

## Contributors

- Tarek F. Abdelzhaer**  
University of Virginia  
*Security and Web Quality of Service*
- Dawn Alexander**  
University of Maryland  
*Protecting Web Sites*
- Edward Amoroso**  
AT&T Laboratories  
*Network Attacks*
- Michael R. Anderson**  
SCERC  
*Computer Forensics—Computer Media Reviews  
in Classified Government Agencies*
- Nadeem Ansari**  
Wayne State University  
*Home Area Networking*
- Amy W. Apon**  
University of Arkansas  
*Public Network Technologies and Security*
- Onur Ihsan Arsun**  
Isik University, Turkey  
*Security Insurance and Best Practices*
- Vijay Atluri**  
Rutgers University  
*Mobile Commerce*
- Pierre Balthazard**  
Arizona State University  
*Groupware: Risks, Threats, and Vulnerabilities  
in the Internet Age*
- William Bard**  
The University of Texas, Austin  
*Digital Communication*
- William C. Barker**  
National Institute of Standards and Technology  
*E-Government Security Issues and Measures*
- Kent Belasco**  
First Midwest Bank  
*Online Retail Banking: Security Concerns, Breaches,  
and Controls*
- István Zsolt Berta**  
Budapest University of Technology and Economics,  
Hungary  
*Standards for Product Security Assessment*
- Bhagyavati**  
Columbus State University  
*E-Mail and Instant Messaging*
- Hossein Bidgoli**  
California State University, Bakersfield  
*Guidelines for a Comprehensive Security System  
Internet Basics*
- Gerald Bluhm**  
Tyco Fire & Security  
*Patent Law*
- Andrew Blyth**  
University of Glamorgan, Pontypridd, UK  
*Computer Network Operations (CNO)*
- Robert J. Boncella**  
Washburn University  
*Secure Sockets Layer (SSL)  
Wireless Threats and Attacks*
- Charles Border**  
Rochester Institute of Technology  
*Client-Side Security*
- Nikita Borisov**  
University of California, Berkeley  
*WEP Security*
- Noureddine Boudriga**  
National Digital Certification Agency and University  
of Carthage, Tunisia  
*Forensic Computing  
IPsec: AH and ESP  
Security Policy Guidelines  
Server-Side Security*
- Sviatoslav Braynov**  
University of Illinois, Springfield  
*E-Commerce Vulnerabilities*
- Susan W. Brenner**  
University of Dayton School of Law  
*Cybercrime and the U.S. Criminal Justice System*
- Roderic Broadhurst**  
Queensland University of Technology  
*Combating the Cybercrime Threat: Developments  
in Global Law Enforcement*
- Christopher L. T. Brown**  
Technology Pathways  
*Evidence Collection and Analysis Tools*
- Duncan A. Buell**  
University of South Carolina  
*Number Theory for Information Security  
The Advanced Encryption Standard*
- Levente Buttyán**  
Budapest University of Technology and Economics,  
Hungary  
*Standards for Product Security Assessment*
- Jon Callas**  
PGP Corporation  
*E-Mail Security*
- L. Jean Camp**  
Harvard University  
*Peer-to-Peer Security*
- Randy Canis**  
Greensfelder, Hemker & Gale, P.C.  
*Copyright Law*
- Lillian N. Cassel**  
Villanova University  
*Security and the Wireless Application Protocol*

- Tom S. Chan**  
Southern New Hampshire University  
*Spyware*
- Steve J. Chapin**  
Syracuse University  
*Forensic Analysis of Windows Systems*
- Thomas M. Chen**  
Southern Methodist University  
*Electronic Attacks*
- Hamid Choukri**  
Gemplus & University of Bordeaux, France  
*Fault Attacks*
- Chao-Hsien Chu**  
Pennsylvania State University  
*Hacking Techniques in Wired Networks*
- Fred Cohen**  
University of New Haven  
*The Use of Deception Techniques: Honeypots and Decoys*
- J. Philip Craiger**  
University of Central Florida  
*Computer Forensics Procedures and Methods*  
*Law Enforcement and Digital Evidence*
- Lorrie Faith Cranor**  
Carnegie Mellon University  
*P3P (Platform for Privacy Preferences Project)*
- Marco Cremonini**  
University of Milan, Italy  
*Contingency Planning Management*  
*Network-Based Intrusion Detection Systems*
- Dipankar Dasgupta**  
University of Memphis  
*The Use of Agent Technology for Intrusion Detection*
- Magnus Daum**  
Ruhr University Bochum, Germany  
*Hashes and Message Digests*
- Jaime J. Davila**  
Hampshire College  
*Digital Divide*
- S. De Capitani di Vimercati**  
Università di Milano, Italy  
*Access Control: Principles And Solutions*
- Mathieu Deflem**  
University of South Carolina  
*Law Enforcement and Computer Security*  
*Threats and Measures*
- Lynn A. DeNoia**  
Rensselaer Polytechnic Institute  
*Wide Area and Metropolitan Area Networks*
- David Dittrich**  
University of Washington  
*Active Response to Computer Intrusions*  
*Hackers, Crackers, and Computer Criminals*
- Hans Dobbertin**  
Ruhr University Bochum, Germany  
*Hashes and Message Digests*
- Hans-Peter Dommel**  
Santa Clara University  
*Routers and Switches*
- Matthew C. Elder**  
Symantec Corporation  
*Electronic Attacks*
- Mohamed Eltoweissy**  
Virginia Tech  
*Security in Wireless Sensor Networks*
- David Evans**  
University of Virginia  
*Hostile Java Applets*
- G. E. Evans**  
Queen Mary Intellectual Property  
Research Institute, UK  
*Online Contracts*
- Ray Everett-Church**  
PrivacyClue LLC  
*Privacy Law and the Internet*  
*Trademark Law and the Internet*
- Seth Finkelstein**  
SethF.com  
*Electronic Speech*  
*The Digital Millennium Copyright Act*
- Susanna Frederick Fischer**  
Columbus School of Law, The Catholic University  
of America  
*Internet Gambling*
- Dario V. Forte**  
University of Milan, Crema, Italy  
*Forensic Analysis of UNIX Systems*
- Allan Friedman**  
Harvard University  
*Peer-to-Peer Security*
- Song Fu**  
Wayne State University  
*Mobile Code and Security*
- G. David Garson**  
North Carolina State University  
*E-Government*
- Karin Geiselhart**  
University of Canberra and Australian National  
University, Canberra, Australia  
*International Security Issues of*  
*E-Government*
- Craig Gentry**  
DoCoMo USA Labs  
*IBE (Identity-Based Encryption)*
- Michael Gertz**  
University of California, Davis  
*Database Security*
- Robert Gezelter**  
Software Consultant  
*Internet E-Mail Architecture*  
*OpenVMS Security*
- April Giles**  
Johns Hopkins University  
*Protecting Web Sites*
- Julia Alpert Gladstone**  
Bryant University  
*Global Aspects of Cyberlaw*
- James E. Goldman**  
Purdue University  
*Firewall Architectures*  
*Firewall Basics*

- Nicole Graf**  
University of Cooperative Education,  
Germany  
*Security Architectures*
- Sven Graupner**  
Hewlett-Packard Laboratories  
*Web Services*
- Robert H. Greenfield**  
Computer Consulting  
*Security in Circuit, Message, and Packet Switching*
- Steven J. Greenwald**  
Independent Information Security Consultant  
*S/MIME (Secure MIME)*
- Qijun Gu**  
Pennsylvania State University  
*Hacking Techniques in Wired Networks*
- Mohsen Guizani**  
Western Michigan University  
*TCP over Wireless Links*
- Harald Haas**  
International University Bremen (IUB),  
Germany  
*Air Interface Requirements for Mobile Data  
Services*
- Mohamed Hamdi**  
National Digital Certification Agency, Tunisia  
*Forensic Computing  
Security Policy Guidelines*
- David Harley**  
NHS Connecting for Health, UK  
*E-Mail Threats and Vulnerabilities*
- Jan Ll. Harris**  
University of Salford, UK  
*Hactivism*
- Robert W. Heath Jr.**  
The University of Texas, Austin  
*Digital Communication*
- Peter L. Heinzmann**  
University of Applied Sciences, Eastern Switzerland  
*Security of Broadband Access Networks*
- Kenneth Einar Himma**  
Seattle Pacific University  
*Active Response to Computer Intrusions  
Legal, Social, and Ethical Issues of the Internet  
Hackers, Crackers, and Computer Criminals*
- Chengdu Huang**  
University of Virginia  
*Security and Web Quality of Service*
- Ali Hushyar**  
San Jose State University  
*Multilevel Security Models*
- Renato Iannella**  
National ICT, Australia (NICTA)  
*Digital Rights Management*
- Cynthia E. Irvine**  
Naval Postgraduate School  
*Quality of Security Service: Adaptive Security  
Security Policy Enforcement*
- Gene Itkis**  
Boston University  
*Forward Security Adaptive Cryptography: Time  
Evolution*
- William K. Jackson**  
Southern Oregon University  
*E-Education and Information Privacy and Security*
- Charles Jaeger**  
Southern Oregon University  
*Cyberterrorism and Information Security  
Spam and the Legal Counter Attacks*
- Sushil Jajodia**  
George Mason University  
*Intrusion Detection Systems Basics*
- Markus Jakobsson**  
Indiana University, Bloomington  
*Cryptographic Privacy Protection Techniques  
Cryptographic Protocols*
- Abbas Jamalipour**  
University of Sydney, Australia  
*Wireless Internet: A Cellular Perspective*
- Jiwu Jing**  
Chinese Academy of Sciences, Beijing, China  
*Information Assurance*
- Ari Juels**  
RSA Laboratories  
*Encryption Basics*
- Jonathan Katz**  
University of Maryland  
*Symmetric Key Encryption*
- Charlie Kaufman**  
Microsoft Corporation  
*IPsec: IKE (Internet Key Exchange)*
- Doug Kaye**  
IT Conversations  
*Web Hosting*
- Rick Kazman**  
University of Hawaii, Manoa  
*Risk Management for IT Security*
- Wooyoung Kim**  
University of Illinois, Urbana-Champaign  
*Web Services*
- Nancy J. King**  
Oregon State University  
*E-Mail and Internet Use Policies*
- Jerry Kindall**  
Epok, Inc.  
*Digital Identity*
- Dominic Kneeshaw**  
Independent Consultant, Germany  
*Security Architectures*
- David Klappholz**  
Stevens Institute of Technology  
*Risk Management for IT Security*
- Graham Knight**  
University College, London, UK  
*Internet Architecture*
- Prashant Krishnamurthy**  
University of Pittsburgh  
*Wireless Network Standards and Protocol (802.11)*
- Christopher Kruegel**  
Technical University, Vienna, Austria  
*Host-Based Intrusion Detection*
- Priya Kubher**  
Wayne State University  
*Home Area Networking*

- Stan Kurkovsky**  
Central Connecticut State University  
*VPN Architecture*
- Selahattin Kuru**  
Isik University, Turkey  
*Security Insurance and Best Practices*
- Zenith Y. W. Law**  
JustSolve Consulting, Hong Kong  
*Fixed-Line Telephone System Vulnerabilities*
- Margarita Maria Lenk**  
Colorado State University  
*Asset-Security Goals Continuum: A Process for Security*
- Arjen K. Lenstra**  
Lucent Technologies Bell Laboratories  
and Technische Universiteit Eindhoven  
*Key Lengths*
- Albert Levi**  
Sabanci University, Turkey  
*Digital Certificates*
- Timothy E. Levin**  
Naval Postgraduate School  
*Quality of Security Service: Adaptive Security*
- John Linn**  
RSA Laboratories  
*Identity Management*
- Helger Lipmaa**  
Cybernetica AS and University of Tartu, Estonia  
*Secure Electronic Voting Protocols*
- Peng Liu**  
Pennsylvania State University  
*Hacking Techniques in Wired Networks*  
*Information Assurance*
- David J. Loundy**  
Devon Bank University College of Commerce  
*Online Stalking*
- Michele Luglio**  
University of Rome Tor Vergata, Italy  
*Security of Satellite Networks*
- Chester J. Maciag**  
Air Force Research Laboratory  
*Forensic Analysis of Windows Systems*
- Normand M. Martel**  
Medical Technology Research Corp.  
*Medical Records Security*
- Prabhaker Mateti**  
Wright State University  
*Hacking Techniques in Wireless Networks*  
*TCP/IP Suite*
- Cavan McCarthy**  
Louisiana State University  
*Digital Libraries: Security and Preservation*  
*Considerations*
- Patrick McDaniel**  
Pennsylvania State University  
*Computer and Network Authentication*
- J. McDermott**  
Center for High Assurance Computer System, Naval  
Research Laboratory  
*The Common Criteria*
- David E. McDysan**  
MCI Corporation  
*IP-Based VPN*
- Daniel J. McFarland**  
Rowan University  
*Client/Server Computing: Principles and Security*  
*Considerations*
- Matthew K. McGowan**  
Bradley University  
*EDI Security*
- John D. McLaren**  
Murray State University  
*Proxy Firewalls*
- A. Meddeb**  
National Digital Certification Agency and University  
of Carthage, Tunisia  
*IPsec: AH and ESP*
- Mark S. Merkow**  
University of Phoenix Online  
*E-Commerce Safeguards*
- M. Farooque Mesiya**  
Rensselaer Polytechnic Institute  
*Mobile IP*
- Pascal Meunier**  
Purdue University  
*Cracking WEP*  
*Software Development and Quality Assurance*
- Mark Michael**  
Research in Motion Ltd., Canada  
*Physical Security Measures*  
*Physical Security Threats*
- Pietro Michiardi**  
Institut Eurecom, France  
*Ad Hoc Network Security*
- Brent A. Miller**  
IBM Corporation  
*Bluetooth Technology*
- Refik Molva**  
Institut Eurecom, France  
*Ad Hoc Network Security*
- Robert K. Moniot**  
Fordham University  
*Software Piracy*
- Roy Morris**  
Capitol College  
*Voice-over Internet Protocol (VoIP)*
- Scott Nathan**  
Independent Consultant  
*Corporate Spying: The Legal Aspects*
- Randall K. Nichols**  
The George Washington University & University of  
Maryland University College  
*Wireless Information Warfare*
- Daryle P. Niedermayer**  
CGI Group Inc.  
*Security in Circuit, Message, and Packet Switching*
- Peng Ning**  
North Carolina State University  
*Intrusion Detection Systems Basics*
- M. S. Obaidat**  
Monmouth University  
*Digital Watermarking and Steganography*  
*Forensic Computing*  
*IPsec: AH and ESP*  
*Security Policy Guidelines*

- Server-Side Security*  
*Wireless Local Area Networks*  
*VPN Basics*
- S. Obeidat**  
Arizona State University  
*Wireless Local Area Networks*
- Stephan Olariu**  
Old Dominion University  
*Security in Wireless Sensor Networks*
- G. Massimo Palma**  
Università degli Studi di Milano, Italy  
*Quantum Cryptography*
- Cynthia Pandolfo**  
Villanova University  
*Security and the Wireless Application Protocol*
- Raymond R. Panko**  
University of Hawaii, Manoa  
*Computer Security Incident Response Teams (CSIRTs)*  
*Digital Signatures and Electronic Signatures*  
*Internet Security Standards*
- G. I. Papadimitriou**  
Aristotle University, Greece  
*VPN Basics*  
*Wireless Local Area Networks*
- C. Papazoglou**  
Aristotle University, Greece  
*VPN Basics*
- S. Paraboschi**  
Università di Bergamo, Italy  
*Access Control: Principles and Solutions*
- Radia Perlman**  
Sun Microsystems Laboratories  
*PKI (Public Key Infrastructure)*
- Sebastien Petit**  
Gemplus, France  
*Smart Card Security*
- Thomas L. Pigg**  
Jackson State Community College  
*Conducted Communications Media*
- Mark Pollitt**  
DigitalEvidencePro  
*Law Enforcement and Digital Evidence*
- A. S. Pomportsis**  
Aristotle University, Greece  
*VPN Basics*
- Daniel N. Port**  
University of Hawaii, Manoa  
*Risk Management for IT Security*
- Stephanie Porte**  
Gemplus, France  
*Smart Card Security*
- Dennis M. Powers**  
Southern Oregon University  
*Cyberlaw: The Major Areas, Development, and Information Security Aspects*
- Anupama Raju**  
Western Michigan University  
*TCP over Wireless Links*
- Jeremy L. Rasmussen**  
Sypris Electronics, LLC  
*Password Authentication*
- Indrajit Ray**  
Colorado State University  
*Electronic Payment Systems*
- Julian J. Ray**  
University of Redlands  
*Business-to-Business Electronic Commerce*
- Drummond Reed**  
OneName Corporation  
*Digital Identity*
- Slim Rekhis**  
National Digital Certification Agency and University of Carthage, Tunisia  
*Server-Side Security*
- Jian Ren**  
Michigan State University, East Lansing  
*Managing A Network Environment*
- Vladimir V. Riabov**  
Rivier College  
*SMTP (Simple Mail Transfer Protocol)*
- Marcus K. Rogers**  
Purdue University  
*Internal Security Threats*
- Pankaj Rohatgi**  
IBM T. J. Watson Research Center  
*Side-Channel Attacks*
- Arnon Rosenthal**  
The MITRE Corporation  
*Database Security*
- Emilia Rosti**  
Università degli Studi di Milano, Italy  
*IP Multicast and Its Security*
- Neil C. Rowe**  
U.S. Naval Postgraduate School  
*Electronic Protection*
- Bradley S. Rubin**  
University of St. Thomas  
*Public Key Algorithms*
- K. Rudolph**  
Native Intelligence, Inc.  
*Implementing a Security Awareness Program*
- B. Sadoun**  
Al-Balqa' Applied University, Jordan  
*Digital Watermarking and Steganography*
- Akhil Sahai**  
Hewlett-Packard Laboratories  
*Web Services*
- Antonio Saitto**  
Telespazio, Italy  
*Security of Satellite Networks*
- Atul A. Salvekar**  
Intel Corporation  
*Digital Communication*
- Pierangela Samarati**  
Università di Milano, Italy  
*Access Control: Principles and Solutions*  
*Contingency Planning Management*
- Shannon Schelin**  
The University of North Carolina, Chapel Hill  
*E-Government*

- William T. Schiano**  
Bentley College  
*Intranets: Principals, Privacy, and Security Considerations*
- Matthew Schmid**  
Cigital, Inc.  
*Antivirus Technology*
- E. Eugene Schultz**  
University of California–Berkeley Lab  
*Windows 2000 Security Denial of Service Attacks*
- Mark Shacklette**  
The University of Chicago  
*UNIX Security*
- P. M. Shankar**  
Drexel University  
*Wireless Channels*
- J. Eagle Shutt**  
University of South Carolina  
*Law Enforcement and Computer Security Threats and Measures*
- Nirvikar Singh**  
University of California, Santa Cruz  
*Digital Economy*
- Robert Slade**  
Vancouver Institute for Research into User Security, Canada  
*Computer Viruses and Worms Digital Courts, the Law and Evidence Hoax Viruses and Virus Alerts*
- Nigel Smart**  
University of Bristol, UK  
*Elliptic Curve Cryptography*
- Richard E. Smith**  
University of St. Thomas  
*Multilevel Security*
- Min Song**  
Old Dominion University  
*Mobile Devices and Protocols*
- Mike Speciner**  
Independent Consultant  
*Data Encryption Standard (DES)*
- Richard A. Spinello**  
Boston College  
*Internet Censorship*
- Lee Sproull**  
New York University  
*Online Communities*
- Evdoxia Spyropoulou**  
Technical Vocational Educational School of Computer Science of Halandri, Greece  
*Quality of Security Service: Adaptive Security*
- William Stallings**  
Independent Consultant  
*Kerberos Operating System Security*
- Mark Stamp**  
San Jose State University  
*Multilevel Security Models*
- Philip Statham**  
CESG, Cheltenham, Gloucestershire, UK  
*Issues and Concerns in Biometric IT Security*
- Charles Steinfield**  
Michigan State University  
*Click-and-Brick Electronic Commerce Electronic Commerce*
- Ivan Stojmenovic**  
University of Ottawa, Canada  
*Cellular Networks*
- Robin C. Stuart**  
Digital Investigations Consultant  
*Digital Evidence*
- M. A. Suhail**  
University of Bradford, UK  
*Digital Watermarking and Steganography*
- Wayne C. Summers**  
Columbus State University  
*Local Area Networks*
- Jeff Swauger**  
University of Central Florida  
*Law Enforcement and Digital Evidence*
- Mak Ming Tak**  
Hong Kong University of Science and Technology, Hong Kong  
*Fixed-Line Telephone System Vulnerabilities*
- Thomas D. Tarman**  
Sandia National Laboratories  
*Security for ATM Networks*
- Paul A. Taylor**  
University of Leeds, UK  
*Hactivism*
- Dale R. Thompson**  
University of Arkansas  
*Public Network Technologies and Security*
- Jimi Thompson**  
Southern Methodist University  
*Electronic Attacks*
- Stephen W. Thorpe**  
Neumann College  
*Extranets: Applications, Development, Security, and Privacy*
- Amandeep Thukral**  
Purdue University  
*Key Management*
- Michael Tunstall**  
Gemplus & Royal Holloway University, France  
*Fault Attacks Smart Card Security*
- Okechukwu Ugweje**  
The University of Akron  
*Radio Frequency and Wireless Communications Security*
- István Vajda**  
Budapest University of Technology and Economics, Hungary  
*Standards for Product Security Assessment*
- S. Rao Vallabhaneni**  
SRV Professional Publications  
*Auditing Information Systems Security*
- Nicko van Someren**  
nCipher Plc., UK  
*Cryptographic Hardware Security Modules*

CONTRIBUTORS

xxi

**Phil Venables**

Institute of Electrical and Electronics Engineers  
*Information Leakage: Detection and Countermeasures*

**Giovanni Vigna**

Reliable Software Group  
*Host-Based Intrusion Detection Systems*

**Linda Volonino**

Canisius College  
*Security Middleware*

**Richard P. Volonino**

Canisius College  
*Security Middleware*

**Ashraf Wadaa**

Old Dominion University  
*Security in Wireless Sensor Networks*

**Blaze D. Waleski**

Fulbright & Jaworski LLP  
*The Legal Implications of Information Security: Regulatory Compliance and Liability*

**Jonathan Wallace**

DeCoMo USA Labs  
*Anonymity and Identity on the Internet*

**Siaw-Peng Wan**

Elmhurst College  
*Online Retail Banking: Security Concerns, Breaches, and Controls*

**Yongge Wang**

University of North Carolina, Charlotte  
*PKCS (Public-Key Cryptography Standards)*

**John Warren**

University of Texas, San Antonio  
*Groupware: Risks, Threats, and Vulnerabilities in the Internet Age*

**James L. Wayman**

San Jose State University  
*Biometric Basics and Biometric Authentication*

**Edgar R. Weippl**

Vienna University of Technology, Austria  
*Security in E-Learning*

**Stephen A. Weis**

MIT Computer Science and Artificial Intelligence Laboratory  
*PGP (Pretty Good Privacy)*  
*RFID and Security*

**Susanne Wetzel**

Stevens Institute of Technology  
*Bluetooth Security*

**A. Justin Wilder**

Telos Corporation  
*Linux Security*

**Raymond Wisman**

Indiana University Southeast  
*Search Engines: Security, Privacy, and Ethical Issues*

**Paul L. Witt**

Texas Christian University  
*Internet Relay Chat*

**Avishai Wool**

Tel Aviv University, Israel  
*Packet Filtering and Stateful Firewalls*

**Cheng-Zhong Xu**

Wayne State University  
*Mobile Code and Security*

**Xu Yan**

Hong Kong University of Science and Technology, Hong Kong  
*Fixed-Line Telephone System Vulnerabilities*

**Mustafa Yildiz**

Isik University, Turkey  
*Security Insurance and Best Practices*

**Adam L. Young**

Cigital, Inc.  
*Trojan Horse Programs*

**Meng Yu**

Monmouth University  
*Information Assurance*

**Sherali Zeadally**

Wayne State University  
*Home Area Networking*

**Jingyuan Zhang**

University of Alabama  
*Cellular Networks*

**Xukai Zou**

Purdue University  
*Key Management*  
*Public Key Standards: Secure Shell*

**William A. Zucker**

Gadsby Hannah LLP  
*Corporate Spying: The Legal Aspects*

