New directors join board

Thirteen directors have been elected or appointed to serve on the Computing Research Association Board.

CRA's five newly elected board members are Frances E. Allen, an IBM Fellow at the IBM T.J. Watson Research Center; Anita Borg, a consultant engineer at Digital Equipment Corp.'s Network Systems Laboratory; Robert Cartwright, a professor of computer science at Rice University; Stuart I. Feldman, executive director of computer systems research at Bellcore; and Jeffrey Ullman, professor and chair of the Department of Computer Science at Stanford University.

Four board members were re-elected: Peter Freeman, dean of the College of Computing at the Georgia Institute of Technology; Mary Jane Irwin, a professor of computer science and engineering at Pennsylvania State University; Nancy G. Leveson, a professor of computer science and engineering at the University of Washington; and David A. Patterson, a professor of electrical engineering and computer science at the University of California at Berkeley (and current chair of CRA).

Patterson designated John V. Guttag and Dick Lampman to complete the terms of Juris Hartmanis, a professor of computer science at Cornell University, and Steven S. Muchnick, distinguished engineer at Sun Microsystems Inc. Hartmanis and Muchnick resigned from the board before their terms expired. Guttag is a professor of computer science and engineering at the Massachusetts Institute of Technology. Lampman is director of the Computer Research Center at Hewlett-Packard Co.

Two professional societies that recently joined CRA appointed representatives to the board. Jill P. Mesirov, director of research at Thinking Machines Corp., was appointed as the Society for Industrial

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Inside CRN

Senate restores 1995 DOD university research budge

By Juan Antonio Osuna
CRA Staff

A month after the House slashed the Defense Department's fiscal 1995 $1.8 billion university research budget in half, the Senate restored the bulk of the cut in a July markup.

The news came as a relief to the university community, which had been alarmed by the $900 million budget cut.

The Senate restored $818 million to the budget, according to a report released July 29 by the full Senate Appropriations Committee. The $82 million Senate cut draws mostly from Army, Navy and Air Force research programs, with $25 million coming from the University Research Initiatives program in the Office of the Secretary of Defense.

The House cut grew from an internal fight between Rep. John Murtha (D-PA), chair of the Appropriations Subcommittee on Defense, and Rep. George Brown (D-CA), chair of the Science, Space and Technology Committee.

After Brown attacked earmarked money favoring Murtha's constituencies, Murtha retaliated by targeting one of Brown's favorite constituencies, academic science.

Murtha had defended the reduction as necessary in the face of an extremely tight overall DOD budget and the rising cost of university research overhead.

Congressional sources said Murtha fully expected the Senate to rescind the cuts, at least in part, and would not fight them in conference. One staff member said Murtha's action was intended as a message to the research community.

At press time, the Senate bill had passed the full committee but had not gone to the Senate floor or to conference to resolve differences with the House bill.

Because the university research budget is spread across DOD, department officials will have to decide which programs and agencies would be cut if the original budget request is decreased.

During the hour-long markup, Defense Subcommittee Chair Sen. Daniel Inouye (D-HI) said he had received more letters on university research than on any other DOD funding issue. Many of the letters came from university presidents and board-of-trustee chairs.

Sen. Ted Stevens (R-AK), the ranking Republican on the subcommittee, said that although the funding is being restored, it is "ludicrous and arrogant" for universities to think they are entitled to receive Pentagon money every year.

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NII R&D agenda outlined in report

In response to interest expressed by the Clinton administration, the Computer Systems Policy Project (CSPP) invited the Computing Research Association and four other computer industry and computing research associations to co-sponsor a symposium. The goal was to generate recommendations for a federal R&D agenda for the National Information Infrastructure.

The symposium, hosted by the National Institute of Standards and Technology Feb. 28 and March 1, was attended by more than 300 leading academic and industrial researchers. Attendees generated consensus R&D recommendations in 10 topic areas: networking components and protocols; information appliances and servers; information access; multimedia technologies; infrastructure for applications; dependability and manageability; ease of use; interoperability; security and privacy; and portability, mobility and ubiquity.

The resulting report, *R&D for the NII: Technical Challenges*, was released at a press conference in Washington, DC, in June. Within two weeks, the first 2,000 copies of the report were sold or distributed, so 2,000 more copies were printed.

The report recommended a federal R&D agenda that will complement and catalyze commercial R&D efforts by focusing on 1) longer-term and higher-risk challenges that can yield new concepts on which future markets may be based, 2) shared technologies that will promote a competitive response to the needs of major public-interest applications of the NII such as health care, education and government information services, and 3) test beds that can be used to introduce major new technologies.

The report said such efforts will allow the government to "continue an effective partnership with industry and academia that has enabled the remarkable progress in information technology over the past three decades and will drive forward the needed NII technologies—and the markets they create." The detailed recommendations in each topic area provided guidelines for funding agencies as they move forward in defining programs for advancing NII technologies.

CRA's participation in the symposium, headed by Mary Vernon from the University of Wisconsin at Madison, included organizing the symposium program, recruiting one of the two co-chairs for each of the 10 topic areas, nominating attendees and editing the report. The report has generated much interest at many of the federal funding agencies, primarily because of the large number of talented individuals who attended the symposium and formulated the recommendations.

Both the process and the result of the NII symposium and report are important to the computing research community.

The process represented an important collaboration between CRA and CSPP, an organization composed of the 13 largest computer system manufacturers. Because the CEOs of these companies speak for CSPP, and because the chief technical officers set CSPP's technical agenda, the organization has enormous influence. CRA and CSPP expect the strong success of the symposium to mark the start of a much stronger relationship between our organizations.

The result is important in a variety of ways. The government's role in sponsoring NII-related research is contentious in some circles because of the enormous profits to be made by those with a

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Hopper celebration an 'unqualified success'

BY Anita Borg

The first Grace Hopper Celebration of Women in Computing was an unqualified success. This technical conference, held in Washington, DC, June 9-11, honored computing pioneer Grace Murray Hopper and celebrated the contributions and successes of women in computing.

The conference was sponsored by the Computing Research Association, the Association for Computing Machinery and the IEEE Computer Society. Many corporations and government agencies provided financial support.

More than 450 people attended, 50 more than the planned maximum. At least 100 people had to be turned away. The vast majority of the attendees were female, although attendance by men was not restricted. Those men who did attend (give Bill Wulf a call) found it every bit as exciting.

Every session was well-attended. The most common complaint was that the schedule was too full and people were tired after having attended all of the events.

About one-third of the attendees were students. The National Science Foundation and the Intel Foundation, with support from the American Association for Artificial Intelligence, funded scholarships and travel grants that made this level of student attendance possible.

The conference began with two days of plenary sessions featuring an array of top technical speakers and two panel discussions. Many attendees said they thought this was the best technical conference they had ever attended. As a seasoned conference attendee, though an admittedly biased one, I completely agree. While the talks were of the highest quality, the speakers also made it clear that they love what they do and do it well—in part because of their enthusiasm. Many of the students attending the conference found this encouraging and motivating.

Panel discussions on the second day discussed significant policy issues of interest to the computing community and the option of moving from a technical career into management and ultimately into the executive suite.

Digital Equipment Corp., in addition to giving me the time to organize this event, gave a generous grant to fund the gala banquet. The banquet speaker, Mildred Dresselhaus, who has broken many barriers and achieved many firsts for women in physics, made it quite clear that computer science is not the only field where women have made great—but all too frequently invisible—contributions.

Microsoft Corp. sponsored a reception at the National Museum of Women in the Arts and gave a demonstration of SoftImages' animation production system. (The latest in new art forms?)

The tone changed on Saturday. Four parallel tracks presented 15 panel sessions, workshops and birds-of-a-feather sessions chosen from 35 proposals. The subject matter included leadership, intellectual property, the European experience, proposal writing, academic careers, professional societies and networking in corporations.

The first two days of the conference and one of the workshop tracks were videotaped. As the result of a generous in-kind grant from Unisys Corp., the tapes will be edited into a set including the complete technical talks and panel sessions. These will be the core of a new collection called the Computer Science Women's Video Archive. Information concerning the availability of the tapes should be available from CRA later this fall. We intend to encourage the broadcast of the conference tapes by cable and educational television stations.

An additional video crew did short interviews with a large number of the conference attendees. They taped more than 60 15-minute interviews based on a list of questions compiled from junior high and high school students. We hope to generate interest and funding to turn these into an interactive application (CD-ROM and Mosaic) that can be made available to young students to introduce them to women who do computing. For more information, or to get involved in this project, contact me at tel. 415-688-1367 or via E-mail at borg@pa.dec.com.

The conference produced a beautiful booklet designed by Karin Scholz (ksdesign@aol.com) that will be widely distributed. The booklet contains photographs and profiles of all of the major conference speakers and a multipage biography and tribute to Adm. Grace Murray Hopper. A resource section provides information about organizations and publications that will be useful to students, professionals and academics. We have funding to distribute 10 copies of the booklet to all computer science and computer engineering departments on the CRA Forsythe List. Additional copies can be purchased from CRA for $10 each. Conference posters and a limited number of extra large T-shirts are available at $10 and $18 respectively.

The conference would not have been possible without the hard work of an incredible group of volunteers and the generous support of our contributors. I would particularly like to thank my co-conspirator and program chair, Telle Whitney of Actel Corp., for her incredible contribution.

Financial contributors included NSF, the Office of Naval Research, Digital Equipment Corp., Microsoft

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Corp., Motorola Corp., Sun Microsystems Inc., Unisys Corp., AT&T Bell Laboratories, the Intel Foundation, Lotus Development Corp., Silicon Graphics Inc., Hewlett-Packard Co., the Leonard X. Bosack and Bette M. Kruger Charitable Foundation, Actel Corp., the American Association for Artificial Intelligence and Autodesk Corp.

The response to the conference leaves no doubt that there will be another. The date and place have not been determined, but we expect the conference will be held every two or three years and will retain its commitment to presenting and celebrating the outstanding technical achievements of women in computing. We hope that the computing community will join us.

For information about the conference booklet, poster or videos, contact Phillip Louis of CRA via E-mail at plouis@cra.org. For information about the Computer Science Women's Video Archive Project, contact me at borg@pa.dec.com. If you would like to volunteer for or provide financial support for the next GHC, contact Telle Whitney, telle@actel.com.

Anita Borg is a consultant engineer at Digital Equipment Corp.'s Network Systems Laboratory. She is a member of the CRA Board and of the ACM Council. She was the general chair for the Grace Hopper Celebration.