Current Updates of Programmable Logic Devices and Synthesis Methods

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Message from the Guest Editors

In recent years, we have witnessed the increasingly prominent role of programmable logic devices. Various applications can be found in almost all areas of human life, such as manufacturing systems, smart grids, robotics, transportation systems, medical devices, military, home area networks, digital data analysis, smart buildings and IoT, etc.

This Special Issue aims to discuss recent advances in the design, architecture, synthesis, modeling, specification, analysis, and verification of programmable logic devices. Topics are covered (not limited to):

The logic synthesis and implementation methods of programmable logic devices (FPGA, CPLD, SoC);
Design methodologies, analysis techniques, and verification methods of PLDs and digital systems;
Optimization techniques (e.g., power, area, delay);
Concurrency modeling and analysis of digital systems;
Verification and validation techniques, including formal verification methods;
Real-time systems, including real-time sensing and computing;
Hardware implementation of intelligent algorithms;
Reconfigurable control systems (distributed $ integrated systems);
Dependable systems (cryptology, security algorithms, security).

Special Issue

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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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