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Introduction

With the development of optical communications and microelectronic computing, optoelectronic devices and optical signal processing has become more and more important in the field of optical measurement and fiber communication. The wide use of transmitters, receivers, and amplifiers in optical communication systems is also revolutionizing this industry. As the development of coherent communication progresses, advanced devices and signal processing technology have a profound effect on the system design and overall performance.

The Optoelectronic Devices and Optical Signal Processing Conference centered on some of the devices and signal processing technologies applied in optical communications and microelectronic computing. Additionally, the conference focused on both the optical and electrical development of devices and technologies including optical component and devices, all-optical information processing, and analytical technology. The conference provided potential concepts and optical technologies, which can be applied to current and future communication systems.

More than 40 papers are published in this proceedings volume of the 2013 International Conference on Optical Instruments and Technology Symposium. The papers cover a broad range of topics including optical devices and component design, fiber amplifier, laser technology, nonlinear effect processing, DSP-based network, and optical signal processing algorithm, etc. These papers reveal comprehensive research development of optoelectronic devices and signal processing.

Yi Dong