

Peng Ning
(As of May 2009)

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I. RESEARCH INTEREST

Peng Ning is interested in developing systems and techniques that enhance the security of networks, distributed systems, and applications. His current research is focused on systems security and security of wireless ad-hoc networks.

II. EDUCATION

- Ph.D., Information Technology, 2001, George Mason University, VA
- M.E., Communication and Electronic Systems, 1997, University of Science and Technology of China, China
- B.S., Information Science, 1994, University of Science and Technology of China, China

III. EMPLOYMENT HISTORY

- Technical Director, July 2008 – present, NC State University, Secure Open Systems Initiative, NC
- Associate Professor, August 2006 – present, NC State University, Department of Computer Science, NC
- Assistant Professor, August 2001 – August 2006, NC State University, Department of Computer Science, NC
- Research Assistant, May 1998 – August 2001, George Mason Univ., Center for Secure Information Systems, VA
- Teaching Assistant, August 1997 – May 1998, George Mason Univ., Dept. of Information and Software Engineering, VA

IV. PUBLICATIONS

Books and Edited Proceedings

1. Donggang Liu, Peng Ning. *Security for Wireless Sensor Networks*. Advances in Information Security, Vol. 28. Springer. ISBN: 0387327231. December 2006.
2. Peng Ning, Sihan Qing, Ninghui Li (Eds), *Proceedings of the 2006 International Conference on Information and Communications Security (ICICS 2006)*. December 2006. Raleigh, North Carolina, USA.
3. Peng Ning, Sushil Jajodia, and X. Sean Wang. *Intrusion Detection in Distributed Systems: An Abstraction-Based Approach*. Kluwer Academic Publisher. ISBN: 1-4020-7624-X. October 2003.
4. Vijay Atluri, Pierangela Samarati, Peng Ning, & Wenliang Du (Eds), *Proceedings of the 2005 ACM Workshop on Security of Ad Hoc and Sensor Networks*. November 2005. Alexandria, Virginia, USA.

Book Chapters

5. Dingbang Xu, Peng Ning, “Correlation Analysis of Intrusion Alerts,” in Roberto Di Pietro, Luigi V. Mancini (Eds), *Recent Advances in Intrusion Detection*, Springer, 2008.
6. Peng Ning, Donggang Liu, Wenliang Du, “Secure and Resilient Location Discovery in Wireless

- Sensor Networks,” in *Cliff Wang, Radha Poovendran, Sumit Roy (Eds), WSN Localization and Time Synchronization*, pages 161-184, Springer, 2006.
7. Kun Sun, Cliff Wang, Peng Ning, “Secure and Resilient Clock Synchronization in Wireless Sensor Networks,” in *Cliff Wang, Radha Poovendran, Sumit Roy (Eds), WSN Localization and Time Synchronization*, pages 347-368, Springer, 2006.
 8. Wenliang Du, Lei Fang, Peng Ning, “Beaconless Location Discovery in Wireless Sensor Networks in *Cliff Wang, Radha Poovendran, Sumit Roy (Eds), WSN Localization and Time Synchronization*, pages 33-56, Springer, 2006
 9. Peng Ning, Sushil Jajodia, “Intrusion Detection Basics,” To appear in H. Bidgoli (Ed.) *Handbook of Computer Networks*. John Wiley & Sons. November 2007.
 10. Peng Ning, Donggang Liu, “Broadcast authentication and key management for secure sensor networks,” in *Ivan Stojmenovic (Ed.), Sensor Networks*, pages 141-172, John Wiley & Sons. ISBN: 13-978-0-471-68472-5. 2005.
 11. Peng Ning, Sushil Jajodia, “Intrusion Detection Systems Basics,” in H. Bidgoli (Ed.), *Handbook of Information Security*, pages 685-700, John Wiley & Sons. ISBN: 0-471-64833-7. December 2005.
 12. Peng Ning, Sushil Jajodia, “Intrusion Detection Techniques,” in H. Bidgoli (Ed.), *The Internet Encyclopedia*. John Wiley & Sons. ISBN: 0-471-22201-1. December 2003.

Refereed Journal Publications

13. Ronghua Wang, Wenliang Du, Xiaogang Liu, Peng Ning, "ShortPK: A Short-Term Public Key Scheme for Broadcast Authentication in Sensor Networks," To appear in *ACM Transactions on Sensor Networks (TOSN)*, 2009.
14. Donggang Liu, Peng Ning, An Liu, Cliff Wang, Wenliang Du, “Attack-Resistant Location Estimation in Wireless Sensor Networks,” in *ACM Transactions in Information and Systems Security (TISSEC)*, Vol. 11, No. 4, pages 1—39, July 2008.
15. Donggang Liu, Peng Ning, Wenliang Du, "Group-Based Key Pre-Distribution in Wireless Sensor Networks," in *ACM Transactions on Sensor Networks (TOSN)*, Vol. 4, No. 2, pages 11:1—11:30, March 2008.
16. Qing Zhang, Ting Yu, Peng Ning, "A Framework for Identifying Compromised Nodes in Wireless Sensor Networks," in *ACM Transactions in Information and Systems Security (TISSEC)*, Vol. 11, No. 3, Article No. 12, March 2008.
17. Peng Ning, An Liu, Wenliang Du, "Mitigating DoS Attacks against Broadcast Authentication in Wireless Sensor Networks," in *ACM Transactions on Sensor Networks (TOSN)*, Vol. 4, No. 1, January 2008.
18. Sencun Zhu, Sanjeev Setia, Sushil Jajodia, and Peng Ning, “An Interleaved Hop-by-Hop Authentication Scheme for Filtering of Injected False Data in Sensor Networks,” in *ACM Transactions on Sensor Networks (TOSN)*, Vol. 3, No. 3, August 2007.
19. Wenliang Du, Lei Fang, Peng Ning, "LAD: Localization Anomaly Detection for Wireless Sensor Networks," in *Journal of Parallel and Distributed Computing, Special Issue on Papers Selected from IPDPS 05*, Vol. 66, No. 7, pages 874-886, July 2006.
20. Kun Sun, Peng Ning, Cliff Wang, "Secure and Resilient Clock Synchronization in Wireless Sensor Networks," in *IEEE Journal on Selected Areas in Communications*, Vol. 24, No. 2, pages 395-408, February 2006.
21. Donggang Liu, Peng Ning, “Improving Key Pre-Distribution with Deployment Knowledge in Static Sensor Networks,” in *ACM Transactions on Sensor Networks (TOSN)*, Vol. 1, No. 2, pages

204-239, November 2005.

22. Peng Ning, Kun Sun, “How to Misuse AODV: A Case Study of Insider Attacks against Mobile Ad-hoc Routing Protocols,” in *Ad Hoc Networks Journal*, Vol. 3, No. 6, pages 795–819, November 2005.
23. Kun Sun, Peng Ning, Cliff Wang, “Fault-Tolerant Cluster-Wise Clock Synchronization for Wireless Sensor Networks,” in *IEEE Transactions on Dependable and Secure Computing (TDSC)*, Vol. 2, No. 3, pages 177–189, July-September 2005.
24. Donggang Liu, Peng Ning, Rongfang Li, “Establishing Pairwise Keys in Distributed Sensor Networks,” in *ACM Transactions on Information and System Security (TISSEC)*, Vol. 8, No. 1, pages 41–77, February 2005.
25. Peng Ning, Dingbang Xu, “Hypothesizing and Reasoning about Attacks Missed by Intrusion Detection Systems,” *ACM Transactions on Information and System Security (TISSEC)*, Vol. 7, No. 4, pages 591–627, November 2004.
26. Donggang Liu, Peng Ning, “Multi-Level μ TESLA: Broadcast Authentication for Distributed Sensor Networks,” in *ACM Transactions in Embedded Computing Systems (TECS)*, Vol. 3, No. 4, pages 800–836, November 2004.
27. Peng Ning, Yun Cui, Douglas Reeves, and Dingbang Xu, “Techniques and Tools for Analyzing Intrusion Alerts,” *ACM Transactions on Information and System Security (TISSEC)*, Vol. 7, No. 2, pages 274–318, May 2004.
28. Yingjiu Li, Peng Ning, X. Sean Wang, Sushil Jajodia, “Discovering Calendar-based Temporal Association Rules,” *Data and Knowledge Engineering*, Vol. 44, No. 2, pages 193–218, Elsevier Science, February 2003.
29. Peng Ning, Sushil Jajodia, X. Sean Wang, “Design and Implementation of A Decentralized Prototype System for Detecting Distributed Attacks,” *Computer Communications, Special Issue on Intrusion Detection Systems*, Vol. 25, No. 15, pages 1374–1391, September 2002.
30. Peng Ning, X. Sean Wang, Sushil Jajodia, “An Algebraic Representation of Calendars,” *Annals of Mathematics and Artificial Intelligence*, Vol. 36, No. 12, pages 5–38, Kluwer Academic, September 2002.
31. Peng Ning, Sushil Jajodia, X. Sean Wang, “Abstraction-based Intrusion Detection in Distributed Environments,” *ACM Transactions on Information and System Security (TISSEC)*, Vol. 4, No. 4, pages 407–452, November 2001.
32. Peng Liu, Peng Ning, Sushil Jajodia, “Avoiding Loss of Fairness Owing to Failures in Fair Data Exchange Systems,” *Decision Support Systems*, Vol. 31, No. 3, pages 337–350, Elsevier Science, 2001.
33. Peng Ning, X. Sean Wang, Sushil Jajodia, “Modeling Requests among Cooperating Intrusion Detection Systems,” *Computer Communications*, Vol. 23, No. 17, pages 1702–1715, Elsevier Science, 2000.
34. Dengguo Feng, Peng Ning, “The Relationship Among Nonlinear Criteria of S-box,” *Journal of China Institute of Communications*, Vol. 19, No. 4, pages 71–75, 1998.
35. Junhui Yang, Peng Ning, “Analysis of a Fast Public Key Cryptosystem,” *Cryptography & Information*, Vol. 2, No. 3, pages 1–17, 1996.

Refereed Conference Publications

36. Attila Yavuz and Peng Ning, “Hash-Based Sequential Aggregate and Forward Secure Signature for Unattended Wireless Sensor Networks,” To appear in *Proceedings of the Sixth Annual*

International Conference on Mobile and Ubiquitous Systems: Computing, Networking and Services (MobiQuitous 2009), July 2009.

Acceptance ratio: 22%

37. Chongkyung Kil, Emre Can Sezer, Ahmed Azab, Peng Ning, Xiaolan Zhang, "Remote Attestation to Dynamic System Properties: Towards Providing Complete System Integrity Evidence," in *Proceedings of the 39th Annual IEEE/IFIP International Conference on Dependable Systems and Networks (DSN 2009)*, Lisbon, Portugal, June-July 2009.
Acceptance ratio: Unknown
38. Young-Hyun Oh, Peng Ning, Yao Liu, Michael Reiter, "Authenticated Data Compression in Delay Tolerant Wireless Sensor Networks," in *Proceedings of the 6th International Conference on Networked Sensing Systems (INSS '09)*, June 2009.
Acceptance ratio: 29.1%
39. An Liu, Peng Ning, Cliff Wang, "Lightweight Remote Image Management for Secure Code Dissemination in Wireless Sensor Networks," in *IEEE INFOCOM 2009*, April 2009.
Acceptance ratio: 19.7%
40. Kun Sun, An Liu, Roger Xu, Peng Ning, Douglas Maughan, "Securing Network Access in Wireless Sensor Networks," in *Proceedings of 2nd ACM Conference on Wireless Network Security (WiSec '09)*, pages 261—268, March 2009.
Acceptance ratio: 26%
41. An Liu, Peng Ning, "TinyECC: A Configurable Library for Elliptic Curve Cryptography in Wireless Sensor Networks," in *Proceedings of the 7th International Conference on Information Processing in Sensor Networks (IPSN 2008)*, SPOTS Track, April 2008.
Acceptance ratio: 26.5% (SPOTS track)
42. Sangwon Hyun, Peng Ning, An Liu, Wenliang Du, "Seluge: Secure and DoS-Resistant Code Dissemination in Wireless Sensor Networks," in *Proceedings of the 7th International Conference on Information Processing in Sensor Networks (IPSN 2008)*, IP Track, April 2008.
Acceptance ratio: 23.8% (IP track)
43. Qi Dong, Donggang Liu, Peng Ning, "Pre-Authentication Filters: Providing DoS Resistance for Signature-Based Broadcast Authentication in Wireless Sensor Networks," in *Proceedings of 1st ACM Conference on Wireless Network Security (WiSec '08)*, March/April, 2008.
Acceptance ratio: 16% (regular papers)
44. Chongkyung Kil, Emre Can Sezer, Peng Ning, and Xiaolang Zhang, "Automated Security Debugging Using Program Structural Constraints," in *Proceedings of the 23rd Annual Computer Security Applications Conference (ACSAC '07)*, December 2007.
Acceptance ratio: 22%
45. Emre Can Sezer, Peng Ning, Chongkyung Kil and Jun Xu, "MemSherlock: An Automated Debugger for Unknown Memory Corruption Vulnerabilities," in *Proceedings of the 14th ACM Conference on Computer and Communications Security (CCS '07)*, pages 562—572, October/November, 2007.
Acceptance ratio: 18.2%
46. Cliff Wang, An Liu, Peng Ning, "Cluster-Based Minimum Mean Square Estimation for Secure and Resilient Localization in Wireless Sensor Networks," in *Proceedings of The International Conference on Wireless Algorithms, Systems and Applications (WASA '07)*, August 2007.
Acceptance ratio: Unknown
47. Tong Zhou, Romit Roy Choudhury, Peng Ning, Krishnendu Charkrabarty, "Privacy-Preserving

Detection of Sybil Attacks in Vehicular Networks,” To appear in *Proceedings of 4th International Conference on Mobile and Ubiquitous Systems: Computing, Networking and Services (MobiQuitous 2007)*, August 2007.

Acceptance ratio: 22.7%

48. Ronghua Wang, Wenliang Du, Peng Ning, “Containing Denial-of-Service Attacks in Broadcast Authentication in Sensor Networks,” To appear in *Proceedings of the 8th ACM International Symposium on Mobile Ad Hoc Networking and Computing (MobiHoc '07)*, Montreal, Canada, September 2007.

Acceptance ratio: 18.5%

49. Young June Pyun, Young Hee Park, Xinyuan Wang, Douglas S. Reeves, Peng Ning, "Tracing Traffic through Intermediate Hosts that Repacketize Flows," To appear in *Proceedings of IEEE INFOCOM '07*, Anchorage, Alaska, May 2007.

Acceptance ratio: 18%

50. Qinghua Zhang, Douglas S. Reeves, Peng Ning, Purush Iyer, "Analyzing Network Traffic to Detect Self-Decrypting Exploit Code," in *Proceedings of the 2nd ACM Symposium on InformAtion, Computer and Communications Security (ASIACCS '07)*, pages 4-12, Singapore, March 2007.

Acceptance ratio: 17.6%

51. Pan Wang, Peng Ning, Douglas S. Reeves, "A K-anonymous Communication Protocol for Overlay Networks," *Proceedings of the 2nd ACM Symposium on InformAtion, Computer and Communications Security (ASIACCS '07)*, pages 45-56, Singapore, March 2007.

Acceptance ratio: 17.6%

52. Chongkyung Kil, Jinsuk Jun, Christopher Bookholt, Jun Xu, and Peng Ning, “Address Space Layout Permutation (ASLP): Towards Fine-Grained Randomization of Commodity Software,” in *Proceedings of the 22nd Annual Computer Security Applications Conference (ACSAC'06)*, pages 339-348, December 2006.

Acceptance ratio: 26.5%

53. Kun Sun, Pai Peng, Peng Ning, Cliff Wang, “Secure Distributed Cluster Formation in Wireless Sensor Networks,” in *Proceedings of the 22nd Annual Computer Security Applications Conference (ACSAC'06)*, pages 131-140, December 2006.

Acceptance ratio: 26.5%

54. Kun Sun, Peng Ning, Cliff Wang, An Liu, Yuzheng Zhou, “TinySeRSync: Secure and Resilient Time Synchronization in Wireless Sensor Networks,” in *Proceedings of the 13th ACM Conference on Computer and Communications Security (CCS '06)*, pages 264-277, Alexandria, Virginia, November 2006.

Acceptance ratio: 14.8%

55. Dingbang Xu, Peng Ning, “A Flexible Approach to Intrusion Alert Anonymization and Correlation,” in *Proceedings of 2nd IEEE Communications Society/CreateNet International Conference on Security and Privacy in Communication Networks (SecureComm 2006)*, pages 1-10, August 2006.

Acceptance ratio: 26%

56. Qing Zhang, Ting Yu, Peng Ning, “A Framework for Identifying Compromised Nodes in Sensor Networks,” in *Proceedings of 2nd IEEE Communications Society/CreateNet International Conference on Security and Privacy in Communication Networks (SecureComm 2006)*, pages 1-10, August 2006.

Acceptance ratio: 26%

57. Pai Peng, Peng Ning, Douglas S. Reeves, "On the Secrecy of Timing-Based Active Watermarking Trace-Back Techniques," in *Proceedings of 2006 IEEE Symposium on Security and Privacy*, pages 334-348, Oakland, CA, May 2006.
Acceptance ratio: 12.7%
58. Yan Zhai, Peng Ning, Jun Xu, "Integrating IDS Alert Correlation and OS-Level Dependency Tracking," in *Proceedings of IEEE International Conference on Intelligence and Security Informatics (ISI 2006)*, pages 272--284, May 2006.
Acceptance ratio: Unknown
59. Pan Wang, Peng Ning, Douglas S. Reeves, "Network Access Control for Mobile Ad-Hoc Networks," in *Proceedings of the 7th International Conference on Information and Communications Security (ICICS '05), LNCS 3783*, pages 350-362, December 2005.
Acceptance ratio: 17.4%
60. Dingbang Xu, Peng Ning, "Privacy-Preserving Alert Correlation: A Concept Hierarchy Based Approach," in *Proceedings of the 21st Annual Computer Security Applications Conference*, December 2005.
Acceptance ratio: 22.8%
61. Jun Xu, Peng Ning, Chongkyung Kil, Yan Zhai, and Chris Bookholt, "Automatic Diagnosis and Response to Memory Corruption Vulnerabilities," in *Proceedings of the 12th ACM Conference on Computer and Communications Security (CCS '05)*, pages 223-234, November 2005.
Acceptance ratio: 15.3%
62. Donggang Liu, Peng Ning, Sencun Zhu, Sushil Jajodia, "Practical Broadcast Authentication in Sensor Networks," in *Proceedings of The 2nd Annual International Conference on Mobile and Ubiquitous Systems: Networking and Services (MobiQuitous 2005)*, pages 118–129, July 2005.
Acceptance ratio: 35.4%
63. Wenliang Du, Ronghua Wang, and Peng Ning. "An Efficient Scheme for Authenticating Public Keys in Sensor Networks," in *Proceedings of the 6th ACM International Symposium on Mobile Ad Hoc Networking and Computing (MobiHoc '05)*, pages 58–67, May 2005.
Acceptance ratio: 14.2%
64. Donggang Liu, Peng Ning, Wenliang Du, "Detecting Malicious Beacon Nodes for Secure Location Discovery in Wireless Sensor Networks," in *Proceedings of the 25th International Conference on Distributed Computing Systems (ICDCS '05)*, pages 609–619, June 2005.
Acceptance ratio: 13.8%
65. Donggang Liu, Peng Ning, Wenliang Du, "Attack-Resistant Location Estimation in Sensor Networks," in *Proceedings of The Fourth International Symposium on Information Processing in Sensor Networks (IPSN '05)*, pages 99–106, April 2005.
Acceptance ratio: 20%
66. Wenliang Du, Lei Fang, Peng Ning, "LAD: Localization Anomaly Detection for Wireless Sensor Networks," in *Proceedings of the 19th IEEE International Parallel & Distributed Processing Symposium (IPDPS '05)*, April 2005.
Acceptance ratio: 34.3%; Best Paper Award
67. Lei Fang, Wenliang Du, Peng Ning, "A Beacon-Less Location Discovery Scheme for Wireless Sensor Networks," in *Proceedings of the IEEE INFOCOM '05*, March 13-17, 2005.
Acceptance ratio: 17.2%
68. Yan Zhai, Peng Ning, Purush Iyer, Douglas S. Reeves, "Reasoning about Complementary Intrusion Evidence," in *Proceedings of 20th Annual Computer Security Applications Conference*

(ACSAC '04), pages 39–48, December 2004.

Acceptance ratio: 26.1%

69. Dingbang Xu, Peng Ning, “Alert Correlation through Triggering Events and Common Resources,” in *Proceedings of 20th Annual Computer Security Applications Conference (ACSAC '04)*, pages 360–369, December 2004.

Acceptance ratio: 26.1%

70. Pan Wang, Peng Ning, Douglas Reeves, “Storage-Efficient Stateless Group Key Revocation,” in *Proceedings of the 7th Information Security Conference (ISC '04)*, pages 25–36, September 2004.

Acceptance ratio: 33%

71. Qinglin Jiang, Douglas Reeves, Peng Ning, “Certificate Recommendations to Improve the Robustness of Web of Trust,” in *Proceedings of the 7th Information Security Conference (ISC '04)*, pages 292–303, September 2004.

Acceptance ratio: 33%

72. Sencun Zhu, Sanjeev Setia, Sushil Jajodia, and Peng Ning, “An Interleaved Hop-by-Hop Authentication Scheme for Filtering False Data in Sensor Networks,” in *Proceedings of IEEE Symposium on Security and Privacy*, pages 259–271, Oakland, California, May 2004.

Acceptance ratio: 10.2%

73. Peng Ning, Dingbang Xu, Christopher Healey, and Robert St. Amant, “Building Attack Scenarios through Integration of Complementary Alert Correlation Methods,” in *Proceedings of the 11th Annual Network and Distributed Systems Security Symposium (NDSS '04)*, pages 97–111, February 2004.

Acceptance ratio: 16.7%

74. Qinglin Jiang, Douglas S. Reeves, Peng Ning, “Improving Robustness of PGP Keyrings by Conflict Detection,” in *Proceedings of 2004 RSA Conference Cryptographers' Track (CT-RSA2004)*, pages 194–207, February 2004.

Acceptance ratio: 36.4%

75. Peng Ning, Dingbang Xu, “Learning Attack Strategies from Intrusion Alerts,” in *Proceedings of the 10th ACM Conference on Computer and Communications Security (CCS '03)*, pages 200–209, Washington D.C., October, 2003.

Acceptance ratio: 13.8%

76. Donggang Liu, Peng Ning, Kun Sun, “Efficient Self-Healing Group Key Distribution with Revocation Capability,” in *Proceedings of the 10th ACM Conference on Computer and Communications Security (CCS '03)*, pages 231–240, Washington D.C., October, 2003.

Acceptance ratio: 13.8%

77. Donggang Liu, Peng Ning, “Establishing Pairwise Keys in Distributed Sensor Networks,” in *Proceedings of the 10th ACM Conference on Computer and Communications Security (CCS '03)*, pages 52–61, Washington D.C., October, 2003.

Acceptance ratio: 13.8%

78. Peng Ning, Dingbang Xu, “Adapting Query Optimization Techniques for Efficient Intrusion Alert Correlation,” in *Proceedings of the 17th IFIP WG 11.3 Working Conference on Data and Application Security*, August 2003.

Acceptance ratio: Unknown

79. Donggang Liu, Peng Ning, “Efficient Distribution of Key Chain Commitments for Broadcast Authentication in Distributed Sensor Networks,” in *Proceedings of the 10th Annual Network and Distributed System Security Symposium (NDSS '03)*, pages 263–276, February 2003.

Acceptance ratio: 20.7%

80. Peng Ning, Yun Cui, Douglas S. Reeves, “Constructing Attack Scenarios through Correlation of Intrusion Alerts,” in *the 9th ACM Conference on Computer & Communications Security (CCS '02)*, pages 245–254, Washington D.C., November 2002.

Acceptance ratio: 17.6%

Permanently collected by DoD Information Assurance Technology Analysis Center (IATAC) and Total Electronic Migration System (TEMS).

81. Peng Ning, Yun Cui, Douglas S. Reeves, “Analyzing Intensive Intrusion Alerts Via Correlation,” in *Proceedings of the 5th International Symposium on Recent Advances in Intrusion Detection (RAID 02)*, pages 74–94, Zurich, Switzerland, October 2002.

Acceptance ratio: 25%

82. Peng Ning, Yiqun Lisa Yin, “Efficient Software Implementation for Finite Field Multiplication in Normal Basis,” in *Proceedings of the 3rd International Conference on Information and Communication Security (ICICS 01)*, LNCS 2229, pages 177–188, November 2001.

Acceptance ratio: Unknown

83. Yingjiu Li, Peng Ning, X. Sean Wang, Sushil Jajodia, “Discovering Calendar-based Temporal Association Rules,” in *Proceedings of the 8th International Symposium on Temporal Representation and Reasoning (TIME 01)*, pages 111–118, Italy, June 2001.

Acceptance ratio: Unknown

84. Peng Ning, X. Sean Wang, Sushil Jajodia, “Query Facility for Common Intrusion Detection Framework,” in *Proceedings of the 23rd National Information Systems Security Conference*, pages 317–328, October 2000.

Acceptance ratio: Unknown

85. Jiahai Yang, Peng Ning, X. Sean Wang, and Sushil Jajodia, “CARDS: A Distributed System for Detecting Coordinated Attacks,” in *Proceedings of IFIP TC11 Sixteenth Annual Working Conference on Information Security*, pages 171–180, August 2000.

Acceptance ratio: Unknown

86. Peng Ning, Jiwu Jing, Yingxia Dai, “A Key Exchange Protocol based on Distributed Certificate Authorities,” in *Proceedings of the Fifth Annual Conference of Information Security Professional Committee of Chinese Computer Federation*, pages 233–237, 1995.

Acceptance ratio: Unknown

Refereed Workshop Publications

87. Donggang Liu, Peng Ning, Wenliang Du, “Group-Based Key Pre-Distribution in Wireless Sensor Networks,” in *Proceedings of 2005 ACM Workshop on Wireless Security (WiSe 2005)*, September 2005.

Acceptance ratio: 13.9%

88. Pai Peng, Peng Ning, Douglas S. Reeves, Xinyuan Wang, “Active Timing-Based Correlation of Perturbed Traffic Flows with Chaff Packets,” in *Proceedings of the International Workshop on Security in Distributed Computing Systems (SDCS-2005)*, pages 107–113, June 2005.

Acceptance ratio: 28.6%

89. Qinghua Zhang, Pan Wang, Douglas S. Reeves, Peng Ning, “Defending Sybil Attacks in Sensor Networks,” in *Proceedings of the International Workshop on Security in Distributed Computing Systems (SDCS-2005)*, pages 185–191, June 2005.

Acceptance ratio: 28.6%

90. Donggang Liu, Peng Ning, "Location-Based Pairwise Key Establishments for Static Sensor Networks," in *2003 ACM Workshop on Security in Ad Hoc and Sensor Networks (SASN '03)*, pages 72–82, October 2003.
Acceptance ratio: 19.7%
91. Peng Ning, Kun Sun, "How to Misuse AODV: A Case Study of Insider Attacks against Mobile Ad-hoc Routing Protocols," in *Proceedings of the 4th Annual IEEE Information Assurance Workshop*, pages 60–67, West Point, June 2003.
Acceptance ratio: Unknown; Best Paper Award
92. Yingjiu Li, Peng Ning, X. Sean Wang, Sushil Jajodia, "Generating Market Basket Data with Temporal Information," in *ACM KDD Workshop on Temporal Data Mining*, August 2001.
Acceptance ratio: Unknown
93. Peng Ning, X. Sean Wang, Sushil Jajodia, "An Algebraic Representation of Calendars (Extended Abstract)," in *Proceedings of AAAI-2000 International Workshop on Spatial and Temporal Granularity*, pages 1–8, July 2000.
Acceptance ratio: Unknown
94. Peng Liu, Peng Ning, Sushil Jajodia, "Avoiding Loss of Fairness Owing to Process Crashes in Fair Data Exchange Protocols," in *Proceedings of 2000 International Conference on Dependable Systems and Networks (FTCS-30 and DCCA-8)*, pages 631–640, New York City, June 2000.
Acceptance ratio: Unknown

Others

95. An Liu, Young-Hyun Oh, Peng Ning, "Secure and DoS-Resistant Code Dissemination in Wireless Sensor Networks Using Seluge (Demo Abstract)," in *Proceedings of the 7th International Conference on Information Processing in Sensor Networks (IPSN 2008)*, April 2008.
Demo abstract
96. Pan Wang, Douglas S. Reeves, Peng Ning, "Secure Address Auto-Configuration for Mobile Ad Hoc Networks," in *The 2nd Annual International Conference on Mobile and Ubiquitous Systems: Networking and Services (MobiQuitous 2005)*, pages 519–521, July 2005.
Poster paper
97. Lloyd Williams, Sean McBride, Robert St. Amant, and Peng Ning. "Toward interface customization in intrusion detection systems," in *Workshop on Behavior-based Customization, International Conference on Intelligent User Interfaces (IUI)*. 2004.
Invited paper
98. Peng Ning, Yun Cui, Douglas S. Reeves, and Dingbang Xu, "Towards Automating Intrusion Alert Analysis," in *2003 Workshop on Statistical and Machine Learning Techniques in Computer Intrusion Detection*, September 2003.
Invited paper
99. Peng Ning, "Abstraction-Based Intrusion Detection in Distributed Environments," *PhD Dissertation*, George Mason University, July 2001.
100. Peng Ning, "Fast Implementation of A Cryptographic Library for Elliptic Curves over $GF(p)$ and $GF(2^m)$," *Master Thesis*, University of Science & Technology of China, July 1997.

Patent

1. Yiquan L. Yin, Peng Ning, "Efficient Finite Field Multiplication in Normal Basis," US Patent No.

Software Packages

1. Seluge: Secure and DoS-Resistant Code Dissemination for Wireless Sensor Networks
URL: <http://discovery.csc.ncsu.edu/software/Seluge/>
2. TinySeRSync: Secure and Resilient Time Synchronization for Wireless Sensor Networks
URL: <http://discovery.csc.ncsu.edu/software/TinySeRSync/>
3. TinyECC: Elliptic Curve Cryptography for Sensor Networks
URL: <http://discovery.csc.ncsu.edu/~pning/software/TinyECC/>
4. TIAA: Toolkit for Intrusion Alert Analysis
URL: <http://discovery.csc.ncsu.edu/~pning/software/correlator/>
5. TinyKeyMan: Key Management for Sensor Networks
URL: <http://discovery.csc.ncsu.edu/~pning/software/TinyKeyMan/>
6. Multi-Level μ TESLA: Broadcast Authentication for Distributed Sensor Networks
URL: <http://discovery.csc.ncsu.edu/~pning/software/ML-microTESLA/>
7. Attacks against the AODV Protocol
URL: <http://discovery.csc.ncsu.edu/~pning/software/MisuseAODV/>

V. GRANTS

Externally Sponsored Competitive Research Grants

1. **Title:** Computer-aided Human Centric Cyber Situation Awareness
Source: ARO MURI (Lead: Peng Liu @ PennState)
Amount: \$1,065,439
Duration: 06-1-2009 to 05-31-2014
Principal Investigator: Peng Ning
Co-Principal Investigator: Michael Young
2. **Title:** Secure Open Systems Institute
Source: ARO
Amount: \$3,336,000
Duration: 04-03-2008 to 4-2-2010
Principal Investigator: Dennis Kekas
Co-Principal Investigators: Peng Ning, Mladen Vouk, Rudra Dutta
3. **Title:** CT-M: Collaborative Research: A Resilient Real-Time System for a Secure and Reconfigurable Power Grid
Source: NSF
Amount: \$50,000
Duration: 08-01-2008 to 07-31-2011
Principal Investigator: Peng Ning
4. **Title:** NeTS-NOSS: Secure, Robust and DoS-Resilient Code Dissemination in Wireless Sensor Networks
Source: NSF

- Amount:** \$269,902
Duration: 08-16-2007 to 08-15-2010
Principal Investigator: Peng Ning
5. **Title:** Collaborative Research: CT-T: A Resilient Real-Time System for a Secure and Reconfigurable Power Grid (seed grant)
Source: NSF
Amount: \$28,500
Duration: 08-16-2007 to 8-15-2008
Principal Investigator: Peng Ning
 6. **Title:** Reliable Medium Access in Wireless Networks: Vulnerabilities, Protection, and Recovery
Source: ARO
Amount: \$223,071
Duration: 08-01-2007 to 7-31-2010
Principal Investigators: Peng Ning
 7. **Title:** Cyber-TA: NCSU: Large-Scale Privacy-Preserving Collaborative Intrusion Analysis
Source: SRI International
Amount: \$80,107
Duration: 07-01-2006 to 6-30-2008
Principal Investigators: Peng Ning
 8. **Title:** SEED: Developing Instructional Laboratories for Computer Security Education
Source: Syracuse University
Amount: \$20,000
Duration: 08-21-2006 to 8-20-2011
Principal Investigators: Peng Ning
 9. **Title:** WiSeNeT: Wireless Sensor Network Testbed for Research and Education
Source: ARO
Amount: \$108,105
Duration: 05-01-2006 to 4-30-2008
Principal Investigators: Peng Ning
Co-Principal Investigator: Injong Rhee
 10. **Title:** CAREER: Towards Trustworthy and Resilient Sensor Networks
Source: NSF
Amount: \$400,000
Duration: 07-01-2005 to 06-30-2010
Principal Investigator: Peng Ning
 11. **Title:** Efficient and Resilient Key Management for Wireless Sensor Networks
Source: ARO (subcontract through Syracuse University)
Amount: \$173,215
Duration: 05-01-2005 to 04-30-2008
Principal Investigator: Peng Ning
 12. **Title:** Collaborative Research: Trustworthy and Resilient Location Discovery in Wireless Sensor Networks
Source: NSF
Amount: \$150,000
Duration: 10-01-2004 to 09-30-2007
Principal Investigator: Peng Ning
 13. **Title:** Positioning and Reliable Data Transmission of Sensor Networks

Source: ARO

Amount: \$199,823

Duration: 08-01-2004 to 07-31-2007

Principal Investigator: Wesley Snyder

Co-Principal Investigator: Peng Ning

14. **Title:** Tracing Attacks Through Non-Cooperative Networks and Stepping Stones with Timing-Based Watermarking (Phases I & II)
Source: Advanced Research and Development Activity (ARDA)
Amount: \$1,179,321
Duration: 10-01-2003 to 11-30-2006
Principal Investigator: Douglas S. Reeves
Co-Principal Investigator: Peng Ning
15. **Title:** ITR: Integrating Intrusion Detection with Intelligent Visualization and Interaction Strategies
Source: NSF
Amount: \$415,099
Duration: 09-15-2002 to 08-31-2005
Principal Investigator: Peng Ning
Co-Principal Investigators: Christopher G. Healey and Robert A. St. Amant
16. **Title:** Reduce False Alerts, Uncover High-Level Attack Strategies and Predict Attacks in Progress Using Prerequisites of Intrusions
Source: NSF
Amount: \$330,000
Duration: 07-01-2002 to 06-30-2005
Principal Investigator: Peng Ning
Co-Principal Investigator: Douglas S. Reeves
17. **Title:** Correlating Alerts Using Prerequisites of Intrusions: Towards Reducing False Alerts & Uncovering High Level Attack Strategies
Source: Army Research Office (ARO)
Amount: \$258,812 (base + option 1 + option 2 + extension)
Duration: 07-01-2002 to 05-31-2005
Principal Investigator: Peng Ning
Co-Principal Investigator: Douglas S. Reeves

Total External Research Grants: : \$8,277,394

Internally Sponsored Competitive Research Grants

18. **Title:** Efficient Group Key Distribution for Mobile Ad-hoc Networks
Source: NCSU Center for Advanced Computing & Communication (CACC)
Amount: \$42,100
Duration: 07-01-2003 to 06-30-2004
Principal Investigator: Peng Ning
19. **Title:** A Toolkit for Analyzing Intrusion Alerts
Source: NCSU Center for Advanced Computing & Communication (CACC)
Amount: \$26,805
Duration: 07-01-2002 to 06-30-2003
Principal Investigator: Peng Ning

Total Internal Research Grants: \$68,905

Others (Total 3)

20. **Title:** Open Collaborative Faculty Award
Source: IBM
Amount: \$100,000
Award Time: March 2009
Principal Investigator: Peng Ning

21. **Title:** ARO Workshop on Security of Embedded Systems and Networks
Source: Army Research Office
Amount: \$21,000
Award Time: 09-15-2006 to 09-14-2007
Principal Investigator: Peng Ning
Co-Principal Investigators: Frank Mueller
Note: Not competitive

22. **Title:** Cisco CIAG Equipment Grants
Source: Cisco
Amount: \$123,860
Award Time: Spring 2004
Principal Investigator: Peng Ning
Co-Principal Investigators: Annie Antón and Julie M. Starr
Note: Competitive equipment grant

Total Equipment Grant: \$244,860

Total grants: \$8,601,159

VI. TEACHING

A. Courses Taught

1. Spring 2009, CSC 774 Advanced Network Security, 12 students
2. Fall 2008, CSC 474 Network Security, 36 students
3. Spring 2008, CSC 440 Database Management Systems, 32 students
4. Spring 2008, CSC/ECE 774 Advanced Network Security, 7 students
5. Spring 2007, CSC/ECE 774 Advanced Network Security, 10 students
6. Fall 2006, CSC 405 Introduction to Computer Security, 40 students
7. Fall 2005, CSC 774 Advanced Network Security, 16 students
8. Spring 2005, CSC 474 Information Systems Security, 13 students
9. Fall 2004, CSC 474/574 Information Systems Security, 60 students
10. Spring 2004, CSC 774 Network Security, 23 students
11. Fall 2003, CSC474/574 Information Systems Security, 57 students
12. Spring 2003, CSC 774 Network Security, 18 students

13. Fall 2002, CSC 574/495N Information Systems Security, 61 students
14. Spring 2002, CSC 742 Database Management Systems, 43 students
15. Fall 2001, CSC 575 Network Security, 52 students

B. Instructional Development

- In Spring 2007, Dr. Ning and Dr. Harfoush revised two undergraduate information security courses, *CSC 405 Introduction to Computer Security* and *CSC 474 Network Security*.
- In Spring 2005, Dr. Ning coordinated (with Dr. Khaled Harfoush, Dr. Jun Xu, and Dr. Ting Yu) the revision and development of five information security courses in Computer Science undergraduate and graduate programs. These courses are *CSC 405 Introduction to Computer Security*, *CSC 474 Network Security*, *CSC/ECE 574 Computer and Network Security*, *CSC/ECE 716 Design of Secure and Reliable Systems*, and *CSC 743 Secure Data Management*.
- In Fall 2004, Dr. Ning led the effort of revising both the undergraduate and the graduate Information Security concentrations in Department of Computer Science (with Dr. Annie Antón, Dr. Jun Xu and Dr. Ting Yu). The details of these programs can be found at <http://ecommerce.ncsu.edu/infosec/courses.html>.
- In Spring 2004, Dr. Ning revised CSC 774 Network Security to CSC 774 Advanced Network Security to include more advanced topics on network security.
- In Spring 2002, Dr. Ning developed two new courses: *CSC 474/574 Information Systems Security* and *CSC 774 Network Security*.
- In Fall 2001, Dr. Ning participated as a main contributor (with Dr. Annie Antón and Dr. Jon Doyle) in the development of the undergraduate and the graduate Information Security concentrations in Department of Computer Science.

C. Master's and Doctoral Theses Directed

Doctoral Thesis Directed

1. Chongkyung Kil, "Mechanisms for Protecting Software Integrity in Networked Systems", November 2008.
2. Pan Wang, "Securing Communication in Dynamic Network Environments", February 2007. (Co-direct with Douglas Reeves)
3. Yan Zhai, "Integrating Security Evidence from Multiple Sources", December 2006
4. Pai Peng, "Active Timing Based Techniques for Attack Attribution through Stepping Stones", August 2006
5. Kun Sun, "Trustworthy and Resilient Time Synchronization in Wireless Sensor Networks", July 2006. (Co-direct with Cliff Wang)
6. Dingbang Xu, "Correlation Analysis of Intrusion Alerts", May 2006
7. Qinglin Jiang, "Improving the Robustness of Webs of Trust," January 2006 (Co-direct with Douglas Reeves)
8. Donggang Liu, "Security Mechanisms for Wireless Sensor Networks", July 2005

Master's Theses Directed

9. Varagur Karthik Sriram Iyer, "Misbehavior Resistant Fair Scheduling in Wireless Backhaul Mesh Networks," August 2008

10. Yuzheng Zhou, "Mitigating Voice Over IP Spam Using Computational Puzzles," August 2007
11. Panos Kampanakis, "Pairing-Based Cryptography on Sensor Platforms," August 2007
12. Ting Wang, "Mitigating Automatic Spamming against IP Phones," May 2007
13. Pratik Shah, "Feasibility of Secure and Resilient Location Discovery in Current Generation of Sensor Networks", January 2006
14. Jaideep Mahalati, "Facilitating Alert Correlation Using Resource Trees", August 2005
15. Srinath Anantharaju, "Resilient Aggregation in Wireless Sensor Networks", July 2005
16. Yiquan Hu, "TIAA: A Toolkit for Intrusion Alert Analysis", December 2003
17. Alfredo Serrano, "Integrating Alerts From Multiple Homogeneous Intrusion Detection Systems", May 2003
18. Yun Cui, "A Toolkit for Intrusion Alerts Correlation Based on Prerequisites and Consequences of Attacks", December 2002

Doctoral Theses in Progress

1. An Liu, "Securing Foundational Services in Wireless Sensor Networks (Tentative)", expect to finish in Summer 2010
2. Emer (John) Sezer, "Automated Debugging of Unknown Security Vulnerabilities (Tentative)", expect to finish in Summer 2008
3. Sangwon Hyun, "Secure and Resilient Code Dissemination in Wireless Sensor Networks (Tentative)," expect to finish in 2010 (On sick leave)
4. Attila Yavuz, "Lightweight Cryptographic Support for Wireless Networks", expect to finish in 2012
5. Yao Liu, "Insider Attack Tolerant Jamming Defense in Wireless Communication", expect to finish in 2012
6. Ahmed Azab, "Dynamic Remote Attestation", expect to finish in 2012
7. Wu Zhou, "Security in Virtual Cloud Computing", expect to finish in 2014

Master's Theses in Progress

VII. AWARDS

1. IBM Open Collaborative Faculty Award, 2009.
2. ACM Recognition of Service Awards, 2004, 2007, and 2008
3. NSF Faculty Early CAREER Award, 2005
4. Best Paper Award. Wenliang Du, Lei Fang, Peng Ning, "LAD: Localization Anomaly Detection for Wireless Sensor Networks," in *Proceedings of the 19th IEEE International Parallel & Distributed Processing Symposium (IPDPS '05)*, April 2005.
5. Best Paper Award. Peng Ning, Kun Sun, "How to Misuse AODV: A Case Study of Insider Attacks against Mobile Ad-hoc Routing Protocols," in *Proceedings of the 4th Annual IEEE Information Assurance Workshop*, June 2003.
6. Doctoral Completion Fellowship, George Mason University, Summer 2001.
7. Doctoral Fellowship. School of Information Technology and Engineering, George Mason University, 2000 – 2001.
8. Elite Graduate Student Award of Chinese Academy of Sciences (CAS), University of Science & Technology of China, Graduate School at Beijing, 1995.
9. Shenzhen Industrial Technology Award, University of Science & Technology of China, 1993.

VIII. PROFESSIONAL SERVICES

A. University Services

1. CSC Security Area Faculty Search Committee, Spring 2008
2. CSC Cryptography/Security Area Faculty Search Committee, Spring 2007
3. Member of CSC Awards Committee, Spring 2007
4. Networking Technology Institute, Technical Director for Information Security, Fall 2004 – Fall 2005
5. NSA Center for Academic Excellence (CAE) Renewal Committee, Chair, Fall 2004
6. Member of CSC Strategic Planning Committee, Fall 2004 – Spring 2005
7. Co-founded Cyber Defense Laboratory, Spring 2004
8. Computer Science Representative on the COE Research Committee, Fall 2002 – Spring 2004
9. Member of CSC Formal Method/Security Faculty Search Committee, Spring 2003
10. Member of CSC Database Faculty Recruiting, Spring 2002
11. Member of CSC Computer Steering Committee, Fall 2001, Fall 2002

B. Off-Campus Professional Services

Journal Editorial Board

1. ACM Transactions on Sensor Networks, ACM Press, since 2007
2. International Journal of Security and Networks, Inderscience, since 2008
3. Journal of Computer Security, IOS Press, since 2006
4. Ad Hoc Networks, Elsevier, since 2006
5. IEE Proceedings Information Security, IEE Publishing, since 2005
6. Ad Hoc and Sensor Wireless Networks: An International Journal, Old City Publishing, since 2004

Journal Guest Editor

1. Journal of Computer Security, Special Issue on Security of Ad-Hoc and Sensor Networks, 2006

Conference Steering Committee

1. ACM Conference on Computer and Communications Security (CCS), since 2007
2. ACM Symposium on Wireless Security (WiSec), founding member, since 2006

Conference and Workshop Organization

1. Program Co-Chair, 14th European Symposium on Research in Computer Security (ESORICS 2009)
2. Program Vice Chair (Security and Privacy Track), 29th and 30th International Conference on Distributed Computing Systems (ICDCS 2009 & 2010)
3. General Chair, 15th ACM Conference on Computer and Communications Security (CCS '08)
4. General Chair, 14th ACM Conference on Computer and Communications Security (CCS '07)
5. Publicity Chair, 2008 ACM Symposium on Wireless Security (WiSec '08)
6. Publicity Co-Chair, the 3rd International Conference on Security and Privacy in Communication Networks (SecureComm '07)

7. Workshop co-Chair, 2007 ARO Planning Workshop on Security of Embedded Systems and Networks (sponsored by ARO)
8. Program Committee Chair, Eighth International Conference on Information and Communications Security (ICICS '06)
9. Workshop co-Chair, 2006 RTAS Workshop on Research Directions for Security and Networking in Critical Real-Time and Embedded Systems
10. Organizing committee member and Treasurer, 2006 ACM Conference on Computer and Communications Security (CCS '06)
11. Program Committee Chair, 2005 ACM Workshop on Security in Ad-Hoc and Sensor Networks (SASN 2005)
12. Organizing committee member and Treasurer, 2005 ACM Conference on Computer and Communications Security (CCS '05)
13. Session Chair (Applied Cryptography), 2004 ACM Conference on Computer and Communications Security (CCS '04)
14. Session Chair (Secure Routing in Ad-Hoc Networks) and Panel Organizer (Panel on Sensor Network Security), 2004 ACM Workshop on Security in Ad-hoc and Sensor Networks (SASN '04)
15. Organizing committee member and Treasurer, 2004 ACM Conference on Computer and Communications Security (CCS '04)
16. Session Chair (Emerging Applications), 2003 ACM Conference on Computer and Communications Security (CCS 03)
17. Session Chair (Access Control), 2003 IFIP WG 11.3 Annual Conference on Data and Application Security

Conference and Workshop Program Committee Member

1. Program Committee Member, 16th ACM International Conference on Computer and Communications Security (CCS '09), November 2009
2. Program Committee Member, 10th ACM International Symposium on Mobile Ad Hoc Networking and Computing (MobiHoc 2009), May 2009
3. Program Committee Member, 2nd ACM Conference on Wireless Network Security (WiSec '09), March 2009
4. IEEE INFOCOM 2009
5. 15th ACM Conference on Computer and Communications Security (CCS '08)
6. 13th European Symposium on Research in Computer Security (ESORICS '08)
7. 24th Annual Computer Security Applications Conference (ACSAC 2008)
8. 5th IEEE International Conference on Mobile Ad-hoc and Sensor Systems (MASS 2008)
9. 28th International Conference on Distributed Computing Systems (ICDCS 2008), June 2008.
10. 23rd IFIP International Information Security Conference (SEC 2008)
11. INFOCOM 2008 (Area TPC Chair)
12. 7th International Conference on Information Processing in Sensor Networks (IPSN '08)
13. 1st ACM Conference on Wireless Network Security (WiSec '08)
14. 3rd ACM Symposium on Information, Computer and Communications Security (ASIACCS 2008)

15. INFOCOM 2007
16. The 2nd ACM Symposium on InformAtion, Computer and Communications Security (ASIACCS'07)
17. 23rd Annual Computer Security Applications Conference, December 2007
18. 21st Annual IFIP WG 11.3 Working Conference on Data and Applications Security
19. The 4th ACM Workshop on Wireless Security (WiSe 2006)
20. The 4th ACM Workshop on Security of Ad-Hoc and Sensor Networks, 2006
21. The 3rd IEEE Communication Society Conference on Sensor, Mesh and Ad Hoc Communications and Networks (SECON 06), 2006
22. The 9th International Symposium on Recent Advances in Intrusion Detection (RAID 06), 2006
23. The 20th Annual IFIP WG 11.3 Working Conference on Data and Applications Security, 2006
24. The 11th Australian Conference on Information Security and Privacy, 2006
25. IFIP Networking 2006
26. The 2nd IEEE Workshop on Dependability and Security in Sensor Networks and Systems (DSSNS 06), April 2006.
27. The 1st ACM Symposium on Information, Computer and Communications Security, 2006
28. The 2nd IEEE Workshop on Dependability and Security in Sensor Networks and Systems, 2005
29. The 7th International Workshop on Distributed Computing (IWDC '05), 2005
30. The 1st International Workshop on Information Assurance in Distributed Systems, 2005
31. The 8th International Symposium on Recent Advances in Intrusion Detection (RAID '05), 2005
32. The 10th European Symposium on Research in Computer Security, 2005
33. IFIP Networking, 2005
34. The IFIP 11.1 & 11.5 Joint Conf. on Security Management, Integrity, and Internal Control, 2005
35. The 3rd ACM Workshop on Wireless Security (WiSe 2005), 2005
36. The 19th IFIP WG 11.3 Working Conference on Data and Applications Security, 2005
37. The 2nd International Workshop on Security in Distributed Computing Systems, 2005
38. The 18th IFIP WG 11.3 Working Conference on Data and Applications Security, 2004
39. The 9th European Symposium on Research in Computer Security, 2004
40. IFIP Networking, 2004
41. The 1st International Workshop on Broadband Wireless Services and Applications, 2004
42. The 1st IEEE International Conference on Sensors and Ad Hoc Communications and, 2004
43. 2004 International Workshop on Security in Parallel and Distributed Systems, 2004
44. The 2nd ACM Workshop on Security of Ad-hoc and Sensor Networks, 2004
45. The 7th Information Security Conference, 2004
46. The 10th ACM Conference on Computer and Communications Security, 2003
47. The 1st ACM Workshop on Security of Ad-hoc and Sensor Networks, 2003
48. The 4th International Conference on Web-Age Information Management, 2003

49. The 9th ACM International Conference on Computer and Communications Security, 2002
50. The 3rd International Symposium on Electronic Commerce, 2002

Book Chapter Review

1. Handbook for Information Security
2. Internet Encyclopedia

Selected Journal Review

1. IEEE Journal on Selected Areas in Communications
2. IEEE/ACM Transactions on Networking
3. IEEE Transactions on Mobile Computing
4. IEEE Transactions on Dependable and Secure Computing
5. IEEE Communications Letters
6. ACM Transactions on Sensor Networks
7. ACM Computing Surveys
8. IEEE Transactions on Knowledge and Data Engineering
9. Computer Networks
10. International Journal on Computers and Applications
11. EURASIP Journal on Wireless Communications and Networking
12. IEEE Transactions on Computers
13. Journal of Computer Security
14. ACM Transactions on Information and Systems Security
15. Journal of Information Science and Engineering
16. ACM Transactions on Embedded Computing Systems
17. Communications of the ACM
18. Information Processing Letters
19. Journal of Heuristics
20. Decision Support Systems
21. Internet Computing
22. Journal of Digital Library
23. International Journal on System Science
24. ACTA Informatica
25. IEEE Transactions on Systems, Man, and Cybernetics
26. IEEE Transactions on Reliability
27. IEEE Network
28. International Journal of Computers, Systems and Signals
29. Requirement Engineering Journal

Selected Conference Review

1. The 21st Annual Computer Security Applications Conference (ACSAC 2005)
2. The 2004 International Conference on Dependable Systems and Networks (DSN 2004)
3. The 24th International Conference on Distributed Computing Systems (ICDCS 2004)
4. The 2004 IEEE International Conference on Communications (ICC 2004)
5. The 3rd DARPA Information Survivability Conference and Exposition (DISCEX III)
6. The 2002 International Symposium on Applications and the Internet (SAINT 2002)
7. The 8th ACM Conference on Computer and Communication Security (CCS 2001)
8. The 7th ACM Conference on Computer and Communication Security (CCS 2000)
9. The 6th ACM Conference on Computer and Communication Security (CCS 1999)
10. The 6th European Symposium on Research in Computer Security (ESORICS 2000)

Selected Grant Proposal Review

1. Australian Research Council (2004)
2. AciSI France (2004)
3. National Science Foundation (2002 (2 panels); 2003 (2 panels); 2004 (3 panels); 2005 (1 panel); 2006 (2 panels); 2007 (2 panels); 2008 (2 panels); 2009 (3 panels))
4. Army Research Office (ARO) (Multiple times since 2002)
5. Department of Energy (DOE) (2003, 2006)
6. Louisiana State Board of Regents (2002)