

CURRICULUM VITAE OF THOMAS R. IMBODEN

I. PROFESSIONAL AFFILIATION AND CONTACT INFORMATION

A. Present University Department or Unit:

Information Systems Technologies Program
School of Information Systems and Applied Technologies

B. Office Address:

College of Applied Sciences and Arts
1365 Douglas Drive, Room C109
Southern Illinois University
Carbondale, IL 62901
E-Mail: timboden@siu.edu

II. EDUCATION

In Progress- Doctor of Philosophy, Computer Science, Southern Illinois University, Carbondale, IL. Coursework requirements and qualifying examinations completed as of Spring 2013.

Master of Science, Telecommunications Systems, DePaul University, Chicago, IL, August 2007

Bachelor of Science, Network Technology, DePaul University, Chicago, IL, November 2003

Certified Information Systems Security Professional (CISSP), 2014

Linux Essentials Certification, 2014

EMC Information Storage Associate (EMCISA) Certification and associated training, 2011

VMware vSphere: Install, Configure, Manage (ICM) training, 2013

Certified Cisco Network Associate (CCNA) Certification, 2011 - 2014

CompTIA Network+ Certification, 2008

CompTIA A+ Certification, 1998

III. PROFESSIONAL EXPERIENCE

Associate Professor, School of Information Systems and Applied Technologies,
Southern Illinois University, Carbondale, IL, August 2008 – present

Information Systems Specialist II, Aisin Manufacturing Illinois, Information Systems,
Marion, IL, May 2005 – July 2008

Computer/Network Technician, Jackson Hewitt Tax Service, Technology Department
Vienna, IL, November 2004 – April 2005

Support Technician, SeatonCorp, Information Technology
Chicago, IL, August 2003 – August 2004

Senior Systems Specialist, SSG Services
Oak Park, IL, February 2003 – August 2004

Technical Support Representative, Arthur Andersen, LLP, Technology Services
Chicago, IL, May 2001 – March 2002

Technical Support Representative, Southern Illinois University, Customer Service Center
Carbondale, IL, October 2000 – March 2001

Repair Coordinator / PC / Network Technician, Southern Illinois University, Morris
Library, Carbondale, IL, November 1999 – May 2000

Purchasing Manager/Assistant Technical Manager, Cyber Systems / Blue Chip Micro,
Carbondale, IL, July 1997 – January 1999

IV. RESEARCH AND CREATIVE ACTIVITY

A. Interests and Specialties:

I am committed and passionate about information security; finding innovative ways to teach cyber security skills in undergraduate courses and examining the application of security practices in nonprofit organizations and small healthcare offices. By evaluating the applied security in these two segments I will identify gaps and deficits in order to help improve the security stance and posture of the segments.

As part of preparation of a proposal and future dissertation in the Computer Science department at Southern Illinois University, I have implemented a testbed using advanced wireless network technologies including IEEE 802.11s and 802.11n. With this testbed, work will be performed simulating the operation of wireless technologies in an underground mining environment to develop improvements to support multimedia technologies for the mining industry.

B. Current Projects:

Primary investigator, state of information security in nonprofit organizations. Collaborating with faculty from West Chester University and Murray State University. Conducting quantitative and qualitative surveys and analysis of information security practices at nonprofit organizations in the Midwest.

Primary investigator, collaborator with Dr. Kemal Akkaya, director of NSF supported ADWISE Lab (Southern Illinois University), on the evaluation of 802.11s wireless mesh networks in underground mining environments.

Primary investigator, lead author on project to create teacher guide for use of open source unified threat management (UTM) technologies to teach information security skills using real world business requirements and examples.

C. Grants Applied for:

Imboden, T. (Submitted November, 2012). *Green IT computer lab using virtualization*. Southern Illinois University Sustainability Council. Requested \$5,000.

Imboden, T. (Submitted April, 2012). *Information assurance research and lab assistant position*. Southern Illinois University Undergraduate Assistantship program. Requested \$3,200.

Woodward, B., Martin, N. L., Imboden, T., Sheng, Y., & Carver, N. (Submitted March, 2010). *Growth and training impact in IT: A measure of ethical reasoning*. National Science Foundation (NSF). Requested \$400,000.

Imboden, T. (Submitted March, 2009 & March, 2010). *Proposal to develop center of academic excellence in information assurance education*. Southern Illinois University Undergraduate Teaching Enhancement Award (UTEA). Requested \$11,000.

D. Grants Received:

Imboden, T. (Spring 2011). Internal faculty seed grant funds for project *Evaluation and development of reliable network monitoring of SNMP on 802.11s wireless mesh networks*. Southern Illinois University Office of Research Development and Administration. Awarded \$15,000.

Imboden, T. (Spring 2010, 2011, 2013). *Information assurance research and lab assistant position*. Southern Illinois University Undergraduate Assistantship Program. Awarded \$6,400 (2010 – 2011, 2011 – 2012) and \$3,200 (2013 – 2014).

E. Papers and Presentations at Professional Meetings:

- Imboden, T., Martin, N., Woodward, B., & Nehrkorn, P. (2014, November). *Evaluating Information Security Practices, Knowledge, and Attitudes of Information Technology Student Workers*. Abstract presented at Applied Sciences and Arts Symposium, SIU, Carbondale, IL.
- Imboden, T., Martin, N., Woodward, B., & Nehrkorn, P. (2014, November). *Evaluating Information Security Practices, Knowledge, and Attitudes of Information Technology Student Workers*. Abstract presented at annual meeting of the Conference on Information Systems Applied Research, Baltimore, MD.
- Martin, N., & Imboden, T. (2014, August). *Information Security & Insider Threats in Small Medical Practices*. Paper presented at annual meeting of the Americas Conference on Information Systems, Savannah, GA.
- Imboden, T., Phillips, J., Seib, J. D., & Fiorentino, S.R. (2013, November). *Information security in nonprofits: A first glance at the state of security in two Illinois regions*. Paper presented at annual meeting of the Conference on Information Systems Applied Research, San Antonio, TX.
- Imboden, T., Phillips, J., Seib, J. D., & Fiorentino, S.R. (2013, October). *How are nonprofit organizations influenced to create and adopt information security policies?* Paper presented at annual meeting of International Association for Computer Information Systems International Conference, San Juan, PR.
- Imboden, T., Phillips, J., & Seib, J. D. (2013, April). *Safety first: How nonprofit organizations develop network security policies*. Abstract presented at annual Midwest Political Science Association, Chicago, IL.
- Imboden, T. (2012, November). *"Hello, IT – have you tried turning it off and on again?" – Using help desk software to teach enterprise networking to undergraduate students*. Abstract presented at annual meeting of the Information Systems Education Conference, New Orleans, LA.
- Imboden, T. (2012, October), *Data loss prevention: A guide to simulated lab scenarios using virtual machines*. Abstract presented at annual meeting of the International Association for Computer Information Systems International Conference, Myrtle Beach, SC.
- Imboden, T., Akkaya, K., and Moore, Z. (2012, June), *Performance evaluation of wireless mesh networks using IEEE 802.11s and IEEE 802.11n*. Paper presented at annual Convergence among Heterogeneous Wireless Systems in Future Internet Workshop (CONWIRE), in conjunction with IEEE International Conference on Communications, Ottawa, Canada.

Imboden, T., Martin, N., Seib, J.D., & Phillips, J. (2012, March). *Student opinion on the use of virtual machines in security education*. Paper presented at annual meeting of the Society for Information Technology & Teacher Education International Conference, Austin, TX.

Imboden, T., & Strothmann, D. (2010, October). *Design and implementation of a low-cost networking and VoIP lab for undergraduate networking curriculum instruction*. Paper presented at annual meeting of International Association for Computer Information Systems International Conference, Las Vegas, NV.

Woodward, B.S., Martin, N., & Imboden, T. (2010, October). *Expansion and validation of the PAPA framework*. Paper presented at annual meeting of Information Systems Education Conference, Nashville, TN.

Woodward, B., Imboden, T., & Woodward, J. (2009, October). *Effectiveness of remote access labs versus traditional labs*. Abstract presented at annual meeting of International Association for Computer Information Systems International Conference, Pittsburgh, PA.

V. PUBLICATIONS AND CREATIVE WORKS

A. Articles in Professional Journals:

Imboden, T., Phillips, J., Seib, J. D., & Fiorentino, S.R. (2014). Information security in nonprofits: A first glance at the state of security in two Illinois regions. *Journal of Information Systems Applied Research*, 7(3), 29-38.

Imboden, T., Phillips, J., Seib, J. D., & Fiorentino, S.R. (2013). How are nonprofit organizations influenced to create and adopt information security policies? *Issues in Information Systems*, 14(2), 166-173.

Woodward, B., Imboden, T., & Martin, N. L. (2013). An undergraduate information security program: More than a curriculum. *Journal of Information Systems Education*, 24(1), 63-70.

Uludag, S., Imboden, T., & Akkaya, K. (2012). A taxonomy and evaluation for developing 802.11-based wireless mesh network testbeds. *Wiley International Journal of Communication Systems*, 25(8), 963-990.

Woodward, B., Martin, N. L., & Imboden, T. (2011). Expansion and validation of the PAPA framework. *Information Systems Education Journal*, 9(3), 28-34.

Imboden, T., & Strothmann, D. (2010). Design and implementation of a low-cost networking and VoIP lab for undergraduate networking curriculum Instruction. *Issues in Information Systems*, 11(2), 1-6.

B. Chapters in Professional Books:

Imboden, T. (2010). Maintaining access to systems. In Woodward, B., Whitney, M., Riley, M., & Mei, K. (Ed.), *Virtualization labs for information security* (pp. 95-110). Boston, MA: Thomson Course Technology.

C. Book Reviews:

Technical reviewer for *Virtualization labs for information security*, Woodward, B., Whitney, M., Riley, M. & Mei, K.

D. Peer Reviewed Conference Proceedings

Martin, N., & Imboden, T. (2014). Information security & insider threats in small medical practices. *AMCIS 2014 Proceedings*.

Imboden, T., Phillips, J., Seib, J. D., & Fiorentino, S.R. (2013). Information security in nonprofits: A first glance at the state of security in two Illinois regions. Accepted in *2013 Conference on Information Systems Applied Research Proceedings*.

Imboden, T., Phillips, J., Seib, J. D., & Fiorentino, S.R. (2013). How are nonprofit organizations influenced to create and adopt information security policies? *2013 International Association for Computer Information Systems Conference Proceedings*.

Imboden, T. (2012). "Hello, IT – have you tried turning it off and on again?" – Using help desk software to teach enterprise networking to undergraduate students (abstract). *Proceedings of the Information Systems Education Conference* (p. 72).

Imboden, T. (2012) Data loss prevention: A guide to simulated lab scenarios using virtual machine (abstract). *2012 International Association for Computer Information Systems Conference Proceedings* (p. 41).

Imboden, T., Akkaya, K., & Moore, Z. (2012). Performance evaluation of wireless mesh networks using IEEE 802.11s and IEEE 802.11n. *Proceedings of IEEE International Conference on Communications (ICC) 2012* (pp. 5675-5679).

Imboden, T., Martin, N., Seib, J.D., & Phillips, J. (2012). Student opinion on the use of virtual machines in security education. In P. Resta (Ed.), *Proceedings of Society for Information Technology & Teacher Education International Conference 2012* (pp. 3655-3660). Chesapeake, VA: AACE.

Imboden, T., & Strothmann, D. (2010). Design and implementation of a low-cost networking and VoIP lab for undergraduate networking curriculum instruction.

2010 International Association for Computer Information Systems Conference Proceedings (p. 27).

Woodward, B.S., Martin, N., & Imboden, T. (2010). Expansion and validation of the PAPA framework. *Proceedings of the Information Systems Education Conference* (p. 38).

Woodward, B., Imboden, T., & Woodward, J. (2009). Effectiveness of remote access labs versus traditional labs (abstract). *International Association for Computer Information Systems International Conference Proceedings* (p 36).

VI. TEACHING EXPERIENCE

A. Teaching Interests and Specialties:

Information Systems Security
Development of Technology Labs and Curriculum Using Open Source Technologies
Virtualization and Storage Technologies
Enterprise Networking

B. Teaching and Training Grants:

Imboden, T., & Woodward, B. (2013). *Creation of information assurance scholarship program at Southern Illinois University*. Department of Defense, Awarded \$30,000.

Imboden, T. & Moore, J. Z. (2013). *Development and enhancement of ISAT security courses for online offering*. Southern Illinois University Distance Education Department, Awarded \$7,471.

Imboden, T. (2013). *(ISC)² faculty voucher grant for Certified Information Systems Security Professional (CISSP) certification*. International Information Systems Security Certification Consortium (ISC)², \$600.

Imboden, T. (2012). *Creation of virtual information technology laboratory*. Southern Illinois University Undergraduate Tuition Surcharge for Technology (UTSFT), Awarded \$55,000.

Imboden, T. (2011). *Trustwave security hardware and software for classroom use*. Trustwave, Inc., \$100,000.

Imboden, T. (2011) *State Farm equipment grant for equipment upgrade and replacement in School of Information Systems and Applied Technologies network and security courses*. State Farm, Inc., \$20,000.

C. Teaching Awards and Honors:

School of Information Systems and Applied Technologies Teacher of the Year (2010 – 2011)

D. Current Graduate Faculty Status:

Approved for graduate instruction

VII. UNIVERSITY EXPERIENCE

A. Department Committees:

Member, School of Information Systems and Applied Technologies Lab and Equipment Committee, (2008 – present; Chair 2008 – 2011).

Chair, School of Information Systems and Applied Technologies Committee on Information Assurance Education, (2010 – 2011).

Member, School of Information Systems and Applied Technologies Recruiting and Outreach Committee, (2008 – 2011).

B. College and University Committees and Councils:

Member, Southern Illinois University Computing Advisory Committee, (2011 – present; Chair 2012 – 2014).

Member, College of Applied Sciences and Arts Honor's Day Committee, (2011 – present).

Member, Southern Illinois University Information Technology Department interview Committee for Information Security Analyst position, (2013).

C. Other:

Advisor and coach, Collegiate Cyber Defense Competition (CCDC) Team, School of Information Systems and Applied Technologies, (2010 – present).

Primary Organizer and Developer, *Center for Information Assurance and Security Education*” (*CIASE@ISAT*), (2010 – 2011).

Primary Investigator and Organizer, *School of Information Systems and Applied Technologies application for Center of Academic Excellence in Information Assurance Education (CAE/IAE)*. Department of Homeland Security/National Security Agency, (2010 – 2011).

VIII. PROFESSIONAL SERVICE

A. Membership in Professional Associations:

Member, Education Special Interest Group – Association of Information Technology Professionals, (2012 – present).

Member, INFRAGARD, Springfield, IL Chapter, (2010 – present).

B. Consultantships:

Collegiate Cyber Exercise Event 2010 (CCEE) curriculum designer and author, Center for Systems Security and Information Assurance (CSSIA), (2010).

Subject Matter Expert, CNSS 4011/4013 Curriculum development, Center for Systems Security and Information Assurance (CSSIA), National Science Foundation funded under awards 0702872 and 1002746, (2010 – 2011).

C. Evaluation of Manuscripts for Journals and Book Publishers and of Grant Proposals for Agencies:

Paper reviewer, European Association for Signal Processing (EURASIP) Journal on Wireless Communications and Networking, (2013).

Proceedings paper reviewer, IEEE International Conference on Communications (CONWIRE), (2012).

Proceedings paper reviewer, Information Systems Educators Conference (ISECON), (2010 & 2013).

D. Other

Invited speaker, Carbondale Community High School (CCHS) *Science Technology Engineering and Mathematics (STEM) Investigations Camp* for high school students, (2013).

Organizer and speaker, School of Information Systems and Applied Technologies *Cyber Security Day*, (2013).

Faculty Advisor, Southern Illinois University Collegiate Cyber Defense Competition (CCDC) Team and Registered Student Organization (RSO). Received first place in Illinois competition in 2013 and second place in Illinois competition in 2011, advancing to compete in regional competition, (2010 – present).

Faculty Advisor, Southern Illinois University Tech Dawgs Registered Student Organization (RSO). Awarded *Most Improved RSO Award* in 2011, (2010 – present).

Host site administrator and compliance monitor, Illinois Collegiate Cyber Defense Competition, (2010 – present).

IX. COMMUNITY SERVICE

Guest expert on information security, WSIL-TV 3 and WJPF AM 1020, (2012 – present).

Lead student groups in providing technical assistance to local nonprofit organizations, (2010 – present).

Faculty University Associate, providing mentorship to students living in residence halls on campus, (2009 – present).

Assist on development of SIU information security policies with Southern Illinois University Information Security Officer, (2012 – present).

Invited speaker on Social Networking Security, Southern Illinois University Black Togetherness Organization (BTO), (2011).

Volunteer for Saluki's Final Finish, (2008 – 2011).

Commencement Usher, College of Applied Sciences and Arts, (Spring 2009, Summer 2010).

Workshop design and preparation for middle school girls interested in Science, Technology, Engineering and Mathematics. Southern Illinois University Expand Your Horizons (EYH) program, (2009 – present).

Volunteer performing technical support for Project Hope/Lojo, Cape Girardeau, MO, (2010).