



## 25<sup>th</sup> IEEE International SoC Conference (SOCC)

September 12 – 14, 2012

Sheraton at the Falls/Niagara Convention Center, Niagara Falls, NY, USA

System on Chip (SoC) has been the enabling technology behind the evolution of many of today's ubiquitous technologies, such as Internet, mobile wireless technology, and high definition television. The information technology age, in turn, has fuelled a global communications revolution. SoC devices today include some or all of the major electronics technologies, comprising RF, analog, optical, digital, and Nano-Electro-Mechanical Systems (NEMS). Recent advances in systems, deep-submicron and nano process technology are unleashing new opportunities, but also creating new challenges. Managements of design and verification complexity, EDA tools, on-chip communication, and design reuse for SoCs are significant complications, and SoC fault detection is becoming more difficult as chip size is increasing.

The SOC Conference is a premier forum for sharing advances in SoC technologies and applications in the areas of digital systems, circuit architectures, design methods, tools, automation, manufacturing, test, and emerging technologies. The 25<sup>th</sup> SOCC will be held in the City of Niagara Falls, New York and will offer three days of technical papers, technical workshops, and a vendor exhibition. For updates, please check our website regularly <http://www.ieee-socc.org> or follow us on twitter "@ieeee\_socc" (or [http://twitter.com/ieeee\\_socc](http://twitter.com/ieeee_socc)).

### SUBMISSION OF PAPERS AND WORKSHOP/TUTORIAL PROPOSALS

Electronic paper submissions require a full paper in *pdf* format, limited to **six** double-column IEEE format pages, and including figures and references. You must submit a full paper by **May 7, 2012**. SOCC 2012 also welcomes embedded tutorial proposals in the related areas of SoC. A proposal with title, a half-page summary, and speaker's short biographies should be submitted to the Tutorial Chair, by **April 30, 2012**. The SOCC proceedings will be published on **IEEE Xplore®**. **Efforts will be made to publish select papers as a special section in an international journal. Few student travel grants are awarded competitively to student authors of accepted papers, sponsored by IEEE Circuits and Systems Society.**

### SPONSORSHIP OPPORTUNITIES

2012 marks the **conference silver jubilee**. We expect the conference to attract significantly more participants from all areas of SOC. We seek sponsorship from corporations, government and academia at various levels. For sponsorship and exhibition, please contact the SoC Conference office at [info@ieee-socc.org](mailto:info@ieee-socc.org)

### SOCC TECHNICAL SCOPE

Papers are invited which address new and previously unpublished results in the area of Systems on Chip, and related topics.

- Analog, Mixed-Signal, and Biomedical Circuits and Systems
- Wireline and Wireless Communication Circuits and Systems
- Digital Signal Processing (DSP) Circuits and Systems (*Video, Multimedia, Software-Defined Radio, etc.*)
- Green Circuits, Systems, and Design Methodologies
- Embedded Systems, Multi/Many Core Systems and Embedded Memory Technologies
- Network on Chip (NoC), Interconnects, and 3D-IC
- Reconfigurable and Programmable Circuits and Systems, System on Programmable Devices (FPGAs)
- System Level Design Methodology, EDA and Design Tools for SoC
- Signal Integrity, Design for Testability, and Design Verification
- Design for Manufacturability, Variation-Aware Methodologies
- Emerging Technologies (Special session)

### IMPORTANT DATES

Paper submission deadline: Full submission: May 7, 2012 (you may submit even if an abstract was not submitted previously)

Notification of acceptance: June 22, 2012

Final camera-ready paper due: July 13, 2012

### ORGANIZING COMMITTEE

Conference General Chair: *Ramalingam Sridhar, Univ at Buffalo*  
Technical Program Chair: *Norbert Schuhmann, Fraunhofer IIS*  
Technical Program Co-Chair: *Kaijian Shi, Cadence Design Systems*  
Tutorial Chair: *Nagi Naganathan, LSI Corp*

Steering Committee Chair: *Andrew Marshall, Texas Instruments Inc.*  
Europe Liaison: *Sakir Sezer, Queen's Univ. Belfast*  
Asia Liaison: *Sao-Jie Chen, National Taiwan University*

### DISTINGUISHED SPEAKERS:

#### Keynote:

- *Bernard S. Meyerson*  
*IBM Fellow*  
*Vice President, Innovation & Global University Relations*  
*IBM Systems and Technology Group*

#### Plenary:

- *Richard Grisenthwaite*  
*ARM Fellow*  
*VP of Technology, ARM*
- *Raj Yavatkar*  
*Intel Fellow*  
*Director, System-on-Chip Architecture*  
*Intel Architecture Group*