Computer Science & Engineering Distinguished Lecture

SMU School of Engineering
Department of Computer Science and Engineering

Information Security: Past, Present and Future

Presented by

Eugene H. Spafford, Purdue University

Wednesday, November 17, 2004
Junkins Engineering Building, Rm. 101
3:30-4:30 p.m.

Refreshments will be served in the Junkins Foyer from 3:00 to 3:30 p.m.

Abstract: Computer science is a relatively young field, being only about 50 years young. In those few decades we have moved from a few isolated, mammoth vacuum tube and relay based systems, to a world where there are perhaps billions of interconnected, miniaturized computers in everything from automobiles to refrigerators to airplanes to telephones. The looming future suggests that we will see a further increase in connectivity and computerization, with deployment and use of systems in ways we can but dimly imagine.

But along with this growing dependence on computing and computer-mediated computation we have also seen a rise in various forms of computer abuse. Some of it is accidental, and some is pure vandalism, but more and more often we are seeing instances of criminal activity and political action. The cyber infrastructure that we depend on has grown so quickly that insufficient attention has been paid to how to protect it against misuse and abuse. The trends for future vulnerabilities and exploits do not show any significant improvement, either.

In this talk, I will briefly recount some of this history of computing and computer crime to illustrate some trends. I will discuss some of the current threats facing society's dependence on cyber infrastructure, from spam to worms to DDOS. I will conclude with some examination of what the future might bring, and how we all can help influence the rise of a more security-conscious culture.

Biography: Eugene H. Spafford is a professor of Computer Sciences at Purdue University, a professor of Philosophy (courtesy appointment), a professor of Communication (courtesy), a professor of Electrical and Computer Engineering (courtesy), and is Executive Director of the Center for Education and Research in Information Assurance and Security. CERIAS is a campus-wide multi-disciplinary Center, with a broadly-focused mission to explore issues related to protecting information and information resources. Spaf has written extensively about information security, cybercrime, software engineering, and professional ethics. He has published over 100 articles and reports on his research, has written or contributed to over a dozen books, and he serves on the editorial boards of most major infosec-related journals. His current research is directed towards issues of public policy and information security, architecture and construction of highly-secure systems, and cyberforensic technologies.

Dr. Spafford is a Fellow of the ACM, Fellow of the AAAS, Fellow of the IEEE, and is a charter recipient of the Computer Society's Golden Core award. In 2000, he was named as a CISSP, honoris causa. He was the year 2000 recipient of the NIST/NCSC National Computer Systems Security Award, generally regarded as the field's most significant honor in information security research. In 2001, he was elected to the ISSA Hall of Fame, and he was awarded the William Hugh Murray medal of the NCISSE for his contributions to research and education in infosec. He is a 2003 recipient of the Air Force medal for Meritorious Civilian Service. In 2004, Spaf was named as the recipient of the IEEE Computer Society's Taylor Booth medal, and of the ACM SIGCAS's "Making a Difference" award.

Hosted by CSE Dept. **Everyone invited!**