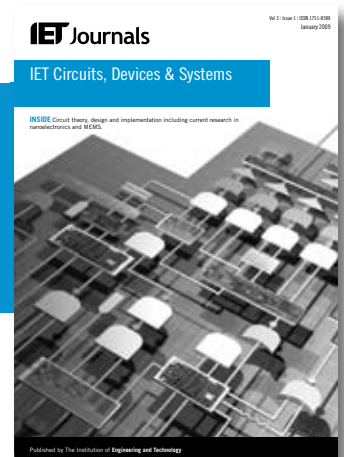


IET Circuits, Devices and Systems Call for Papers



SPECIAL ISSUE ON: Optical Computing Circuits, Devices and Systems

There has been a resurgence in optical computing due to the recent advances in optics and photonics that include nanophotonics, plasmonics, organic and silicon photonics, photonic crystals and metamaterials, high Q-microresonator structures, slow and fast light, biophotonics and quantum information processing, which have revolutionized the generation, manipulation, transmission and detection of light. The anticipated demand for ultrahigh bandwidth and ultrafast information processing has led to important developments in realizing all-optical computing devices and circuits compatible with optical communication and networking technology. The advent of semiconductor optical amplifiers, reversible optical logic and optical quantum computing has also opened up new vistas for computing with light.

This special issue is intended to address recent advances, related works, and future research directions in optical computing. Papers are invited for this special issue on all aspects of optical computing devices and circuits.

Topics of interest include, but are not limited to the following:

- optical and laser switching technologies
- design, analysis and simulation of optical computing devices, circuits and systems (optoelectronic, all-optical, fiber-optic, integrated optic, etc.)
- practical implementation with novel micro and nano structures (microresonators, photonic crystals, meta materials etc.)
- realization of conservative reversible logic devices and circuits
- optical molecular computing strategies and implementations (organic molecules, proteins, DNA, etc.)
- optical quantum computing devices and circuits
- applications and algorithms for optical computing
- new architectures for optical computing

All papers must be submitted through the journal's Manuscript Central system:
<http://mc.manuscriptcentral.com/iet-cds>

Schedule

DEADLINE EXTENDED TO
MARCH 31, 2010

Authors to receive a

1st decision by: 1 Jun 2010

Final notification of acceptance:

1 Aug 2010

On-line and print publication:

Oct 2010 (tentative)

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