

Susan J Lincke, PhD CISA
2526 N Davisson, River Grove IL 60171
lincke@uwp.edu

EDUCATION

1997-2002 - Illinois Institute of Technology, Chicago IL – PHD Computer Science, GPA: 4.0/4.0
Thesis Topic: Traffic Analysis of a Cellular Integrated Network
1994-1996 - Illinois Institute of Technology, Chicago IL - MS Computer Science, GPA: 4.0/4.0
Master's Project: Optimization of Base Station Configurations in a GSM Location Area
1989-1991 - Harper College, Palatine IL - Certificate Electronics Technology, GPA: 4.0/4.0
1975-1979 - Miami University, Oxford OH - B.S. App. Sc. Systems Analysis

TEACHING EXPERIENCE

UNIVERSITY OF WISCONSIN-PARKSIDE, AUG. 2002 – PRESENT, ASSOCIATE PROFESSOR

Teach 6 different courses per year. Developed curricula for courses including:

Computer Networks	Network Security	Information Systems Security
Computer Architecture	Operating Systems	Software Engineering I
UNIX Tools & Utilities	Assembly Language	Software Engineering II

Acting Chair, Computer Science, Fall 2008-Spring 2009. Co-authored the redesign of the MS CIS Program with MIS faculty, implementing new brochure, web pages. Prepared catalog revisions. Led department strategic planning efforts.

- ◆ Chair of Research & Creative Activity (CRCA) Fall 2006-Spring 2009: Organized a Professional Research Symposium and co-organized a university-wide 40th Anniversary Showcase.
- ◆ Chair of Teaching & Learning Committee Fall 2011-Spring 2012: Worked with accreditation issues.
- ◆ Member of Higher Learning Commission (HLC) Academy of Student Assessment. Served on UWP's Student Learning Outcomes, Academic Achievement and Assessment Committees. Led department's efforts in defining assessment for undergraduate and graduate programs.
- ◆ Co-developed a Security lab, selecting software. Developed the Small Business Security Workbook and Health First Case Study to train students for CISA, CISM certifications and service learning.
- ◆ Integrated community-based learning projects into Software Engineering and Security courses.
- ◆ Worked with undergraduate and MS CIS students to publish research and community-based learning papers and/or posters. Serve as undergraduate and graduate advisor.
- ◆ Board member for Wisconsin Women in Science, Non-Profit Development Center
- ◆ Member of committees: IT Practices Center, graduate CIS curricular, 8 hiring committees (including chancellor), teacher education steering committee, advising committee.

ILLINOIS INSTITUTE OF TECHNOLOGY, AUG. 2000 – AUG. 2002, SENIOR LECTURER

Designed and taught 3 courses per semester in Data Communications, Data Structures and Advanced Studies I. Led curriculum revision and accreditation work for two courses. Undergraduate advisor.

LOYOLA UNIVERSITY CHICAGO, AUGUST 1997 – AUGUST 2000, INSTRUCTOR

Full time instructor designing course lectures for and teaching 3 courses per semester. Advised student master's projects. Taught graduate and undergraduate courses:

Operating Systems	Adv. Operating Systems	Software Engineering
Telecommunications	Structured Programming & Data Structures	

NORTHEASTERN ILLINOIS UNIV., AUG. 1996 - MAY 1997, VISITING INSTRUCTOR

Full time instructor designing course lectures for and teaching 4 courses per semester, including:

Programming 2 (C++)	Systems Analysis	Software Engineering
Adv. Operating Systems	Telecommunications	Computer Networks

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BUSINESS EXPERIENCE

MOTOROLA, JUNE 1989 - AUGUST 1996, LEAD ENGINEER

Lead Software Engineer for European digital (GSM) and analog (NMT and ETACS) cellular phones.

- ◆ Managed 5 engineers as a Group Leader of GSM test development for lower layer protocols and data services. Participated in hiring and training of new engineers.
- ◆ Represented Motorola at European Telecommunications Standards Institute (ETSI). Published amendments to standards. Served as technical liaison to Motorola software developers for GSM Phase 2. Wrote Requirements Specification as a Systems Engineer for a new product.
- ◆ Developed echo canceller embedded software for the phone's speech coder. Developed a simulation capability of the voice coder algorithm and enhanced the test capability for the speech and channel coders.
- ◆ Developed Motorola's first Personal Communications Network demo product in 2 month's time, resulting in a Motorola contract with a British network provider.
- ◆ Designed and developed test capability of supplementary services (Call Forwarding, Call Barring, etc.) and other layers for the GSM network, in C programming language.
- ◆ Created and maintained NMT and ETACS cellular phone software related to handsfree mode, Calling Line Identification, the user display, voice recognition and other peripheral products.

INTERAND CORPORATION, MAY 1987 - MAY 1989, SENIOR ENGINEER

Senior Engineer designing and developing OSI-based LAN-like (802.2) protocol and software for a teleconferencing terminal.

- ◆ Designed and implemented a protocol and its software that dials and connects up to 15 terminal devices over dial-up lines upon operator command. The terminal supported file transfer and displayed all operator commands and drawing on all terminals simultaneously.
- ◆ Worked extensively with Layer 1 (DMA), Data Link Layer, Session Layer, Presentation Layer, as well as the network establishment software in C programming language.

MCI, JULY 1982 - MAY 1987, GROUP LEADER

Group Leader managing software development, quality assurance and vendor interfaces in telecommunications, data communications and database applications.

- ◆ Managed implementation of \$6 million Network Management System (NEMAS) interfacing with MCI's five switch types, and providing remote alarms, remote login, file transfer and call analysis applications to a centralized location. Negotiated applications and protocol designs, test plans, and software fixes with the five switch and NEMAS vendors. Initiated a lab data communications test network.
- ◆ Implemented MCI's first switch-to-host data communications network, carrying billing and saving MCI \$6 million annually. Interfaced with the field and data processing department to debug assembly language network software and protocol problems.
- ◆ Led a database software design team to provide "800" and VNET (i.e. software defined network) services. Directed a quality assurance team of five people for the VNET project.

GENERAL ELECTRIC INFORMATION SERVICES CO. (GEISCO), MAY 1979 - JULY 1982

Systems Analyst/Programmer in data communications on a remote concentrator using structured software development techniques in a team and solitary environments.

- ◆ Designed, implemented and maintained assembly language software to provide X.25, MICOM multiplexor protocol, and login/disconnect logic for all services on GEISCO's remote concentrator.
- ◆ Built GEISCO's first offering of packet network services by emulating an asynchronous dial out service valued at \$2 million.
- ◆ Designed and developed software to improve the efficiency of GEISCO's network and to add to TTY editing capabilities. Analyzed remote concentrator processor capacity.
- ◆ Was issued an offer letter with substantially increased salary and position (2-level increase) after one year.

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PUBLICATIONS

JOURNAL & BOOK CHAPTER PUBLICATIONS:

“Quantifying Operator Benefits of Wireless Load Distribution”, Susan J Lincke, Jen Brandner, *Quality of Service Architectures for Wireless Networks: Performance Metrics and Management*, IGI Global, Information Science Reference, 2010, pp. 86-101. (Book chapter)

“Security of Information Systems in Schools: An Evaluation using Audit and COBIT Interviews”, Susan J Lincke, Reetika Kumar, Virat Tiwari, *Journal of Information System Security (JISSEC)*, vol. 6, no. 3, Dec. 30, 2010, pp. 42-63.

“Vertical Handover Policies for Common Radio Resource Management”, Susan J Lincke, *International Journal of Communication Systems*, vol. 18, iss. 6, Wiley InterScience, Aug. 2005, pp. 527-543.

“Load Sharing versus Service Balancing in Integrated Networks” by Susan J Lincke and Cynthia S Hood, *Journal of Interconnection Networks*, vol. 6, no. 1, World Scientific Publishers, March 2005, pp. 35-50.

“The Efficiency of Engineering Traffic across Network Boundaries”, Susan Lincke-Salecker, Cynthia S Hood, *International Journal of Wireless Information Networks*, Kluwer Academic / Plenum Publishers, vol. 10, no. 3, July 2003, pp. 117-125.

“Integrated Networks That Overflow Speech And Data Between Networks”, Susan Lincke-Salecker, Cynthia S Hood, *International Journal of Network Management*, John Wiley & Sons, vol 12. issue 4, July-Aug. 2002, pp. 235-257.

REFEREED CONFERENCE PUBLICATIONS:

- 1 “Network Security: A Case Study” Susan Lincke, *Midwest Instruction & Computing Symposium (MICS)*, April 13, 2012.
- 2 “Security planning for small businesses: A service-learning course” Todd Burri, Susan Lincke, *IEEE Frontiers in Education Conference (FIE)*, IEEE, Oct. 12-15, 2011, pp. F1E-1 - F1E-6.
- 3 “Service Learning in Security” Susan J Lincke, *Colloquium for Information Systems Security Education (CISSE)*, June 13-15, 2011.
- 4 “Development of an Effective Security Awareness Presentation”, Tim Dorr, Susan J Lincke, *Annual Security Conference*, May 4-6 2011.
- 5 "The Development of a Graphic Multidimensional Markov Chain Modeler to Diagram Large State Spaces", David Taylor-Fuller, Susan J Lincke, *Proc. of the 42nd Annual Simulation Symp (ACM)*, 2009.
- 6 “Balancing CRRM Performance Goals with Load Shared Packet Services”, Susan J Lincke, *Proc. IEEE Wireless Communications & Networking Conference*, March 31-April 3, 2008.
- 7 “Network Security: Focus on Security, Skills, and Stability”, Susan J Lincke, Andrew Holland, *IEEE Frontiers in Education*, Oct. 10-13, 2007.
- 8 “Validation of load shared integrated network with heterogeneous services”, Susan J Lincke, *Proc. 40th Annual Simulation Symp.*, IEEE, March 26-28, 2007, pp. 49-59.
- 9 “Security of Information Systems in Schools: A study conducted on the overall security of systems in local schools”, Reetika Kumar, Virat Tiwari, Susan J Lincke, *The Annual Security Conference*, 2007.
- 10 “Network Security Auditing as a Community-Based Learning Project”, Susan J Lincke, *Proc. 38th SIGCSE Tech. Symp. on Computer Science Education*, March 7-10, 2007, pp. 476-480.
- 11 “An Investigation of Seamless Mobility from the Operational Perspective”, Susan J Lincke, *Proc. World Wireless Congress*, Delson Group, May 21-23, 2007, pp. 42-47.
- 12 “A QoS Comparison of 4G First-come-First-Serve Load Sharing Algorithms involving Speech and Packet Data”, David Taylor-Fuller, Susan J Lincke, *Proc. IEEE Electro-Information Technology Conf.*, May 18-20, 2007, pp. 278-283.

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- 13 "Configuring a Lab to Support Community-Based Security Audit Projects", Andrew Holland, Susan J Lincke, Proc. *IEEE 3rd International Conference on Testbeds and Research Infrastructures for the Development of Networks and Communities (TridentCom)*, May 21-23, 2007, pp. 1-7.
- 14 "A Performance Evaluation of a Distributed QoS Load Sharing Scheme", Susan J Lincke, Proc. *IEEE Wireless Telecommunications Symp.* 2006, April 2006, pp 1-7
- 15 "Creating Interest in Operating Systems via Active Learning", Susan J Lincke, Proc. *IEEE Frontiers in Education Conf.*, 2005, Oct 19-22, 2005, pp. S3C-7-S3C-10.
- 16 "Validation of Network Simulation Models: Gauss-Seidel versus Product Form Models", Susan J Lincke, Proc. *2005 International Symp. on Performance Evaluation of Computer and Telecommunication Systems (SPECTS '05)*, Society for Modeling and Simulation (SCS), vol. 37, no. 3, 2005, pp. 948-956.
- 17 "Wireless Load Sharing with Heterogeneous Services and Adaptive Placement", Susan J Lincke, Proc. *IEEE Wireless Telecommunications Symp.* 2005, April 28-30, 2005, pp. 79-84
- 18 "A Comparison of Analytic and Simulation Models for Wireless Load Sharing", Susan J Lincke, Proc. *of the Applied Telecommunications Symp.*, Society for Modeling and Simulation (SCS), April 2005.
- 19 "Optimizing Adaptive Placement for Wireless Load Distribution", Susan Lincke-Salecker, Proc. *of the International Conf. on Wireless Networks*, June 2004, Las Vegas NV, vol. 2, World Academy of Science, pp. 611-616.
- 20 "Modeling with Diverse Job Sizes: Gauss-Seidel versus Multidimensional Markov Chain", Susan Lincke-Salecker, Jeff Burton, Proc. *International Conf. on Wireless Networks*, June 2004, Las Vegas, NV, vol. 2, World Academy of Science, pp. 477-482.
- 21 "Performance & Service Issues in Selecting Adaptive Placement as a Load Distribution Technique", Susan Lincke-Salecker, Proc. *of the IEEE 59th Vehicular Technology Conf. (Spring)*, May, 2004, Milano, Italy, vol. 4, pp. 2057-2061.
- 22 "The Benefits of Load Sharing when Dimensioning Networks", Susan Lincke-Salecker, Proc. *of the 37th Annual Simulation Symp.*, IEEE, April 2004, Arlington VA, pp. 115-124.
- 23 "Engineering for Increased Survivability in Wireless Networks", Susan Lincke-Salecker, Cynthia S Hood, Proc. *World Wireless Congress*, May 2004, pp. 241-246.
- 24 "A Comparison of Various Substitute Techniques in an Integrated Heterogeneous Network", Susan Lincke-Salecker, Cynthia S Hood, Proc. *3rd IASTED International Conf. on Wireless Optical Communications*, July 14-16, Banff, Canada, 2003, pp. 212-217, .
- 25 "The Effect of Integrating Networks on Resource Utilization and Wideband Data", Susan Lincke-Salecker, Cynthia S Hood, Proc. *3rd IASTED International Conf. On Wireless Optical Communications*, July 14-16, Banff, Canada, 2003, pp. 423-418.
- 26 "Load Shared Integrated Networks", Susan Lincke-Salecker, Proc. *Fifth European Personal Mobile Communications Conf. (EPMCC 2003)*, Conf. Publ. No. 492, April 22-25, Edinburgh, Scotland, 2003, pp. 225-229.
- 27 "A Supernet: Engineering Traffic Across Network Boundaries", Susan Lincke-Salecker, Cynthia S Hood, Proc. *of the 36th Annual Simulation Symp.*, 2003, IEEE, March 30- April 2, 2003, pp. 117-124.
- 28 "A Case for Integrating Networks: Improved QoS for Multimedia Data" Susan Lincke-Salecker, Cynthia S Hood, Proc. *of the IASTED International Conf. on Communication, Internet, and Information Technology 2002*, pp. 257-262.
- 29 "An Introduction to Service Balancing" Susan Lincke-Salecker, Cynthia S Hood, Proc. *of the IASTED International Conf. on Communication, Internet, and Information Technology 2002*, pp. 89-93.
- 30 "Packet Data Capacity in an Integrated Network", Susan Lincke-Salecker, Cynthia S Hood, Proc. *of the IEEE 54th Vehicular Technology Conf., Fall 2001 (VTC-Fall)*, Oct. 8-10, 2001, Vol. 3, pp. 1870-1874.
- 31 "Sharing Resources for Heterogeneous Circuit-Switched Services on a Cellular Network", Susan Lincke-Salecker, Proc. *of the 17th International Conf. on Advanced Science and Technology, ICAST 200*, Oct. 6, 2001, Mid-America Chinese American Professionals Association, Chicago USA, pp. 148-153.
- 32 "Call Placement Algorithm Evaluation for Integrated Networks that Overflow Speech or Data", Susan Lincke-Salecker, Cynthia S Hood, Proc. *IEEE 53rd Vehicular Technology Conf (VTC)*, Spring 200, May 6-9, 2001, Vol. 2, pp. 936-940.

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- 33 "Traffic Analysis of a Diverse Network that Overflows Dual Mode Phones" Susan Lincke Salecker, Cynthia S Hood, *Proc. of the 2000 IEEE Wireless Communications and Networking Conf. (WCNC)*, Vol. 2, pp. 824-828.

OTHER BUSINESS-ORIENTED OR NON-REFEREED PUBLICATIONS:

- ◆ "Engineering Diverse Services on Heterogeneous Cellular Networks", Susan Lincke-Salecker, *Annual Review of Communications Volume 54*, International Engineering Consortium (IEC), Chicago IL, 2001, pp. 653-660.
- ◆ "A Case for Engineering Traffic Across Network Boundaries", Susan Lincke-Salecker, *Annual Review of Communications, Volume 56*, International Engineering Consortium (IEC), Chicago IL, 2003, pp. 1045-1052.
- ◆ "Work In Progress - Motivating Students for Software Engineering", Susan J Lincke, *Proc. IEEE Frontiers in Education Conf.*, 2005, Oct 19-22, 2005, pp. T3G-1-2.

OTHER POSTERS:

- ◆ "Information Security: Audit, Case Study, and Service Learning", S J Lincke, Indiana Women in Computing (INWIC), Feb. 10, 2012.
- ◆ "Information Security: Audit, Case Study, and Service Learning", S J Lincke, NSF CCLI-TUES Principal Investigator (PI) Conference, Jan. 27, 2011
- ◆ "Information Security: Audit, Case Study, and Service Learning", S J Lincke, The 41st Technical Symposium on Computer Science Education (SIGCSE 2010), March 10-13, 2010
- ◆ "Information Security: HIPAA Case Study and Security Workbook" S J Lincke, SIGCSE 2010 NSF Showcase, March 10-13, 2010
- ◆ "A Network Security Audit of Schools", R Kumar, V Tiwari, S J Lincke, Midwest Regional SENCER Conference, Feb. 9, 2007
- ◆ "Advantages of Seamless Mobility from the Operational Perspective", S J Lincke, Wireless Telecommunications Symposium, April 27-29, 2006.
- ◆ "Service Balancing of Wireless Networks", S Lincke-Salecker, Grace Hopper Celebration of Women in Computing, Oct. 6, 2004.

GRANTS

- ◆ National Science Foundation (NSF) CCLI Grant: Information Security: Audit, Case Study, and Service Learning, 2009-2013 \$150,000.
- ◆ University of Wisconsin-Parkside Assessment Grant, 2011 \$800.
- ◆ University of Wisconsin-Parkside WiscAMP courtesy of Dr. Michelle Gee: Stipends paid to two student researchers. 2006-2007.
- ◆ University of Wisconsin-Parkside Community Based Learning Grant, 2005 \$180.
- ◆ University of Wisconsin-Parkside Provost Award, 2004. \$4700.
- ◆ University of Wisconsin-Parkside CRCA and FASPOF Awards 2003-2008.

AWARDS

2008 – Certified Information Systems Auditor (CISA)
2006 – Senior Member, IEEE
2002 – Certificate of High Academic Achievement, Illinois Institute of Technology
1984 - Excellence in Service, MCI (Awarded to 1-2% of employees annually)
1982 - Management Award, GEISCO

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PROFESSIONAL SERVICE

PROGRAM & REVIEW COMMITTEES:

- ◆ Grant Review Panel Member: National Science Foundation NTS, 2004, CCLI 2008, 2009, 2010.
- ◆ Technical Program Committee: IEEE International Conf. on Advanced Information Networking and Applications (AINA), IEEE. 2007-2008.
- ◆ Program Committee: Society for Modeling and Simulation (SCS) Annual Simulation Symposium, ACM. 2005-2012
- ◆ Program Committee: World Congress on Computer Science and Information Engineering (**CSIE**), World Research Institute, 2008.
- ◆ Review or Technical Program Committee: Society for Modeling and Simulation (SCS) Communications and Network Simulation Symposium (CNS), ACM. 2004-2011
 - ◆ Best Paper Award Chair 2007-2010
 - ◆ Co-Chair Network Security and Management 2004.
- ◆ Program Committee: INSTICC International Conf. on Wireless Information Systems and Networks (WINSYS), part of International Joint Conf on E-Business and Telecommunications (ICETE) 2007-2008.
- ◆ Technical Program Committee: Workshop on Performance of Wireless Networks and Communication Systems (WiNCS), part of SPECTS, 2006.
- ◆ Book Reviewer: Managing Software Projects, Addison Wesley, 2007
- ◆ Reviewer: Journal of Systems and Software, Elsevier B.V., 2005-2007.
- ◆ Technical Committee: IASTED International Conf. on Information and Knowledge Sharing (IKS) 2003-2004
- ◆ Chapter Reviewer: Electronic Attacks (Chapter) Handbook of Information Security, Wiley Publishing, 2004
- ◆ Grant Reviewer: Engaged Department Grant for Engineering, Mathematics, Computer Science and Related Fields, Minnesota Campus Compact, 2005.

This list does not include reviews for journals and conferences for which I was asked to review papers, but was not officially on the review or Program Committee.

PROFESSIONAL TALKS:

These are talks given outside of the University I was employed by:

- ◆ Academy of Business Research Spring Conference: “The Small Business Security Workbook”, March 16, 2012.
- ◆ ForenSecure’12: “Secure Software Design with UML”, April 19-20, 2012.
- ◆ UW System 2011 President’s Summit, Panel: “Community-Based Learning in IT/IS”, April 14-15, 2011.
- ◆ NetSecure’11: “Small Business Security Workbook”, S Lincke, March 24, 2011.
- ◆ WORLDCOMP’10, Tutorial: “A Top-Down Approach to Security Planning”, S Lincke, July 14, 2010, 6-9:30 PM.
- ◆ NetSecure’10, Tutorial: “Small Business Security Workbook”, S Lincke, March 4, 2010, 8:45-9:45.
- ◆ UW System 2010 President’s Summit, “Information Security Planning: HIPAA Case Study and Service Learning”, S Lincke, April 30, 2010.
- ◆ EPICS Conference: “Is Service Learning Compatible with Research?” S. Lincke, May 2008.
- ◆ EPICS Conference: “Reflection: To Journal or not to Journal: That is the Question”, S. Lincke, May, 2008
- ◆ IEEE Electro-Information Technology Conference, Tutorial: “Information Systems Security: The Cyber-Security of Business and Business Aspects of Cyber-Security”, May 18, 2007.
- ◆ Society for Modeling and Simulation (SCS) Communications & Networking Simulation (CNS) Symposium Tutorial: “Applying Network Security: Problems and Solutions”, March 27, 2007.

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- ◆ Opening Workshop for New UW System STEM Educators, “Community-Based Learning”, Nov 2-3, 2006 & 2007 (Planned).
- ◆ Information Assurance and Cyber-Security Workshop, University of Wisconsin-Stout, Aug. 24, 2006.
- ◆ Campus Compact’s Engaged Department Institute for Engineering, Computer Science, Mathematics, Manufacturing & Related Fields, Facilitator, April 7-8, 2005.
- ◆ UWS Women and Science Program Spring Retreat, “Real (Wo)Men do Real Projects”, May 19-20 2005.