

**Call for Papers**  
**Special Issue of the IEEE Transactions on**  
**Microwave Theory and Techniques**  
**on**  
***Applications of Lightwave Technology to***  
***Microwave Devices, Circuits, and Systems***

**Jointly Prepared with the JOURNAL OF LIGHTWAVE  
TECHNOLOGY**

Advances in high-speed electrooptic and optoelectronic components and low loss optical fibers have led to intensive research in the application of these new technologies to microwave systems. For example, the replacement of metallic waveguide and coaxial cable transmission systems by high-speed fiberoptic links has been demonstrated at microwave frequencies. This technology has inherent advantages such as light weight, small size, immunity to interference, good electrical isolation, and potentially large time bandwidth products.

Papers are solicited for a special issue of the IEEE Transactions on Microwave Theory and Techniques on "Applications of Lightwave Technology to Microwave Devices, Circuits, and Systems," to be published in April, 1990. This issue intends to emphasize the utilization of lightwave technology in microwave engineering. The special issue will be distributed to subscribers of the Transactions on Microwave Theory and Techniques, and also to subscribers of the Journal of Lightwave Technology. Relevant topics of interest include, but are not limited to, the following areas:

- Optically controlled microwave semiconductor devices and circuits, including MMIC's
- Optical generation of microwave and millimeter wave signals
- True time delay microwave phase shifters and beamformers for phased array antennas
- Application of lightwave technology to delay line processors
- High-speed fiberoptic links for microwave signal distribution
- Diagnostics of microwave circuits by optical means
- High-speed analog and digital transmission systems
- High-speed optical transmitters & receivers
- Packaging of high-speed optoelectronic and electrooptic devices and circuits

Authors are requested to send four (4) copies of their manuscripts by July 15, 1989, to:

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Manuscript requirements for submitted papers are outlined on the outside back cover of the IEEE Transactions on Microwave Theory and Techniques.