THE SHODOR EDUCATION FOUNDATION, INC.

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The Shodor Education Foundation Awarded $2.7M Grant for Extending the National Computational Science Institute beyond North Carolina

Durham, NC – December 18, 2001– The National Science Foundation (NSF) and the Shodor Education Foundation today officially announced a $2.7M grant to integrate computational science across the undergraduate curriculum to keep our nation's scientists, engineers and faculty members competitive in scientific research and education.

The National Computational Science Institute (NCSI) will teach undergraduate faculty at small-to-medium sized universities, community colleges, and minority serving institutions how to use new learning and teaching methods in the classroom, such as numerical modeling, interactive scientific applications, and computational tools. NCSI builds upon the successful regional Shodor Computational Science Institute (SCSI) established in 1997 with funding from NSF. SCSI itself grew out of an earlier NSF-funded activity at MCNC, the Carolinas Summer Institute in Computational Science.

"This award to the Shodor Foundation under the National Dissemination Track of our Course, Curriculum and Laboratory Improvement Program will provide enhanced opportunities to faculty and hence to students in the area of computational science. We are well aware of the increasing importance of computational science throughout the NSF-supported disciplines and the concomitant need for highly qualified faculty and students," said Andrew Bernat, NSF Program Director in the Division of Undergraduate Education. "The Shodor Foundation has demonstrated that it has the expertise and capability to provide the required training to faculty at the quality level necessary. We look forward enthusiastically to the results of our partnership."

Principal investigators and founding partners on the project hail from several US states and include Robert M. Panoff, Shodor Foundation, **North Carolina**; Holly P. Hirst, Appalachian State University, **North Carolina**; Eric Jakobsson, National Center for Supercomputing Applications (NCSA) and University of Illinois, **Illinois**; and Dennis E. Stevenson, Clemson University, **South Carolina**. Dan Warner in the Mathematics department at Clemson, will serve as the head of an advisory committee of scientists and educators from across the country.

"The creation of the National Computational Science Institute is an important step in increasing the quality of education and the opportunities available to our children and our communities," Governor Jim Hodges of South Carolina said. "Efforts like NCSI to combine technology and education create a strong foundation for building the knowledge-based, innovative economy needed to extend opportunity to all citizens,"

NCSI expands the scope of Shodor's undergraduate programs beyond North Carolina and the region and plans to reach out to more than 1,000 undergraduate faculty per year for three years. Through NCSI, Shodor and its partners will offer a proven, modular set of in-person, video-conferenced, and Web-accessible workshops, seminars, and support activities to introduce the hands-on use of computational science, numerical models and data visualization tools across the undergraduate curriculum.

"This significant support from NSF and our other partners represents a coming together of the undergraduate education reform movement and those of us who have been at the forefront of the development of computational science education. We now will have the means to promote interactive simulation as both content and method across the undergraduate curriculum. We will promote better science research and better science education. And since many of the undergraduate faculty are teaching our next generation of teachers, we will see the positive results of curriculum reform at all levels of education," stated Dr. Robert M. Panoff, Director of Shodor.

Shodor is a longtime partner with NCSA, the lead organization in the National Computational Science Alliance (Alliance), and the Education, Outreach, and Training component of the Partnerships for Advanced Computational Infrastructure (EOT-PACI). Through these relationships, NCSI will be able utilize technologies being developed for high-performance parallel computing, and remote collaboration, as well as grid technologies. NCSI will also be able to link to research organizations worldwide through the Access Grid, a collaborative audio-visual environment being deployed by the Alliance.

"This is an exemplary project that utilizes the emerging computational infrastructure to place the tools of science and high-performance computing in the hands of educators, and through them, a whole generation of students," said Dan Reed, director of NCSA and the Alliance.

NCSI is the only program of its kind that specifically targets teams of faculty from predominantly undergraduate institutions, Minority Serving Institutions (MSIs), and community colleges whose students are either the next generation of scientists and engineers, the next generation of K-12 teachers, or both. Also unique is that the program represents a partnership of states as well as a collaboration among NSF, the Alliance, the Burroughs Wellcome Fund, Sigma Xi, multiple vendors, and more than two dozen undergraduate institutions and high performance computing centers, including the

Pittsburgh Supercomputing Center, Ohio Supercomputer Center, and the North Carolina Supercomputing Center.

** Entire press packet contents can be found at
http://www.computationalscience.net/press

About MCNC

Founded in 1980, MCNC is a nonprofit corporation that offers cost-effective access to advanced electronic and information technologies and services for businesses, state and federal government agencies and North Carolina's education communities. MCNC provides two service centers that link the state's universities. NCREN provides Internet access, data sharing and videoconferencing. The North Carolina Supercomputer Center features a variety of world-class, advanced supercomputing resources. Additional information on MCNC can be found at http://www.mcnc.org.

About Shodor

Shodor is a non-profit education and research corporation dedicated to the reform and improvement of mathematics and science education by incorporating the appropriate computational and communication technologies. Shodor offers workshops and internships to faculty and students on general modeling, Internet Science, math explorations, medicine, forensic science, astrophysics, environmental science, scientific computing, and computational chemistry. For more information, please visit http://www.shodor.org.