



Spring 2010 CIS Colloquium Series

Designing Secure Architectures Using Security Patterns

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11am-12pm, Friday, April 16
4th Floor Conference Room (Wachman Hall, CC 447)

Abstract: Patterns combine experience and good practices to develop basic models that can be used for new designs. Security patterns join the extensive knowledge accumulated about security with the structure provided by patterns to provide guidelines for secure system design and evaluation. We consider the structure and purpose of security patterns, show a variety of security patterns, and illustrate their use in the construction of secure systems. These patterns include among others Authentication, Authorization, Role-based Access Control, Firewalls, Web Services Security, and application-oriented secure architectures. We introduce patterns in a conceptual way, relating them to their functions and to the system architecture. We also consider misuse patterns that describe misuses of the system. We show how to apply these patterns through a secure system development method. The patterns are shown using UML models and some examples are taken from my book “Security Patterns” (Wiley, 2006).

Bio: Eduardo B. Fernandez is a professor in the Department of Computer Science and Engineering at Florida Atlantic University, Boca Raton, Florida. He has published numerous papers on security models, and object-oriented analysis/design. He has lectured all over the world at both academic and industrial meetings. His current interests include patterns for object-oriented design and security patterns. He holds a MS degree in Electrical Engineering from Purdue University and a Ph.D. in Computer Science from UCLA. He is a Senior Member of the IEEE, and a Member of ACM. He is an active consultant for industry. More details: <http://www.cse.fau.edu/~ed>

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