

OFFICE INFORMATION

Professor Emeritus of Computer Science
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HOME INFORMATION

313 Country Ridge Road
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PERSONAL

Citizenship: USA
Birthplace: Miami, Florida
Married with two adult children

RESEARCH INTERESTS

Software Engineering
Executable Specification Languages
Web Based Software Tools
Data Engineering

Prototyping Software Systems
Computer Languages
Cybersecurity
Distributed Computing

PROFESSIONAL EXPERIENCE

Dashing W Farm, Opelousas, Louisiana
Co-Founder and Co-Owner, 2015-present

Texas Tech University, Lubbock, Texas
Professor of Computer Science (tenured), 2008-2010, Chair, 2008-2010
Industrial Engineering (tenured), Software Engineering Program
Coordinator, 2011-2015

National Science Foundation, Arlington, Virginia
Program Director on an Intergovernmental Personnel Act mobility
assignment, Division of Computing & Communication Foundations,
Directorate for Computer & Information Science & Engineering, 2006-
2008
Deputy Division Director, Division of Computer and Network Systems,
Directorate for Computer & Information Science & Engineering, 2011-
2012

Arizona State University, Tempe, Arizona
Professor of Computer Science (tenured), 1989-2008, (emeritus) 2008-
present

Associate Chair for Research and Graduate Programs, 1995-1997
Department of Computer Science and Engineering
On sabbatical leave during the Spring 1998 semester collaborating with
Daniel E. Cooke at the University of Texas at El Paso and with
Wojciech Cellary at the Poznan University of Economics, Poland
to conduct research on web-based software development
Director of the Inclusive Learning Communities Program for the Ira A
Fulton School of Engineering (formerly known as the College of
Engineering and Applied Sciences), 1998-2004

University of Miami, Coral Gables, Florida
Professor of Computer Science (tenured), 1987-1989
Chairman, 1987-1988
Department of Electrical and Computer Engineering
Associate Dean for Research, 1988-1989
College of Engineering

University of Louisiana at Lafayette, Louisiana (formerly known as the
University of Southwestern Louisiana)
Assistant Professor of Computer Science, 1981-1983
Computer Science Department
Associate Professor of Computer Science (tenured), 1983-1987
Center for Advanced Computer Studies

University of South Carolina, Columbia, South Carolina
Part-time Lecturer, 1978-1980
Department of Computer Science

U.S. Army Signal Center, Fort Gordon, Georgia
Computer Science Special Projects Officer, 1978-1980

EDUCATION

Ph.D., University of Louisiana at Lafayette, Computer Science, 1977.

M.S., The University of Iowa, Computer Science, 1975.

B.S., Florida Institute of Technology, Computer Science, 1973.

PROFESSIONAL DEVELOPMENT

Equine Experiential Education Association (E3A), E3 Corporate Training
Certification, May 25, 2013, certified as an E3A Certified Advanced Practitioner
(Corporate Specialty).

U.S. Office of Personnel Management, Federal Executive Institute, Leadership for a Democratic Society Program, Charlottesville, Virginia, October 23 – November 18, 2011.

HONORS AND AWARDS

National Science Foundation, Director's Award for Collaborative Integration presented to the Extended Cyber-enabled Discovery and Innovation Working Group, 2008.

St. Andrew the Apostle Catholic Faith Community Bob Galpin Service Award, 2008.

Arizona Wakonse Fellow, 2002.

IEEE Third Millennium Medal, 2000.

IEEE Computer Society Golden Core Member, 1996.

Student Teacher Alumni Association of the Center for Advanced Computer Studies Outstanding Service Award, University of Louisiana at Lafayette, 1995.

IEEE Computer Society Distinguished Service Award, 1987.

Distinguished Professor Award, University of Louisiana at Lafayette, 1987.

IEEE Computer Society Meritorious Service Award, 1985.

Army Commendation Medal, 1980.

Outstanding Young Men of America, 1979.

Association for Computing Machinery Doctoral Forum, Outstanding Computer Science Ph.D. Thesis Award presented at the National Computer Conference (NCC '78), 1978.

Who's Who Among Students in American Universities and Colleges, 1972-1973.

PRIMARY PROFESSIONAL ACTIVITIES

Editorial Board Member, International Journal of Software Engineering, ACTA Press, 2012-2015.

Co-Chair, IEEE Computer Society 60th Anniversary Award Committee, 2006.

IEEE Computer Society Technical Activities Board Liaison Member to IEEE Computer Society Education Activities Board, 2006.

Member, Mississippi State University James Worth Bagley College of Engineering Advisory Board and Department of Computer Science and Engineering Advisory Board, 2002-2010.

Chairman, IEEE Computer Society Computer Languages Technical Committee, 2002-2011.

Secretary, International Federation for Information Processing Technical Committee 2 - Software: Theory and Practice, 2001-2003.

Chair, IEEE Computer Society Computer Entrepreneur Award Committee, 2000-2006.

IEEE Computer Society Representative to the International Federation for Information Processing Technical Committee 2 - Software: Theory and Practice, 2000-2011.

Program Evaluator, starting with Computing Science Accreditation Board through CAC of ABET, 2000-present.

Chair, IEEE Annals of the History of Computing Editor-in-Chief Search Committee, 1999.

Vice-Chair for Conference Publications, IEEE Computer Society Press Activities Board, 1998.

Faculty Advisor, IEEE Computer Society Arizona State University Student Chapter, 1997-2008.

Member, IEEE Computer Society Distinguished Visitor's Program, 1982-1985 and 1996-1999.

International Journal of Software Engineering & Knowledge Engineering Editorial Board Member, 1993-2011.

Chairman, IEEE Computer Society Distributed Processing Technical Committee, 1994-1997.

IEEE Division V Representative, IEEE Technical Activities Board Awards and Recognition Committee, 1992-1993.

Board elected member of the IEEE Computer Society Board of Governors, 1990-1991.

Chairman, IEEE Computer Society Awards Committee, 1990.

Member, IEEE Publications Board and Technical Activities Board Periodicals Committee, 1990.

Elected First Vice-President of the IEEE Computer Society responsible for Conferences and Tutorials, 1989.

Elected Second Vice-President of the IEEE Computer Society responsible for Conferences and Tutorials, 1988.

Twice elected member of the IEEE Computer Society Board of Governors, 1985-1986, 1987-1988.

IEEE Computer Society Treasurer and Finance Committee Chairman, 1986-1987.

IEEE Transactions on Software Engineering Editorial Board Member, 1984-1988.

IEEE Expert Editorial Board Member, 1986-1987.

Chairman, IEEE Computer Society Video Tutorials Program, 1985.

Chairman, IEEE Computer Society Publications Planning Committee, 1984-1985.

Chairman and Founder, IEEE Computer Society Computer Languages Technical Committee, 1982-1984.

Chairman, IEEE Computer Society Chapters Tutorial Program, 1982-1984.

Tutorial presentations on Ada, Higher Order Software, and Software Engineering to industry research groups, government organizations, and ACM / IEEE Computer Society sponsored tutorial weeks.

Member, Air Force Studies Board of the National Academy of Sciences / National Research Council, 1986-1988.

Member, Committee on Methods for Improving Software Quality and Life Cycle Cost, Air Force Studies Board, 1983.

Member, Committee on Advanced Robotics for Air Force Operations, Air Force Studies Board, 1988.

Member, Committee on Adapting Software to Modern Technology, Air Force Studies Board, 1988.

Director and Founder, Software Engineering Project, University of Louisiana at Lafayette 1981-1987; University of Miami, 1987-1989; Arizona State University - SPEAR, 1989-2008; Texas Tech University – SPEAR, 2008–present.

Major Conference Activities

General Co-Chairman, 2006 Symposium on Applications and the INternet (SAINT-2006), Phoenix, Arizona, January 23-27, 2006.

International Liaison Co-Chair, Twenty-Fifth International Conference on Distributed Computing Systems, Columbus, Ohio, June 6-9, 2005.

International Liaison Co-Chair, 2005 Symposium on Applications and the INternet (SAINT-2005), Trento, Italy, January 31 – February 4, 2005.

Program Vice-Chair, Tenth International Conference on Parallel and Distributed Systems (ICPADS 2004), Newport Beach, California, July 7-9, 2004.

General Co-Chairman, 2002 Symposium on Applications and the INternet (SAINT-2002), Nara City, Nara, Japan, January 28-February 1, 2002.

Co-Treasurer, 2001 Symposium on Applications and the INternet (SAINT-2001), San Diego, California, January 8-12, 2001.

Workshop Co-Chair, Software Engineering in the Internet Workshop, held in conjunction with SAINT-2001, January 2001.

Program Co-Chairman, Twelfth (2000) International Conference on Software Engineering and Knowledge Engineering, Chicago, Illinois, July 6-8, 2000.

Program Co-Chairman for the First International Workshop on Distributed Computing, Communication, and Applications, Islamabad, Pakistan, May 8-10, 2000.

Steering Committee Chairman, IEEE Computer Society International Conference on Data Engineering, 1996-1998.

Program Co-Chairman, Eighth International Conference on Software Engineering and Knowledge Engineering (SEKE'96), June 10-12, 1996, Lake Tahoe, Nevada.

Program Chairman, IEEE Computer Society International Symposium on Autonomous Decentralized Systems (ISADS 95), April 25-27, 1995, Mesa, Arizona.

General Co-Chairman, IEEE Computer Society Fourteenth International Conference on Distributed Computing Systems, June 21-24, 1994, Poznan, Poland.

Program Chairman, ACM 1994 Symposium on Applied Computing (SAC'94), March 6-8, 1994, Phoenix, Arizona.

Program Chairman, IEEE Computer Society Seventeenth Annual International Computer Software & Applications Conference (COMPSAC'93), November 1-5, 1993, Mesa, Arizona.

Treasurer, IEEE Computer Society 1993 International Conference on Network Protocols (ICNP-93), October 19-22, 1993, San Francisco, California.

Awards Chairman, IEEE Computer Society Thirteenth International Conference on Distributed Computing Systems, May 25-28, 1993, Pittsburgh, Pennsylvania.

Track Chairman for Software Methodologies, CASE Tools, and Management, IEEE Computer Society Sixteenth Annual International Computer Software & Applications Conference (COMPSAC'92), September 21-25, 1992, Chicago, Illinois.

Steering Committee Co-Chairman, Workshop on Research Issues in Data Engineering (RIDE), 1991-2005.

Program Co-Chairman, IEEE Computer Society Twelfth International Conference on Distributed Computing Systems, June 9-12, 1992, Yokohama, Japan.

General Co-Chairman, Eleventh IEEE International Phoenix Conference on Computers and Communications, April 1-3, 1992, Scottsdale, Arizona.

Program Committee Vice Chair for Languages, Tools, and Software Engineering, IEEE Computer Society Eleventh International Conference on Distributed Computing Systems, May 20-24, 1991, Arlington, Texas.

Vice Co-Chairman, Tenth IEEE International Phoenix Conference on Computers and Communications, March 27-30, 1991, Scottsdale, Arizona.

Program Committee Vice Chair for Computer Languages, The First International Conference on Systems Integration, April 23-26, 1990, Morristown, New Jersey.

General Chairman, IEEE Computer Society Sixth International Conference on Data Engineering, February 5-9, 1990, Los Angeles, California.

General Chairman, IEEE Computer Society / ACM 1988 International Symposium on Databases in Parallel and Distributed Systems, December 5-7, 1988, Austin, Texas.

General Chairman, IEEE Computer Society 1986 International Conference on Computer Languages, October 27-30, 1986, Miami Beach, Florida.

General Chairman, IEEE Computer Society 1984 Ada Applications and Environments Conference, October 15-18, 1984, St. Paul, Minnesota.

General Chairman, IEEE Computer Society 1984 International Symposium on Logic Programming, February 6-9, 1984, Atlantic City, New Jersey.

Steering Committee Chairman, IEEE Computer Society International Conference on Computer Languages, 1986-1998.

Co-Program Chairman for IEEE Computer Society Second, Third, and Fourth International Conference on Data Engineering, 1986, 1987, and 1988.

PRINCIPAL PUBLICATIONS

Refereed Conference Publications

103. Nina Sakhnini, Venkata N. Inukollu, and Joseph E. Urban, "Automatic Parallel Programming Using the Descartes Specification Language, Proceedings of the 7th International Conference on Information and Communication Systems (ICICS), Irbid, Jordan, April 5-7, 2016.
102. Vinitha Hannah, Subburaj and Joseph E. Urban, "An Agent Based Formal Specification Language Processor," *Proceedings of the Third International Conference on Informatics Engineering & Information Science (ICIEIS2014)*, Lodz, Poland, September 22-24, 2014.
101. Sailaja Arsi, Venkata N. Inukollu, and Joseph E. Urban, "Issues and Challenges of Secure Policy Specification Languages," *Proceedings of the Third International Conference on Informatics Engineering & Information Science (ICIEIS2014)*, Lodz, Poland, September 22-24, 2014, pp. 171-180.
100. Emilie Fetherston, Mohan Sridharan, Susan D. Urban, and Joseph E. Urban, "DOROTHY: Enhancing Bidirectional Communication between a 3D Programming Interface and Mobile Robots," *Proceedings of the Fifth Symposium on Educational Advances in Artificial Intelligence (EAAI-14)*, Quebec City, Quebec, Canada, July 28-29, 2014.
99. Vinitha Hannah Subburaj and Joseph E. Urban, "A Formal Specification Language for Modeling Agent Systems," *Proceedings of the Second*

- International Conference on Informatics & Applications (ICIA2013)*, Lodz, Poland, September 23-25, 2013.
98. David South, Austin Ray, Kevin Thomas, Stephanie Graham, Shiloh Huff, Sarah Rainge, Mary Shuman, Sabyne Peeler, Mohan Sridharan, Susan D. Urban, and Joseph E. Urban, "DOROTHY: Integrating Graphical Programming With Robotics to Stimulate Interest in Computing Careers," *Proceedings of the 2013 Alice Symposium*, Durham, North Carolina, June 19, 2013.
 97. Joseph E. Urban, Praneet K. Rattan, Vinitha Hannah Subburaj, and Austin E. Carver, "Conversion of Executable Descartes Specifications into Program Code," *Proceedings of the 16th IASTED International Conference on Software Engineering and Applications (SEA 2012)*, Las Vegas, Nevada, November 12-14, 2012.
 96. Benjamin D. Horne, Vinitha Hannah Subburaj, and Joseph E. Urban, "Extensions to the Descartes Specification Language for the Development of Real-Time Object Oriented Systems," *Proceedings of the International Conference on Computing, Networking and Digital Technologies (ICCNDDT)*, Sanad, Bahrain, November 11-13, 2012.
 95. Vinitha Hannah Subburaj, Joseph E. Urban, and Manan R. Shah, "Specification of Safety Critical Systems With Intelligent Software Agent Method," *Proceedings of the 24th International Conference on Software Engineering and Knowledge Engineering (SEKE 2012)*, Redwood City, San Francisco Bay, California, July 1-3, 2012.
 94. Susan Darling Urban, Joseph E. Urban, Susan A. Mengel, William M. Marcy P.E., and Patrick E. Patterson, "The Software and Systems Engineering Masters Program at Texas Tech University: A Computer Science and Industrial Engineering Collaborative Effort," *Proceedings of the 119th ASEE Annual Conference and Exposition*, San Antonio, Texas, June 10-13, 2012.
 93. Joseph E. Urban, Vinitha Hannah Subburaj, and Lavanya Ramamoorthy, "Extending the Descartes Specification Language Towards Process Modeling," *Proceedings of the 2011 Federated Conference on Computer Science and Information Systems (FedCSIS) – International Workshop on Advances in Business ICT (ABICT'11)*, Szczecin, Poland, September 18-21, 2011, pp. 337-340.
 92. Massood Towhidnejad, Thomas B. Hilburn, Joseph E. Urban, Gregory W. Hislop, and Richard Stansbury, "Using Vertically Integrated Project Teams to Inspire Student Interest in Computing Careers," *Proceedings of the 118th ASEE Annual Conference and Exposition*, Vancouver, British Columbia, Canada, June 26-29, 2011, 9 pp.

91. Sufyan T. Faraj Al-Janabi and Joseph E. Urban, "Strategic Plan for Enhancing Higher Education Computing Degree Programs in Iraq," *Proceedings of the IEEE Global Engineering Education Conference 2011 (EDUCON 2011) – Learning Environments and Ecosystems in Engineering Education*, Amman, Jordan, April 4-6, 2011, pp. 94-100.
90. Vinitha Hannah Subburaj and Joseph E. Urban, "Intelligent Agent Software Development Using AUML and the Descartes Specification Language," *Proceedings of the 2nd IEEE International Workshop on Object / component/service-oriented Real-time Networked Ultra-dependable Systems (WORNUS 2011)*, Newport Beach, California, March 28, 2011, pp. 297-305.
89. Amir A. Khwaja and Joseph E. Urban, "Agile and Incremental Development Methods for Real-Time Software Systems," *Proceedings of the 2010 International Conference on Embedded Systems and Applications*, Las Vegas, Nevada, July 12-15, 2010.
88. Amir A. Khwaja and Joseph E. Urban, "Experience with an eCos RTOS Based Compiler for the RealSpec Real-Time Specification Language," *Proceedings of the 2010 International Conference on Embedded Systems and Applications*, Las Vegas, Nevada, July 12-15, 2010.
87. Vinitha Hannah Subburaj and Joseph E. Urban, "Intelligent Software Agent Design Issues with Extensions to the Descartes Specification Language," *Proceedings of the 22nd International Conference on Software Engineering & Knowledge Engineering*, San Francisco Bay, California, July 1-3, 2010.
86. Amir A. Khwaja and Joseph E. Urban, "Intertwining Implementation with the RealSpec Executable Real-Time Specification Language," *Proceedings of the 22nd International Conference on Software Engineering & Knowledge Engineering*, San Francisco Bay, California, July 1-3, 2010.
85. Mark Guzdial, Jane Prey, Lucy Sanders, Heikki Topi, and Joseph Urban, "Report on the Future of Computing Education Summit," *Proceedings of the 41st ACM Technical Symposium on Computer Science Education*, Milwaukee, Wisconsin, and in *ACM SIGCSE Bulletin*, Volume 42, Issue 1, March 10-13, 2010, pp. 259-260.
84. Amir A. Khwaja and Joseph E. Urban, "Preciseness for Predictability with the RealSpec Real-Time Executable Specification Language," *Proceedings of the 2010 IEEE Aerospace Conference*, Big Sky, Montana, March 6-13, 2010.
83. Vinitha Hannah Subburaj and Joseph E. Urban, "Issues and Challenges in Building a Framework for Reactive Agent Systems," *Proceedings of the Third International Workshop on Frontiers in Complex Intelligent and Software Intensive Systems (FCISIS-2010)*, Krakow, Poland, February 15-18, 2010.

82. Joseph E. Urban, Jesse M. Heines, Edward A. Fox, and Harriet G. Taylor, "Panel on Revitalized Undergraduate Computing Education," *Proceedings of the 40th ACM Technical Symposium on Computer Science Education*, Chattanooga, Tennessee and in *ACM SIGCSE Bulletin*, Volume 41, Issue 1, March 4-7, 2009, pp. 69-70.
81. Amir A. Khwaja and Joseph E. Urban, "RealSpec: An Executable Specification Language for Modeling Control Systems," *Proceedings of the 12th IEEE International Symposium on Object/Component/Service-Oriented Real-Time Distributed Computing (ISORC 2009)*, Tokyo, Japan, March 17-20, 2009, pp. 219-227.
80. Amir A. Khwaja and Joseph E. Urban, "Timing, Precedence, and Resource Constraints in the RealSpec Real-Time Specification Language," *Proceedings of the 2008 IASTED International Conference on Software Engineering and Applications*, Orlando, Florida, November 16-18, 2008, pp. 192-198.
79. Amir A. Khwaja and Joseph E. Urban, "RealSpec: An Executable Specification Language for Modeling Resources," *Proceedings of the 20th International Conference on Software Engineering and Knowledge Engineering (SEKE 2008)*, Redwood City, San Francisco Bay, California, July 1-3, 2008, pp. 97-102.
78. Amir A. Khwaja and Joseph E. Urban, "RealSpec: An Executable Specification Language for Prototyping Concurrent Systems," *Proceedings of the 19th IEEE/IFIP International Symposium on Rapid System Prototyping (RSP 2008)*, Monterey, California, June 2-5, 2008, pp. 3-9.
77. Amir A. Khwaja and Joseph E. Urban, "The State of Executable Specification Languages and the Need for Advancements," *Proceedings of the 2008 11th IEEE Symposium on Object Oriented Real-Time Distributed Computing (ISORC 2008)*, Orlando, Florida, May 5-7, 2008, pp. 577-583.
76. Michael A. Medina and Joseph E. Urban, "An Approach to Deriving Reactive Agent Designs from Extensions to the Descartes Specification Language," *Proceedings of the 8th International Symposium on Autonomous Decentralized Systems (ISADS 2007)*, Sedona, Arizona, March 21-23, 2007, pp. 363-367.
75. Amir A. Khwaja and Joseph E. Urban, "Comparison of Real-Time Specification Techniques Using a Real-Time Features Based Framework," *Proceedings of the 10th IASTED International Conference on Software Engineering and Applications (SEA 2006)*, Dallas, Texas, November 13-15, 2006, pp. 509-516.

74. Joseph Urban, Mary Anderson-Rowland, Faye Navabi, Debra Banks, "Evaluating Self-Assessment and a Placement Examination for a First Course in Computer Science: How Do Women and Minority Students Fare?," *Proceedings of the 2006 ASEE Annual Conference & Exposition*, Chicago, Illinois, June 18-21, 2006, Session 2006-2423: 1 - 8.
73. Tushar Chandra and Joseph E. Urban, "Software Project Management Through Automated Analysis of Team Status Reports," *Proceedings of the Ninth IASTED International Conference on Software Engineering and Applications (SEA 2005)*, November 14-16, 2005, Phoenix, Arizona.
72. Tushar Chandra, Gitanjali Gunnam, and Joseph E. Urban, "Smart Online Placement Examination," *Proceedings of the IASTED International Conference on Web Technologies (WTAS 2005)*, July 4-6, 2005, Calgary, Alberta, Canada, pp. 204-208.
71. Shriram Sankaran and Joseph E. Urban, "Software Project Driven Analysis and Development of Process Activities Supporting Web Based Software Engineering Tools," *Proceedings of the Seventh International Conference on Enterprise Information Systems*, May 24-28, 2005, Miami, Florida, pp. 478-481.
70. Joseph E. Urban, Mary R. Anderson-Rowland, and Debra L. Banks, "Experience With Autonomous Robots and Wireless Handheld Internet Devices in a Computer Basics Course," *Proceedings of the 2004 American Society for Engineering Education Annual Conference & Exposition*, Salt Lake City, Utah, June 20-23, 2004.
69. James S. Collofello, Joseph E. Urban, Mary Anderson-Rowland, Faye Navabi, Debra L. Banks, and Doris Roman, "COOL (Computer Outreach Opportunities for Learning) Development and Assessment," *Proceedings of the 33rd ASEE/IEEE Frontiers in Education Conference*, Boulder, Colorado, November 5-8, 2003, pp. F2A-1 – F2A-6.
68. James S. Collofello, Joseph E. Urban, Mary R. Anderson-Rowland, Faye Navabi, and Doris Roman, "COOL (Computer Outreach Opportunities for Learning) Project," *Proceedings of the 2003 American Society for Engineering Education Annual Conference & Exposition*, Nashville, Tennessee, June 22-25, 2003.
67. Joseph E. Urban, Maria A. Reyes, and Mary Anderson-Rowland, "Minority Engineering Program Computer Basics With a Vision," *Proceedings of the 32nd ASEE/IEEE Frontiers in Education Conference*, Boston, Massachusetts, November 6-9, 2002, pp. S3C-1 – S3C-5.
66. Mary R. Anderson-Rowland, Joseph E. Urban, Osaro Ighodaro, and Andrea Muchinsky, "Refining a Living and Learning Community for First Year Engineering Students: The ASU Perspective," *Proceedings of 32nd ASEE/IEEE*

- Frontiers in Education Conference*, Boston, Massachusetts, November 6-9, 2002, pp. S2C-5 – S2C-10.
65. Joseph E. Urban and Shriram Sankaran, "Supporting Software Process Tracking Through the Internet," *Proceedings of the 1st International Federation for Information Processing (IFIP) Workshop on Internet Technologies, Applications and Societal Impact*, Wroclaw, Poland, October 10-11, 2002, pp. 243-254.
 64. Chung-Horng Lung, Gerald Mackulak, and Joseph E. Urban, "Software Reuse and Knowledge Transfer through Analogy and Design Patterns," *Proceedings of the International Conference on Software Engineering Research and Practice (SERP)*, Las Vegas, Nevada, June 24-27, 2002, pp. 618-624.
 63. Mary Anderson-Rowland and Joseph E. Urban, "Evaluating Freshman Retention Efforts in Engineering Housing," *Proceedings of the 31st ASEE/IEEE Frontiers in Education Conference*, Reno, Nevada, October 10-13, 2001, pp. T4G-1 – T4G-6.
 62. Mary R. Anderson-Rowland, Joseph E. Urban, and Susan G. Haag, "Including Engineering Students Through Inclusive Learning Communities," *Proceedings of the 30th ASEE/IEEE Frontiers in Education Conference*, Kansas City, Missouri, October 18-21, 2000, pp. F2F-5 – F2F-12.
 61. Mary R. Anderson-Rowland, Susan G. Haag, Joseph E. Urban, and Ellen E. Braun, "Retaining Freshmen Women Through Inclusive Learning Communities," *Proceedings of the Women in Engineering Programs & Advocates Network (WEPAN) 2000 National Conference*, Washington, D.C., June 25-27, 2000, pp. 225-237.
 60. Daniel E. Cooke and Joseph E. Urban, "SequenceL Implies Control Structures," *Proceedings of the Fourth World Congress on Integrated Design & Process Technology (IDPT1999)*, Pine Bay, Kusadasi, Turkey, June 27 - July 2, 1999, which was held in conjunction with the Fifth World Congress in Dallas, Texas, June 4-8, 2000.
 59. Sheikh I. Ahamed, Saqib Ali, David G. Bingham, Anshul Dawra, Loan T. Ha, Trung M. Luong, Donna Martinez, Jennifer Morris, Srihari A. Palangala and Joseph E. Urban, "Software Requirements on the Web," *Proceedings of the Third International Conference on Business Information Systems*, Poznan, Poland, April 12-13, 2000, pp.134-144.
 58. Chia-Chu Chiang and Joseph E. Urban, "Validating Software Specifications Against User Claims," *Proceedings of the Twenty-Third Annual International Computer Software and Applications Conference (COMPSAC'99)*, Phoenix, Arizona, October 27-29, 1999, pp. 113-122.

57. Joseph E. Urban, "Software Engineering on the Web," *Proceedings of the Third International Conference on Business Information Systems*, Poznan, Poland, April 14-16, 1999, pp. 113-122.
56. Joseph E. Urban and Daniel E. Cooke, "Distributed Data Parallelisms: Specified in Descartes and Programmed in SequenceL and JAVA," *Proceedings of Fourth International Workshop on Object-oriented Real-time Dependable Systems (WORDS'99)*, Santa Barbara, California, January 27-29, 1999, pp. 102-109.
55. Daniel E. Cooke, Vladik Kreinovich, and Joseph E. Urban, "A Distributed Version of the SequenceL Language," *Proceedings of the 17th IEEE Symposium on Reliable Distributed Systems*, West Lafayette, Indiana, October 20-22, 1998.
54. Sung-Koo Lee and Joseph E. Urban, "A Summary-based Object-Oriented Reuse Library System (SOORLS) on the Web," *Proceedings of the Tenth International Conference on Software Engineering & Knowledge Engineering (SEKE'98)*, San Francisco, California, June 17-19, 1998, pp. 410-416.
53. Daniel E. Cooke and Joseph E. Urban, "The Application of the SequenceL Language to Complicated Database Applications," invited paper in the *Proceedings of IEEE Workshop on Application-Specific Software Engineering and Technology*, March 27-28, 1998, Dallas, Texas, pp. 166-171.
52. Chia-Chu Chiang and Joseph E. Urban, "Scalable Templates for Specification Reuse," *Proceedings of the Twenty-First Annual International Computer Software and Applications Conference*, Bethesda, Maryland, August 13-15, 1997.
51. Ramkumar Pichai and Joseph E. Urban, "A Technique for Validating Booch Object-Oriented Designs from Extensions to the Descartes Specification Language," *Proceedings of the IEEE High-Assurance Systems Engineering Workshop (HASE'96)*, Niagara-on-the-Lake, Canada, October 21-22, 1996, published in 1997, pp. 40-47.
50. Hankyu Joo and Joseph E. Urban, "Automated Test Data Generation from Descartes Specifications," *Proceedings of the Second World Conference on Integrated Design & Process Technology*, Austin, Texas, December 1-4, 1996, pp. 384-391.
49. Chia-Chu Chiang and Joseph E. Urban, "Incremental Elicitation and Formalization of User Requirements Through Rapid Prototyping via Software Transformations," *Proceedings of the Twentieth Annual International Computer Software & Applications Conference (COMPSAC96)*, Seoul, Korea, August 21-23, 1996, pp. 240-245.
48. Chung-Horng Lung, Joseph E. Urban, and Gerald T. Mackulak, "Incorporation of Relational Modeling Method into Object-Oriented Analysis," *Proceedings of the*

- 1996 IEEE International Conference on Communications - Volume 1 of 3*, Dallas, Texas, June 23-27, 1996, pp. 198-202.
47. Joseph E. Urban and Hankyu Joo, "Executable Specifications for Distributed Software Systems," *Proceedings of the Fifth IEEE Computer Society Workshop on Future Trends of Distributed Computing Systems*, Cheju Island, Korea, August 28-30, 1995, pp. 257-265.
 46. Chung-Horng Lung and Joseph E. Urban, "An Expanded View of Domain Modeling for Software Analogy," *Proceedings of the Nineteenth Annual International Computer Software & Applications Conference*, Dallas, Texas, August 7-11, 1995, pp. 77-82.
 45. Chung-Horng Lung and Joseph E. Urban, "An Approach to the Classification of Domain Models in Support of Analogical Reuse," *Proceedings of the Symposium on Software Reusability (SSR)*, Seattle, WA, April 28-30, 1995, pp. 169-178, which also appeared as a special issue of *ACM SIGSOFT Software Engineering Notes* in August 1995.
 44. Mathew A. Taylor and Joseph E. Urban, "A Method for Evaluating Software Engineering Environments," *Proceedings of the Eighteenth Annual International Computer Software & Applications Conference*, Taipei, Taiwan, November 7-11, 1994, pp. 445-450.
 43. Chia-Chu Chiang and Joseph E. Urban, "Development of the TUG Specification Language to Support Specification Reuse," *Proceedings of the Eighteenth Annual International Computer Software & Applications Conference*, Taipei, Taiwan, November 7-11, 1994, pp. 17-22.
 42. Chung-Horng Lung and Joseph E. Urban, "Position Paper," *Proceedings of the Position Papers for the ARPA Sponsored Domain Modeling Workshop*, George Mason University, September 8-9, 1994, pp. 20-24.
 41. Keum-Young Sung and Joseph E. Urban, "A Real-time Specification Method for Specifying and Validating Real-time Concurrent Systems," *Proceedings of the Twelfth IEEE International Phoenix Conference on Computers and Communications*, Tempe, Arizona, March 24-26, 1993, pp. 578-584.
 40. Jarallah S. Alghamdi and Joseph E. Urban, "Comparing and Assessing Programming Languages: Basis for a Qualitative Methodology," *Proceedings of the 1993 ACM/SIGAPP Symposium on Applied Computing: States of the Art and Practice*, Indianapolis, Indiana, February 14-16, 1993, pp. 222-229.
 39. Chung-Horng Lung and Joseph E. Urban, "Integration of Domain Analysis and Analogical Approach," *Proceedings of the 1993 ACM/SIGAPP Symposium on*

- Applied Computing: States of the Art and Practice*, Indianapolis, Indiana, February 14-16, 1993, pp. 48-53.
38. Amir Ali Khwaja and Joseph E. Urban, "Syntax-directed Editing Environments: Issues and Features," *Proceedings of the 1993 ACM/SIGAPP Symposium on Applied Computing: States of the Art and Practice*, Indianapolis, Indiana, February 14-16, 1993, pp. 230-237.
 37. Manmahesh Kantipudi and Joseph E. Urban, "A Knowledge Based Software Reuse System," *Proceedings of the Computers in Engineering Symposium - Computer Applications and Design Abstraction - ASME 93*, PD-Vol. 49, Houston, Texas, January 31 - February 4, 1993, pp. 25-30.
 36. Chung-Horng Lung, Jeffrey Cochran, Gerald Mackulak, and Joseph E. Urban, "Empirically Analyzing Software Reuse in a Simulation Environment," *Proceedings of the 5th Annual Workshop on Software Reuse (WISR'92)*, Palo Alto, California, October 26-29, 1992.
 35. Karl B. Zerangue and Joseph E. Urban, "A Metalanguage Based on a Theory of Specification," *Proceedings of the Sixteenth Annual International Computer Software and Applications Conference (COMPSAC'92)*, Chicago, Illinois, September 21-25, 1992, pp. 218-223.
 34. Joseph E. Urban, "Industrial Strength Software Engineering Training Programs," *Proceedings of the Sixteenth Annual International Computer Software and Applications Conference (COMPSAC'92)*, Chicago, Illinois, September 21-25, 1992, pp. 155-156.
 33. H. N. Mahabala and Joseph E. Urban, "Multimedia in Software Requirements Engineering," *Proceedings of the Cooperative Research in Computer Sciences Indo US Workshop*, Sponsored by the National Science Foundation (USA) and Departments of Electronics and Science and Technology (Government of India), Bangalore, India, August 4-6, 1992, pp. 182-185.
 32. Amir Ali Khwaja and Joseph E. Urban, "Adaptation and Modification of Nassi-Shneiderman Charts to Represent Descartes Specifications Visually," *Proceedings of the Third International Workshop on Rapid System Prototyping*, Research Triangle Park, North Carolina, June 23-25, 1992, pp. 188-201.
 31. Chung-Horng Lung and Joseph E. Urban, "Analogical Approach for Software Reuse," *Proceedings of the Golden West International Conference on Intelligent Systems*, Reno, Nevada, June 1-3, 1992, pp. 194-200.
 30. Keum-Young Sung and Joseph E. Urban, "Real-time Descartes: a Real-time Specification Language," *Proceedings of the Third Workshop on Future Trends of Distributed Computing Systems*, Taipei, Taiwan, April 14-16, 1992, pp. 79-85.

29. Amir A. Khwaja, Raghu Mannam, and Joseph E. Urban, "Study of a Generic Graphics Package for the Development of Various User Interfaces," *Proceedings of the 1992 ACM/SIGAPP Symposium on Applied Computing - Volume I*, Kansas City Convention Center, Missouri, March 1-3. 1992, pp. 438-443.
28. Karl B. Zerangue and Joseph E. Urban, "The Use of a Software Specification Metalanguage," *Proceedings of the 1992 ACM/SIGAPP Symposium on Applied Computing - Volume II*, Kansas City Convention Center, Missouri, March 1-3. 1992, pp. 896-903.
27. Peraphon Sophatsathit and Joseph E. Urban, "Integrating Software Tool Communication Within an Environment," *Proceedings of the 1992 ACM/SIGAPP Symposium on Applied Computing - Volume II*, Kansas City Convention Center, Missouri, March 1-3. 1992, pp. 1070-1075.
26. Manmahesh Kantipudi and Joseph E. Urban, "Analysis and Experience With an Information System Development Methodology," *Proceedings of the 1992 ACM/SIGAPP Symposium on Applied Computing - Volume II*, Kansas City Convention Center, Missouri, March 1-3. 1992, pp. 1173-1179.
25. Suzanne N. Delcambre and Joseph E. Urban, "Support Tools for Software System Specification: A Technique and Implementation," *Proceedings of The Energy-Sources Technology Conference and Exhibition: Computer Applications and Design Abstraction - 1992*, The American Society of Mechanical Engineers, PD-Vol. 43, Houston, Texas, January 26-30, 1992, pp. 81-86.
24. Karl B. Zerangue and Joseph E. Urban, "A Software Specification Metalanguage for Analyzing Concurrency," *Extended Abstracts for the Current System Development Sessions of the 12th IEEE Real-Time System Symposium*, San Antonio, Texas, December 1991, 3 pp.
23. Patrick O. Bobbie and Joseph E. Urban, "Propositional Logic for Validating Software Object Interrelationships," *Proceedings of the IEEE Computer Society Third International Conference on Tools for Artificial Intelligence (TAI'91)*, San Jose, California, November 1991, pp. 48-55.
22. Patrick O. Bobbie and Joseph E. Urban, "A Method for Integrating Heterogeneous Knowledge-Bases," *Proceedings of the IEEE Computer Society 1st International Workshop on Interoperability of Multidatabase Systems*, Kyoto, Japan, April 1991, pp. 40-45.
21. Patrick O. Bobbie and Joseph E. Urban, "A Knowledge-Driven Methodology for Eliciting and Restructuring Software Requirements for Distributed Design," *Proceedings of the IEEE Computer Society Second International Conference on*

- Tools for Artificial Intelligence (TAI'90)*, Fairfax, Virginia, November 1990, pp. 584-592.
20. Patrick O. Bobbie and Joseph E. Urban, "A Model for Understanding Complexities of Developing Large-Scale Software Systems," *Proceedings of the IEEE International Workshop on Tools for Artificial Intelligence (TAI'89)*, Fairfax, Virginia, October 23-25, 1989, pp. 19-26.
 19. Jose P. Diaz-Gonzalez and Joseph E. Urban, "A Requirements Engineering Environment for Real-Time Systems," *Proceedings of the 22nd Hawaii International Conference on System Sciences*, Kailua-Kona, Hawaii, January 3-6, 1989.
 18. Jose P. Diaz-Gonzalez and Joseph E. Urban, "ENVISAGER: A Visual, Object-Oriented Specification Environment for Real-Time Systems," *Proceedings of the Fourth International Workshop on Software Specification and Design*, Monterey, California, April 3-4, 1987, pp. 13-20.
 17. Jose P. Diaz-Gonzalez, Anne M. Wilson Joseph E. Urban and Elizabeth L. Gensheimer, "Software Quality in an Enhanced Development Environment," *Proceedings of the IEEE International Conference on Communications*, Toronto, Canada, June 21-25, 1986.
 16. Joseph E. Urban and Patrick O. Bobbie, "A Software Engineering Methodology for Distributed Software Development," invited paper, *Proceedings of the First Pacific Computer Communication Symposium*, October 21-25, 1985, Seoul, Korea, pp. 100-110.
 15. Joseph E. Urban, David H. Burlingame, Motasim Najeeb, and Patricia A. Nanartowich, "Automated Technology Transfer Within a Software Engineering Environment," *Proceedings of the Eighteenth Hawaii International Conference on System Sciences*, January 2-4, 1985, Honolulu, Hawaii, pp. 223-231.
 14. Suzanne N. Delcambre, Patricia A. Nanartowich and Joseph E. Urban, "Data Typing Issues for Data Management Systems," *Proceedings of the Eighteenth Hawaii International Conference on System Sciences*, January 2-4, 1985, Honolulu, Hawaii, pp. 258-268.
 13. Lucinda S. Edmonds and Joseph E. Urban, "A Method for Evaluating Front-End Life Cycle Tools," *Proceedings of the First International Conference on Computers and Applications*, Beijing, China, June 20-22, 1984, pp. 324-331.
 12. Alan A. Ross, Joseph E. Urban, and Michael R. Varrieur, "Graduate Computer Science and Engineering Education for the U. S. Army at the Air Force Institute of Technology," invited paper, *Proceedings of the 1982 Conference on Frontiers in Education*, Columbia, South Carolina, October 18-20, 1982, pp. 66-74.

11. Joseph E. Urban, "Technology Transfer of a Software Engineering Environment to Support a Functional Life Cycle," *Proceedings of the International Symposium on Current Issues in Requirements Engineering Environments*, Kyoto, Japan, September 20-21, 1982, pp. 85-91.
10. Joseph E. Urban, "Software Development with Executable Functional Specifications," *Proceedings of the Sixth International Conference on Software Engineering*, Tokyo, Japan, September 13-16, 1982.
9. Joseph E. Urban, "The Applicability of the Ada Programming Language and Environments to the Oil and Gas Industry Software Systems," *Proceedings of the 1982 Canadian Industrial Computer Society Conference*, McMaster University, Hamilton, Ontario, Canada, May 3-5, 1982, pp. 30-1 to 30-8.
8. Joseph E. Urban, Lucinda Edmonds, David Holland, Barry King, Manijeh Moghis, and Hugo Valencia, "An Analysis of Programming Environments," *Proceedings of the 1982 ACM Southeast Regional Conference*, Knoxville, Tennessee, April 1-3, 1982, pp. 182-188.
7. Boumediene Belkhouche, Joseph E. Urban, and Gregory A. Riccardi, "Synthesizing Abstract Data Type Specifications," *Proceedings of the 1982 ACM Southeast Regional Conference*, Knoxville, Tennessee, April 1-3, 1982, pp. 176-181.
6. Joseph E. Urban and Alan A. Ross, "An Interservice Education Effort in Computer Science and Engineering Education," *Proceedings of the National Security Industrial Association Software Group: A National Conference on Software Technology and Management*, Alexandria, Virginia, October 14-16, 1981, pp. N1-N6.
5. Joseph E. Urban and Michael D. Vawter, "Software Requirements Training for Junior Grade Army Officers," *Proceedings of the Computer Related Information System Symposium 1981 (CRISYS-81)*, US Air Force Academy, Colorado Springs, Colorado, January 28-30, 1981, pp. 6-1 to 6-36.
4. Christie D. Michelsen, Wayne D. Dominick, and Joseph E. Urban, "A Methodology for the Objective Evaluation of the User/System Interfaces of the MADAM System Using Software Engineering Principles," *Proceedings of the 18th Annual Southeastern Regional ACM Conference*, Tallahassee, Florida, March 24-26 1980, pp. 103-109.
3. Wayne D. Dominick and Joseph E. Urban, "Techniques for Evaluating Computer-Based Systems for Numerical Data Management," *Proceedings of the Sixth International CODATA Conference*, Santa Flavia, Palermo, Italy, May 22-25, 1978, pp. 371-375.

2. Joseph E. Urban and Edwin Towster, "Specifications of Computer Programs Using Hoare Tree Formalism," *Proceedings of the 15th Annual Southeastern Regional ACM Conference*, Biloxi, Mississippi, April 18-20, 1977, pp. 414-425.
1. Joseph E. Urban and Wayne D. Dominick, "Design and Implementation Considerations for Monitoring and Evaluating Information Systems," *Proceedings of the 15th Annual Southeastern Regional ACM Conference*, Biloxi, Mississippi, April 18-20, 1977, pp. 356-370.

Journal Publications and Guest Editor Issues

26. Benjamin D. Horne, Vinitha Hannah Subburaj, and Joseph E. Urban, "Formal Specification for Real-Time Object Oriented Systems With UML Design," *International Journal of Digital Information and Wireless Communications (IJDWC)*, Volume 2, Number 4, 2012, pp. 53-65.
25. Amir A. Khwaja and Joseph E. Urban, "A Property Based Specification Formalism Classification," *Journal of Systems and Software*, Volume 83, Number 11, November 2010, pp. 2344-2362.
24. Chung-Horng Lung, Joseph E. Urban, Gerald T. Mackulak, "Analogy-Based Domain Analysis Approach to Software Reuse," *Requirements Engineering Journal*, Volume 12, Number 1, January, 2007 (first published online May 2006), pp. 1-22.
23. Amir A. Khwaja and Joseph E. Urban, "A Framework for the Evaluation of Real-Time Specification Techniques," *International Journal of Software Engineering and Knowledge Engineering*, Volume 16, Number 6, 2006, pp. 1-28.
22. Amir A. Khwaja and Joseph E. Urban, "A Synthesis of Evaluation Criteria for Software Specifications and Specification Techniques," *International Journal of Software Engineering and Knowledge Engineering*, Volume 12, Number 5, October 2002, pp. 581-599.
21. Daniel E. Cooke, Vladik Kreinovich, and Joseph E. Urban, "Designing Interdisciplinary Approaches to Problem Solving Into Computer Languages," *Transactions of the Society for Design and Process Science: Journal of Integrated Design and Process Science*, Volume 6, Number 3, September 2002, pp. 29-43.
20. Sung-Koo Lee and Joseph E. Urban, "SOORLS: A Software Reuse Approach on the Web," *International Journal of Software Engineering and Knowledge Engineering*, Volume 9, Number 3, June 1999, pp. 279-296.

19. Daniel E. Cooke, Joseph E. Urban, and Scott Hamilton, "UNIX and Beyond: An Interview with Ken Thompson," *Computer*, Volume 32, Number 5, May 1999, pp. 58-64.
18. Daniel E. Cooke and Joseph E. Urban, "Best Papers From SEKE96," *International Journal of Software Engineering & Knowledge Engineering*, Vol. 8, No. 1, March 1998.
17. Daniel E. Cooke and Joseph E. Urban, "Guest Editorial: Special Issue," *Journal of Systems & Software*, Vol. 42, No. 6, August 1998.
16. Amir A. Khwaja and Joseph E. Urban, "A Visual Syntax-Directed Editor for the Descartes Specification Language," *Software – Practice and Experience*, Vol. 27, No. 6, June 1997, pp. 651-676.
15. Chung-Horng Lung, Jeffery K. Cochran, Gerald T. Mackulak, and Joseph E. Urban, "Computer Simulation Software Reuse by Generic / Specific Domain Modeling Approach," *International Journal of Software Engineering and Knowledge Engineering*, Vol. 4, No. 1, March 1994, pp. 81-102.
14. Yukuh Tung, Amir A. Khwaja, and Joseph E. Urban, "Multiple Views of an Executable Software Specification Language," *Journal of Systems and Software Special Issue on Applying Specification, Verification & Validation Techniques to Industrial Software Systems*, Vol. 21, No. 3, June 1993, pp. 305-319.
13. Joseph E. Urban and Patrick O. Bobbie, "The Impact of Undergraduate Software Engineering Education on Advancing CASE Tools," *International Journal of Software Engineering and Knowledge Engineering*, Vol. 2, No. 2, June 1992, pp. 263-276.
12. Jose P. Diaz-Gonzalez and Joseph E. Urban, "Language Aspects of ENVISAGER: An Object-Oriented Environment for the Specification of Real-Time Systems," *Proceedings of the International Conference on Computer Languages '88*, Miami Beach, Florida, October 9-13, 1988, invited for revision and in *Computer Languages Journal*, Pergamon Press, Vol. 16, No. 1, January 1991, pp. 19-37.
11. Joseph E. Urban, "Guest Editorial: Advances in Software Engineering for Ada Technology," *IEEE Transactions on Software Engineering*, March 1989.
10. Pei Hsia and Joseph E. Urban, "Guest Editorial: Computer Languages," *IEEE Transactions on Software Engineering*, Vol. 14, No. 4, April 1988, pp. 442-443.
9. Jeffrey Mitchell, Joseph E. Urban, and Robert McDonald, "The Effect of Abstract Data Types on Program Development," *Computer*, Vol. 20, No. 8, August 1987, pp. 85-88.

8. Joseph E. Urban, "Guest Editorial: Discovery - Building Intelligence into Software Tools," *IEEE Expert*, Vol. 1, No. 4, Winter 1986, pp. 21.
7. Boumediene Belkhouche and Joseph E. Urban, "Direct Implementation of Abstract Data Types from Abstract Specifications," *IEEE Transactions on Software Engineering*, Vol. SE-12, No. 5, May 1986, pp. 649-661.
6. Joseph E. Urban and David A. Fisher, "Guest Editorial: Ada Environments and Tools," *IEEE Software*, Vol. 2, No. 2, March 1985, pp. 6-7.
5. Boumediene Belkhouche and Joseph E. Urban, "An Executable Specification Language for Abstract Data Types," *Proceedings of the Second Software Engineering Conference*, Nice, France, June 4-6, 1984, pp. 169-177, invited for revision and in *Technique et Science Informatique*, Vol. 3, No. 4, July / August 1984, pp. 247-251.
4. Susan D. Urban, Joseph E. Urban, and Wayne D. Dominick, "Utilizing an Executable Specification Language for an Information System," *Proceedings of the IEEE Computer Society International Computer Data Engineering Conference*, Los Angeles, California, April 24-27, 1984, invited for revision and in *IEEE Transactions on Software Engineering*, Vol. SE-11, No. 7, July 1985, pp. 598-605.
3. Charles E. Oglesby and Joseph E. Urban, "The Human Resources Task Area," *Computer*, Vol. 16, No. 11, November 1983, pp. 65-70.
2. Alan A. Ross and Joseph E. Urban, "Graduate Computer Science and Engineering Education for the US Army at the Air Force Institute of Technology," *IEEE Transactions on Education*, Vol. E-24, No. 2, May 1981, pp. 142-146.
1. Joseph E. Urban, "Applications Programming by Computer Science Students," Letter to the Editor, *Communications of the ACM*, Vol. 18, No. 6, June 1975, pp. 361-362.

Books Chapters

7. Vinitha Hannah Subburaj and Joseph E. Urban, "Formal Specification Language and Agent Applications," *Intelligent Agents in Data-Intensive Computing*, Co-edited by Joanna Kolodziej, Luis Correia, and Jose Manuel Molina, Springer International Publishing AG, Cham, Switzerland, 2016.
6. Vinitha Hannah Subburaj and Joseph E. Urban, "Formal Specification for Agent Oriented Systems," *Encyclopedia of Information Science and Technology*, IGI-Global, Hershey, Pennsylvania, 2014.

5. Dick B. Simmons, William M. Lively, Chris Nelson, and Joseph E. Urban, "Rapid Insertion of Leading Edge Industrial Strength Software into University Classrooms," *Handbook of Research on Open Source Software: Technological, Economic, and Social Perspectives*, Co-edited by Kirk St. Amant and Brian Still, Idea Group Publishing, Hershey, Pennsylvania, 2007.
4. Daniel E. Cooke, Michael Gelfond and Joseph E. Urban, "Computer Language Advances," in *Handbook of Software Engineering and Knowledge Engineering, Volume 1: Fundamentals*, World Scientific Publishing Co., London, 2002, pp. 1-21.
3. Joseph E. Urban and Patrick O. Bobbie, "Software Productivity: Through Undergraduate Software Engineering Education and CASE Tools," in *The Impact of CASE Technology on Software Processes*, Vol. 3, Daniel E. Cooke (Ed.), World Scientific Publishing Co. Pte. Ltd., Singapore, 1994, pp. 327-347.
2. Joseph E. Urban, "The Descartes Specification Language," in *System and Software Requirements Engineering, Tutorial*, Richard H. Thayer and Merlin Dorfman (Eds.), IEEE Computer Society Press, Los Alamitos, California, 1990, pp. 331-344.
1. Joseph E. Urban, "Computer Languages," in *Handbook of Software Engineering*, Charles R. Vick and C. V. Ramamoorthy (Eds.), Van Nostrand Reinhold Company, New York, 1984, pp. 184-200.

Reports and Other Publications

25. Joseph E. Urban and Nian-Feng Tzeng, "Distributed Processing," *Computer*, Vol. 29, No. 6, June 1996, pp. 99.
24. Joseph E. Urban, Hankyu Joo, and Yin-Yu Wu, *Software Reverse Engineering and Reengineering*, Technical Report, Department of Computer Science and Engineering, Arizona State University, November 1995, 52 pp.
23. Joseph E. Urban, *Software Prototyping and Requirements Engineering*, State of the Art Research Report, Prepared for the US Air Force Rome Laboratory through the Data & Analysis Center for Software, June 1992, 137 pp.
22. *An Abstract Data Type Facility in Support of the ENVISAGER Requirements Engineering Environment*, with Naveen Dave, Technical Report, Department of Computer Science and Engineering, Arizona State University, September 1991, 30 pp.
21. Joseph E. Urban, "Computer Society President's Message: Conferences and Tutorials," *Computer*, Vol. 22, No. 8, August 1989, pp. 4.

20. *Quality Improvement in Software Development*, with Adel S. Almohtadi, Violeta E. Iglesias, and Kevin M. Kraus, Final report on Florida Power & Light Quality Improvement Program grant, August 1989, 36 pp.
19. *Development of a Florida Cooperative Center for Software Engineering Research*, with Kevin M. Kraus, Stephen M. Thebaut, Hudson Luce, and Norman G. Wilde, Final report on Florida High Technology & Industry Council (Computer Science & Software Engineering Subcommittee) sponsored grant, August 1989, 21 pp.
18. *Development of a Prototype Visual Specification Environment and Experimental Design of a Human Factors Study for Evaluating the Environment*, with Jose Pedro Diaz-Gonzalez, Farideh A. Samadzadeh, Jeffrey W. Mitchell, Gail Landry, and Monica Pillman, Interim report on Bell-Northern Research sponsored grant, May 1987, 79 pp.
17. Joseph E. Urban, Erin M. Murphy, Anne M. Wilson, Vincent T. Phuah, Sharon A. White, Boumediene Belkhouche, Lisa M. Levy, Albert J. Randazzo, and Theodore Williams, *Advancement of the (*) Specification Language and Support Software*, Final report on Lockheed Software Technology Center sponsored grant, May 1987, 365 pp.
16. *The Requirements Engineering of Real-Time Systems: A Temporal Logic Approach*, with Jose Diaz-Gonzalez, Final report on Bell-Northern Research sponsored grant, March 1987, 71 pp.
15. Joseph E. Urban, Erin M. Murphy, Anne M. Wilson, Vincent T. Phuah, Sharon A. White, Suchai Thanawastien, Boumediene Belkhouche, and Kevin Dankwardt, *Flow Analysis for Ada Technology*, Final report on Lockheed Software Technology Center sponsored grant, March 1987, 115 pp.
14. Joseph E. Urban, Erin M. Murphy, Anne M. Wilson, Vincent T. Phuah, Sharon A. White, Suchai Thanawastien, and Boumediene Belkhouche, *Rationale for the (*) Specification Language*, Final report on Lockheed Software Technology Center sponsored grant, February 1987, 15 pp.
13. Joseph E. Urban, Erin M. Murphy, Chua W. Kwong, Anne M. Wilson, Vincent T. Phuah, Sharon A. White, Suchai Thanawastien, Boumediene Belkhouche, and Dwayne K. Lanclos, *Front-End Software Life Cycle Technique and Tool Research in Support of the Lockheed Ada (TM) Development Environment (ADVENT): Final Report*, Final report on Lockheed Software Technology Center sponsored grant, November 1986, 470 pp.
12. *Analysis of Front-End Software Life Cycle Techniques and Tools: A Final Report*, with Jose P. Diaz, Anne M. Wilson, Chi-Ming Chung, and Matt E. Delcambre, Final report on Bell-Northern Research sponsored grant, January 1986, 130 pp.

11. Joseph E. Urban, *Higher Order Software Methodology and the USE.IT Software Engineering Environment*, Rocky Mountain Institute of Software Engineering, Colorado Springs, CO, July 25, 1985.
10. *Data Type Considerations in Data Base Management Systems with the Higher-Order Software User System Evaluation and Integration Tool*, with Suzanne N. Delcambre and Pat A. Nanartowich, Final report on Higher Order Software sponsored grant, August 1983, 48 pp.
9. Joseph E. Urban, *USE.IT Software Engineering Environment Education in a Variety of Application Areas*, Final report on Higher Order Software sponsored grant, August 1982, 351 pp.
8. Joseph E. Urban, *Introduction to Ada*, Second Edition, IEEE Computer Society Chapter Tutorial, February 1981, 525 pp.
7. *Officer Training in Computer Science*, With Glenn C. Hughes II, Curriculum Description prepared for the US Army Signal Center & Fort Gordon, May 1980, 56 pp.
6. Joseph E. Urban, *Introduction to Software Engineering*, IEEE Computer Society Chapter Tutorial, March 1980, 259 pp.
5. Joseph E. Urban, *Introduction to Ada*, IEEE Computer Society Chapter Tutorial, February 1980, 378 pp.
4. *Evaluation of the Red and Green Designs*, with Gregory R. Andrews, Gerald Fisher, John B. Goodenough, A. Nico Habermann, David Loveman, Isaac R. Nassi, Dewayne E. Perry, and B. L. Wolman, Ada language design review prepared for the Center for Tactical Computer Science, US Army Communications Research and Development Command, April 16, 1979, 33 pp.
3. Wayne D. Dominick and Joseph E. Urban, *Application of a Generalized Evaluation Methodology for Analyzing User Interactions with the MADAM System at the University of Southwestern Louisiana*, Technical Report CMPS 78-6-3, Computer Science Department, University of Louisiana at Lafayette, September 1978, 347 pp.
2. Joseph E. Urban, *A Specification Language and Its Processor*, Ph.D. Thesis, Computer Science Department, University of Louisiana at Lafayette, December 1977, 179 pp.
1. *Preliminary Analysis of MADAM Versions 1 - 5*, with Howard G. Berg, Sharad K. Agarwal, and Wayne D. Dominick, Technical Report CMPS 77-6-3, Computer Science Department, University of Louisiana at Lafayette, May 1977, 116 pp.

Conference Panel Sessions and Keynote / Invited Addresses

“Undergraduate Researchers Roles in Cybersecurity for Critical Infrastructure and Software Engineering,” SIGCSE NSF Showcase presenter, Atlanta, Georgia, March 7, 2014

“Future of Internet Applications,” Served as Panel Session Co-Chairman with Shinji Shimojo and Panelists Stefan Arbanowski, Patrick Bobbie, Wojciech, and Hiroshi Esaki, 2006 Symposium on Applications and the Internet, Phoenix, Arizona, USA, January 23-27, 2006.

“Software Education in the Asia-Pacific Region in the 21st Century,” Selected to serve as panel session chair with Chi Tat Chong, Roland Chin, Yue-Sun Kuo, and Masao Matsumoto, Twentieth Annual International Computer Software & Applications Conference (COMPSAC96), Seoul, Korea, August 21-23, 1996.

“Distributed Development and Maintenance of Software Systems,” Served as Panelist on "Distributed Systems," with Ming T. (Mike) Liu (Chairman), Lionel Ni, and Tony Pizzarello, ACM Computer Science Conference, Kansas City Convention Center, Missouri, March 3-5, 1992.

“Upper CASE Software Engineering,” Invited Address, First International Symposium on New Technologies, ITESM Campus Estado de Mexico, Mexico City, Mexico, September 4-7, 1991.

“Impediments and Support for the Front-End of the Software Life Cycle,” Keynote Luncheon Address, VIASOFT International Partners Conference, Scottsdale, Arizona, September 20, 1990.

“Software Prototyping,” Served as Panelist on “The Interdisciplinary World of Computing in Our Emerging Global Village,” with Kenneth Anderson (Chairman), Paul Hazan, Mohan Trivedi, Edward Parrish, Tencon 89, Bombay, India, November 22-24, 1989.

“Prototyping of Software Systems,” Keynote Address, Workshop on Applied Computing 1989, Stillwater, Oklahoma, March 30-31, 1989.

“Federal Funding Opportunities in Computer Science and Engineering,” Served as Panel Session Chairman with Panelists Jagdish Chandra (ARO), Charles Holland (ONR), Thomas Kitchens (DOE), A. E. Lancaster, Jr. (DARPA), John Thomas (AFOSR), Susan Voigt (NASA), Florida Computer Science and Engineering Faculty Conference, Orlando, Florida, September 11, 1987.

“Role of Ada in Engineering Education,” Served as Panel Session Chairman with Panelists Larry Druffel, K. Izkowski, Larry Latour, and James Leathrum, IEEE

Computer Society Second International Conference on Ada Applications and Environments, Miami Beach, Florida, April 8, 1986.

“DOD STARS Program: Human Resources,” Served as Panelist on “Software Initiatives” session with Alan L. Koop (Chairman), R. Almassy, Lorraine Duvall, and Winston Royce, Federal Computer Conference, Washington, D.C., September 18-20, 1984.

“Ad Hoc Techniques Versus Formalism in Distributed System Design,” Served as Panelist with Raymond Yeh (Chairman), Mack Alford, M. Mayer, and John Mitchell, The Third International Conference on Distributed Computing Systems, Hollywood, Florida, October 18-22, 1982.

“Breadboarding / Prototyping of Software Systems,” Served as Panel Session Chairman with Panelists Carl Davis, C. V. Ramamoorthy, and Saydean Zeldin, 1982 National Computer Conference, Houston, Texas, June 7-10, 1982.

RESEARCH GRANTS AND CONTRACTS

National Science Foundation, “REU Site: Research Experiences for Undergraduates in Cybersecurity, Robotics, and Software Engineering,” Susan D. Urban (PI), Joseph E. Urban (Co-PI), Mohan Sridharan (Co-PI), and Yong Chen (Co-PI), May 2013, \$359,785.

National Science Foundation, “An Innovative Interdisciplinary Cybersecurity Education Program for Protecting Critical Infrastructure,” Joseph E. Urban (PI), Vittal Rao (Co-PI), Susan D. Urban (Co-PI), Sunho Lim (Co-PI), Qing Hui (Co-PI), Brian Nutter (Senior Personnel (SP)), Jordan Berg (SP), Vickie Sutton (SP), Sam Segran (SP), Mary Baker (SP), and Jerry Dwyer (SP), October 2012, \$299,966, in addition, the Interim Dean of the Graduate School provided support for two additional research assistants for one calendar year.

National Science Foundation, “MRI – Development of Real Time Simulator for Smart Grid Systems Integrated with Distributed Renewable Energy Sources,” Vittal Rao (PI), Susan Urban (Co-PI), Qing Hui (Co-PI), Aranya Chakraborty (Co-PI), Stephen Bayne (Co-PI), Michael Giesselmann (Senior Personnel (SP)), Changzhi Li (SP), Bijoy Ghosh (SP), Clyde Martin (SP), Joseph Urban (SP), Michael Shin (SP), Sunho Lim (SP), and Michael Gilbertson (SP), September 2010, institutional cost share \$177,900 and award amount \$415,000.

National Science Foundation, “REU Site: Research Experiences for Undergraduates in Software Engineering and Service Composition,” Joseph E. Urban (PI), Susan D. Urban (Co-PI), and Michael Shin (Senior Personnel), May 2010, \$356,583; NSF CISE/CNS DDD assignment resulted in Susan Urban appointment as substitute PI in 2011.

National Science Foundation, “CPATH-2: Collaborative Research: From Middle School to Industry: Vertical Integration to Inspire Interest in Computational Thinking,” September 2009, \$232,999 plus \$27,000 Research Experiences for Teachers (RET) supplement plus \$16,000 Research Experiences for Undergraduates supplement, Collaborative proposal with Gregory Hislop (Lead PI), Drexel University and Massood Towhidnejad (PI), Embry-Riddle Aeronautical University, Total collaborative project just under \$800,000 plus \$81,000 for three RET supplements plus \$48,000 for three REU supplements; NSF CISE/CNS DDD assignment resulted in William Marcy appointment as substitute PI in 2011.

National Science Foundation, “NSF CISE Pathways to Revitalized Undergraduate Computing Education (CPATH) PI Workshop,” August 2008, \$99,986.

National Science Foundation, “Intergovernmental Personnel Act Mobility Program Assignment,” May 2006, \$182,020; May 2007, \$187,480 for a total of \$369,500.

State of Arizona – Proposition 301, “Computer Outreach Opportunities for Learning,” with James Collofello (PI), Mary Anderson-Rowland, and Doris Roman, July 2002, \$171, 019, December 2003, \$150,000.

Tri-University (ASU / U of A / NAU), “Arizona Board of Regents Grant Participant,” Summer and Fall 2002.

Computing Research Association, “Committee on the Status of Women in Computing Research,” January 2002, \$3,500.

National Science Foundation (through Texas Engineering Experiment Station), “The Foundation Coalition – Year 8,” with Ronald Roedel (PIC) and Donald Evans, October 2000, \$504,083.

Center for Research on Education in Science, Mathematics, Engineering, and Technology (Arizona State University), “Group Communication and Time Management for a Web-based Mentoring System,” February 2000, \$9,996.

Archaeological Research Institute (Arizona State University), “Faculty Fellowship,” January 2000, \$10,349.

National Science Foundation, “WISE Investments,” with Mary Anderson-Rowland (PI), Dale Baker, Vincent Pizziconi, Sandra Houston, James Adams, Valana Wells, Dwayne Rollier, Keith Holbert, Veronica Burrows, Angel Jannasch-Pennell, Donald Evans, James Middleton, and Stephanie Blaisdel, February 1999, \$892,967.

Arizona Board of Regents, "WISE Investment," with Stephanie Blaisdell (PI), Dale Baker, Vincent Pizziconi, Dwayne Rollier, Valana Wells, Sandra Houston, James Adamas, Veronica Burrows, and Keith Holbert, April 1998, \$49,500.

VIASOFT, Inc., "Year 2000 Software Support," award dates and amounts during October 1996, \$3,059, January 1997, \$5,507, June 1997, \$36,222, and August 1997, \$4,589 for a total of \$49,377.

VIASOFT, Inc., "Language Analysis Tool Support for Reverse Engineering of Software," award dates and amounts during August 1996, \$48,582, January 1997, \$53,046, July 1997, \$66,309, August 1997, \$47,347, January 1998, \$26,407, July 1998, \$4,245, and April 1999, \$11,523 for a total of \$257,459.

Bull Worldwide Information Systems, "Software Process Improvement," award dates and amounts during July 1995, \$30,000 and June 1996, \$10,000 for a total of \$40,000.

Data & Analysis Center for Software of US Air Force Rome Laboratory, "Software Engineering Technology Dissemination and Reverse Engineering Study," award dates and amounts during April 1993, \$30,000, June 1993, \$20,000, and June 1994, \$30,000 for a total of \$80,000.

National Science Foundation, "NSF / Industry Multi-University Software Engineering Research Center, August 1991, \$25,000.

Data & Analysis Center for Software of US Air Force Rome Laboratory, "Software Engineering Technology Dissemination and Prototyping Study," award dates and amounts during July 1991, \$18,110, October 1991, \$18,110, and March 1992, \$15,000 for a total of \$51,220.

Florida Power & Light/UM Quality Program, "Quality Improvement in Software Development," January 1989, \$7,500.

Florida High Technology and Industry Council Applied Research Program, "Florida Cooperative Center for Software Engineering Research," with Stephen M. Thebaut, University of Florida and Norman G. Wilde, University of West Florida, 1988, \$20,000.

Bell-Northern Research, "Development and Evaluation of a Prototype Visual Specification Environment for Real-Time Systems," 1987, \$17,514.

Lockheed Software Technology Center, "(*) Specification Language Technology," January 1987, \$50,160

Lockheed Software Technology Center, "(*) Specification Language Technology Transfer and Flow Analysis," September 1986, \$41,848.

Bell-Northern Research, "Concurrency and Performance Research for Software Specification," January 1986, \$25,000.

National Science Foundation, "Pacific Computer Communication Symposium Travel Support," September 1985, \$12,300.

Lockheed Software Technology Center, "Front-End Software Life Cycle Technique and Tool Research in Support of a Near Term Development Environment," August 1985, \$150,000.

Bell-Northern Research, "Research on Front-End Software Life Cycle Techniques and Tools," June 1985, \$20,000.

Higher Order Software, Inc., "Fundamental Aspects of Developing Software Systems with the Higher Order Software Methodology and USE.IT," June 1984, \$38,919.

Higher Order Software, Inc., "Data Type Considerations in Data Base Management Systems with the Higher Order Software User System Evaluation and Implementation Tool," May 1983, \$42,267.

Higher Order Software, Inc., "USE.IT Software Engineering Environment Education in a Variety of Application Areas," May 1982, \$21,325.

Ph.D. DISSERTATIONS SUPERVISED

14. Venkata Narasimha Rao Inukollu, A Secure Policy Framework for the Descartes Specification Language, December 2015, 160 pp.
13. Vinitha Hannah Subburaj, *Executable Specifications For Agent Systems Using The Extended Descartes Specification Language With Tool Support*, August 2013, 176 pp.
12. Amir A. Khwaja, *RealSpec: An Executable Real-Time Specification Language*, Ph.D. Dissertation, Arizona State University, December 2009, 506 pp., (James Collofello added as a co-advisor after emeritus status).
11. Hankyu Joo, *A Specification Language for Object-Oriented Analysis of Real-Time Systems*, Ph.D. Dissertation, Arizona State University, December 1998, 160 pp.
10. Sung-Koo Lee, *An Automated Classification Scheme for Summary-Based Retrieval for Web-Based Software Reuse*, Ph.D. Dissertation, Arizona State University, December 1998, 137 pp.

9. Chia-Chu Chiang, *A Software Development Paradigm With the TUG Specification Language for Developing Reliable Programs*, Ph.D. Dissertation, Arizona State University, December 1995, 282 pp.
8. Jarallelh Saleh AlGhamdi, *Programming Languages: A Qualitative Methodology for Assessments and Software Metrics to Measure Syntactic Properties*, Ph.D. Dissertation, Arizona State University, June 1994, 199 pp.
7. Chung-Horng Lung, *An Analogy-Based Domain Analysis Methodology*, Ph.D. Dissertation, Arizona State University, May 1994, 240 pp.
6. Peraphon Sophatsathit, *An Approach for Virtual Software Tool Communication*, Ph.D. Dissertation, Arizona State University, December 1993, 240 pp.
5. Keum-Young Sung, *Real-Time Extensions to the Descartes Software Specification Language*, Ph.D. Dissertation, Arizona State University, December 1992, 214 pp.
4. Karl B. Zerangue, *On Developing a General Theory of Specification*, Ph.D. Dissertation, Arizona State University, October 1992, 275 pp.
3. Jose' Pedro Diaz-Gonzalez, *The Requirements Engineering of Real-Time Systems*, Ph.D. Dissertation, University of Louisiana at Lafayette, December 1987, 165 pp.
2. Patrick Otoo Bobbie, *A Family of Software Architectures for the Support of Software Life Cycle Entities in a Distributed Environment*, Ph.D. Dissertation, University of Louisiana at Lafayette, April 1986, 129 pp.
1. Boumediene Belkhouche, *Automatic Synthesis of Abstract Data Type Implementations From Abstract Specifications*, Ph.D. Dissertation, University of Louisiana at Lafayette, May 1983, 204 pp.

M.S. THESES SUPERVISED

32. Lavanya Ramamoorthy, *Extensions to the Descartes Specification Language for Software Process Modeling*, May 2011, 65 pp.
31. Praneet Rattan, *Automatic Generation of Program Code from Descartes Specifications*, M.S. Thesis, Texas Tech University, May 2011, 154 pp.
30. Vamshi Kalva, *An Improved Descartes Specification Language Processor*, M.S. Thesis, Texas Tech University, December 2010, 85 pp.
29. Henry Johnson, *An Approach to Software Project Management Through Requirements Engineering*, M.S. Thesis, Texas Tech University, December 2010, 71 pp.

28. Vinitha Hannah Subburaj, *Extensions to the Descartes Specification Language for Deriving Intelligent Software Agent Design*, M.S. Thesis, Texas Tech University, August 2010, 87 pp.
27. Jaya Bansal, *Creating Specification Templates for Client-Server Families in Service Oriented Architecture*, M.S. Thesis, Arizona State University, August 2009, 113 pp., (Hessam Sarjoughian added as co-advisor after emeritus status).
26. Shareen Islam, *Applying Goal-Oriented Requirements Engineering for the Creation of Performance and Reliability Requirements*, M.S. Thesis, Arizona State University, December 2008, 95 pp.
25. Michael A. Medina, *An Approach to Deriving Reactive Agent Designs from Extensions to the Descartes Specification Language*, Arizona State University, August 2006, 93 pp.
24. Ehsan Laleka, *Dynamic Schedule Synchronization for Mentoring Students*, M.S. Thesis, Arizona State University, December 2005, 85pp.
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16. Yin-Yu Wu, *A Methodology for Deriving a Booch Object Oriented Design From Extensions to the Descartes Specification Language*, M.S. Thesis, Arizona State University, December 1994, 132 pp.

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14. Hankyu Joo, *Automated Test Case Generation from Descartes Specification Language*, M.S. Thesis, Arizona State University, November 1994, 124 pp.
13. Senthil Natarajan, *Execution Time Improvement for the Descartes Language Processor*, M.S. Thesis, Arizona State University, April 1994.
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11. Yuh-Kuh Tung, *A Language-Based Visual Editor for the Descartes Specification Language*, M.S. Thesis, Arizona State University, May 1993.
10. Amir Ali Khwaja, *A Visual Syntax-Directed Editor for the Descartes Specification Language*, M.S. Thesis, Arizona State University, May 1993.
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7. Huang-Chieh Cheng, *A Language Processor for the Real-Time Descartes Specification Language*, M.S. Thesis, Arizona State University, December 1992.
6. Manmahesh Kantipudi, *A Knowledge Based Approach for the Reuse of Software*, M.S. Thesis, Arizona State University, October 1992, 200 pp.
5. Gregory S. Wohlenberg, *An Object-Oriented Software Design Aid For Use With a Formal Software Specification Language*, M.S. Thesis, Arizona State University, April 1992, 78 pp.
4. Jaishankar Parthasarathy, *Object Oriented Analysis of Real Time Systems*, M.S. Thesis, Arizona State University, December 1991, 87 pp.
3. Lih-shiun Lee, *Visual Representation of Descartes Specifications*, M.S. Thesis, Arizona State University, June 1991, 145 pp.
2. Dean L. Schmidt, *An Object-Oriented Model for Graphical User Interfaces*, M.S. Thesis, Arizona State University, May 1991, 117 pp.

1. Naveen Dave, *Design and Implementation of an Abstract Data Type Capability for Objects in ENVISAGER*, M.S. Thesis, Arizona State University, August 1990, 105 pp.

M.S. / M.C.S. RESEARCH PROJECTS SUPERVISED

39. Sailaja Arsi, *User Defined Security Policy in Social Networking Site*, M.S. Research Project Report, Texas Tech University, May 2014, 36 pp.
38. Manan Shah, *Developing a Language Processor for the Descartes Specification Language*, M.S. Research Project Report, Texas Tech University, June 2012, 45 pp.
37. Jennie L. Mellado-Macara, *Hispanic Advancement in Computing Education Research: Broadening Hispanic Participation in Computing*, M.S. Research Project Report, Texas Tech University, December 2010, 29 pp.
36. Shoumith Channegowda, *Effective Implementation of Requirements Management and Validation in Requirements Engineering*, M.S. Research Project Report, Texas Tech University, August 2010, 48 pp.
35. Sankar Puchala, *Analysis and Implementation of Various Techniques for Software Requirements Engineering*, M.S. Research Project Report, Texas Tech University, August 2010, 55 pp.
34. Ashish Gupta, *Protrack Tool: A Project Management and Tracking Tool*, M.C.S. Research Project Report, Arizona State University, August 2005, 56 pp.
33. Gitanjali Gunnam, *Smarttutorial, A Tutorial Selection Feature of Smartonlineplacement Examination*, M.C.S. Research Project Report, Arizona State University, May 2005, 53 pp.
32. Hung Nguyen, *Development of a Group Calendar Software Tool*, M.C.S. Project Report, Arizona State University, December 2004, 90pp.
31. Jason A. Meltzer, *Applying the Descartes Specification Language to a Project Management Software Tool*, M.C.S. Project Report, Arizona State University, December 2004, 33 pp.
30. Chandrashekar Ningegowda, *A Module to Determine the State of a Uniform Resource Locator (URL) or Web Server*, M.C.S. Research Project, Arizona State University, September 2002, 15 pp.
29. Amruta Moktali, *Mentor / Mentee Matching Application*, M.C.S. Project Report, Arizona State University, May 2002, 27 pp.

28. Shriram Sankaran, *SPAWS – Software Process Automation and Workflow System*, M.C.S. Project Report, Arizona State University, May 2002, 44 pp.
27. Vipin Devineni, *A Language Processor for the Extended Descartes Specification Language*, M.C.S. Project Report, Arizona State University, May 2002, 59 pp.
26. Sampath Jaini, *Chat Server for the Inclusive Learning Communities Program*, M.C.S. Project Report, Arizona State University, December 2001, 17 pp.
25. Ting-Li Huang, *Resource Management with an Internet Software Engineering Environment*, M.C.S. Project Report, Arizona State University, July 2001, 34 pp.
24. Daya Vivek, *Extensions to the Descartes Specification Language for Design Pattern Support*, M.C.S. Project Report, Arizona State University, December 2000, 20 pp.
23. Abrar Chisti, *Implementing a Revision Control Mechanism in SOORLS – Summary based Object Oriented Reuse Library System*, M.C.S. Project Report, Arizona State University, August 1998, 13 pp.
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- 20., 21. Mahesh S. Veda and Guo Zheng Xu, *Repository for Executable Specification Languages*, M.C.S. Project Report, Arizona State University, May 1996, 32 pp.
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18. Mette E. Nordnes, *Software Requirements for an Open, Integrated Project Support Environment*, M.C.S. Project Report, Arizona State University, December 1994, 37 pp.
17. Brenda L. Earl, *Bridging the Gap From Informal User Requirements to Descartes Specifications*, M.C.S. Project Report, Arizona State University, December 1994, 28 pp.
16. Lea A. Nicholson, *Application of Evaluation Methods to Formal Specification Languages*, M.C.S. Project Report, Arizona State University, December 1994, 59 pp.
15. Patricia A. Kolnik, *Requirements Documentation for Requirements Analysis Tools and Techniques Selection System (RATTSS)*, M.C.S. Project Report, Arizona State University, December 1994, 19 pp.

14. Anil K. Yamani, *Application of Formal Specifications to Process Management*, M.C.S. Project Report, Arizona State University, July, 1994, 53 pp.
13. Rene' Castaneda, *Incorporating the Practice of a Software Reuse Technique in Software Engineering Courses*, M.C.S. Project Report, Arizona State University, May 1994, 44 pp.
12. Kamala Palaniappan, *Design of a Common Standard for Files and Data Repository in a Software Engineering Environment*, M.C.S. Project Report, Arizona State University, December 1993, 61 pp.
11. Shiue-Sho Chiou, *Automated Support for a Software Process Maturity Model*, M.C.S. Project Report, Arizona State University, December 1992, 57 pp.
10. Lalitha Nagareddy, *The Application of Real-Time Descartes and ER Nets to an Automobile Management System*, M.C.S. Project Report, Arizona State University, April 1992, 101 pp.
9. Ming-Sin Sun, *A Limited Test Data Generation System for the Descartes Specification Language*, M.S. Project Report, University of Louisiana at Lafayette, May 1984, 78 pp.
8. Patricia A. Nanartowich, *Enhancements of a Computer-Aided Instruction System Design to Train User's in the HOS Methodology and USE.IT Environment*, M.S. Project Report, University of Louisiana at Lafayette, May 1984, 160 pp.
7. Suzanne N. Delcambre, *Automated Support for a Specification Technique*, M.S. Project Report, University of Louisiana at Lafayette, April 1984, 109 pp.
6. Yung C. Yu, *Quality Assurance on the Language Processor for the Descartes Specification Language*, M.S. Project Report, University of Louisiana at Lafayette, February 1984, 86 pp.
- 4., 5. David H. Burlingame and Motasim Najeeb, *Computer-Aided Instruction to Support a Functional Software Life Cycle and Environment*, M.S. Project Report, University of Louisiana at Lafayette, September 1983, 133 pp.
3. Lucinda S. Edmonds, *A Comparative Analysis of Two Requirements / Specification Techniques with a View Towards the Outer-Level of the Ada Programming Support Environment*, M.S. Project Report, University of Louisiana at Lafayette, December 1982, 101 pp.
2. Kenneth S. Tang, *Enhancements on the Language Processor for the Descartes Specification Language*, M.S. Project Report, University of Louisiana at Lafayette, December 1981, 89 pp.

1. Karl B. Zerangue, *A Comparative Analysis of the Programming Languages C and Ada*, M.S. Project Report, University of Louisiana at Lafayette, November 1981, 221 pp.

UNIVERSITY SERVICE

Elected and / or appointed several times as a member and / or elected chairman of the ASU CSE Department Computing Resources Committee, Executive Committee, Graduate Admissions Committee, Graduate Program Committee, Personnel Committee, and TA Selection Committee.

Member, Diversity Committee, College of Engineering and Applied Sciences, Arizona State University, 1999-2003.

Member, Deans Advisory Personnel Committee, 2002-2003.

COMMUNITY SERVICE

Member, Finance Committee, St. Mary-Basha Catholic Elementary School, Chandler, Arizona, 1994-2001.

Member, Finance Committee, Seton Catholic High School, Chandler, Arizona, 1996-1999.

Member, Development Committee, Seton Catholic High School, Chandler, Arizona, 2001.

Member, Finance Council, St. John Bosco Interparish Catholic School, Phoenix, Arizona, 2001-2003.

Member, Finance Council, St. Andrew the Apostle Catholic Faith Community, Chandler Arizona, 1994-1997.

Chairman, Finance Council, St. Andrew the Apostle Catholic Faith Community, Chandler, Arizona, 1997-2008.