To Optical Signal and Image Processing seminar, transforms Tuesday-Wednesday, Papers
Chairman: Dr. Emphasis should be on optical processing rather than device physics and materials science. Optical Signal and Image Processing
Tuesday-Wednesday, August 23-24, 1977
Chairman: Dr. David P. Casasent, Carnegie-Mellon University
Papers are requested on new optical signal processing techniques, systems, and applications. Tentative topics are:
- Radar and sonar signal processing
- Non-coherent optical signal processing
- Wideband signal recording and processing
- Acousto-optic and surface acoustic wave signal processing, etc.
- Spectrum, spectral, and interferometric optical signal processing

OPTICAL IMAGE PROCESSING
New papers on optical image processing are solicited. Tentative topics include:
- Image encoding (speckle, Hadamard, coded aperture, grid coding, projections, etc.)
- Quasi-optical processing (as in microwave and acoustical image reconstruction)
- Image enhancement and restoration
- Optical pattern recognition for image processing, etc.

Emphasis should be on techniques, systems, and applications using optical processing. Other topics of interest include novel optical image transforms and non-coherent image processing as well as optical image processing applications such as synthetic aperture radar, stellar interferometry, and image reconstruction from projections.

Applications of Digital Image Processing
Thursday - Friday, August 25-26, 1977
Chairman: Dr. Andrew G. Tescher, The Aerospace Corporation
Although man perceives visual information in analog form, the same visual information can and often does exist in a discrete form at an intermediate stage and is thus available for machine processing. IOCC Seminar No. 2 addresses digital procedures for these discrete images which yield a final “improved” visual (analog) representation. Here, the improvement primarily refers to a structural change in the image which has a positive effect on its eventual perception. Contributions are solicited on a wide variety of applications consistent with the indicated general philosophy. Potential topics may include (although are not limited to):
- Astronomy
- Picture transmission
- Medical diagnosis
- Television
- Earth resources applications
- Fingerprint identification
- Related hardware considerations such as special-purpose computers and solid-state detector arrays.

Because the 1977 International Optical Computing Conference is combined with the SPIE 21st Annual Technical Symposium, papers which address the relative merit of digital vs. optical techniques are of particular interest. Suggested fields for this latter category are imaging, radar processing, restoration, and correlation techniques.

General Chairman: Sam Horvitz
Naval Underwater Systems Center
Newport, R.I. 02840

DUE DATES
March 30, 1977 — Four copies of a brief professional biography and four copies of a one-paragraph abstract (double spaced on 8½” x 11” paper, 200 words maximum).
July 18, 1977 — Complete manuscripts of accepted papers.

Mail to: 1977 IOCC/SPIE
21st Annual Technical Symposium
P.O. Box 1146
Palos Verdes Estates, California 90274