

WASHINGTON NEWS

NSF Announces First Awards in Information Technology Research Initiative

On September 13, the National Science Foundation (NSF) announced its first grants under the \$90 million Information Technology Research (ITR) initiative. The awards are designed to spur fundamental research and innovative applications of IT. Included are 62 large projects that will average \$1 million per year for 3–5 years, involving 41 institutions in 22 states. Another 148 smaller projects will each total \$500,000 or less for up to three years, involving 81 institutions in 32 states.

NSF director Rita Colwell said, "These projects represent major innovations in information technology, rather than routine applications of existing technology. Our strategy to support long-term, high-risk research responds to a challenge from the President's Information Technology Advisory Committee (PITAC)."

ITR emphasizes the subject areas of software, scalable information infrastructure, information management, revolutionary computing, human-computer interfaces, advanced computational science, education and work force, and social and economic implications of IT. The program's main goals are to augment the United States' IT knowledge base and strengthen the IT work force.

"The response has been overwhelming," said Ruzena Bajcsy, who heads the NSF Directorate for Computer and Information Science and Engineering (CISE). "Because fund requests by proposers exceeded \$3.2 billion (1,400 proposals), there were many more worthwhile projects proposed than we are able to support."

Funded projects include a University of Pittsburgh human-computer interface effort that will use advanced vision technology to develop personal robotic assistants that could help the elderly live more

independently. A major ITR emphasis is "middleware"—software that enhances the interaction of operating systems and their applications. For example, the University of Illinois will design middleware to optimize the efficiency and fault-tolerance of network-based computer programs for air-traffic control, smart highways, satellites, remote surgery, and electronic commerce. The California Institute of Technology will establish an Institute for Quantum Information to experiment with algorithms that process data by quantum physical processes, a method that could eventually make silicon chips obsolete.

The deadlines for NSF's second ITR competition are as follows:

- Small Projects (\$500 thousand): full proposals due January 22–24, 2001;
- Group Projects (<\$5 million total, <\$1 million per year): full proposals due April 9–11, 2001; and
- Large Projects (<\$15 million total, <\$3 million per year): full proposals due April 23–25, 2001.

For more information, see web site www.itr.nsf.gov.

Cita Furlani Named Director of National Coordination Office for Computing, Information, and Communications

Cita Furlani has been appointed director of the U.S. National Coordination Office (NCO) for Computing, Information, and Communications, effective October 1, 2000. Furlani replaces Kay Howell, who served as the NCO director since December 1997, leading the federal interagency Information Technology Research and Development (IT R&D) program through a period of rapid growth and helping to increase its prominence as a centerpiece of the Presidential administration's 21st Century Research Agenda.

NCO, established under the White House Office of Science and Technology Policy's National Science and Technology Council, is responsible for coordinating the federal interagency IT R&D programs. As part of this effort, NCO works closely with the Interagency Working Group (IWG) for IT R&D to formulate implementation plans and a cross-cutting budget to assure that the overall federal IT research focuses on the research priorities established by the IWG. NCO also supports the President's Information Technology Advisory Committee, which provides guidance to the President on key issues related to IT research.

Before joining NCO, Furlani served as acting deputy director of the Advanced Technology Program at the National Institute of Standards and Technology (NIST), providing leadership for the program's portfolio of more than 200 projects that advance high-risk, high-impact technologies. She worked extensively with industry to develop federal IT research programs that complement private-sector investments in areas including health care, component-based software, manufacturing automation, photonics and microelectronics manufacturing, intelligent control, electronic commerce, adaptive learning systems, and semiconductor lithography. Before that, Furlani directed the interagency Committee on Applications and Technology of the former Information Infrastructure Task Force on behalf of the NIST director, helping to create the administration's National Information Infrastructure (NII) Agenda for Action and supporting the work of the NII Advisory Council.

An employee of NIST since 1981, Furlani holds an MS degree in electronics and computer engineering from George Mason University and a BA degree in physics and mathematics from Texas Christian University. □

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