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News Release

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Cyber Security Research Center at UT Dallas Tops \$1 Million in Funding

Contracts elevate the research center's status in a highly competitive field

Richardson, Texas (Sept. 11, 2007) — The nearly three-year-old [Cybersecurity Research Center](#) at the University of Texas at Dallas has topped \$1 million in funding for projects intended to enhance the security of shared data in the post-9/11 world.

"Secure data sharing has been a problem for decades, but it's only after 9/11 that so much emphasis has been placed on it," said Bhavani Thuraisingham, the center's director. "We now hear organizations such as the CIA and FBI saying they wish they had better ways to share information, so we are developing improved approaches for managing, sharing and analyzing data, including geospatial data such as maps and images."

One of her team's major objectives is to encourage more information sharing among government agencies by providing the means to assure agency staff that their shared information is secure from unauthorized access.

Another key goal is to develop separate means for government agencies to work with three classes of partners: those who are trustworthy, those who are semi-trustworthy and those who are untrustworthy.

"Each type of partner has to be dealt with separately," Thuraisingham said. "With untrustworthy partners, for example, we may have to play games with them to extract as much information as possible without giving out too much information about ourselves."

One of the center's key tools is data mining, which involves sifting through mountains of data in search of revealing correlations or patterns. Thuraisingham's team has demonstrated that data mining is effective not only for identifying worms and viruses but also for uncovering cybercrime and security breaches.

The results of that work can then help the team develop cryptographic protocols for ensuring privacy when organizations share data. In addition, geospatial data mining has shown promise as a means to correlate occurrences of criminal and terrorist behavior and predict the timing, location and likelihood of similar behavior in the future.

And as with much government-funded research, she expects to find additional applications for her team's research results in the private sector, where privacy and security concerns exist regarding the sharing of health care information, banking data and much more.

"In the area of data security, UT Dallas is now one of the best in the world, right alongside prestigious institutions such as Purdue University, which is our major collaborator," Thuraisingham concluded. "Since we are a relatively small school, we can't focus on all aspects of cyber security, and so our focus now is mainly on data security. But as we continue to expand our programs and attract additional high quality faculty, we'll expand to other areas such as network security and operating systems security."

The UT Dallas center includes three other computer science faculty – Latifur Khan, Murat Kantarcioglu and Kevin Hamlen – plus nearly 20 graduate students. Funding sources include the U.S. Air Force Office of Scientific Research, the U.S. Department of Defense, the National Science Foundation, the National Geospatial-Intelligence Agency and Raytheon Corp. The center is part of the UT Dallas Cyber Security and Emergency Preparedness Institute.

About the Jonsson School

The Erik Jonsson School of Engineering and Computer Science is one of the fastest growing engineering

schools in the United States. With more than 2,500 students and nearly 100 faculty members, the school awards degrees in electrical engineering, computer science, telecommunications engineering, computer engineering, software engineering and materials science. The school is in the midst of a \$300 million public-private initiative that includes the recent completion of a 192,000-square-foot interdisciplinary research building. Areas of research at the school include analog and mixed-signal circuits and systems, bioengineering, human communication technology, information assurance and cyber security, nanoelectronics, and wireless communications engineering.

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