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### Memo to Members: Have You Signed Up A New Member Lately?

As one who has chosen to belong to SMPTE, you are aware of the benefits of SMPTE membership. Among these benefits are the prestige of being associated with the world's premier professional organization in the fields of motion pictures and television, the monthly *SMPTE Journal*, the local section meetings, and the annual conferences and equipment exhibits. If you know someone who meets SMPTE's requirements, you can offer to sponsor him or her for membership. This is the best way to help strengthen the Society and point someone toward increased professional growth. Applications are available from SMPTE Membership Dept., 862 Scarsdale Ave., Scarsdale, NY 10583.



The 1981 Engineering Salary Survey conducted by the Engineering Manpower Commission of the American Association of Engineering Societies, 345 E. 47 St., New York, NY 10017, reported an increase of 9.6 percent in median salaries paid to engineers over the past year. Salaries paid to newly employed engineers one year or less since graduation increased 11.8 percent over the same period. The weighted national average salary for all engineers is \$31,950.

Results of the 1981 engineers salary survey are available in three reports. *Professional Income of Engineers, 1981* presents charts and tables for all major areas of industrial and governmental employment. It is available from AAES at a price

of \$25. *Engineers Salaries: Special Industry Report* contains highly detailed breakdowns including breakdowns by degree level. It is priced at \$75. *Salaries of Engineers in Education* is priced at \$15.

**Richard K. Anthony** has been appointed Supervisor for 3M's New York Photograd Laboratory, and **Arthur R. Poudrier** was named supervisor for the Los Angeles Laboratory. Both men will be responsible for the production and scheduling for the Photograd coating service at their respective locations. The coating reduces scratches, static, dust, and fingerprints on motion picture release prints and is also used in film rejuvenation.

## ABSTRACTS OF PAPERS FROM OTHER JOURNALS

**Computer tool evaluates horizontal transient response of the NTSC Color TV System**, S. S. Perlman, *RCA Engineer*, 26: 15-23, No. 6, May/June, 1981.

A computer simulation program to faithfully calculate the overall transient response of an NTSC color TV system from light-image input to light-image output is described. The program processes two horizontal lines of picture data in either the time domain or the corresponding Fourier-transformed frequency domain. Electronic processing, linear and nonlinear, is directly simulated in a serial fashion as the signal passes through the entire system. Program results are presented as software-generated plots and tables or are displayed subjectively on a TV monitor. Microprocessor-controlled video hardware converts the digital software-program results into corresponding sets of analog red-green-blue signals that drive the kine inputs of the display monitor. A split screen capability permits easy simultaneous subjective comparisons of up to four different program results corresponding to changes made anywhere within the system.

**Optical Fibre Transmission Lines**, W. A. Gambling, A. H. Hartog and C. M. Ragdale, *Radio and Electronic Engineer*, 51: 313-325, July/Aug. 1981.

Optical fiber transmission lines have many advantages over coaxial cables. The most widely used fabrication techniques involve chemical vapor deposition resulting in losses of well below 1 dB/km. Analysis of propagation follows well-defined principles, and the results obtained are broadly

comparable with those at microwave frequencies, although the wavelength of operation 1  $\mu\text{m}$  is much shorter. By suitable design, single-mode fibers can be made to give bandwidth X length products approaching 100 GHz · km. Multimode fibers are now well understood, pose fewer problems, and can be excited with light-emitting diodes.

**Large-Screen Flat-Panel Television: A New Approach**, T. L. Credelle, *RCA Engineer*, 26: 75-81, No. 7 July/Aug. 1981.

A number of display systems have been investigated that could lead to the realization of large-screen flat-panel television. The requirements of size, brightness, color and power efficiency have eliminated some new technologies such as liquid crystals and electroluminescence. But a new guided-beam approach, based on cathodoluminescence, looks promising. Electron beam guides distribute modulated current over the display area producing a high brightness, full color large area display that operates at reasonable power levels.

### SMPTE Organization

From 24 Members in 1916, the Society has grown today to about 9000 Members. Although the majority of the Society's Members live in the United States and Canada, nearly 1,000 are located in over 60 other countries.