



International Conference

on

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Nano-Technology Based Quantum-Dot Cellular Automata Approach

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Aims & Scope:

Quantum-dot Cellular Automata (QCA) approach has been emerged as one of the most prominent alternative to CMOS approach. QCA is a transistor-less, high integration density, extremely less area, low power dissipation, almost zero leakage current and high-speed switching with high operating frequency technique. QCA provides a brand-new computing paradigm and information transmission model. The data transmission between QCA cells is performed by purely Coulombic interaction, so that, it just avoids the current leakage in circuits, leading to ultra-low power consumption. This technology is based on the repulsion between electrons.

UG, PG, Research Scholars and Faculty members from different institutes will be aware about various techniques and their simulation methods for designing various circuits at nano-scale level in Quantum-dot Cellular Automata field.

Subtopics:

- Principles of QCA.
- QCA Cells, Preliminary Units, QCA Clocking mechanism.
- Evaluation Methods.
- Physical Properties, Power Dissipation.
- QCA Fabrication Methods.
- Metal-Island, Semiconductor, Molecular, Magnetic.
- QCA Simulation tools.
- QCA Designer 2.0.3 tool, QCAPro tool.
- 1-bit Full Adder design and its simulation result.
- Applications of QCA.
- Future Scope.
- Hands-on-experience on tools.

Technical Programme Committee(s):

- Dr. Sankit Kassa, Associate Professor, SNTD Women's University, Mumbai.
- Dr. Shikha Nema, Professor, SNTD Women's University, Mumbai
- Dr. Sanjay Pawar, Principal, SNTD Women's University, Mumbai.

Submission Procedure:

Researchers and practitioners are invited to submit papers through the below given easy chair link:

<https://easychair.org/conferences/?conf=suscom2019>.

Select the special session track from the listed track. All submissions must be original and may not be under review by another publication. The submitted papers will be reviewed on a double-blind and peer review basis.

Publications:

All registered and presented papers will be published in the **ELSEVIER-SSRN Digital Library** at <https://hq.ssrn.com/conference=SUSCOM-2019>. Extended versions of selected papers will be considered for the special issue of journals indexed in ESCI, Scopus, SCIE, DBLP, Web of Science, ACM, Compendex, INSPEC, Thomson Reuters, Cabell's Directories to name a few.

All inquiries should be directed to the attention of Session Chair/Co-Chair:

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