

## Tentative Outline

### Special Thematic Issue for Nanoscience & Nanotechnology-Asia

**Title of thematic issue: Advanced Nano-scale MOSFETs**

*Guest Editor: Dr. Angsuman Sarkar*

#### Aims & Scope:

The aim of this special issue is to bring together recent advances in Nano-scale MOSFET Devices. The increasing level of integration for system-on-chip design made available by advances in silicon technology is more than ever before calling for a deeper interaction among technologists, device experts, IC designers, and system designers. This special issue is devoted to research activities in the field of simulation and modeling of nanoscale electronic devices. According to the recent update of the International Technology Roadmap for Semiconductors (ITRS), transistors within a microprocessor will have a physical gate lengths of 6 nm will be produced in 2020. New device architectures and associated modeling and simulation issue will be required to reach the performance of the future technology generations that the ITRS prescribes.

**Keywords:** Nano-dimensional MOSFET, Modelling, Simulation

#### Subtopics:

The subtopics to be covered within this issue are listed below:

- Device Modelling and Simulations
- Nano-electronic Devices and Technology
- Optoelectronic Devices and Displays
- Deeply Embedded Devices and technology
- Compound Semiconductors and High Speed Devices
- Process and Manufacturing Technology
- Circuit and Device Interactions
- Memory Devices
- Organic Electronics
- Emerging Devices
- Neuromorphic Devices and Device Concepts
- Low Power Devices and Circuits
- Advanced CMOS and Beyond CMOS Devices
- Biodegradable and Flexible electronic Devices
- Electron Devices for "More than Moore"

#### Schedule:

- ✧ Manuscript submission deadline: 25 December, 2018
- ✧ Peer Review Due: 25 January 2019
- ✧ Revision Due: 25 February 2019
- ✧ Announcement of acceptance by the Guest Editors: 25 March 2019
- ✧ Final manuscripts due: 15 April 2019

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