

Applications of Infrared Technology

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Over a year ago, I was asked by SPIE to serve as Guest Editor for an issue on applications of infrared technology. Inasmuch as infrared technology is being used in more and varied applications every day, the task of identifying the specific applications to be included in this issue was difficult. Suggestions were solicited from a number of people in the field regarding the composition of this issue. From their responses, it became readily apparent that interest existed in discussing applications of infrared technology from the viewpoint of a system engineer. Also, it seemed appropriate to discuss certain components from the same viewpoint. Personally, I found this concept intriguing in that what is often of interest to the component engineer may not be of major significance to the system engineer. The system engineer generally desires to know how a given component will affect the design and performance of a particular system. The paper by Dr. Barhydt on the performance of nearly-Blip detectors exemplifies this point of view. In any case, each author was encouraged to write his paper for the infrared system engineer.

You will notice that two papers differ somewhat from the general theme. The lead paper by Dr. Zissis on fundamentals of infrared technology was invited to provide a concise introduction to and overview of infrared concepts for newcomers to the field as well as a review for infrared practitioners. The other paper is authored by Dr. Geist. He presents a delightful and informative paper recounting important events in the development of the field of radiometry.

I regret that more application-related topics could not be included, but space restrictions limited the number of papers. It is hoped that at least some topics included will be of interest.

I would like to express my deep appreciation to each of the authors for their sincere effort in making this issue possible. My thanks also to those nameless reviewers who provided much constructive criticism.