Session Title - One Transistor One Memristor (1T1M) Multilevel Low Power Memristor Memories

Aim and Scope of Session

Memristor can play as a second alternative to traditional memory devices. According to report presented by ITRS and MEDEA 2015, memory technologies that are present today (SRAM, DRAM and Flash) are going through major drawbacks and challenges due to their continuous scaling. Memristors are admired to be a very good representative for forthcoming memory devices. Along with the non volatility property memristors have high density when compared to present technologies like PCRAM, MRAM etc.

In modern array system, the Memristor based array (1T1M) and thus highlights the advantages of using Memristor and 1T1M(one transistor one memristor) array that helps in solving the problem of sneak path in which current flows irrespective of desired path. Accustomed memories are facing acute design problems due to prolong and gradual scaling of CMOS technology. There is a great need of superseding the conventional memories by a device that could fulfill the emerging need of high density device and low power consuming memory designs (array) that are capable of delivering the prerequisite of any memory design to store data and instructions. Memristor is a device that can supersede the conventional CMOS based cell. It is a two terminal non-volatile multi-purpose device. Memristor can store input/output value, perform logic operations, can act as a switch, latch or flip flop.

The session can be planned on Microelectronics and VLSI Design in ICTCS 2016 will provide a unique occasion for the microelectronics, nanoscale semiconductor devices, VLSI design and technology scientists, engineers, educators, students and researchers from all over the world to exchange their scientific ideas, views and thoughts with fellow researchers and participants. This session will address some of the most relevant, state-of-the-art issues and topics involved in Microelectronics and VLSI Design dealt with advanced technology. Papers are invited which exhibits the application of micro/nano semiconductor devices for VLSI design but not limited to topics.
**Special Session Coordinator Details**

Prof. Shyam Akashe is having more than 15 years of experience, he is working as Professor & Head, Electronics & Communication Engineering, ITM University, Gwalior, INDIA. He has authored and co-authored more than 100 papers in various National and International Peer Reviewed Journals and IEEE/Springer/Elsevier Conference proceedings. He is a Member of Technical Programme Committee (TPC) in various conferences across globe.

**Call for Papers with Last date of Paper Submission/Paper Acceptance:**

Paper Submission End Date: November 30, 2015
Paper Acceptance Notification: December 20, 2015
Registration Due: December 28, 2015

**Contact Details with E-mail id and Mobile No.**

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**Paper Submission Process:**

Special sessions supplement to the regular program for ICTCS 2016. Each special session should provide an overview of the state-of-the-art and highlight important research directions in a field of special interest to ICTCS participants.

**Special Session Submissions can only be submitted to the Session Coordinator Mail Id - shyam.akashe@itmuniversity.ac.in, shyam.akashe@yahoo.com**

**Publication of Conference Papers (Special Sessions)**

All accepted Papers will be published in ACM - International Conference Proceedings Series (ICPS) and will be available in ACM Digital Library. Allotted ISBN Number by ACM - ICPS for Proceeding Volume: 978-1-4503-3962-9