



# Fall 2010 Colloquium

## Temple University

### Computer and Information Sciences

Friday 10/22, 11am, Wachman Hall 447:  
Peng Ning, NC State University:

*Infrastructure Security for Virtual Cloud Computing*

**Abstract:**

Virtual cloud computing is emerging as a promising solution to Information Technology (IT) management to both ease the provisioning and administration of complex hardware and software systems and reduce the operational costs. Several industry and university leaders have presented recently possible implementations, including IBM Research Compute Cloud (RC2), Amazon Elastic Compute Cloud (EC2), Microsoft Azure, and NC State Virtual Computing Lab (VCL). With the industry's continuous investment, virtual cloud computing is likely to be a major component of the future IT solution, which will have significant impact on almost all sectors of society. The trustworthiness of virtual cloud computing is thus critical to the well-being of all organizations or individuals that will rely on virtual cloud computing for their IT solutions. In this talk, I will discuss new threats to virtual cloud computing, present a new security architecture for virtual cloud computing, and describe a few research results aimed at securing the infrastructure of future virtual compute clouds.

**Bio:**

Dr. Peng Ning is a Professor of Computer Science at NC State University, where he also serves as the Technical Director for Secure Open Systems Initiative (SOSI) in College of Engineering at NC State University. He is a recipient of National Science Foundation (NSF) CAREER Award. His research has been supported by NSF, ARO, the Advanced Research and Development Activity (ARDA), IBM Research, SRI International, and the NCSU/Duke Center for Advanced Computing and Communication (CACC). He has served or is serving on the editorial boards of several international journals, including ACM Transactions on Sensor Networks, Journal of Computer Security, and Ad-Hoc Networks. He also served (or is serving) as the Program (Co-)Chairs of ACM SASN '05, ICICS '06 and ESORICS '09, the General Chair of ACM CCS '07 & '08, and Program Vice Chair for ICDCS '09 & '10 -- Security and Privacy Track. He is a Steering Committee member of ACM CCS and a founding Steering Committee member of ACM WiSec.

URL: <http://discovery.csc.ncsu.edu/~pning/>