

Forum on Industrial and Applied Physics Takes Off

Historically, the interests of physicists who are doing basic research in academic institutions have dominated the organization and activities of the American Physical Society (APS).

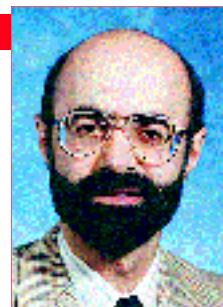
However, nearly half of all APS members work neither in basic research nor in academia. Of these, about half are employed in industry, and many of them feel their interests are not well served by the Society, according to a 1993 survey by the APS Committee on Applications in Physics (CAP).

The Forum on Industrial and Applied Physics (FIAP) was conceived at a CAP meeting in January 1993, in a discussion stimulated by Burt Richter (then APS president-elect) on how to provide an effective interface between the communities that develop and those that use physics. This discussion led to the commissioning of a

survey of CAP's potential audience in the APS. Preliminary results of the survey, conducted in the fall of 1993, revealed a significant "disconnect" between the interests of industrial APS members and APS programs.

The 1994 chairman of CAP, Abbas Ourmazd, therefore informally proposed to the APS Council at its April meeting that it establish a Forum to identify and better serve the interests of industrial physicists. In contrast to the Society's Divisions, which are organized by discipline, Forums are APS units whose membership and interests cut across standard divisional and topical group lines and thus embody the kind of cross-disciplinary view that appeals to industrial members. Like other units, Forums organize meeting sessions, nominate members for APS fellowship and have APS Council representation.

Following Ourmazd's informal proposal,



Ourmazd



Duke

the Council encouraged CAP to prepare a full proposal. It was presented to and approved by the Council in November 1994, and the task of implementing it fell to Charlie Duke, as 1995 chairman of CAP. Plans to establish a Forum on Industrial and Applied Physics - FIAP - received APS approval and funding in December 1994.

FIAP's initial objectives are to:

- Form a constituency among current APS members
- Identify, promote and represent the interests of this community
- Identify and nurture emerging cross-disciplinary fields
- Provide information about and education in industrial and applied physics
- Identify new ways to make APS more valuable to industrial and applied physicists
- Expand employment opportunities for physicists
- Promote interchange between academic and industrial communities.

A joint CAP/FIAP team met in February 1995 to prepare a final implementation plan, nominate candidates for a summer election of FIAP officers and compile materials for soliciting members. The team published a newsletter in March that included a membership application form. By the April 1995 APS Council meeting, nearly 1,000 applications had been received and FIAP was launched.

One of its first activities was to cosponsor with CAP a series of seven symposia at the March APS meeting in San Jose (see sidebar). Feedback from the symposia will be factored into plans for 1996 programs when the team meets again in June. That meeting

SYMPOSIUM AT THE MARCH APS MEETING

A symposium on the changing work styles of physicists in industry at the March APS meeting in San Jose highlighted some of the reasons industrial physicists have called for their own Forum within APS. Speakers at this symposium offered a number of useful comments on the nature of industrial physics as well as the training and characteristics of individuals who are likely to be successful in this venue:

- Overall industry trends are moving from technology-driven to market-driven products; from defense-related to commercial products; from high-performance, long-range R&D to low-cost, short-range activities; from diverse technical skills to a smaller set of core competencies critical to the company.
- Industrial physicists must have a broader base of knowledge than in the past. Particular specializations are secondary; the ability to move among disciplines will be primary.
- Research success will be measured by whether a scientific advance is evident in a product valued by the customer. The researcher's responsibility includes ensuring that this happens.
- Industrial research management is a "top-down," goal-oriented enterprise. The manager and the team members must communicate at each stage. Good interpersonal skills are critical.
- While physicists are widely regarded for their problem-solving skills, they are currently perceived as too specialized in their training and too inflexible in their interests.

will also finalize the slate of candidates and conduct an election in the summer. Candidates for the first FIAP board are:

CHAIRMAN—Abbas Ourmazd, AT&T Bell Laboratories;

CHAIRMAN-ELECT—Leonard J. Brillson, Xerox Corp., and Donald R. Sandstrom, The Boeing Co.;

VICE-CHAIRMAN—Neville Connell, Xerox Corp. and L. Craig Davis, Ford Motor Co.;

SECRETARY-TREASURER—Andrew M. Sessler, Lawrence Berkeley Laboratory and Harry Atwater, California Institute of Technology.

COUNCILOR—Matt Richter, Hypervision Inc., and David B. Fraser, Intel Corp.;

MEMBERS-AT-LARGE—Ray H. Baughman, Allied Signal, Tsahi Gozani, Science Applications International Corp., Michael A. Joffe, Extraction Systems, Inc. and

Margaret H. Weiler, Loral Infrared & Imaging Systems.

The CAP/FIAP team will meet again in September to prepare a formal report to the APS Council on FIAP's role and responsibilities and the new Forum's inaugural activities. Election results will be announced in a newsletter to members and FIAP's new officers will be introduced to the Council in November.

The consensus of the CAP/FIAP team is that FIAP must distinguish itself by providing services that are directly useful to industrial and applied physicists and to their employers in the world of global competition in the late 1990s and beyond. One idea suggested at the March meeting was to use the Internet in order to provide technical advice for various industrial and applied

Once neglected by The American Physical Society industrial physicists are now in the spotlight as a new Forum is launched.

physics specialties, offer consulting services and provide a platform for recruiting. A FIAP home page can now be accessed on the WorldWideWeb from the APS home page at <http://aps.org>. APS members interested in joining FIAP may e-mail the Membership Department at its Internet address, membership@aps.org, or telephone (301) 209-3280. n

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