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**Director, Center for Infrastructure Assurance and Security**  
**Professor of Computer Science**  
**The University of Texas at San Antonio**  
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**Educational Background:**

1995: Ph.D. in Computer Science, Texas A&M University, College Station, TX  
Dissertation Topic: Cooperating Security Managers: Distributed Intrusion Detection

1986: MS in Computer Engineering, Air Force Institute of Technology, Dayton, OH  
Thesis Topic: Artificial Intelligence and War Gaming

1980: BS in Computer Science, Brigham Young University, Provo, UT

**Professional Employment History:**

- 2014-Present    Director, Center for Infrastructure Assurance and Security  
Professor of Computer Science, The University of Texas at San Antonio  
Provides technical guidance and direction for research and programmatic issues with the Center for Infrastructure Assurance and Security  
Develops curriculum and teaches graduate and upper-level undergraduate courses in information assurance/computer security and game design / programming.
- 2005-2014    Director, Center for Infrastructure Assurance and Security  
Associate Professor of Computer Science, The University of Texas at San Antonio  
Provides technical guidance and direction for research and programmatic issues with the Center for Infrastructure Assurance and Security  
Develops curriculum and teaches graduate and upper-level undergraduate courses in information assurance/computer security and game design / programming.
- 2003-2004    Interim Director and Technical Director, Center for Infrastructure Assurance and Security  
Associate Professor of Information Systems, The University of Texas at San Antonio  
Provides technical guidance and direction for research and programmatic issues with the Center for Infrastructure Assurance and Security  
Develops curriculum and teaches graduate and senior-level undergraduate courses in information assurance and security.
- 2001-2010    Colonel, USAF Reserves  
Mobilization Assistant (MA) to SAF/XCT, Pentagon, Washington D.C.  
IMA to the Deputy Director and CIO for the Defense Intelligence Agency  
IMA To the Commander, Air Force Information Warfare Center  
IMA To the Commander, 67<sup>th</sup> Information Operations Wing  
DISA Lead Reservist in charge of Reserve and Guard support to the DoD CERT
- 2001-2003    Technical Director, Center for Infrastructure Assurance and Security  
Associate Professor of Information Systems, The University of Texas at San Antonio  
Provides technical guidance and direction for research issues with the Center for Infrastructure Assurance and Security (CIAS)  
Develops curriculum and teaches graduate and senior-level undergraduate courses in information assurance and security.
- 2001    Adjunct faculty, Information Systems and Computer Science Departments, UT– San Antonio  
Taught Senior-level undergraduate course in Network Security  
Taught Graduate course in Computer and Network Security Assessments
- 1999-2001    Senior Scientist and Vice President, Professional Services, SecureLogix Corp, San Antonio, TX

1999-2001 Lt. Colonel, USAF Reserves  
 Technical Advisor to Major General Campbell, Vice Director DISA  
 DISA lead on Joint Reserve Virtual Information Operations program

1998-1999 Lt. Colonel, USAF, Deputy Head, Computer Science Department, USAF Academy, CO  
 Associate Professor of Computer Science  
 Coach USAFA Karate Team

1995-1998 Major, USAF, Research Director, Department of Computer Science, USAF Academy, CO  
 Assistant Professor of Computer Science  
 Coach and Officer-in-Charge, USAFA Pistol Team  
 Coach and Officer-in-Charge, USAFA Karate Team

1992-1995 Major, USAF, Graduate Student, Texas A&M University, College Station, TX  
 AFIT Liaison Officer

1989-1992 Captain, USAF, Instructor of Computer Science, USAFA, CO  
 Coach and Officer-in-Charge, USAFA Pistol Team

1989 Captain, USAF, Student, Advanced Communications-Computer System Staff Officer Course,  
 Keesler, AFB, MS  
 Distinguished Graduate, received both the AFCEA and Webb awards  
 for Student Leadership and Academic Excellence

1986-1989 Captain, USAF, Chief Network Security Branch, Air Force Cryptologic Support Center,  
 Kelly AFB, TX

1984-1986 Captain, USAF, Graduate Student, Air Force Institute of Technology, WPAFB, OH  
 Received Edwin Aldrin Award for Student Leadership

1980-1984 Lieutenant, USAF, Systems Analyst, JCS War Plans Programming Directorate, Offutt AFB, NE

1979-1980 Programmer, Satellite Software, Inc., Provo, UT

1975-1980 Undergraduate Student, Brigham Young University, Provo, UT  
 Distinguished Graduate, Reserve Officer Training Corps

**Awards and Honors:**

2016 San Antonio Business Journal Tech Titan Special Achievement Award

2016 CyberTexas Foundation Cyber Hall of Honor, Inaugural Inductee

2014 Named a Distinguished Fellow of the Information Systems Security Association

2014 UTSA President's Distinguished Achievement Award for Excellence in Community Service

2012 Air Force Association Distinguished Sustained Aerospace Education Award for efforts in cyber security education.

2011 Educator Leadership award for Exceptional Leadership in Information Assurance Education, Colloquium for Information Systems Security Education (CISSE)

2011 Named a Senior Member of the Information Systems Security Association

2010 Best Paper Award, Colloquium for Information System Security Education (CISSE)

1997 U.S. Air Force Academy Computer Science Research Excellence Award

1996 U.S. Air Force Academy Computer Science Research Excellence Award

**Books and Book Chapters:**

B21, Lane, Conklin, White, Williams, CASP+ CompTIA Advanced Security Practitioner Certification All-in-One Exam Guide, 2ed, McGraw Hill, New York, NY, 2019

B20, Conklin, White, Cothren, Davis, Williams, Principles of Computer Security: CompTIA Security+ and Beyond, 5ed, McGraw Hill, New York, NY, 2018

B19, Conklin, **White**, Williams, Cothren, and Davis, CompTIA Security+ All-in-one Exam Guide, 5<sup>th</sup> Edition, McGraw Hill, New York, NY, 2018

B18, Sjinin and **White**, “The Community Cyber Security Maturity Model”, Chapter 8 in Cyber-Physical Security, Springer International Publishing, Switzerland, 2017.

B17, Conklin, **White**, Williams, Cothren, and Davis, CompTIA Security+ All-in-One Exam Guide, Premium 4<sup>th</sup> Ed. with Online Practice Labs, McGraw Hill, New York, NY, 2016

B16. Conklin, **White**, et al., Principles of Computer Security: CompTIA Security+ and Beyond, 4<sup>th</sup> Ed., McGraw Hill/Osborne Publishing, New York, NY, 2015

B15, Conklin, **White**, Williams, Cothren, and Davis, CompTIA Security+ All-in-One Exam Guide, 4<sup>th</sup> Ed., McGraw Hill, New York, NY, 2014

B14. Conklin, **White**, and Williams, CASP CompTIA Advanced Security Practitioner Certification Study Guide, McGraw Hill, New York, NY, 2012

B13. Conklin, **White**, et al., CompTIA Security+ All-in-One Exam Guide, 3ed, McGraw Hill, New York, NY, 2011

B12. Nestler, Conklin, **White**, and Hirsch, Principles of Computer Security CompTIA Security+ and Beyond Lab Manual, 2ed, McGraw Hill/Osborne Publishing, New York, NY, 2010

B11. Conklin, **White**, et al., Principles of Computer Security: CompTIA Security+ and Beyond, 2ed, McGraw Hill/Osborne Publishing, New York, NY, 2010

B10. **White**, Conklin, et al., Security+ Certification Exam Guide, 2ed, McGraw Hill/Osborne Publishing, New York, NY, 2009

B9. **White**, G. and Huson, M., “An Overview of the Community Cyber Security Maturity Model” chapter in Cyber-Security And Global Information Assurance: Threat Analysis And Response Solutions, Information Science Reference, IGI Global, Hershey, PA, 2009

B8. Nestler, Conklin, **White**, Hirsch, Computer Security Lab Manual, McGraw Hill, New York, NY, 2006

B7. Conklin, **White**, et al., Principles of Computer Security, McGraw Hill, New York, NY, 2004.

B6. **White**, Conklin, et al., Security+ Certification Exam Guide, McGraw Hill/Osborne Publishing, New York, NY, 2003.

B5. Archer, Core, Cothren, Davis, DiCenso, Good, **White**, Williams, Voice and Data Security, Sams Publishing, Indianapolis, Indiana, 2001. (Authors listed alphabetically)

B4. **White**, chapter author for chapters on Spoofing and Sniffing, Maximum Security, 3ed, by Anonymous, Sams Publishing, Indianapolis, Indiana, 2001.

B3. Fisch, and **White**, Secure Computers and Networks: Analysis, Design and Implementation, CRC Press, Boca Raton, FL, 2000.

B2. **White** and Nordstrom, "Security Across the Curriculum: Using Computer Security to Teach Computer Science Principles", chapter in Internet Besieged: Countering Cyberspace Scofflaws, Dorothy E. Denning and Peter J. Denning, editors, Addison-Wesley and ACM Press, 1998.

B1. **White**, Fisch, and Pooch, Computer System and Network Security, CRC Press, Boca Raton, FL, 1995.

### **Refereed Publications**

P12. Rutherford and **White**, "Cyber Kill Chain Model Needs a Makeover", Signal: AFCEA'S International Journal, February 2018.

P11. Harrison and **White**, "Anonymous and Distributed Community Cyberincident Detection", *IEEE Security and Privacy*, Vol 11. No. 5, September/October 2013.

P10. Al-Bataineh and **White**, "Information Loss in Enterprise Networks: Mini-Botnets Role", *The ISSA Journal*, January 2011, p. 32-36.

P9. **White**, Williams, and Harrison, "The CyberPatriot National High School Cyber Defense Competition", *IEEE Security & Privacy*, September/October 2010, Vol 8, Issue 5, pg. 59-61.

P8. Goles, **White**, Beebe, Dorantes, Hewitt, "Moral Intensity and Ethical Decision-Making: A Contextual Extension", *DataBase* Vol 37, no. 2&3 (Summer/Fall combined), 2006.

P7. **White**, Williams, "Collegiate Cyber Defense Competitions", *The ISSA Journal*, October 2005, p. 42-45.

P6. Goles, **White**, Dietrich, "Dark Screen: An Exercise in Cyber Security", *MIS Quarterly Executive*, Vol 4. No. 2, June 2005.

P5. Ramachandran and **White**, "Methodology to Assess the Impact of Investments in Security Tools and Products", *Journal of Information System Security*, Vol 1, No. 2, 2005.

P4. **White**, Conklin, "The Appropriate Use of Force-on-Force Cyberexercises", *IEEE Security and Privacy*, Volume 2, Number 4, July/August 2004.

P3. White, Fisch, and Pooch, "Government-Based Security Standards", *Information Systems Security Journal*, Volume 6, Issue 3, pages 9-19, 1997.

P2. **White** and Pooch, "Cooperating Security Managers: Distributed Intrusion Detection Systems", *Computers and Security*, Vol. 15, No. 5, pp. 441-450, 1996.

P1. **White**, Fisch, and Pooch, "Cooperating Security Managers: A Peer-Based Intrusion Detection System", Jan/Feb 1996, Vol. 10, No. 1, *IEEE Network*

### **Refereed Conference Presentations**

C37, Zahed, **White**, Quarles, "Play it Safe: An Educational Cyber Safety Game for Children in Elementary School", VS-Games 2019, *The 11<sup>th</sup> International Conference on Virtual Worlds and Games for Serious Applications*, 4-6 September, 2019, Vienna, Austria.

- C36, Munsinger, **White**, Quarles, “The Usability of the Microsoft HoloLens for an Augmented Reality Game to Teach Elementary School Children”, VS-Games 2019, *The 11<sup>th</sup> International Conference on Virtual Worlds and Games for Serious Applications*, 4-6 September, 2019, Vienna, Austria.
- C35, **White**, Sjelin, Harrison, “The Need for Information Sharing and Analysis Organizations to Combat Attacks on State and Community Public and Private Networks”, *52<sup>nd</sup> Annual Hawaii International Conference on Systems Science*, January 9, 2019, Grand Wailea, Maui, HI
- C34. Zhou and **White**, “An Evolution Roadmap for Community Cyber Security Information Sharing Maturity Model”, *50<sup>th</sup> Annual Hawaii International Conference on Systems Science*, January 4-7, 2017, Hilton Waikoloa, Big Island, Hawaii
- C33. **White** and Harrison, “State and Community Information Sharing and Analysis Organizations”, *50<sup>th</sup> Annual Hawaii International Conference on Systems Science*, January 4-7, 2017, Hilton Waikoloa, Big Island, Hawaii
- C32. Rutherford, **White**, Harrison, “Using an Improved Cyber Security Kill Chain to Develop an Improved Honey Community”, *49<sup>th</sup> Annual Hawaii International Conference on System Science*, January 5-8, 2016, Grand Hyatt, Kauai, Hawaii
- C31. Harrison, Rutherford, **White**, “The Honey Community: Use of Combined Organizational Data for Community Protection”, *Proceedings of the 48<sup>th</sup> Annual Hawaii International Conference on System Science*, January 5-8, 2015, Grand Hyatt, Kauai, Hawaii
- C30. Zhao and **White**, “Designing a Formal Model for Collaborative Information Sharing for Community Cyber Security”, *Proceedings of the 47<sup>th</sup> Annual Hawaii International Conference on System Science*, January 6-9, 2014, Hilton Waikoloa, Big Island, Hawaii.
- C29. Harrison and **White**, “Information Sharing Requirements and Framework for Community Cyber Incident Detection and Response”, *2012 IEEE International Conference on Technologies for Homeland Security*, 13-15 November 2012, Waltham, MA.
- C28. Zhao and **White**, “A Collaborative Information Sharing Framework for Community Cyber Security”, *2012 IEEE International Conference on Technologies for Homeland Security*, 13-15 November 2012, Waltham, MA.
- C27. Al-Bataineh and **White**, “Analysis and Detection of Malicious Data Exfiltration in Web Traffic”, *Malware '12*, Fajardo, Puerto Rico, October 2012.
- C26. **White**, “A Grassroots Cyber Security Program to Protect the Nation”, proceedings of the *45<sup>th</sup> Annual Hawaii International Conference on System Science*, January 4-7, 2012, Grand Wailea, Maui, Hawaii.
- C25. **White**, “The Community Cyber Security Maturity Model”, *2011 IEEE International Conference on Technologies for Homeland Security*, Waltham, MA, November 15-17, 2011.
- C24. **White** and Williams, “Creation of a Collegiate Cyber Security Championship Cup”, *Proceedings of the 15<sup>th</sup> Colloquium for Information Systems Security Education*, Fairborn, Ohio, June 13-15, 2011.
- C23. Harrison and **White**, “A Taxonomy of Cyber Events Affecting Communities”, *44<sup>th</sup> Annual Hawaii International Conference on System Sciences*, January 4-7, 2011, Grand Hyatt Kauai, Hawaii.
- C22. **White**, Williams, and Harrison, “Developing a National High School Cyber Defense Competition”, *Proceedings of the 14<sup>th</sup> Colloquium for Information Systems Security Education*, June 7-9, 2010, Baltimore, MD. Awarded Best Paper for the Colloquium.
- C21. Harrison and **White**, “An Empirical Study on the Effectiveness of Common Security Measures”, *43<sup>rd</sup> Annual Hawaii International Conference on System Sciences*, 5-8 January 2010, Kauai, Hawaii.
- C20. Granado and **White**, “Developing a Community Cyber Security Incident Response Capability”, *42<sup>nd</sup> Annual Hawaii International Conference on System Sciences*, 5-8 January 2009, Big Island, Hawaii.

- C19. Granado and **White**, “Cyber Security and Government Fusion Centers”, *41<sup>st</sup> Annual Hawaii International Conference on System Sciences*, January 7-10, 2008, Big Island, Hawaii.
- C18. **White**, and Dodge, “The National Collegiate Cyber Defense Competition: What are the next steps?”, *Proceedings of the 11<sup>th</sup> Colloquium for Information Systems Security Education*, June 4-7, 2007, Boston University, Boston, MA.
- C17. **White**, “The Community Cyber Security Maturity Model”, *Proceedings of the 40<sup>th</sup> Annual Hawaii International Conference on System Sciences*, 3-7 January 2007, Big Island, Hawaii.
- C16. Zhang and **White**, “Analysis of Payload Based Application Level Network Anomaly Detection”, *Proceedings of the 40<sup>th</sup> Annual Hawaii International Conference on System Sciences*, 3-7 January 2007, Big Island, Hawaii.
- C15. **White** and Williams, “The National Collegiate Cyber Defense Competition”, *Proceedings of the Tenth Colloquium for Information Systems Security Education*, Baltimore, MD, 5-8 June 2006.
- C14. Aгаian, Cherukuri, Schneider, and **White**, “A new JPEG-based steganographic algorithm for mobile devices”, *Proceedings of SPIE Vol. 6250* (The International Society for Optical Engineering), 20 April 2006, Orlando, Florida.
- C13. Conklin, **White**, “e-Government and Cyber Security: The Role of Cyber Security Exercises”, *Proceedings of the 39<sup>th</sup> Annual Hawaii International Conference on System Sciences*, 4-7 January 2006, Kauai, Hawaii.
- C12. **White**, Williams, “The Collegiate Cyber Defense Competition<sup>tm</sup>”, *Proceedings of the Ninth Colloquium for Information Systems Security Education*, 6-9 June 2005, Georgia Institute of Technology, Atlanta, Georgia
- C11. Conklin, **White**, “A Graduate Level Assessment Course: A Model for Safe Vulnerability Assessment”, *Proceedings of the Ninth Colloquium for Information Systems Security Education*, 6-9 June 2005, Georgia Institute of Technology, Atlanta, Georgia
- C10. **White**, DiCenso, “Information Sharing Needs for National Security”, *Proceedings of the 38<sup>th</sup> Hawaii International Conference on System Science*, January 3-6, 2005, Waikoloa, Hawaii.
- C9. **White**, Goles, “The Role of Exercises in Training the Nation’s Cyber First-Responders,” *Proceedings of the 10<sup>th</sup> Americas Conference on Information Systems* (AMCIS 2004), August 5-8, 2004, New York City, New York.
- C8. Ramachandran, **White**, “Methodology to Determine Security ROI,” *Proceedings of the 10<sup>th</sup> Americas Conference on Information Systems* (AMCIS 2004), August 5-8, 2004, New York City, New York.
- C7. **White**, Goles, “.edu, Partner or Pariah: A New Paradigm for University/Community Partnerships in Cyber Security,” *Proceedings from the 8<sup>th</sup> Colloquium for Information Systems Security Education* (CISSE), 8-10 June, 2004, West Point, New York.
- C6. **White**, Dietrich, Goles, “Cyber Security Exercises: Testing an Organization’s Ability to Prevent, Detect, and Respond to Cyber Security Events”, *Proceedings of the 37<sup>th</sup> Hawaii International Conference on System Sciences*, January 7, 2004, Waikoloa, Hawaii.
- C5. **White**, “A Common Weak-Link in the Security Chain,” *Proceedings of the 22<sup>nd</sup> National Information Systems Security Conference*, 18-21 October 1999, Arlington, VA.
- C4. **White** and Nordstrom, “Security Across the Curriculum: Using Computer Security to Teach Computer Science Principles”, *19th National Information Systems Security Conference*, Oct 1996, Baltimore MD.
- C3. Fisch and **White**, “The Design of an Audit Trail Analysis Tool”, *Proceedings of the 10th Computer Security Applications Conference*, Dec 1994, Orlando, FL.

C2. Arsenault and **White**, “Teaching Computer Systems Security in an Undergraduate Computer Science Curriculum”, *Proceedings of the 14th National Computer Security Conference*, Oct 1991, Washington D.C.

C1. Sutterfield and **White**, “Communications-Computer Systems Security Vulnerability Reporting Program (CVRP)”, *Proceedings of the 12th National Computer Security Conference*, Oct 1989, Baltimore, MD.

### **Other Publications**

OP6. Grance, Nolan, Burke, Dudley, **White**, Good, Guide to Single-Organization IT Exercises, Special Publication 800-84, National Institute of Standards and Technology (NIST), 2006

OP5. **White** and Sanchez, “Dark Screen Sheds Light on Cyberspace Security Issues”, *SIGNAL: AFCEA’s International Journal*, Vol 57, No. 5, January 2003.

OP4. **White**, “Sorry, Wrong Number” (article on securing data networks), *Military Information Technology*, Vol 4, issue 7, 2000.

OP3. **White**, “A Common Weak Link in the Security Chain,” *CompactPCI Systems*, Vol 4, No. 3., pp. 75-82, May/June 2000.

OP2. **White** and Pooch, “Problems with DCE Security Services”, *Computer Communication Review*, October 1995.

OP1. **White**, “An Organizational Approach to Computer Security”, *ACM Security Audit and Control Review*, Spring 1990.

### **Other Conference Papers and Presentations:**

OC67, **White**, “Think Like You Are Hawaii”, Keynote Presentation, ONE Conference, The Hague, Netherlands, 3 October 2019.

OC66, **White**, “Shaping the Nation’s Cybersecurity Leaders: Insight from Five National Centers of Academic Excellence (CAEs) on K12 and Public Private Partnerships”, Panel at NICE K12 *Cybersecurity Education Conference*, 3 December 2018, San Antonio, TX.

OC65, **White**, “Helping Communities Utilize the NIST Cybersecurity Framework: ISAOs as a Catalyst for Developing Community Cybersecurity Programs”, *NIST Cybersecurity Risk Management Conference*, 8 Nov 2018, Baltimore, MD.

OC64, **White**, “An Operational Model for Cybersecurity”, *CONSULT 2018*, 5 Nov 2018, Nashville, TN.

OC63, **White**, “An Introduction to the Information Sharing & Analysis Organization (ISAO) Program and the Case for Collaboration with InfraGard”, *InfraGard National Conference*, 25 Sept 2018, Las Vegas, NV.

OC62, **White**, “Community Cyber Security Exercises”, *2018 Higher Education Risk Management Conference*, 26 March 2018, Bastrop, TX.

OC61, **White**, “The Impact of Information Sharing – The Emerging Information Sharing Ecosystem”, 2018 CyberUSA Conference, San Antonio TX, 30 January 2018.

OC60, **White**, and Harrison, Tutorial on Cybersecurity Competitions and Games”, *HICSS 51*, Waikoloa Hawaii, Jan 3, 2018

OC59, **White**, “Trust and the Ecosystem”, *International Information Sharing Conference*, Washington D.C., 1 November 2017

OC58, **White**, “The State of the Information Sharing Ecosystem”, *International Information Sharing Conference*, Washington D.C., 31 October 2017

OC57, **White**, “The Emerging ISAO Ecosystem”, Cross-Sector Leadership Forum, Baltimore, MD, October 2, 2017

OC56, **White**, “The National Cybersecurity Preparedness Consortium (NCPC): State and Community Coordinated Cybersecurity Training”, FEMA State Administrative Agency Symposium, Anniston, AL, 8-12 May 2017

OC55, **White**, “Why Texas and its Communities Should Establish Information Sharing and Analysis Organizations (ISAOs)”, CyberTexas Conference and Exhibition, San Antonio, TX, 24 Aug 2016

OC54, **White**, “The Community Cyber Security Maturity Model (CCSMM)”, Panelist, FS-ISAC 2016 Annual Summit, Miami Beach, FL, 3 May 2016

OC53, **White**, “Knowledge Discovery in Large Amounts of Cyber Security Information Sharing Data”, Panelist, 2016 Big Data and Data Analytics Conference, San Antonio, TX, March 30, 2016.

OC52, **White**, “Challenges for Cyber First Responders”, St Phillip’s College Security Conference, April 15, 2015, San Antonio, TX.

OC51, **White**, “Cyber Security Exercises: A Useful Tool for Business Continuity Managers”, *DRI 2015*, Disaster Recover Institute annual Conference, 2 March 2015, San Antonio, TX.

OC50. Sandhu, Krishnan and **White**, “Towards Secure Information Sharing Models for Community Cyber Security”, *Proceedings of IEEE International Conference on Collaborative Computing (CollaborateCom): Networking, Applications and Worksharing*, Oct 09-12, 2010, Chicago, Illinois

OC49. Al-Bataineh, and **White**, “Analyzing the Zeus Toolkit”, Poster in *7<sup>th</sup> USENIX Symposium on Networked Systems Designs and Implementations(NSDI’10)* San Jose, CA, April 2010.

OC48. Al-Bataineh, and **White**, “Detection and Prevention Methods of Botnet-generated Spam”, *2009 MIT Spam Conference*, 26-27 March 2009, MIT, Cambridge, Massachusetts.

OC47. Ramachandran, and **White**, “The Community Cyber Security Maturity Model”, *6<sup>th</sup> Annual Security Conference*, 12 April 2007, Las Vegas, NV.

OC46. Zhang and **White**, "Anomaly Detection for Application Level Network Attacks Using Payload Keywords", *2007 IEEE Symposium Series on Computational Intelligence in Security and Defense Applications (CISDA)*, 1-5 April, 2007, Honolulu, Hawaii.

OC45. Zhang and **White**, "An Approach to Detect Executable Content for Anomaly Based Network Intrusion Detection", *21st International Parallel and Distributed Processing Symposium (IPDPS 2007), The 3rd International Workshop on Security in Systems and Networks (SSN2007)*, pg. 424, 26-30 March, 2007, Long Beach, California.

OC44. Ramachandran, and **White**, “The Community Cyber Security Maturity Model”, *Proceedings of the 2006 Workshop on Information Security and Assurance (WISA)*, the SIGSEC pre-ICIS Workshop, Dec. 10, 2006, Milwaukee, WI.

OC43. **White**, “Critical Infrastructures: Their Dependence on Computer Systems and Networks and Susceptibility to Disruption by a Cyber Attack”, InfaGard 2006 National Conference, August 22-24, 2006, Washington D.C.

OC42. **White** and Archer, “The National Collegiate Cyber Defense Competition”, DEFCON 14, Las Vegas, NV, 4-5 August 2006.



OC41. Ramachandran, **White**, “Understanding Decision Making Processes Involved with Investments in Information Technology Security Tools and Products (IT-STP): A Grounded Theory Based Approach”, *Softwars in conjunction with the International Symposium on Research Methods*, 11 December 2005, Las Vegas, Nevada.

OC40. Goles, **White**, and Dietrich, “Dark Screen: An Exercise in Cyber Security”, *Society for Information Management 9<sup>th</sup> Annual Academic Workshop*, Dec. 13, 2003, Seattle, WA.

OC39. **White**, “Dark Screen: The Role of the Military in a Cyber Terrorist Exercise”, *Fiesta Crow 2003*, AOC Conference, 21-23 April 2003, San Antonio Texas.

OC38. **White**, “Operation Dark Screen: Cross-Sector Communications and Cybersecurity”, *Transportation Research Board 82<sup>nd</sup> Annual Meeting*, Invited presentation, January 12-16, 2003, Washington D.C.

OC37. **White**, “DARK SCREEN: Cyberterrorism Exercise for the City of San Antonio”, *Business Technology Summit*, December 10, 2002, San Antonio, TX.

OC36. **White**, “DARK SCREEN and the Center for Infrastructure Assurance and Security”, *Air Force Association Conference on Homeland Security*, July 24-25, 2002, Minneapolis-St Paul, MN.

OC35. **White**, “Obtaining an ROI with Telecommunication Firewalls”, *17<sup>th</sup> Annual Computer Security Applications Conference*, 12 December 2001, New Orleans, LA.

OC34. **White**, “Firewalls, Not Just for the Enterprise Data Network Anymore” Firewall Workshop, *17<sup>th</sup> Annual Computer Security Applications Conference*, 11 December 2001, New Orleans, LA.

OC33. **White**, “Justifying Your Security Budget – Security ROI’s”, *ASIS International 2001*, 1 October 2001, San Antonio, TX.

OC32. **White**, “Consumer Privacy”, *Vision 2010 – ITAA’s 40<sup>th</sup> Management Conference & CEO Summit*, June 25-27, 2001, Orlando, FL.

OC31. **White**, “Securing the Entire Network Perimeter”, *15<sup>th</sup> Annual Vanguard Enterprise Security Expo*, 6 June 2001, Reno, NV.

OC30. **White**, “Security Issues with VoIP”, *SANS 2001*, 17 May 2001, Baltimore, MD.

OC29. **White**, “A Return on Investment from Computer Security Technology (Strategies to Justify Your Security Budget)”, *Sixteenth Annual Computer Security Applications Conference*, 11-15 December 2000, New Orleans, Louisiana.

OC28. **White**, “Unauthorized Modems and Fax Line Misuse – A Technological Solution”, *International Workshop on Information Security*, 25-27 October 2000, Long Island, New York.

OC27. **White**, “Possible Returns on Investments in Computer Security”, *SANS NS2000*, 18,19 October 2000, Monterey, CA.

OC26. **White**, “Risk Assessments and Return on Investments”, *Telecommunications and Information Security Workshop 2000*, 27-29 September 2000, Tulsa, OK.

OC25. **White**, “Firewalls for the PSTN”, *Telecommunications and Information Security Workshop 2000*, 27-29 September 2000, Tulsa, OK.

OC24. **White**, “Calculating a Computer Security Return on Investment”, *ASIS 2000*, 11-14 Sept 2000, Orlando, FL.

OC23. **White**, “The USAFA Cadet Hacking Case”, *DEFCON 8*, 29 July 2000, Las Vegas, NV.

- OC22. **White**, “A Return on Investment from Computer Security Technologies”, *NETSEC 2000*, 13 June 2000, San Francisco, CA.
- OC21. **White**, “A Return on Investment from Emerging Security Technologies,” *26<sup>th</sup> Annual Computer Security Conference and Exhibition*, 15-17 November 1999, Washington D.C.
- OC20. **White**, “Unauthorized Modems and Fax line Misuse – How to Keep Your Network Secure,” *1999 ASIS International Seminar & Exhibit*, 27-30 September 1999, Las Vegas, NV.
- OC19. **White**, “Unauthorized Modems & Fax Line Misuse – How to Keep Your Network Secure,” *Air Force Information Technology Conference*, 29 August – 2 September 1999, Montgomery, AL.
- OC18. **White**, “A ‘Return on Investment’ from Emerging Computer Security Technologies”, *Air Force Information Technology Conference*, 29 August – 2 September 1999, Montgomery, AL.
- OC17. **White**, Marti, and Huson, “Incorporating Security Issues Throughout the Computer Science Curriculum”, *First World Conference on Information Security Education*, 17-19 June 1999, Krista, Sweden.
- OC16. **White** and Sward, “Developing an Undergraduate Lab for Information Warfare and Computer Security”, *First World Conference on Information Security Education*, 17-19 June 1999, Krista, Sweden.
- OC15. Fisch, Pooch and **White**, “The Design and Creation of an UNIX Based Automated Incident Response System”, *Ninth Annual FIRST Conference and Workshop on Computer Security Incident Handling and Response*, 23-27 June 1997, Bristol, England.
- OC14. Brutch, Marti, **White**, Pooch, and Pradhan, “Intruder Containment: An Automated Method of Response to Potential Security Incidents”, *Ninth Annual FIRST Conference and Workshop on Computer Security Incident Handling and Response*, 23-27 June 1997, Bristol, England.
- OC13. **White**, “A Hardware Implementation of a Peer-Based Intrusion Detection System”, invited presentation to the Software Engineering Institute, Carnegie Mellon University, 17 April 1997.
- OC12. Devore and **White**, “A Hardware-Based Intrusion Detection System”, Southern Colorado Undergraduate Research/Creative Works Conference, April 1997, Colorado Springs, CO.
- OC11. **White**, “Information Warfare Units: Structure, Composition, and Mission”, 1996 Institute for National Security Studies Research Results Conference, Nov 1996, USAF Academy, CO.
- OC10. **White**, Huson, Kloeckner, and Kuehne, “The Impact of the Media and Direct Broadcasting Systems on the Nature and Conduct of Military Operations”, 1996 Institute for National Security Studies Research Results Conference, Nov 1996, USAF Academy, CO.
- OC9. **White**, Huson, Lee, and Koewler, “Department of Defense Responsibilities in Protecting the National Information Infrastructure”, 1996 Institute for National Security Studies Research Results Conference, Nov 1996, USAF Academy, CO.
- OC8. **White**, Huson, Cobb, Devore, and Elliott, “Methods to Address Indications and Warnings of Information Attacks”, *1996 Institute for National Security Studies Research Results Conference*, Nov 1996, USAF Academy, CO.
- OC7. **White** and Huson, “A Peer-Based Hardware Protocol for Intrusion Detection Systems”, MILCOM ‘96 Conference, October 1996, McLean VA.
- OC6. Huson and **White**, “Information Warfare: Tools of the Trade (U)”, MILCOM ‘96 Conference, October 1996, McLean VA.
- OC5. **White** and Pooch, “Computer Ethics Education: Impact from Societal Norms”, *Ethics in the Computer Age Conference*, Fall 1994, Gatlinburg, TN.

OC4. **White** and Mate, “Air Force Experience with PC-Based Risk Analysis Systems”, *1988 Computer Security Risk Management Model Builders Workshop*, May 1988, Denver, CO.

OC3. **White**, “ATAM: A PC-based Air Force Risk Analysis Tool”, *10th Department of Energy Computer Security Group Conference*, May 1987, Albuquerque, NM.

OC2. **White** and Cross, “TEMPO-AI: Using Artificial Intelligence Concepts in War Gaming and Professional Military Education”, *1986 Air Force Conference on Technology in Training and Education*, March 1986, Montgomery, AL.

OC1. **White** and Cross, “Using Artificial Intelligence Concepts in Professional Military Education: A Case Study Using the TEMPO Wargame”, *Expert Systems in Government Symposium*, Oct 1985, McLean VA.

### **Invited Presentations**

IP70, **White**, “Cybersecurity Resources and Capabilities”, State of Texas Cyber Workshop, 31 July 2019, San Antonio Emergency Operations Center, San Antonio, TX

IP68, **White**, “Community Cybersecurity: For the City of Helotes”, Helotes Chamber Luncheon, 23 July 2019, San Antonio, TX.

IP67, **White**, “Promoting Cybersecurity: A Project for Algeria”, International Visitor Leadership Program, Department of State, 22 July 2019, San Antonio, TX

IP66, **White**, “Cybersecurity: What is needed for States and Communities?”, WAMCAT Spring Institute Keynote Presentation, 4 April 2019, Casper, WY

IP65, **White**, “Collegiate Cyber Defense Competition”, 2019 S&T Cybersecurity and Innovation Showcase, March 18, 2019, Washington, DC.

IP64, **White**, “Why a Community ISAO”, Panel at Houston Cyber Summit, 27 Feb 2019, Houston, TX.

IP63, **White**, “Cybersecurity”, State Government: Lunch and Learn, sponsored by Rackspace, 11 December 2018, Austin, TX.

IP62, **White**, “Advancing Cybersecurity for Small Business Enterprises”, LaunchSA, 12 November 2018, San Antonio, TX.

IP61, **White**, “Will the Next Cyberwar Begin in Small-Town USA?”, Invited Keynote, *Wyoming Cybersecurity Symposium*, 18 October 2018, Laramie, WY.

IP60, **White**, “The ISAO SO and Ecosystem in the United States”, Invited Presentation at the Ambassador’s residence prior to the ONE Conference, 1 October 2018, The Hague, Netherlands

IP59, **White**, “Policy Implications of AI and Cybersecurity”, Invited Speaker, *NTSC Midwest Regional CISO Policy Roundtable*, 8 May 2018, Houston, TX.

IP58, **White**, “ISAOs and the Information Sharing Ecosystem: State and Local ISAOs”, Jack Voltaic 2 Planning Conference, Houston, TX, 7 February 2018

IP57, **White**, “The Impact of Information Sharing – The Emerging Information Sharing Ecosystem”, CyberUSA Conference, San Antonio, TX, 20 January 2018

IP56, **White**, “The Power of Information Sharing in Cybersecurity”, Jefferson Bank Cybersecurity Symposium, San Antonio, TX, 11 October 2017.

IP55. **White**, “Why Texas and its Communities Should Establish Information Sharing and Analysis Organizations (ISAOs)”, San Antonio Chamber Cyber Council, San Antonio, TX, 15 Nov 2016.

IP54. **White**, “ISAOs and the Growing Information Sharing Ecosystem”, Multi-State ISAC annual meeting, San Antonio, TX, 31 October 2016.

IP53. **White**, “Development of State and Local Cyber Security Programs”, San Antonio IT Symposium, San Antonio, TX, 14 Sept 2016

IP52. **White**, “UTSA’s Cyber Security Program”, *UTINFOSEC Summer 2016*, Keynote Speaker, San Antonio, TX, 10 August 2016

IP51. **White**, “Cyber Security Considerations for Small Business”, *Small Business is BIG Business Procurement Workshop*, San Antonio, TX, 9 August 2016

IP50 **White**, “ISAOs and CISA”, Panel at *The Cybersecurity Act of 2015 Implementation Public Workshop*, Department of Homeland Security Office of Cybersecurity and Communications, Arlington, VA, June 9, 2016.

IP49 **White**, Issues in Cybersecurity, Testimony before the Texas House of Representatives Committee on Government Transparency & Operation, Austin, TX, April 5, 2016.

IP48 **White**, Gaps in Community Cyber Security Policies, Testimony before the Texas House of Representatives Committee on Urban Affairs, Legislative Hearings, Austin, TX, Feb 23, 2016.

IP47. **White**, “Cyber Security Information Sharing”, Military Cyber Association Meeting, San Antonio, TX, 28 January 2016.

IP46. Susmann, **White**, “Cybersecurity Best Practices and Lessons Learned”, National Training, Education, and Exercise Symposium, DHS/FEMA Emergency Management Institute, May 21, 2015, Emmitsburg, MD.

IP45. **White**, et. al, “Building a Global Firewall”, Panelist, The 48<sup>th</sup> Chancellor’s Council Annual Meeting & Symposium, 8 May 2015, Austin, TX.

IP44. **White**, “Cooperative Incident Response for a Community”, TechX Conference, USAA, April 30, 2015, San Antonio, TX.

IP43, **White**, et. al, “UT-System Cyber Security: An Ecosystem Approach”, Panelist, CyberTexas Symposium, 23 April 2015, San Antonio, TX.

IP42. **White**, “Higher Ed & Cyber Security: Adapting University Programs to Today’s Hacker”, Cyber Security Summit, Georgia Regents University, October 23, 2014, August, GA.

IP41. **White**, “Community Cyber Security Preparedness”, invited presentation, *The City of Hurst’s Regional Cyber Security Summit Conference*, October 16, 2014, Hurst, TX

IP40. **White**, “Cybersecurity Solutions: Needed Culture, Resources and Policy”, Panel, *The City of Hurst’s Regional Cyber Security Summit Conference*, October 16, 2014, Hurst, TX

IP39. **White**, “Staying Safe Online”, Presentation to the Community of Hurst, TX, October 16, 2014, Hurst, TX.

IP38. **White**, “Cybersecurity Workforce Development”, Panel, ICS-ISAC Fall Conference, Sept 17, 2014, Georgia Tech Research Institute, Atlanta, GA

IP37. **White**, “Integrating Workforce and Educational Pipelines to Meet the Cybersecurity Needs of the Nation”, Invited Speaker, STEM Symposium, St Philip’s College, 20 November 2013, San Antonio, TX.

IP36. **White**, “Meeting the Cybersecurity Challenges and Needs of the Nation”, Invited speaker, San Antonio IEEE Chapter, 19 November 2013, San Antonio, TX.

IP35. **White**, “The National Cybersecurity Preparedness Consortium”, invited presentation, University of Memphis Cyber Security Expo, October 18, 2013, Memphis, TN.

IP34. **White**, “The Collegiate Cybersecurity Championship Cup”, invited Keynote Project Presentation, National Initiative for Cybersecurity Education (NICE) Workshop, 19 September 2013, Gaithersburg, MD.

IP33. **White**, “Community Cyber Security”, The Rotary Club of Boerne, 10 August 2012, Boerne, TX.

IP32. **White**, “The Collegiate Cyber Defense Competition”, the *Department of Defense Computer Crime Center Annual Conference*, January 24, 2012, Atlanta, GA.

IP31. **White**, “The DoD Information Assurance Scholarship Program & the Federal Cyber Scholarship For Service Program”, *AFCEA-ACE conference*, 15 December 2011, San Antonio, TX.

IP30. **White**, “Cyber Security, Career Pathways, and National Security”, Invited Speaker, National Career pathways network (NCPN), 14 October 2011, Orlando, FL.

IP29. **White**, “Creation of a Collegiate Cyber Security Championship Cup”, *National Initiative for CYBERSECURITY Education (NICE)*, 20 September 2011, NIST, Gaithersburg, MD.

IP28. **White**, “The Collegiate Cyber Defense Competition”, *National Initiative for CYBERSECURITY Education, (NICE)*, 20 September 2011, NIST, Gaithersburg, MD.

IP27. **White**, “Community Cyber Incident Response”, Invited Speaker, Texas Regional Infrastructure Security Conference (TRISC), 26 July 2011, Austin, TX.

IP26. **White**, “The National Collegiate Cyber Defense Competition: Update”, *44<sup>th</sup> Annual Hawaii International Conference on System Sciences*, 4-7 January 2011, Grand Hyatt Kauai, Hawaii.

IP25. **White**, “The Value and Challenges of Cybersecurity Competitions”, Invited Panel Speaker at the DHS/SRI Infosec Technology Transition Council Meeting, SRI International, Menlo Park, CA, September 29, 2010.

IP24. **White**, “Community Cyber Security”, Cyber Security Conference, Center for Terrorism Law, St. Mary’s University School of Law, March 18-19, 2010, San Antonio, TX.

IP23. **White**, “The National Collegiate and Cyber Patriot High School Cyber Defense Competitions”, Symposium on Cyber Defense Exercises, *43<sup>rd</sup> Annual Hawaii International Conference on System Sciences*, 5-8 January 2010, Kauai, Hawaii.

IP22. **White**, “Cyberspace Research, the White House Cyberspace Policy Review, 24<sup>th</sup> AF, and What They Mean to San Antonio” AOC Luncheon, 24 July 2009, San Antonio, TX.

IP21. **White**, “Cyber Competitions”, Invited Speaker, ISSA Luncheon, 21 July 2009, San Antonio, TX.

IP20. **White**, “Protecting the Nation’s Critical Infrastructures: A DHS/DoD Joint Mission?”, Invited Speaker, 67<sup>th</sup> Network Warfare Wing Intelligence Training Course, 25 July 2008, San Antonio, TX.

IP19. **White**, “Protecting the Nation’s Critical infrastructures: A DHS/DoD Joint Mission?”, Invited Speaker, 2008 Fiesta Informacion, 22 April 2008, San Antonio, TX.

IP18. **White**, “Understanding Terrorism and Cyber Conflict: Implications for Business and Communities”, Invited Speaker, *Cyberterrorism: Policy, Legal, & Operational Responses Symposium*, 5 March 2008, San Antonio, TX.

IP17. **White**, “Overview of the Building of an Effective Community and State Cyber Security Program”, *2007 Texas Homeland Security Conference*, San Antonio, TX, 4 December 2007.

IP16. **White**, Williams, “National and Regional Collegiate Cyber Defense Competitions”, *2007 NSA/DHS Hosted Meeting for National Centers of Academic Excellence in Information Assurance Education*, Albuquerque, NM, 30-31 October 2007

IP15. **White**, “Protecting the Nation’s Critical Infrastructures: A DoD Mission?”, AFCEA Alamo Chapter Luncheon Speaker, San Antonio, TX, 18 September 2007.

IP14. **White**, “The Role of Cyber Security Exercises”, *Fiesta Crow 2007*, San Antonio, TX, 25 April 2007

IP13. **White**, “Preparing a Community for a Cyber Attack”, *Fiesta Crow 2007*, San Antonio, TX, 24 April 2007

IP12. **White**, “Preparing Your Community for Cyber Attacks”, *Texas Homeland Security Conference*, San Antonio, TX, 30 November 2006

IP11. **White**, Invited Keynote Speaker, “Security Education: An Evolutionary Tale”, *2006 Annual Conference on Education in Information Security*, Iowa State University, Ames, Iowa, 17-19 September, 2006.

IP10. **White**, “Security Exercises: More Than Just Testing Your BCP/DRP”, Invited Lecturer, Center on the Management of Information Technology (COMIT), Jesse H. Jones Graduate School of Management, 15 Nov 2005, Rice University.

IP9. **White**, “Exercises as Part of Your Security Program”, Invited speaker, Society for Information Management-Houston Chapter, 14 Nov 2005, Rice University.

IP8. **White**, “Operational Security”, Invited Speaker, IT Security: Threats and Countermeasures Panel, University of Houston Information Systems Research Center Seminar Series, November 18, 2004, Houston, TX.

IP7. **White**, “Information Assurance Exercises”, invited panel speaker, *Proceedings of the 8<sup>th</sup> Colloquium for Information Systems Security Education (CISSE)*, 8-10 June, 2004, West Point, New York.

IP6. **White**, “Mobile Security and Privacy”, invited panel speaker, *Austin Mobility Roundtable 2004*, Austin, TX, March 11-12, 2004.

IP5. **White**, “Dark Screen: A Cyberterrorist Exercise for San Antonio and Vicinity”, Invited Speaker, *Dynamic Coalitions Principal Investigators Meeting*, January 31, 2003, San Antonio, TX.

IP4. **White**, “A K-PhD Cyber Security Program”, *National Science Foundation and American Association of Community Colleges Workshop on The Role of Community Colleges in Cybersecurity Education*, Invited Presentation, June 26-28, 2002, Washington D.C.

IP3. **White**, “Obtaining A Return On Investment from Computer Security Technology”, Invited Speaker, CFO Roundtable, 17 September 2001, San Antonio, TX.

IP2. **White**, “Securing the Information Infrastructure & Computer Forensics”, Invited Speaker, *Network Technology Symposium*, 24 April 2000, Tokyo, Japan.

IP1. **White**, “Emerging Network Security Technologies and the Operational Model”, Invited Speaker, *Network Technology Symposium*, 27 April 1999, Tokyo, Japan.

### **Grants and Funding**

\$599,639 (Submitted), Co-PI with Dr. Boppana, UTSA Post Baccalaureate Cybesecurity Training and Education for Hispanic Americans, Dept of Education, 2019-2024

\$1,500,000 (UTSA portion \$600K), Co-PI with Natalie Sjin as PI, From Department of Homeland Security for “State and Community Cyber Security Training”, with the NCPC, Oct 2019-Sept 2022.

\$149,823 PACT: Panoply Adapted for Cybersecurity Training, DOD/NSA, Co-PI with Dr. Boppana, 2019-2020.

\$514,911 (UTSA/CIAS portion) Co-PI with Natalie Sjelin as PI, from Department of Homeland Security “State and Community Cyber Security Training”, with the NCPC, Sept 2018-Aug 2021.

\$351,000 (UTSA/CIAS portion) PI, from Department of Homeland Security “State and Community Cyber Security Training”, with the NCPC, Sept 2017-Aug 2020.

\$3,737,836 award (PI with Beebe as co-PI) for renewal of the NSF/Scholarship for Service program at UTSA, Oct 2016 – Sep 2021.

\$3,015,000 award (PI) from the Department of Homeland Security, UTSA/CIAS is the lead on this effort and the UTSA portion is \$585,695, “*State and Community Coordinated Cybersecurity Training*”, Oct 2016-Sept 2019

\$6M award (PI with LMI and R-CISC as sub-awardees) from the Department of Homeland Security for development of the Information Sharing and Analysis Organization – Standards Organization, Oct 2015-Sept 2019.

\$580,968 award (PI), UTSA/CIAS portion of Department of Homeland Security grant awarded to the Norwich University Applied Research Institute, CIAS task: “*Cybersecurity Information Sharing: Cross-Sector Information Sharing for States and Communities*”, Nov 2015-October 2018

\$280,492 award (PI), from NSF/SaTC for “*EDU: Development and Analysis of a Cybersecurity Education Game.*”, 15 Sept 2015 – 1 Sept 2017.

\$300,000 award (PI), UTSA/CIAS portion of Department of Homeland Security grant awarded to the Criminal Justice Institute in the University of Arkansas System. “*State and Community Coordinated Cybersecurity Training*”, Nov 2014-October 2017.

\$800,000 award (PI) to the CIAS from the Department of Homeland Security to establish the National Cybersecurity Preparedness Consortium (5 universities) and to conduct cyber security training for states and communities. November 2013 – October 2016.

\$992,569 award (Co-PI) to the CIAS from the Department of Homeland Security to conduct the 2013 National Collegiate Cyber Defense Competition and to develop a national Collegiate Cyber Security Championship Cup, Nov 2012 – Oct 2013.

\$825,986 award (Co-PI) to the CIAS from the Department of Homeland Security to conduct the 2012 National Collegiate Cyber Defense Competition, Jan – Oct 2012.

\$395,000 award (UTSA Portion; Co-PI with Sandhu and Xu) from NSF for “Privacy-Enhanced Secure Data Provenance”, June 2011- May 2016. (\$74K for Dr. White for summer research support)

\$1.2 million award (Principal Investigator) from NSF for the Scholarship for Service program, June 2011-May 2015. \$93,000 extension provided in 2011 for developmental research in community cyber security incident response.

\$3.5 million award (Principal investigator) from the Department of Homeland Security through congressional appropriation to expand the implementation of the Community Cyber Security Model to two additional states as well as to research and develop necessary components to take states from level two to level three of the model. Dec 2010 – Dec 2012.

\$3.5 million award (Principal investigator) from the Department of Homeland Security through a congressional appropriation to expand the implementation of the Community Cyber Security Maturity Model in two additional states and continue researching methods to secure states and communities, Dec 2009- Dec 2010.

\$4.0 million award (Principal investigator) from the Department of Homeland Security through a congressional appropriation to implement the Community Cyber Security Maturity Model in three states and to research and develop methods to include cyber security in existing and planned state and regional fusion centers. Dec 2008- Dec 2010.

\$3.2 million award (Principal Investigator) from the Department of Defense through a congressional appropriation to continue the work in attack and defend exercises and developing the Community Cyber Security Maturity Model. October 2007-Sept 2009

\$3.1 million grant (Principal Investigator) from the Department of Homeland Security to develop security training for states and communities. Also to conduct cyber security exercises in communities and to develop a plan for communities to implement the Community Cyber Security Maturity Model. October 2006-Sept 2009

\$2.0 million award (Principal Investigator) from the Air Force Research Lab to extend the research in Cyber Security Exercises in Department of Defense communities and to assist them in developing processes to improve their cyber security posture. Oct 2006-September 2008

\$2.1 million award (Principal Investigator) from the Air Force Research Lab to conduct Cyber Security Exercises in Department of Defense communities. October 2005-September 2007

- \$1 million grant (Principal Investigator) awarded from the Office of Domestic Preparedness, Department of Homeland Security to research and develop methods to train communities to develop and conduct security exercises. Award period November 2004-October 2006.
- \$1.9 million award from the Air Force Research Lab awarded to support the Center for Infrastructure Assurance and Security, January-September 2005. Conducted research in the area of Community Information sharing and communication, intrusion detection, and cyber security exercises under this grant. Administered the total grant to support 10 person center and 9 faculty researchers.
- \$3.5 million award from the Air Force Research Lab awarded to support the Center for Infrastructure Assurance and Security, January-December 2004. Conducted research in the area of community Information sharing and communication, intrusion detection, and cyber security exercises under this grant. Administered the total grant to support 10 person center and 8 faculty researchers.

### **Contracts and Other CIAS Funding Obtained**

- \$50,000 from the Air Force Association to assist in the development of materials for a middle school summer program on computer security.
- \$49,500 from the Illinois Terrorism Task Force to conduct a cyber threat and risk assessment for Illinois state agencies, Feb-June 2013.
- \$25,850 from the city of San Antonio, Texas to deliver a series of cyber security awareness events, October 2012.
- \$100,000 from the Air Force Association to construct software and instructional materials in support of the CyberPatriot National High School Cyber Defense Program, June – December 2012.
- \$100,000 from the Air Force Association to develop a cybersecurity competition scoring engine and to then run the online portions of the 2012 CyberPatriot National High School Cyber Defense Competition, 2012-2013.
- \$47,075 from the city of San Antonio, Texas to develop and deliver an incident response plan for the city and to then conduct a cyber security exercise, Jan – Apr 2012.
- \$300,000 awarded from the Texas Engineering Extension Service of Texas A&M University to deliver cyber security training courses at nine locations around the nation, January – April 2012.
- \$42,500 to conduct a CISSP class in Albany, New York, November 2011.
- \$107,802 from the state of Rhode Island to conduct training and a cyber security exercise, 2010.
- \$234,072 awarded by the Florida Department of Law Enforcement for a series of computer security exercises and training, 2009-2011.
- \$200,000 awarded through Malmstrom Air Force Base to conduct a cyber security exercise and follow-on cyber security training and assistance for the city of Great Falls, MT. March – Sept 2007.
- \$300,000 to conduct cyber security exercises for the individual Information Sharing and Analysis Centers in conjunction with the U.S. Secret Service and the Guidry Group. 2003-2007.

### **Intellectual Property**

Cyber Threat Defender: Registered Trademark for Cybersecurity Collectible Card Game, June 26, 2018

### **Teaching Activities – Courses Taught**

- UTSA: CS5343 Developing Secure Systems and Software
- CS5323 Principles of Computer and Information Security (graduate)
- CS4673 Cyber Operations ONLINE
- CS4593 Advanced Topics: Cyber Security Practices (to become Cyber Operations) (Changed to CS4673)
- CS4593 Advanced Topics: Principles of Cybersecurity (changed to CS3113)
- CS3433 Principles of Computer and Information Security (to become Practices in Cybersecurity)
- CS3113 Principles of Cybersecurity ONLINE
- CS2153 Game Design
- CS1153 Game Programming
- CS1023 Cultural Implications of the Information Society
- IS6323 Security Risk Analysis
- IS6303 Introduction to Voice and Data Security



IS3513 Information Assurance and Security  
IS3033 Operating Systems  
USAFA: Comp Sci 483 Operating Systems  
Comp Sci 471 Artificial Intelligence  
Comp Sci 467 Computer Networks  
Comp Sci 438 Computer Security and Information Warfare  
Comp Sci 110 Introduction to Computing

#### **Teaching Activities – CS Students Advised at UTSA**

Like Zhang, Ph.D. completed Summer 2009  
Faranak Sorooshian, MS completed Spring 2012  
Areej Al-Bataineh, Ph.D. completed Fall 2012  
Keith Harrison, Ph.D. completed Fall 2012  
Mohammad Islam, MS completed Fall 2012  
Deandre Blackwell, MS completed Spring 2013  
Mark Griffin, MS completed Spring 2013  
Turki Al Lelah, MS completed Fall 2013  
Maryam Ghanizadeh, MS completed Spring 2014  
Wanying Zhao Ph.D. completed Fall 2014  
Michael Arreaga, MS Completed Fall 2014  
Sumaya Alindonosi, MS completed Fall 2014  
Robert Onchoke, MS completed Spring 2016  
Bharadwaj Prabhala, MS completed Spring 2016  
James Rutherford, Ph.D. completed Spring 2017)

#### **Teaching Activities – Service on Graduate Committees at UTSA**

Erhan Kartaltepe, (EE, MS 2006)  
Chirag Parikh (EE, PhD 2007)  
Ashok Tummala (EE, PhD 2007)  
Rehan Akbani (CS, PhD 2009)  
Mark Reith (CS, PhD 2009)  
Xu (Kevin) Su (CS, PhD 2009)  
Giovanni Del Valle, (CS, MS 2010)  
Amjad Sabbagh, (CS, MS 2011)  
Adam Tyra, (CS, MS 2012)  
Anuvrath Joshi, (CS, MS 2012)  
Dhananjay Tambe, (CS, MS 2012)  
Joseph Chavez, (CS, MS 2013)  
Mani Ramezan, (CS, MS 2013)  
Mark Robinson, (CS, PhD, 2013)  
Mohammad Chowdhury (CS, MS, 2013)  
Rajarshi Kaapaa (CS, MS, 2013)  
Omar Chowdhury (CS, PhD, 2013)  
Andreas Gampe (CS, PhD, 2013)  
Boris Tas (CS, PhD, 2013)  
Ali Tekeoglu (CS, PhD, 2013)  
Dang Nguyen (CS, PhD, 2014)  
Ahmed Alzhrani (CS, MS, 2014)  
Khalid Zaman Bijon (CS, PhD, 2015)  
Milad Maleki (ECE, PhD, 2016)  
Navid Pustchi (CS, PhD, 2016)  
Prosunjit Biswas (CS, PhD, 2017)  
Tahmina Ahmed (CS, PhD, 2017)  
Asma Hassan Alshehri (CS, PhD, 2018)  
Smriti Bhatt (CS, PhD, 2018)  
Chelsea Hicks (IS, PhD, 2018)

Maanak Gupta (CS, PhD, 2018)  
Mahmoud Aslan (CS, PhD, 2018)  
Richard Garcia Lebron (CS, MS, 2019)  
Gabe Fernandez (CS, MS, 2019)  
Brita Munsinger (CS, PhD, expected grad 2020)

### **Service while at UTSA**

Director, Center for Infrastructure Assurance and Security (2005-present), Interim Director (2003-2004),  
Technical Director (2001-2004)  
Executive Director, Information Sharing and Analysis Organization, Standards Organization, (2015-present)  
Executive Director, National Cybersecurity Preparedness Consortium (2011-2018)  
Chair, Geographically-Based Community – ISAOs (2019-present)  
Appointed to National Transportation Research Board Committee on Critical Transportation Infrastructure  
Protection, 2003-2008, a part of the National Academy of Sciences  
Appointed Chairman of the Information Assurance Subcommittee, 2004-2006  
Advisor to the Center for Strategic and International Studies (CSIS) Commission on Cybersecurity for the 44<sup>th</sup>  
Presidency  
Vice Chair, Texas Cybersecurity Education and Economic Development Council, 2011-2015  
Vice Chair, Texas Cybersecurity Council, 2015-2018  
Member, Texas Cybersecurity Council, 2018-present)  
Member, Texas CISO Council (2013-present)  
Education and Workforce Development Working Group, under the Critical Infrastructure Partnership Advisory  
Council (CIPAC) of the Department of Homeland Security (DHS), member, 2012-2013  
National Visiting Committee, member, NSF CYBERWATCH program, CCBC and NVCC, 2006-2008  
National Visiting Committee Chair, NSF Cybersecurity & Computer Forensics, Del Mar College, 2004-2006  
National Science Foundation Proposal Review Panel Member (2006, 2011, 2013, 2014)  
Member, Board of Directors, Digital Forensics Consortium (2014-2016)  
Information Systems Security Association (ISSA) (Advisor to the Board, Alamo Chapter, Past President and  
Vice President) 2000-2014  
InfraGard (Secretary, San Antonio Chapter, 2001-2005, member 2005-2012/2014)  
San Antonio Security Leaders Forum, member 2009-present  
San Antonio Cyber Innovation and Research Consortium, member 2005-2012  
Conference Chair, 1<sup>st</sup> International Information Sharing Conference, Washington, D.C., 31 Oct-1 Nov 2017  
Conference Chair, National Conference on the Protection of American Communities, 2005, San Antonio, TX  
Symposium Chair, Texas Infrastructure Protection Symposium-2004, San Antonio, Texas  
Symposium Chair, 2003 Texas Security Symposium, San Antonio, Texas  
Co-Chair, HICSS-40 – HICSS 52 (2007-2019) Mini-Track on Computer Security (in the E-Government Track)  
Co-Chair, HICSS-39 (2006) established Mini-Track on Computer Security (in the E-Government Track)  
Co-Chair, AMCIS 2004 Mini-track on Information Assurance  
Associate Editor, Journal of Information System Security, 2005-2012  
Technical Program Committee, 3rd International Workshop on Security in Systems and Networks (SSN2007),  
Reviewer for Government Information Quarterly (2014)  
Reviewer for Journal of Information Systems Education (2013)  
Reviewer for Journal of Alzheimer's Disease (2018)  
Reviewer for Communications of the ACM (2010)  
Reviewer for IEEE Computer (2011)  
Reviewer for IEEE Security and Privacy (2006, 2007, 2010)  
Reviewer for Computers and Security Journal (2011, 2016)  
Reviewer for HICSS-38 through HICSS-52 (2005-2019)  
Reviewer for 25<sup>th</sup> Symposium for Applied Computing (2010)  
Reviewer for 5<sup>th</sup> International Workshop SSN 2009  
Reviewer for 10<sup>th</sup> - 16<sup>th</sup> Colloquium for Information System Security Education (CISSE) (2006-2012)  
Reviewer for AMCIS 2004  
Reviewer for the International Conference on Information Systems (ICIS 2002)  
Reviewer for Transportation Research Board annual conference and the Transportation Research Review  
(2004, 2005, 2007, 2009, 2010)

Reviewer for Congress on Computer Science and Network Technology (CSNT 2015)  
Member, NIST/NICE Working Group: Workforce Management (2016-Present)  
Member, UTSA President's Distinguished Achievement Awards: Excellence in Community Service selection committee, (2016-2018)  
Member, UTSA Cyber Research Task Force (2015-2017)  
Member, UTSA Online Learning Task Force (2013-2016)  
Member, UTSA Extended Education Standing Committee (2008-2014)  
Member, UTSA Campus Infrastructure Committee, 2003-2004  
Member, UTSA Faculty Grievance Committee, 2003-2004  
Member, UTSA Faculty Grievance Panel, 2003-2004  
Member, University Review Committee for EE Department Faculty Candidate (2007)  
Member, College of Science Faculty Review Advisory Committee 2005-2007  
Member, College of Business Executive Programs Committee, 2003-2004  
Member, CS Department Communication and Outreach Committee (2013-2016)  
Member, CS Department Faculty Search – Cyber Security Committee (2013-2016)  
Member, CS Department Faculty Review Advisory Committee (DFRAC) (2005-2012)  
Member, CS Department Faculty Advisory Committee (DFAC) (2013)  
Member, CS Department Periodic Performance Evaluation Review Committee (DPPER) (2005-2008)  
Member, CS Department Faculty Search Committee (2007-2008, 2011-2012)  
Member, CS Department Scholarship Committee (2007-2013)  
Member, CS Department College Scholarships & Awards Committee (2013)  
Member, CS Department Curriculum Committee (2016-2017)  
Chair, CS Department Career Development Committee (2013-2016)  
Chair, CS Department Faculty Awards and Nominations Committee (2013-2015)  
Chair, CS Department Ad Hoc Committee on Computer and Information Security (2005-2006)  
Chair, CS Department Ad Hoc Committee on Certification Course Credit (2007-2008)  
Advisor, UTSA Student Computer Security Association, 2006-2010  
Advisor, CS Graduate Student Association, 2007-2010  
Judge, 1<sup>st</sup> Annual House STEM App Challenge, 2014  
Judge, House STEM App Challenge (2016-present)