IEEE T-NANO Special Issue/Section on

"Nanoscale Architectures (NANOARCH 2023)"

Following the successful 18th ACM International Symposium on Nanoscale Architectures (NANOARCH 2023), we are organizing a special issue/section of T-NANO focusing on novel post-CMOS and advanced nanoscale CMOS directions. The special issue/section covers exciting areas on emerging computing paradigms (e.g., approximate, quantum, molecular, neuromorphic, spintronic, stochastic), novel nano-based computing architectures, 2D materials (e.g., graphene) nanoelectronics and computing, beyond charge-based computing, emerging memory devices and in-memory computing, and nanoelectronics for biomedical systems.

This special session solicits topics of interest that include, but are not limited to:

- Novel nanodevices and manufacturing/integration ideas with a focus on nanoarchitectures
- Nanoelectronic circuits, nanofabrics, computing paradigms, and nanoarchitectures
- Future and emergent nano-computing paradigms, e.g., approximate, quantum, molecular, neuromorphic, spintronic, stochastic
- Paradigms and nanoarchitectures for computing with unpredictable devices
- Emerging memory nano-devices and in-memory computing nano-architectures
- Security architectures with nanofabrics
- Reliability-aware computing
- 2D/3D, hybrid, defect/fault tolerant architecture, integration, and manufacturing
- Nanodevice and nanocircuit models, methodologies, and computer-aided design tools
- Fundamental limits of computing at the nanoscale

Manuscripts for the TNANO Special Section must be submitted online using the IEEE TNANO manuscript template. Follow the guidelines (https://tnano.org/), and submit your paper to ScholarOne Manuscripts (http://mc.manuscriptcentral.com/tnano), indicating in the cover letter that you wish the paper to be considered for "IEEE Transactions on Nanotechnology (TNANO) Special Section on the "**Nanoscale Architectures Symposium (NANOARCH 2023)**". Please note that the type of submissions is Regular Manuscripts, i.e., commonly 6 pages (up to 12 pages with mandatory page charges imposed on extra pages) in the two-column IEEE format, which includes figures, tables, and references. On submission to TNANO, authors should select the "Special Issue" manuscript type instead of "Regular Paper."

Manuscripts will be subject to the standard competitive and constructive peer-review TNANO criteria with no article publishing charges. Accepted papers are published on the web in IEEE Xplore as soon as they are submitted in final form. Web-published papers have a DOI (Digital Object Identifier) and are fully citable and downloadable.

Important Dates

- **Submission platform opening: May 12, 2024**
- **Paper submission deadline:** ~~June 30, 2024~~ **July 31, 2024** (HARD DEADLINE)
- **First decision (accept/reject/revise): Oct. 15, 2024**
- **Revised papers submission: Nov. 15, 2024**
- **Final decision: Dec. 15, 2024**

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