Special Issue

Approximate Computing: Design, Acceleration, Validation and Testing of Circuits, Architectures and Algorithms in Future Systems, Volume 2

Message from the Guest Editors

This Special Issue on AxC aims at exploring new, exciting ideas in the field of approximate computing to tackle all the aspects of the AxC paradigm when coupled with the security, safety and reliability of digital systems, including verification and testing. Topics for this Special Issue include (but are not limited to):

- Analog and circuit-level approximation techniques;
- Approximation-induced error modeling and propagation;
- Approximation techniques for emerging processor and memory technologies;
- Architectural support for AxC;
- Dependability of approximate circuits and systems;
- Design automation of AxC architectures;
- Design of reconfigurable AxC architectures;
- Hardware accelerators for approximation-tolerant application domains;
- Hardware/software co-design of AxC systems;
- Language, compiler and operating system support for AxC architectures;
- Safety applications of approximate computing;
- Security challenges and opportunities for AxC systems' design;
- Security threats in applying AxC;
- Techniques for monitoring and controlling approximation quality.

Guest Editors

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