

# THE INSTITUTE

THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC. A news supplement to IEEE Spectrum

MARCH/APRIL 1994, VOLUME 18, NUMBER 2

## U.S. Activities wields more influence in Washington

After years of steady effort, significant progress was made in 1993 on many of the career and technology policy issues being addressed by IEEE's United States Activities (IEEE-USA). In large part this progress may be attributed to the receptiveness of a new President and Administration struggling to address national problems in a rapidly changing world order.

The Clinton administration's technology policy echoes IEEE-USA's belief that technology is an "engine" for economic growth and that the Federal government should play a more active role in supporting industry's efforts to develop and commercialize new technologies. Long-standing IEEE-USA recommendations that the

Federal government foster dual-use technology development, promote cooperative research and development efforts, and expand the National Institute of Standards and Technology's (NIST's) Advanced Technology Program were embraced wholeheartedly. IEEE-USA was also invited by the Department of Commerce, the Department of Energy, and NIST to comment on strategic plans and program priorities that had been drafted.

**ACTIONS TAKEN.** In addition, the President established a new National Science and Technology Council and revamped the role of the Office of Science and Technology Policy, providing more opportunities for interaction. IEEE-USA became involved in the Electronics Working Group, a multiagency committee charged with outlining a new Administration R&D initiative to promote the competitiveness of the electronics industry. And Vice President Al Gore began spearheading Administration efforts to promote the deregulation of telecommunications and the development of the national information infrastructure, issues of keen interest to IEEE-USA. To cap off the year, IEEE-USA played a prominent role as a co-sponsor of President Clinton's Technology Summit, held in San Francisco in November.

Despite the Administration's receptiveness, the technology picture last year was not entirely rosy. Forced to work within ever tighter budgetary constraints,

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## Ask\*IEEE delivers IEE, Inspec documents



Ask\*IEEE and Inspec staff celebrate the announcement of their new partnership at the International Online Meeting, London. Shown from left to right are: Rod Montrose, IEE managing director of publishing and information services; Randy Marcinko, president of Dynamic Information Corp.; Phyllis Hall, IEEE staff executive, publications; and John Williams, IEE secretary and chief executive.

London—The partnership between the IEEE's document delivery service, Ask\*IEEE, and Inspec, the information services division of the United Kingdom's Institution of Electrical Engineers (IEE), was formally announced here in December. The occasion was the annual International Online Meeting, where librarians, information specialists, and database vendors from around the world view offerings of online database providers and document delivery services.

The partnership lets Ask\*IEEE deliver articles from all IEEE and IEE publications, as well as articles cited in Inspec's huge database.

Ask\*IEEE, launched last year in cooperation with Dynamic Information Corp., Burlingame, Calif., is a one-stop document delivery service specializing in engineering, computer, and physical sciences information and with access to just about any document in the public domain.

**CORE COLLECTIONS.** As of January 1994, Ask\*IEEE has been maintaining three core collections. Before that date, it contained all current and past IEEE publications, including journals, books, conference proceedings, and standards, as well as, from

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### BRIEFLY

**Twenty-three Technical Field Awards for 1994 are presented for outstanding engineering contributions [p. 4]**

**Los Angeles earthquake wipes out electrical services for over two million residents and affects power grid connecting several northwestern states and British Columbia and Alberta [p. 1]**

**Over 1200 organizations participate in dual-use technology projects in US \$500 million conversion program funded by U.S. government and industry [p. 1]**

**Co-sponsoring President Clinton's Technology Summit capped the career and technology issues IEEE-USA addressed last year [p. 1]**

**Exhibits merging communications and consumer electronics highlight winter show in Las Vegas [p. 1]**

**Small computer market will grow to \$70 billion in 1998, predicts researcher Frost & Sullivan [p. 8]**

**500 attendees are expected at the European symposium on semiconductor engineering in Warsaw [p. 12]**

**The combination of the IEE's Inspec database with Ask\*IEEE's online delivery service offers one-stop shopping for technical professionals [p. 1]**

**U.S. Commerce Secretary names 20 winning projects in Advanced Technology Program [p. 9]**

## Communications wows consumer show

Las Vegas, Nev.—Dominating the main exhibit space of a consumer show in thrall to communications technologies was a huge AT&T display. The giant company seemed to be everywhere at the Winter Consumer Electronics Show, held here Jan. 6-9, though it has never been more than a bit player at the industry's previous events.

Other companies, too, were concerned with the merger of the consumer electronics and communications industries, among them Casio Computer, Franklin Electronic Publishers, and Thomson Consumer Electronics. And products like a Karaoke kind of guitar, a video CD

player, and a RISC-based video game came from such companies as JVC, Lonestar Technologies, Nintendo, Panasonic, and Sega.

The change at AT&T, according to its Consumer Products Co. president Carl Ledbetter, marked a move from its being just a communications company to being a consumer electronics company with a focus on communications.

As a consumer electronics company, AT&T talked tough. The cable television industry was slammed by the show's keynote speaker, Robert Kavner, chief executive officer of AT&T's multimedia

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### ANALYSIS

## What \$500 million buys Defense conversion wins a following

BY JOHN A. ADAM

Washington, D.C.—Back in 1992, the U.S. Congress' Office of Technology Assessment predicted as many as 1.1 million of 6 million jobs in the U.S. defense industry could disappear by 1995. By 2001, 2.5 million defense jobs could be lost.

Part of the losses, perhaps half, could be taken care of by normal attrition. But something would still have to be done with the other employees, many of whom had valuable skills. For instance, 57 percent of defense employment was in manufacturing, compared with only 17 percent in the overall U.S. economy.

One answer was a Federal collaboration called the Technology Reinvestment Project. The half-billion-dollar cost in fiscal 1993 of the six-agency effort is shared by industry grants that (at least) match government funds. By early January, some 160 projects with more than 1200 organizations had been named as program winners.

The multiyear grants, many for 24 months, range from a few million dollars to tens of millions. The reinvestment program, with its emphasis on applied technology, is similar to the Commerce Department's

(Continued on p. 9, col. 1)

## L.A. quake disrupts power in Northwest

Los Angeles—Some 2.3 million residents here lost their electrical services in the wake of the Jan. 17 earthquake. But the lights also went out in parts of several northwestern states, as well as in Canada's British Columbia and Alberta, demonstrating the interconnectedness of the power grid that in normal times allows utilities to run more efficiently.

Downed power lines, damaged transformers, and some wrecked substations and generating facilities effectively wiped out power to the city of Los Angeles immediately after the earthquake. But, through repairs and rerouting, power to some 95 percent of city customers was restored by the end of the week. This does not mean the network is repaired, however, said Gary Tarplee, manager of Southern California Edison's energy control center. "Our customers are up," he said, "but many transmission facilities

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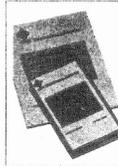
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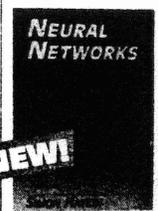
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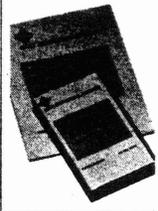
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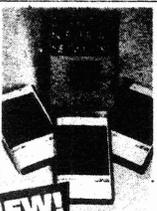


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