

**Guest Editors:**

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To enable next generation sensing, storage and computing, advanced nanoelectronic devices, circuits and architectures must be developed and co-optimized across multiple hierarchical levels in order to sense, store and process data, while satisfying the demanding performance requirements for high speed, low power, flexible reconfigurability, high reliability etc. In addition, with the increasing complexity and data volume of sensing and computing, novel designs must be explored to improve design efficiency, enhance reliability and reduce time-to-market. To this end, there is an immediate need to revisit the conventional design strategies for implementing the emerging sensing, storage and computing paradigm. This special issue focuses on novel device technology, circuit and architecture designs to implement smart, efficient, reliable and secure sensing, storage, and computing paradigm.

**Topics**

- Nanoelectronic devices with ultra-high energy efficiency
- Energy-efficient analog front end and wireless communication circuits using nanoelectronic devices
- Emerging device and memory technology for information processing and storage
- Emerging device, including but not limited to GFET, TFET, Graphene nanoribbon tunnel FET, for digital, analog, and RF circuit design
- Emerging memory, including but not limited to phase change memory, magnetic device, resistive memory, for digital, analog, and RF circuit design
- Nano-sensors for data sensing in Internet of Things
- Nano-CMOS and Post-CMOS based circuits for big data processing
- Nanoelectronic technology based sensors and controller for Cyber-Physical Systems
- Security and reliability solutions for nanoelectronic devices and circuits
- Nanoelectronic devices and circuits for secure sensing
- Novel devices and circuits for non-conventional computing
- Neuromorphic circuits and architectures
- Nano-CMOS and Post-CMOS based sensors and circuits for smart grid
- Case studies for sensors and circuits designed using nanoelectronic technology

**Expected Contributions**

This special issue is open to submissions covering the above topics. Additionally, extended best papers from ISVLSI 2018 will be invited and reviewed.

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**Important Dates**

- Submission Deadline: May 15, 2019
- Author Notification: July 15, 2019
- Revised Manuscript Due: August 15, 2019
- Notification of Acceptance: September 15, 2019
- Publication date: TBD

**For further information, please write to** [isvlsi2018@gmail.com](mailto:isvlsi2018@gmail.com).