The Applied Imagery Pattern Recognition Workshop (AIPR), held annually in Washington, D.C., brings together members of academia, industry, and government for three days of high-quality presentations and interaction. In addition to fostering dialogue among these three communities, this meeting encourages interdisciplinary exchanges with an intentionally diverse program. Its smaller size and intimate, elegant setting also distinguish this conference from others. More than 75 participants representing a good cross-section of these core communities and disciplines attended the 2001 workshop, held at the Cosmos Club. The workshop was presented by the AIPR Executive Committee and sponsored by the IEEE Computer Society Technical Committee on Pattern Analysis and Machine Intelligence.

The theme of the 30th AIPR Workshop was “Analysis and Understanding of Time Varying Imagery” and focused on techniques and algorithms for dealing with time varying imagery; that is, extracting information from sequences of images or video for use in recognition, identification, and control. With the current, amazing advances in computer processing power, it is now possible to apply single image algorithms to sequences of images quickly, even in real time. Additionally, there are new techniques for working directly with sequences of images, tracking and identifying features, and understanding sequences of events.

The workshop’s first keynote address was given by Gabor Fichtinger of the Center for Computer-Integrated Surgical Systems and Technology on the topic of image-guided, robotically assisted medical procedures. The second keynote address was given by Elizabeth Bullitt of the University of North Carolina on the topic of computer-assisted surgery.

The first technical session included many medical papers on CAD systems, medical imaging, computer-aided diagnosis, and image databases. The second session on assisted target recognition (ATR) included papers on commercial databases, algorithms, and imagery. The third technical session on gesture, sign language, and human–computer interaction included papers not only on gesture recognition, but also on multimodal systems and face recognition.

At the workshop’s dinner banquet, a talk titled “Freeze Frame—Eadweard Muybridge’s Photography of Motion” was given by Michelle Delaney, the collection’s manager at the Smithsonian Institution’s Photographic History Collection. The remaining technical sessions featured papers on video extraction, tracking, and general video algorithms.

The workshop ended with a lively panel discussion on technology transfer between the DoD, medical, research, and intelligence communities. Addressed were the logistics of how to exchange such information. The discussion was moderated by Elmer Williams (NRL), and the panel consisted of Dick Swaja (NIBIB—National Institute for Biomedical Imaging), Laurence Clarke (NCI and NIBIB), Steve Long (NIMA’s motion imagery...
program manager), Steve Dennis (representing the intelligence community’s video analysis and content extraction advanced R&D program), and Bob Hummel (DARPA’s manager for the Moving and Stationary Target Acquisition and Recognition and the Airborne Video Surveillance programs).

Charles J. Cohen
Cybernet Systems Corporation