PRESS RELEASE

From the University of Illinois Information Trust Institute

Information Trust INSTITUTE

Information Trust Institute Researchers Receive Major Funding from the National Science Foundation Cyber Trust Program

The Cyber Trust program of the U.S. National Science Foundation (NSF) has announced a series of significant funding awards to researchers at the University of Illinois Information Trust Institute (ITI). The grants will support research addressing a variety of technical problems involved in making information systems trustworthy and secure.

Nine ITI researchers, all of whom are also faculty members or senior researchers at the University of Illinois at Urbana-Champaign (UIUC), received a total of five awards under the Fall 2007 Cyber Trust program.

Prof. Carl Gunter will be the leader of two projects. One, with Prof. Nikita Borisov as co-investigator, will work to improve the security of network control systems for buildings, such as those used to control lighting, heating, and building access; a second award, with Dr. Himanshu Khurana and Prof. Manoj Prabhakaran, will develop new architectures and strategies for attribute-based security and messaging. Prof. Marianne Winslett will design archival data storage systems that have built-in, high-performance, low-cost security features to ensure automatic compliance with recent government regulations on records retention, such as the Sarbanes-Oxley Act. Prof. José Meseguer will work to enhance end-to-end protocol security through modeling of attackers and verification methods. Prof. Vikram Adve, along with Profs. Roy Campbell and Samuel King, will pursue ways to improve system security with a compiler-based virtual machine for operating system kernels.

Gunter, Prabhakaran, Winslett, Meseguer, Adve, Campbell, and King are faculty members in the UIUC Department of Computer Science. Borisov is with the UIUC Department of Electrical and Computer Engineering. Khurana is on the staff of the National Center for Supercomputing Applications (NCSA) on the UIUC campus.

The Cyber Trust program has very low acceptance rates, and grants are highly sought after. “I’m pleased to see Illinois security research so well represented in this year’s Cyber Trust grants,” said Winslett. “These new projects give a good sense of the wide variety of excellent security work going on at Illinois. Security issues cut across all of computer science, and you can really see that in the mix of topics in these grants, from operating systems to networking and storage, and from theory to applications. We’re working to meet the needs of computer users all across the board.”

ITI was founded less than four years ago, but is already attracting major funding from federal, state, and industry sources. The Institute’s leaders attribute its success not only to the high caliber of its researchers, but to the urgency and timeliness of the topic area it addresses. “Even before 9/11 and the Y2K bug attracted media interest in computer security and dependability issues, there was already widespread public interest in finding better ways to ensure the trustworthiness of information systems that society depends on,” said Prof. William H. Sanders, Director of ITI. “Those exceptional situations only emphasized the urgent need to advance technology in this area. The National Science Foundation’s exceptionally high level of support for ITI researchers really reflects the importance of our work.”

About the Information Trust Institute (ITI)

The Information Trust Institute is a multidisciplinary cross-campus research unit housed in the College of Engineering at Illinois. It is an international leader combining research and education with industrial outreach in trustworthy and secure information systems. ITI brings together over 90 faculty, many senior and graduate student researchers, and industry partners to conduct foundational and applied research to enable the creation of critical applications and cyber infrastructures. In doing so, ITI is creating computer systems, software, and networks that society can depend on to be trustworthy, that is, secure, dependable (reliable and available), correct, safe, private, and survivable. Instead of concentrating on narrow and focused technical solutions, ITI aims to create a new paradigm for designing trustworthy systems from the ground up and validating systems that are intended to be trustworthy. www.iti.uiuc.edu

US National Science Foundation: http://www.nsf.gov

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