

Photo-Optical Instrumentation Engineering

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This special issue is a double celebration: twenty-five years of SPIE and twenty years of *Optical Engineering*. The papers on photo-optical instrumentation engineering in this issue were invited by an anniversary committee comprised of Joseph B. Houston, Jr., Brian J. Thompson, William G. Hyzer, and the journal editor.

Topics were chosen which represented some continuity with those fields with which SPIE was involved from its inception. Some of the topics which were barely "gleams in the eye" twenty-five years ago include digital image processing and video instrumentation. Yet both the hopes and the seeds for those fields were widely felt among the pioneers of SPIE. Those same pioneers discussed topics such as range instrumentation, photographic image enhancement, optical image processing, signal processing, and various aspects of high speed photography. Today's SPIE members are still concerned with the same issues; and while the areas have remained, the methods have evolved dramatically.

Where do we stand in 1981? How did we arrive at this point? Where are we heading? These questions are intimately interconnected. The authors of the special-issue papers address these questions—usually all three questions—in each paper. Taken together, these papers show how the present has evolved out of the past and give us a sense of direction and perspective for the future. Contributing to such an issue puts the authors "on the line." They must organize, digest, and predict. To emphasize the human (not solely neutral and "scientific") nature of the task given to the authors, I have asked them to provide us with a picture and a short biography.

The field of optical engineering is the joint product of engineers, scientists, technicians, sponsors, equipment vendors, secretaries, illustrators, programmers, business people, and workers at societies like SPIE. Each of these roles depends on the others.

We owe this issue, this journal, and this society to our pioneers and heroes. To them, on behalf of all of us, I offer our thanks and dedicate this special issue.