such as Communication, Devices, Embedded Systems, Natural Language Processor, and many more.

ICCD 2014 covers all dimensions of intelligent sciences in its three tracks, namely Intelligent Computing, Intelligent Communication, and Intelligent Devices. Intelligent Computing track covers areas such as Intelligent and Distributed Computing, Intelligent Grid and Cloud Computing, Internet of Things, Soft Computing and Engineering Applications, Data Mining and Knowledge Discovery, Semantic and Web Technology, Hybrid Systems, Agent Computing, Bio-Informatics, and Recommendation Systems.

At the same time, Intelligent Communication covers communications and networks technologies, including mobile broadband and all optical networks, which are the key to the groundbreaking inventions to intelligent communication technologies. This covers Communication Hardware, Software and Networked

Intelligence, Mobile Technologies, Machine-to-Machine Communication Networks, Speech and Natural Language Processing, Routing Techniques and Network Analytics, Wireless Ad Hoc and Sensor Networks, Communications and Information Security, Signal, Image and Video Processing, Network Management and Traffic Engineering.

The Intelligent Device is any type of equipment, instrument, or machine that has its own computing capability. As computing technology becomes more advanced and less expensive, it can be built into an increasing number of devices of all kinds. The Intelligent Device covers areas such as Embedded Systems, RFID, RF MEMS, VLSI Design and Electronic Devices, Analog and Mixed-Signal IC Design and Testing, MEMS and Microsystems, Solar Cells and Photonics, Nano-Devices, Single Electron and Spintronics Devices, Space Electronics, and Intelligent Robotics.

The “Call for Paper” for this conference was announced in the first week of January 2014 and due to shortage of time we have to keep a very tight deadline for paper submission, i.e., March 15. But to our surprise, we have received 324 papers, which were considered for review and editing. Out of these 324 papers, 163 papers were accepted for the presentation and publication whereas 147 papers were registered, which are covered in this proceeding.

I am sure the participants must have shared a good amount of knowledge during the two days of this conference. I wish all success in their academic endeavor.

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