Topical Collection

Advanced Design Techniques and EDA Methodologies for Analog, RF and MM-Wave Circuit Design

Message from the Collection Editors

This Collection focuses on advanced design techniques and EDA methodologies for device/circuit/system-level modeling, sizing, and layout in deep nanometer technology nodes that aid the designer in creating circuits with higher performance in less time. Today's design challenges for battery-powered ultralow-power and highly efficient circuits include the increasing requirements that can only be effectively addressed using new and creative topologies, and reports of new circuit designs that operate under creative paradigms will be covered in this SI. Advanced nodes bring additional design rules and topological requirements, parasitic structures, or layout-dependent effects from the physical layout description, especially at RF and mm-Wave operation frequencies. Efficient automatic sizing and layout generation techniques to pursue better design flows will also be included. Machine/deep learning will be heavily covered, given that it has recently started to show its capabilities in the whole analog/RF/mm-wave IC design automation research field by providing ways to bypass some of the drawbacks of traditional approaches and showing potential for revolutionizing this industry.

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Message from the Editor-in-Chief

Electronics is a multidisciplinary journal designed to appeal to a diverse audience of research scientists, practitioners, and developers in academia and industry. The journal is devoted to fast publication of latest technological breakthroughs, cutting-edge developments, and timely reviews of current and emerging technologies related to the broad field of electronics. Experimental and theoretical results are published as regular peer-reviewed articles or as articles within Special Issues guestedited by leading experts in selected topics of interest.

Editor-in-Chief

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