29th International Conference on VLSI Design

VLSi DESiGN 2016
ES EMBEDDED SYSTEMS

15th International Conference on Embedded Systems

January 4-8, 2016. KOLKATA, INDIA

Theme: *Technologies for a Safe and Inclusive World*

The convergence of technology with modern life has reached a state where dependence of human life on semiconductor technology is ubiquitous. Today semiconductor technology is poised to look beyond its traditional bastions of application with pervasive impact on healthcare, environment, energy, transportation, and disaster management. The 29th International Conference on VLSI Design and the 15th International Conference on Embedded Systems will bring together industry and academia to present front-end technology under the theme of Technologies for a Safe and Inclusive World.

DEADLINES

REGULAR PAPERS:

Abstract submission:
July 19, 2015 (Sunday)

Full Paper submission:
July 26, 2015 (Sunday)

Acceptance Notification:
Sep 26, 2015 (Saturday)

Camera-ready version:
Oct 11, 2015 (Sunday)

TUTORIALS

Tutorial Proposals:
July 19, 2015 (Sunday)

Acceptance Notification:
Sep 26, 2015 (Saturday)

Presentation Slides:
Nov 15, 2015 (Sunday)

SPECIAL SESSIONS

Proposal submission:
July 19, 2015 (Sunday)

Special session papers will be reviewed in the same way as regular papers

CALL FOR PAPERS

Original submissions describing novel state-of-the-art contributions are invited under the following tracks:

THEME TRACK: Technologies for a Safe and Inclusive World

Semiconductor technologies for Affordable Healthcare, Smart Management of Energy Systems, Intelligent and Secure Transportation Systems, Environment, Safety Assurance of Embedded Circuits and Systems, Secure Embedded Circuits and Systems

TRACKS ON DESIGN METHODS

System-level Design: ESL, System-level design methodology, Multicore systems, Processor and memory design, Concurrent interconnect, Networks-on-chip, Defect tolerant architectures

Advances in Digital Design: Logic and Physical synthesis; Place & Route, Clock Tree, Physical Verification, Timing and Signal integrity, Power analysis and integrity, OCV, DFM; DFY; Challenges for advanced technology nodes

Analog / RF Design: Analog Mixed Signal IP; High-Speed interfaces; SDR and wireless; Low-power Analog and RF; Effective use of Spectrum; Memory Design, Standard Cell Design

Power Aware Design: Low-power design, micro-architectural techniques, thermal estimation and optimization, power estimation methodologies, and CAD tools

Devices / Circuits: New Devices and architectures; Low power devices; Modeling and Simulation; Multi-domain simulation; Numerical methods; Device/circuit level variability models; Reliability simulation

Emerging Technologies: Nano-CMOS technologies; MEMS; CMOS sensors; CAD/EDA methodologies for nanotechnology; Nano-electronics and Nano-circuits, Nano-sensors, MEMS applications, Nano-assemblies and Devices, Non-classical CMOS; Post-CMOS devices; Biomedical circuits, Carbon Nano-tubes based computing

TRACKS ON DESIGN TOOLS

Design Verification: Functional Verification; Behavioral Simulation; RTL Simulation; Coverage Driven Verification; Assertion Based Verification; Gate-level simulation; Emulation; Hardware Assisted Verification; Formal Verification; Equivalence Checking; Verification Methodologies

Test, Reliability and Fault-Tolerance: DFT, Fault modelling/simulation; ATPG; Low Power DFT; BIST & Repair; Delay test; Fault tolerance; Online test; AMS/RF test; Board-level and system-level test; Silicon debug, post-silicon validation; Memory test; Reliability test; static and dynamic defect- and fault-recoverability, and variation-aware design

Computer-Aided Design: Hardware/software co-design, logic and behavioral synthesis, logic mapping, simulation and formal verification, layout (partitioning, placement, routing, floor-planning, compaction)

TRACKS ON EMBEDDED SYSTEMS

Embedded Systems: Hardware/Software co-design & verification; Reconfigurable computing; Embedded multi-cores SOC and systems; Embedded software including Operating Systems, Firmware, Middleware, Communication, Virtualization, Encryption, Compression, Security, Reliability; Hybrid systems-on-chip; Embedded applications, Platforms & Case studies

FPGA Design: FPGA Architecture, FPGA Circuit Design, CAD for FPGA, FPGA Prototyping

Wireless Systems: Wireless Sensor Networks, Low Power wireless Systems, Embedded Wireless, Wireless protocols, Wireless Power / Charging