NJIT

IEEE North Jersey Communications Chapter

Self-Healing Software Systems

by Angelos Keromytis, Columbia University

Date: April 7, 2005 (Thursday)
Time: 6:30 pm (refreshment starts at 6:00 pm)
Place: 202 ECEC, NJIT

About the Speaker

Angelos Keromytis has been an assistant professor with the Department of Computer Science at Columbia University since 2001, and director of the Network Security Laboratory. He received his B.Sc. in Computer Science from the University of Crete, Greece, and his M.Sc. and Ph.D. from the Computer and Information Science (CIS) Department, University of Pennsylvania. His current research interests involve around systems and network security, and cryptography. Previous research interests include active networks, trust management systems, and systems issues involving hardwre cryptographic acceleration. His recent work has been on survivable system and network architectures. For a full CV, see http://www.cs.columbia.edu/~angelos/cv.html

About the Talk

I will discuss out research in self-healing software systems that automatically diagnose and identify the root cause of their failures, and prevent them from repeating in the future through automatic structural modifications of the system itself. The talk will focus on two such systems: a software self-patching system that can protect against zero-day worm attacks (that is, attacks that were not previously known and for which no software patch exists), possibly without human intervention; and an emulator-based system that can learn and recover from broader classes of common software failures. I will discuss the capabilities and limitations of our current systems, and outline future directions for the work.

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For more information contact Nirwan Ansari (973) 596-3670, or check **http://web.njit.edu/~ieeenj/comm.html** for latest updates. Directions to NJIT can be found at: **http://www.njit.edu/University/Directions.html**.