

CURRICULUM VITAE AS OF March 1, 2018

Kurt Maly

Kaufman Professor and Eminent Scholar
Department of Computer Science
Old Dominion University
Norfolk, VA 23529
office: (757) 683-7722
fax: (757) 683-4900
e-mail: maly@cs.odu.edu
web: <http://www.cs.odu.edu/~maly>

Born in Modling, Austria, August 20, 1944; Austrian citizen; permanent resident of U.S.A.

- 1954-63 Grammar School, Modling, Austria
- 1963-64 Military Service, Austria
- 1964-68 University of Technology, Vienna, Austria
- 1968-72 Graduate studies at Courant Institute of Mathematical Sciences, New York University, New York, New York
- 1972-78 Assistant Professor, Department of Computer Science, University of Minnesota, Minneapolis, Minnesota
- 1974-80 Director of Undergraduate Studies, Department of Computer Science, University of Minnesota, Minneapolis, Minnesota
- 1978-85 Associate Professor, Department of Computer Science, University of Minnesota, Minneapolis, Minnesota
- 1980-82 Acting Chairman, Department of Computer Science, University of Minnesota, Minneapolis, Minnesota
- 1980-85 Member of Board, MEIS, Minneapolis, Minnesota
- 1982-85 Head, Department of Computer Science, University of Minnesota, Minneapolis, Minnesota
- 1982-85 Member of Executive Committee, MEIS, Minneapolis, Minnesota
- 1988-91 Member of Board, Institute of Information Technology, CIT, Blacksburg, Virginia
- 1994-2002 ICASE consultant
- 1985-2007 Chair, Department of Computer Science, Old Dominion University, Norfolk, Virginia
- 1985-current Professor, Department of Computer Science, Old Dominion University, Norfolk, Virginia
- 1985-current Eminent Professor, Department of Computer Science Old Dominion University, Norfolk, Virginia

- 1986-current Visiting Professor (Honorary Professor), Chengdu University of Science and Technology, Chengdu, China
- 1989-current Eminent Scholar, Old Dominion University, Norfolk, Virginia
- 1991-current Visiting Professor (Honorary Professor), Hefei University of Technology, Hefei, P.R. China
- 1991-current Kaufman Professor, Old Dominion University, Norfolk, Virginia
- 1993-current Visiting Professor (Honorary Professor), Guangxi Computer Institute, Nanning, P.R. China

Degrees

- Ph.D. Department of Computer Science, Courant Institute of Mathematical Sciences, New York University, New York, New York. Conferred February 1973. Thesis title: "A Study in Programming Techniques"
- M.S. Courant Institute of Mathematical Sciences, New York University, New York, New York. Conferred February 1970.
- Diplom Ingenieur Technische Universitat zu Wien, Austria. Conferred May 1968. Thesis title: "Untersuchung zu Stabilitatsbereichen von Diskretisierungsverfahren" (Investigation into stability regions of discretization methods)

Honors and Awards

- Graduated from grammar school with highest honors
- Graduated from Technische Universitat zu Wien with equivalent of Summa Cum Laude
- Fellowships for summer 1966 at Sorbonne, Paris, France
- Fellowships for the years 1968-72 from Courant Institute of Mathematical Sciences
- Best Paper award for Web96(see publication list: II, 72)
- Finalist for Best Paper Award WETICE 96(see publication list: II,66)
- Best Paper Award WETICE97/Distance Learning Workshop(see publication list: II,80)
- Top paper award, SERVICES COMPUTATION 2009 (see publication list: II, 194)
- Top paper award, SERVICES COMPUTATION 2010 (see publication list: II, 197)
- The Shining Star Award – Fall 2010, Old Dominion University; it is presented each semester, to faculty members who have helped students succeed academically, professionally, and personally both inside and outside of the classroom.

Professional Activities

- Associate editor, Journal for Microcomputer Application Technology, PRC.

Reviewer of books for Academic Press, Prentice-Hall, and Houghton-Mifflin, Brooks/Cole

Reviewer for National Science Foundation (proposals)

Reviewer for CIT (proposals)

Referee of Papers for CACM, Computing Review, IEEE Computer, IEEE Transactions on Computers, Information Processing Letters, IEEE Software.

Invited speaker at Hahn Meitner Institute, Berlin, December 1975

Member of Technical Program Committee for ACM '75

Organizer and chairman of panel discussion for ACM '75 entitled, "Programming and its Implications on Programming Languages"

Active in the development of curriculum recommendations for computer science

Invited participant in "Computer Science and Industry Interface Meeting" sponsored by the Computer Science Board, June 4, 1978

Invited participant, Computer Science Seminar, IBM Research Laboratory, February 1980, San Jose, California

Invited participant, Computer Science Workshop, Honeywell, PMS Division, August 1981, Phoenix, Arizona

Invited speaker, IBM Engineering Managers Seminar, September 1981, New London, Minnesota

Invited participant, Computer Science Seminar, HP, February 1982, Cupertino, California

Invited speaker, Honeywell MTC, July 1982, Duluth

Invited participant, Carleton symposium on Artificial Intelligence, October 1984, Northfield, Minnesota

Invited speaker, Key Retrieval from Medium Sized Files, November 1984, Duluth

Member of ACM, IEEE, Sigma Xi

Invited speaker, CDC Technology Forecast, September 1985, Minneapolis

Invited speaker, Local and Metropolitan Area Networks, June 1986, Chengdu University

Invited speaker, A Network with Integrated Data and Voice Traffic, February 1987, College of William and Mary

Invited panelist, Software Productivity Workshop, March 1987, Reston, Virginia

Invited participant, Supercomputer Consortium Taskforce, April 1987, Herndon, Virginia

Invited speaker, Dynamic Loadsharing in a Local Area Network, June 1987, Virginia Tech

Organizer, First meeting of department heads of Virginian Ph.D. granting universities, November 1987

Invited speaker, NAVMASSO, A Maintenance Support Environment, July 1988, Norfolk, Virginia

Invited speaker, Virginia Tech, Towards a Gigabit Network, July 1988, Blacksburg, Virginia

Organizer, Second meeting of department heads of Virginian Ph.D. granting universities, August 1988

Invited speaker, NASA, Networks, October 1988

Invited speaker, Sun Micro Systems, Parallel FDDI, February 1989

Participant, Symposium on The University of the Twenty-First Century, April 1989, Charlottesville, Virginia

Organizer, Third meeting of department heads of Virginian Ph.D. granting universities, September 1989

Invited participant, Supercomputer Consortium Taskforce, November 1989, Herndon, Virginia

Invited speaker, NASA, Maintenance, November 1989

Invited participant, Navy Education Consortium, University of West Florida, November 1989

Participant, SCHEV computer committee

Invited speaker, NASA, Networks, January 1990

Invited speaker, Sun Micro Systems, FDDI, February 1990

Participant, SCHEV, Equipment Trust Fund, computer science sub-committee

Invited speaker, SPC, Software Design Based on Decisions, March 1990

Invited speaker, Hefei University, High Performance Networking, July 1990

Invited speaker, CIT, Siemens, Gigabit Networking, August 1990

Organizer, Fourth meeting of department heads of Virginian Ph.D. granting universities, October 1990

Technical Program Committee Member, International Workshop on Advanced Communications and Applications for High Speed Networks 92, November 1990, Munich

Invited speaker, A Reliable Gigabit Network Based on Parallelism, DARPA, January 1991

Invited speaker, Parallel Transport Protocols, Sun Micro Systems, January 1991

Invited speaker, Network Management, NASA, February 1991

Invited speaker, Remote Visualization, Fiber Institute, April 1991, Blacksburg, Virginia

Invited speaker, Trends in Communications, Unix Conference, June 1991, Norfolk, Virginia

Invited speaker, Parallel Communications, E-Systems, June, 1991, Washington, DC

Program committee meeting, IWAC'92, July 1991, Munich

Invited speaker, Parallel Communications, DARPA, September 1991, Washington, DC

Organizer, Fifth meeting of department heads of Virginia Ph.D. granting universities, October 1991

Invited speaker, Highspeed Networking, ODU, October 1991

Invited speaker, Parallel Communications, DARPA, December 1991, Washington, DC

Invited participant, The Future Direction of the Faculty in Virginia, October 1991, Richmond, Virginia

Invited speaker, Network Management, Sun Micro Systems, January 1992

Invited member, Virginian Scholar Awards Committee, March 1992

Invited speaker, High Speed Computer Networks, CIT, June 1992, Herndon, Virginia

Invited panelist, Workshop on Careers for Experimental Computer Scientists, July 1992, Snowbird, Utah

Invited co-chair, Workshop on Electronic Dissemination of Technical Reports, 1992, Snowbird, Utah

Invited speaker, Parallel Communications, IIT, August 1992, Delhi, India

Invited speaker, High Performance Networking, National Aeronautics Laboratory, August 1992, Bangalore, India

Invited speaker, Network Management Based on User Response Time, IIT, September 1992, Bombay, India

Invited speaker, Parallel TCP, Mitre, December 1992, Washington, DC

Invited member, Advisory board - NSF grant to University of Virginia, Charlottesville, January 1993

Invited speaker, Parallel Communication, University of the West of England, March 1993, Bristol

Invited speaker, Decision Based Software Development, Telekom Fachhochschule, March 1993, Berlin

Invited participant, Research conference, Sun Micro Systems, April 1993, San Jose, California

Invited panel member, NSF EI grant evaluation, April 1993, Washington, DC

Invited speaker, Hypertext systems, Guangxi Computer Institute, May 1993, Nanning

Invited speaker, High Speed Networks, Beijing Information Technology Institute, May 1993, Beijing

Invited speaker, High Speed Networks, Tsinghua University, May 1993, Beijing

Chairman, Local Arrangements, High Performance Communications Subsystems Conference, IEEE, September 1993, Williamsburg, Virginia

Invited speaker, NASA, pPVM in Support of Distributed Computing, November 1993

Co-organizer, Virginia/ICASE/LaRC Program in High Performance Computing and Communication, December 1993

Invited speaker, Sun Microsystems, North Carolina, January 1994

Demonstrator, Interactive Remote Instruction Prototype, Norfolk and Richmond, February 1994

Member of the export committee of New Software Technology Laboratory of Guangxi. The New Software Technology Lab. of Guangxi

Invited speaker, NASA, Large Scale Scientific Computing, March 1994

Invited speaker, NASA, pPVM in Support of Distributed Computing, March 1994

Invited site visitor, UCSD NSF site visit for CISE RI program, San Diego, March 1994

Invited speaker, Interactive Remote Instruction, TJ Watson, IBM, Yorktown Heights, March 1994

Invited speaker, Interactive Remote Instruction, Sun Microsystems, Mt. View, April 1994

Invited speaker, Melding Television, Networking, and Computing for Interactive Remote Instruction, Tsing Hua University, Taiwan, May 1994

Invited speaker, A Prototype for Parallel Ethernets, Chung Cheng University, Taiwan, May 1994

Invited speaker, Melding Television, Networking, and Computing for Interactive Remote Instruction, Chung Cheng University, Taiwan, May 1994

Invited member, Advisory board - NSF grant to University of Virginia, Charlottesville, May 1994

Invited speaker, A Framework for Parallel Networking of PVM, 1994 PVM User Conference, Tennessee, May 1994

Invited panelist, Distance Learning, IFIP '94, Hamburg, Germany, August 1994

Member of program committee for Symposium on Parallel and Distributed Processing, Texas, June 1995

Member of program committee for International Symposium on Advances in Computers and Communications, Alexandria, Egypt, June 1995

Invited speaker, Wide Area Technical Report Service, Monticello Library Workshop, Blacksburg, Virginia, August 1994

Invited speaker, Remote Instruction, Sun Microsystems, San Francisco, September 1994

Invited presentation, A Testbed for Interactive Remote Instruction, NSF, Washington D.C., November 1994

Invited presentation, NAVYSAF for WIZZARD, ARPA, Norfolk, November 1994

Invited presentation, Distance Learning: Collaborative Instruction, Syracuse University, New York, December 1994

Invited speaker, Interactive Multimedia, Sun Microsystems, Mountain View, California, February 1995

Invited presentation, Distributed Multimedia for Software Engineering Education, Software Quality Conference, Tyson's Corner, Virginia, March 1995

Invited presentation, Bringing Industry Perspective into the Computer Science Curricula, Software Quality Conference, Tyson's Corner, Virginia, March 1995

NSF site visitor, University of Texas, Austin, March 1995

NSF panel member, Visiting Professorships for Women, Washington DC, March 1995

Invited presentation, Scaling of Multimedia Tools for Remote Instruction, TJ Watson Laboratories, IBM, March 1995

Invited participant, Panel to combine DIENST and WATERS, ARPA and NSF sponsored, Washington, DC, April 1995

Invited presentation, Communication benchmark, ARPA, Washington DC, April 1995
NSF panel member, Academic Research Infrastructure, Washington DC, May 1995

Invited participant, AII SAF meeting, ARPA and DOD, Austin, Texas, August 1995

Invited keynote address, Interactive Instruction for Engineering, 52nd International Congress of Informatics for Engineering, Blumenau, Brazil, Nov. 95

Invited presentation, CoReview - University and Industry Cooperation, University of Blumenau, Brazil, Nov. 95

Invited presentation, Interactive Remote Instruction, University of Florianopolis, Brazil, Nov. 95

Invited presentation, Distributed Multimedia, University of Mannheim, Germany, Dec. 1995

NSF panel member, Undergraduate education in Research, Washington DC, Dec. 1995

Invited presentation, Distance learning, IBM, Heidelberg, Germany, Dec. 1995

Steering Committee for NCSTRL member, with Robert Kahn - CNRI, Barry Leiner - ARPA, Steve Griffin - NSF, Dean Krafft - Cornell, Jan. 1996

Invited address, Distance learning for higher education, HP Distance Learning Initiative Workshop, London, England, Feb. 1996

Member of program committee for Second International Symposium on Computers and Communications, Alexandria, Egypt, July, 1997

Workshop Organizer, Distance Learning, WET ICE '96, "Collaborating on the Internet: The World-Wide Web and Beyond", Stanford, June 96

Invited demonstration, IRI System, for IBM TJ Watson Lab, Norfolk, Feb. 1996

Member of program committee, 3rd International Conference on High Performance Computing, Trivandrum, India, Dec. 1996

Invited demonstration, IRI System, for Sun Microsystems, California, Norfolk, March 1996

Invited presentation, Quality Standards for NCSTRL, NCSTRL steering committee, Washington DC, March 96

Invited participant, Sun Research and Education Conference, San Francisco, April 1996

Invited presentation, Coreview, NASA Goddard, Washington DC, May 1996

Invited presentation, Secure Distributed Applications, DCCC Conference, Berkeley, May 1996

Invited presentation, Virtual Classroom, SDNE, Macau, May 1996

NSF panel member, Academic Research Infrastructure, Washington DC, June 1996

Member of program committee, HPN 97

Member of program committee, ISCC'97

Invited presentation, Communication Benchmark, ICASE Roundtable, Williamsburg, Oct. 96

Member of program committee, CSI97

Invited presentation, Computer Productivity Initiative, NSF EI PI meeting, Salt Lake City, Nov. 96

Working group meeting presentation, Multidomain Expansion, NCSTRL, Washington DC, Nov. 96

Invited participant, Intellectual Property Rights Workshop, CRA, Washington DC, Dec. 96

Steering committee meeting, NCSTRL, Stanford, Dec. 96

Member of program committee, WETICE '97, Distance Learning

Invited presentation, IRI, NSF NIE PI meeting, Pittsburgh, April 97

Invited participant, ECCS meeting, San Diego, April 97

Invited address, Interactive Distance Learning, HPN97, Whiteplains, April 97

Member of program committee, ISCC'98

Invited address, Computer Science in a Distance Learning Environment, 10th Conference on Software Engineering Education & Training, Virginia Beach, April 97

Invited presentation, CoProcess, NASA Goddard, April 97

Invited Panelist, Middleware, HPCS97, Chalkidiki, Greece, June 97

Steering committee meeting, NCSTRL, CNRI, Washington DC, July 97

Invited presentation, IRI, University of Singapore, July 97

Invited presentation, A Distributed Simulation Environment, Brunel University, London, England, August 97

Invited presentation, Coordinated Web browsing, Jefferson Lab, ESCC meeting, Newport News, October 97

Invited keynote address, The Future of Interactive Remote Instruction to the Desktop, Science and Engineering Council, United Kingdom, Coventry, Nov. 97

Steering committee meeting, NCSTRL, CNRI, Washington DC, Dec. 97

Member of program committee, PDCS97

Invited participant, DLI98 meeting, UC Berkeley, California, Dec. 97

Member Digital Library Metrics working group, meeting Stanford, Univ., California, Dec. 97

Invited presentation, Content Abstraction for Multimedia Streams, Sun Microsystems, Mountain View, California, Jan. 98

Member of program committee, HPN'98

Invited presentation, Distinguished Speaker Seminar, Learning paradigms and technology for distance learning, University of West Virginia, WVA, Febr. 98

Invited presentation, Distance Learning, Texas A&M, Colletown, TX, Febr. 98

Invited presentation, IRI, Smart Schoolhouse, Navy, Dam Neck, Virginia Beach, Feb 98

Invited address, Interactive Remote Instruction Project, SURA / NCREN Advanced Networked Applications and Networked Video Workshop, MCNC, North Carolina, March 98

Invited participant, ESCC meeting, Berkeley, Calif. March 98

Vice-chair, ICDCS'99

Steering committee meeting, NCSTRL, CNRI, Washington DC, May 98

Invited speaker, SSI workshop, Jefferson Lab, Newport News, Virginia, June 98

Invited participant, Snowbird CS chairs workshop, Snowbird, Utah, July 98

Invited participant, Advanced Scientific Computation DOE/NSF workshop, Washington DC, July 98

Invited participant, SURA, SSI workshop, Washington DC, July 98

Invited presentation, Platform independent IRI, NSF, Washington DC, Aug. 98

Steering committee meeting, NCSTRL, CNRI, Washington DC, Nov 98

NSF panel member, CISE REI program, Washington DC, Dec. 1998

NCSTRL+ demonstration, NSF program directors, Washington DC, Dec. 1998

Invite presentation, DLI2, NSF workshop, Washington DC, Jan 99

Senior Faculty and invited panelist, CAREER workshop, NSF, Washington DC, Jan 99

NSF panel member, CISE program, Washington DC, May 99

Invited presentation, Distance Learning and IRI, Texas A&M, May 99

Invited participant, SURA, workshop, Washington DC, July 99

Invited presentation, Cobrowsing, SUN Micros, Calif., Aug 99

Invited demo at ACM DL'99 conference, UDLF, Berkeley, Aug. 99

Invited presentation, UDLF for Science Learning, Digital Library Initiative 2 PI meeting, Ithaca, Oct. 99

Invited presentation and demo, Universal Preprint Service, Los Alamos National Lab, Santa Fe, Oct. 99

Invited presentation and demo, ODU digital library group tools, NSF, Washington Dc, Oct 99

Panelist, CAREER panel, NSF, Washington DC, Oct 99

Invited presentation, Federated Libraries Portal, JTASC, Suffolk, Oct 99

Invited presentation, XML based federation of digital libraries, MSCIA, Washington DC, Nov 99

Invited presentation, Interoperable digital libraries, State University of New York, Buffalo, NY, Dec 99

Panelist, Postdoc panel, NSF, Washington DC, Jan 2000

Steering committee meeting, NCSTRL, CNRI, Washington DC, March 2000

Panelist, Network panel, NSF, Washington DC, March 2000

Invited presentation, Digital libraries, ARPA, March 2000

Invited presentation, distance learning over cable, Cox Cable, Norfolk, April 2000

Invited presentation, Digital libraries for undergraduate education, DLI2 Pi meeting, Stratford, England, June 2000

Invited presentation, Multi-media environments, Dagstuhl seminar series, Dagstuhl, Germany, July, 2000

Invited presentation, IRI-h a JAVA-based distance learning environment, NJIATONG University, Beijing, PR China, Aug. 2000

Program committee, ICPP-01, Aug. 2000

Invited speech, Technology transfer in IT, Vice-governor, Guangxi, Nanning, PR China, Aug. 2000

Invited participation, OAI workshop, Lisbon, Portugal, Sept 2000

Invited participant, REC/NSF PI-meeting, January, 2001, Washington DC

Invited presenter, Arc - alphatest for OAI, OAI meeting, Washington DC, Jan. 2001

Invited committee member, ANSI/NISO Z39.18-1995 standards committee, Jan 2001

Invited presenter, Arc - alphatest for OAI, OAI meeting, Berlin, Germany, Feb. 2001

Invited presentation, Media Access Using Dynamic Bandwidth Systems, GMD Fokus, Berlin, Germany, February, 2001

Invited NISO standards meeting, Fort Belvoir, VA, Feb 2001

Program committee member, ICNEE 2002, March 2001

Invited booth at ACM1 conference, San Jose, March 2001

Invited presentation, OAI and STI Program Office funded projects, STI Manager meeting, NASA Goddard, April 2001

Program committee member, NDDL02, July 2001

Invited NISO standards meeting, Fort Belvoir, VA, Aug 2001

Invited member, Information Technology Industry Steering Committee, Plan for the Commonwealth's Information Technology Industry, August 2001

NCSTRL-OAI steering committee meeting, UVA, Charlottesville, Sept 2001

Invited presentation, OAI-based Technical Report Exchange, AISTI , Santa Fe, Oct 2001

Digital library demonstration, Admiralty, COMOPTEVOR, Norfolk, Oct 2001

Invited presentation, New NCSTRL implementation, NSF, Oct 2001

CIT Steering Committee meeting, Herndon, Oct 2001

Invited presentation, Internet technologies for AOL, CIT/AOL, Herndon, Nov 2001

NSDL meeting, OAI based Physics library, American Physics Society, Ridge, NY, Nov 2001

NSDL PI meeting, NSF, Washington DC, Dec 2001

Invited NISO standards meeting, Fort Belvoir, VA, Jan 2002

NSDL steering committee meeting, College Park, Maryland, Feb 2002

Invited presentation, Automatic classification, DTIC, Ft. Belvoir, March 2002

Invited presentation, Digital Library for Test programs, AFRL, Albuquerque, March 2002

CIT Steering Committee meeting, Newport, March 2002

Invited presentation, OAI-based digital libraries, CASI, Baltimore, May 2002

Invited presentation, PI meeting, DLI2, Edinburgh, Scotland, June 2002

Invited Governing Board member, Internet TIC, July 2002

Invited participant, Snowbird conference, Utah, July 2002

Invited NISO standards meeting, Fort Belvoir, VA, Aug 2002

Program committee member, ICNEE 2003, September 2002

Invited presentation, OAI at Dlib at ODU, CERN, Geneva, Switzerland, Sept 2002

Invited presentation, TRI , AISTI, Santa Fe, Oct. 2002

Program committee member, NDDL 2003, September 2002

NSDL/Kepler meeting, Los Alamos, Santa Fe, Oct 2002

Invited presentation, Interactive remote instruction, University of Florence, Italy, Oct 2002

NSF site visit, East Lansing, Michigan State Univ. Nov 2002

Invited participant, NSDL PI meeting, Wash. DC, Dec 2002

Invited NISO standards meeting, Fort Belvoir, VA, Dec 2002

Invited panelist, NSF/CISE, Wash DC, Dec 2002

Board meeting, TIC, University of Virginia, Charlotte, Feb 2003

Keynote presentation, PI meeting for Kepler, Denver, March 2003

Invited address, "The NSDL project", 2nd Ibero-American Digital Library workshop, Campinas, Brazil, March 2003

Invited keynote address, "The OAI Movement", ISTECON Congress, Campinas, Brazil, March 2003

Invited address, "Archon – a Federation of Physics Digital Libraries and Kepler", I3DL, Belo Horizonte, Brazil, March 2003

Invited address, "XML and Technical Reports", CENDI Workshop, Department of Agriculture, Washington DC, April 2003

Program committee member, NDDL 2004, August 2003

Invited address, "Free (sort of) Digital Library Software for Education and Science", LACFREE 2003, Cuzco, Peru, August 2003

System demonstration, "Shiboleth for distributed digital libraries", Los Alamos National Laboratories, Norfolk, Aug 2003

NSF SBIR panel member, Wash DC, Aug 2003

NSF panel member, Wash Dc, Aug 2003

System demonstration, "Shiboleth for distributed digital libraries", American Physics Society, Norfolk, Sept 2003

Invited ANSI/NISO Z39.18 standards meeting, Fort Belvoir, VA, Sept 2003

Invited address, "Digital Libraries, OAI and Free Software for Education and Science ", 5th National Conference CACIS, Yinchuan, PRC, September 2003

Invited presentation, XML for technical reports, DTIC, Ft. Belvoir, Oct 2003

Invited speaker, NSDL Services Interoperability and Web Services, NSDL PI meeting, Wash. DC, Oct 2003

Invited ANSI/NISO Z39.18 standards meeting, Fort Belvoir, VA, Oct 2003

Invited presentation, ARC – An Open Source Metadata Harvesting System, Metascholar Workshop, Atlanta, Oct 2003

Invited presentation, Archon digital library access system, NSF DLI2 PI meeting, Wash. DC, Dec 2003

Chair, Program Committee, ICNEE 04, Switzerland, Feb 2004

Internet conference, Open Source IRI-easy, Universities of Michigan, Oregon, South Africa, Feb 2004

PI meeting, Kepler – a communal digital library, Los Alamos National Laboratory, March 2004

NSF panel member, Wash Dc, March 2004

Invited participant, Old Dominion University Research Day, Archon and Iri-h, Norfolk, March 2004

NSF panel member, Wash DC, May 2004

Invited participant, Snowbird chairs' meeting, Snowbird Utah, July 2004

Presentation to IBM autonomic computing committee, conference call, August 2004

Invited presentation, NASA STI demonstration, Raytheon, Newport News, Oct 2004

Invited presentation, NSDL PI meeting, NSF, Chicago, Nov 2004

Invited speaker. The ODU digital library research effort, NSF-Sponsored Workshop on Promoting Collaborative Research in Computers and Communications *between US and Middle Eastern Researchers*, Cairo, Egypt, January 2005

Invited presentation, Automated metadata extraction, NASA STI Technology Infusion Team, Langley, May 2005

Invited presentation, High Performance Parallel Lucene search, NASA STI Technology Infusion Team, Langley, June 2005

Invited presentation, OAI-based Linking Services, NASA STI Technology Infusion Team, Langley, July 2005

Invited presentation, Automated metadata extraction, CASI, January, 2006

Invited presentation, Metadata discovery, Government Printing Office, Washington DC, February, 2006

Organizer and presenter, IBM Readiness Workshop – Autonomic Computing, Norfolk, Feb. 15-16, 2006

Invited speaker, Automated Metadata Extraction, Defense Research & Engineering Information for the Warfighter, DTIC 2006 Conference, Alexandria, April 2006

Invited participant, Snowbird Chairs' Conference, Snowbird, Utah, June 2006

Invited keynote speaker, Automated Metadata Extraction and Categorization, CACIS 2006, Taiyuan, China, July 2006

Invited keynote speaker, Metadata Extraction for Legacy Collection, ICCTA 2006, Alexandria, Egypt, September 2006

Invited presentation, Infrastructure-aware Autonomous Manager, IBM policy group, Nov 2006

Invited presentation, Classification through validation, DTIC and NASA, Dec 2006

Invited presentation, Advances in Digital Libraries, Bucharest Polytechnic University, Romania, March 2007

Invited presentation, Automated metadata extraction, Babes-Bolyai University, Cluj, Romania, March 2007

Invited presentation, Distance learning, Brasov Polytechnic University, Brasov, Romania, March 2007

Invited presentation, Template based extraction of rich metadata, Senior management, DTIC, Ft. Belvoir, Virginia, April 2007

Invited presentation, Feasibility to automate NASA cataloging, Senior management, NASA Langley, June 2007

Invited presentation, Automated metadata extraction for government agencies, GPO, Wash. DC, Oct. 2007

Invited presentation, Automated metadata extraction for government agencies, NTIS, Springfield, VA, Oct. 2007

Invited presentation, Collaborative Facet Creation, AISTI, Norfolk, Oct 2007

Site visit, GPO team, Norfolk, VA, Feb 2008

Invited panelist, IIS, NSF, Washington DC, April 2008

Invited speaker, Metadata Extraction, Metadata Open Forum, Sydney, Australia, May 2008

Invited keynote speaker, Validation of metadata extraction, CACIS, Hefei, PR China, July 2008

Invited panelist, IIS, NSF, Washington DC, Feb 2009

Invited speaker, Analysis of Energy Efficiency in Clouds, Hefei, PR China, Oct. 2009

Graduate seminar, Hefei, PR China, Oct. 2009

Invited panelist, IIS, NSF, Washington DC, Sept 2009

Invited program committee member for SERVICE COMPUTATION 2010, Jan 2010

External reviewer, Yu Ye PhD thesis, Hefei University of Technology, Hefei, PRC, Feb 2010

External Reviewer, Qatar National Science Foundation, April 2010

Invited presenter: Metadata extraction activities in CENDI organizations, CENDI, telecons, September 16 and 22, 2010

Invited keynote address, Keynote address: "Automated Metadata Extraction Services", Services Computation 2010, Nov 2010, Lisbon, Portugal

Invited member, NSF Career panel, Dec 2010

Completed NIH course "Protecting Human Research Participants", January 2011

Spaghetti Diagrams using Mobile Technology – presentation to CHDK VP and staff, Feb 2013

Invited presentation, ODU CS –CHKD Research Collaboration Opportunities , LEAN committee CHKD, March 2013

Invited presentation, Board CHKD, Norfolk, Aug. 15, 2013, Spaghetti Diagrams using Mobile Technology

Grants

1974 Design of a Practical Detection and Recovery Scheme for Compilers of High Level Languages, 7/22 - 8/23, Summer Faculty Research Grants, 1 1/2 man-months, 2300.

1980 Equipment grant - Image Display Terminal, \$22,690, (with W. Thompson).

1980 Computer Science Research Equipment Support Proposal - MEIS, \$31,225.75, (with W.B. Thompson).

1980 Processing Methods on Cyber 20X machines, CDC, 1980-1984, \$105,000, (with J.B. Rosen).

1981 Educational Enhancement Proposal - MEIS, \$70,000 (with J.B. Rosen, S. Sahni).

1982 Equipment grant, HP 9836 systems, Hewlett-Packard, \$145,000, (with W. Franta, S. Bruell).

1982 Equipment grant, MV8000, Data General, \$300,000.

1984 Study of portable communication Transmission protocols, TITN, \$24,000.

1984 Software Engineering with Databases, (with J. Carlis), \$491,207, Data General + \$45,000 matching University grant.

1984 National Research Service Award, NIH, \$46460

1985 Local Area Networks for Automation, NTI, \$60,000 (with David Du)

1985 Participant (but not principal investigator) of CER grant, NSF, 'Experimental Research in Computer Algorithms', \$3,622,190

1985 Equipment for Distributed System Laboratory, Bell Lab, \$25,000 (with A. Tripathi)

1986 Metropolitan Area Networks, NTI, \$40,000 (with D. Du)

1986 Lectures on Local Area Networks for Office Automation, National Academy of Sciences, \$10,000

1987 Classification and Recall of Software Design in Support of Reusability, NASA and Navy, \$80,122, (with C. Wild)

1988 An Integrated Research/Instructional Facility to Evaluate and Transfer Software Production Technologies, AT&T, \$728,000, Equipment Grant, (with D. Harnage, C.M. Overstreet, C. Wild, D. Ray)

1988 An Extremely High Data Rate, Reliable Network, CIT, \$80,865, (with R. Mukkamala, E. Foudriat)

1988 Photonic, Fault-tolerant Networks, NASA, \$8,650

1988 A Maintenance Apprentice, \$49,990, NASA and Navy, (with C. Wild)

1989 Lectures on Very High Speed Long Distance Networks, National Academy of Sciences, \$10,000

1989 Decision Based Case Tools, \$42,967, NASA (with C. Wild, S. Shen)

1989 High Speed Long Distance Networks, NASA, \$30,918 (with C.M. Overstreet)

1989 An Extremely High Data Rate, Reliable Network, \$93,171, CIT (with R. Mukkamala, E. Foudriat)

1989 An Extremely High Data Rate, Reliable Network, SUN, \$94,100, (with R. Mukkamala)

1990 Parallel Communication, NASA, \$19,997 (with C.M. Overstreet)

1990 High Speed Networking, SUN, \$105,182 (with R. Mukkamala)

1990 Distributed Simulation, Taurus, \$20,000 (with C.M. Overstreet)

1990 Reliable, High Performance Network Systems, CIT, \$81,299 (with R. Mukkamala, E. Foudriat)

1991 A Reliable Gigabit Network Based on Parallelism, DAPRA, \$162,400 (with C.M. Overstreet, R. Mukkamala, J. Wiencko, S. Midkiff)

1991 Parallel Communication, NASA, \$20,000 (with C.M. Overstreet)

1991 High Speed Networking, SUN \$180,985 (with R. Mukkamala)

1991 Network Management, SUN, \$21,000

1991 Distributed Simulation, Taurus, \$12,000 (with C.M. Overstreet)

1991 Reliable, High Performance Network Systems, CIT, \$51,400 (with C.M. Overstreet, R. Mukkamala, E. Foudriat)

1992 Development of a Case Tool to Support Decision Based Software Development, CIT, \$17,382 (with C. Wild)

1992 Development of a Case Tool to Support Decision Based Software Development, Unisys, \$12,500 (with C. Wild)

1992 Development of a Case Tool to Support Decision Based Software Development, NASA, \$12,500 (with C. Wild)

1992 Extremely High Data Rates, Reliable Network Systems Research ATM and Ethernet/FDDI Bridge and Support for TCP/IP over ATM LANs, NASA, \$12,500, (with C.M. Overstreet),

1992 Long Haul Network, United Nations, India Expert Program, \$10,000

1992 Computer Productivity Initiative, NSF, \$107,761 (with C. Wild, D. Ray), matched with \$139,568 from ODU

1992 High Speed Networking, SUN, \$50,000 (with A. Gupta)

1993 Wide Area Technical Report Server, NSF, \$22,736 (with E. Fox, J. French, A. Selman)

1993 High Speed Communication, United Nations, China visitor program, \$5,000

1993 Computer Productivity Initiative, NSF, \$107,761 (with C. Wild, D. Ray), matched with \$139,568 from ODU

1993 Development of a Case Tool to Support Decision Based Software Development, NASA, \$12,500 (with C. Wild)

1993 Extremely High Data Rates, Reliable Network Systems Research, NASA, \$12,500, (with C.M. Overstreet)

1993 A Parallel and Distributed Computing Environment for Scientific Applications, NASA, \$99,905 (with M. Zubair and C.M. Overstreet)

1994 Engineering Reliable Software Systems, NASA, \$77,996, (with C. Wild, S. Zeil)

1994 An Interactive Information Exchange and Retrieval Tool, NASA, STTR, \$100,000 (with H.A. Wahab)

1994 Technologies in Support of Distributed Simulation for Training and Instruction, ARPA, BMH, \$50,000, (with C.M. Overstreet)

1994 Development of a Case Tool to Support Decision Based Software Development, Unisys, \$8,090 (with C. Wild)

1994 Information Technology: A Tool to Cut Health Care Cost, NASA, \$19,905 (with R. Mukkamala)

1994 CoReview: An Interactive Information Exchange and Retrieval Tool, CIT, \$31,633 (with Hussein Abdel-Wahab)

1994 Support for TCP/IP over ATM LANs, NASA, \$18,000, (with C. M. Overstreet)

1994 Research support for Computing, ICASE, \$5,000, (with A. Gupta)

1995 Technologies in Support of Distributed Simulation for Training and Instruction, ARPA, BMH, \$262,000, (with C.M. Overstreet)

1995 An Interactive Remote Instruction Testbed, NSF, \$100,065, (with C.M. Overstreet)

1995 A Parallel and Distributed Computing Environment for Scientific Applications, NASA, \$65,600 (with C. M. Overstreet)

1995 Collaborative Interactive Remote Instruction, Sun Microsystem, \$78,560,(with C.M. Overstreet, H. Wahab)

1995 Graduate Fellowships in Computer Science, GAANN, DOE, \$154,743, (with D. Keyes, S. Olariu, A. Pothen)

1995 Support for TCP/IP over ATM LANs, NASA, \$18,000, (with C. M. Overstreet)

1995 Benchmarking the Automated Air Traffic Management System, NASA, \$24,169

1995 Research support for Computing, ICASE, \$14,000, (with A. Gupta)

1995 Distributed Informatics Access and Management, CEBAF, \$40,000, (with R. Mukkamala)

1995 Engineering Reliable Software Systems, NASA, \$70,900, (with C. Wild, S. Zeil)

1996 Interactive Remote Instruction, NSF, \$259,746 (plus \$179,368 match from ODU), (with C. M. Overstreet, H. Wahab, C. Wild)

1996 CoReview: An Interactive Information Exchange Retrieval Tool, \$100,000, (with H. Abdel-Wahab, R. Mukkamala), STTR

1996 Technologies in Support of Distributed Simulation for Training and Instruction, ARPA, BMH, \$150,000, (with C.M. Overstreet)

1996 Graduate Fellowships in Computer Science, GAANN, DOE, \$119,000, (with D. Keyes, S. Olariu, A. Pothen)

1996 A Collaborative Authoring Tool for the Internet, CIT, \$20,000, (with H. Abdel-Wahab, R. Mukkamala)

1996 NCSTRL: A National Computer Science Technical Report Library, NSF, \$59,000, (with A. Selman, J. French, E, Fox)

1996 A Parallel and Distributed Computing Environment for Scientific Applications, NASA, \$72,327 (with M. Zubair, C. M. Overstreet, A. Gupta)

1996 Distributed Privilege Access and Management, CEBAF, \$32,000, (with R. Mukkamala, I. Levinstein, A.Gupta)

1996 High Quality Networks, NASA, \$17,210

1996 Air Traffic Management. NASA, \$18,200, (with C.M. Overstreet)

1996 Undergraduate Research - IRI, NSF, \$17,768, (with C. M. Overstreet, H. Abdel-Wahab, C. Wild, A. Gupta)

1996 Admin-IRI Virtual Classroom, Sun Microsystems, \$99,980, (with C. M. Overstreet, H. Abdel-Wahab, C. Wild, A. Gupta)

1997 Interactive Remote Instruction, NSF, \$276,270 (plus \$200,035 match from ODU), (with C. M. Overstreet, H. Wahab, C. Wild)

1997 CoReview: An Interactive Information Exchange Retrieval Tool, \$100,000, (with H. Abdel-Wahab, R. Mukkamala), STTR

1997 Technologies in Support of Distributed Simulation for Training and Instruction, ARPA, BMH, \$50,000, (with C.M. Overstreet)

1997 Distributed Informatics Access and Management, Jefferson Lab, \$18,000, (with R. Mukkamala, I. Levinstein, A.Gupta)

1997 Graduate Fellowships in Computer Science, GAANN, DOE, \$123,000, (with D. Keyes, S. Olariu, A. Pothen)

1997 Air Traffic Management. NASA, \$18,200, (with C.M. Overstreet)

1997 Monitoring and Filtering for Distributed Systems, NASA, \$17,200

1997 NCSTRL+ Design, NASA, \$24,284

1997 Requirements Representation for Semi-automated Forces, Lockheed Marietta, \$33,000, (with C. M. Overstreet, I. Levinstein)

1997 Secure Web Applications for Legacy Databases, Jefferson lab, \$30,000, (with M. Zubair)

1998 NCSTRL+ and Usable Tools and Systems for NASA STI Mission, NASA, \$75,103, (with M. Zubair, S. Shen)

1998 Interactive Remote Instruction, NSF, \$242,916 (plus \$112,386 match from ODU), (with C. M. Overstreet, H. Wahab, C. Wild)

1998 Undergraduate Research - IRI, NSF, \$17,768, (with C. M. Overstreet, H. Abdel-Wahab, C. Wild, A. Gupta)

1998 Automated Content Synthesis for Interactive Remote Instruction, Sun Microsystems, \$105,385, (with C. M. Overstreet, H. Abdel-Wahab, C. Wild, A. Gupta)

1998 Graduate Fellowships in Computer Science, GAANN, DOE, \$123,000, (with D. Keyes, S. Olariu, A. Pothen)

1998 Digital Libraries for Science Education, NSF, \$80,355, (with M. Zubair, S. Shen)

1998 Secure Web Applications for Legacy Applications, Jefferson Lab, \$27,017, (with M. Zubair)

1999 IRI for industry, COX Comm., \$20,000, (with A. Gupta)

1999 NCSTRL+ and Usable Tools and Systems for NASA STI Mission, NASA, \$105,603, (with M. Zubair, S. Shen)

1999 Universal Preprint Service, Los Alamos NL, \$25,000, (with M. Zubair)

1999 Automated cataloguing and DL, JTASC, \$87,200, (with M. Zubair)

1999 Interactive Remote Instruction, NSF, \$157,198, (with C. M. Overstreet, H. Wahab, C. Wild, A. Gupta)

1999 Graduate Fellowships in Computer Science, GAANN, DOE, \$123,000, (with D. Keyes, S. Olariu, A. Pothen)

1999 Secure Web Applications for Legacy Databases, Jefferson lab, \$5,200, (with M. Zubair)

2000 Undergraduate Research - IRI, NSF, \$17,768, (with C. M. Overstreet, H. Abdel-Wahab, C. Wild, A. Gupta)

2000 Adaptive Web-based Learning in Support of Transfer Students, NSF, \$90,293 (participant with C. Wild, M. Zubair, S. Toida)

2000 Linux Router Project, Landmark, \$35,000, (with M. Zubair, A. Gupta)

2000 Graduate Fellowships in Computer Science, GAANN, DOE, \$123,000, (with D. Keyes, S. Olariu, A. Pothen)

2000 NCSTRL+ and Usable Tools and Systems for NASA STI Mission, NASA, \$108,612, (with M. Zubair, S. Shen)

2000 Automated cataloguing and DL, JTASC, \$21,244, (with M. Zubair)

2000 An Interoperable Platform Independent Digital Library for COMPTEVOR (US Navy)", Comptevor US Navy, \$75,000 (with M. Zubair)

2000 Web Applications for e-commerce, Jefferson lab, \$26,452

2000 Technical Report Interchange. Los Alamos National lab, \$35,520, (with M. Zubair)

2001 Graduate Fellowships in Computer Science, GAANN, DOE, \$123,000, (with D. Keyes, S. Olariu, A. Pothen)

2001 Automated cataloguing and DL, JTASC, \$85,500, (with M. Zubair)

2001 An Interoperable Platform Independent Digital Library for COMOPTEVOR (US Navy)", Comoptevor US Navy, \$44,000 (with M. Zubair)

2001 Technical Report Interchange. NASA Langley and Phillips Air Force lab, \$104,678, (with M. Zubair)

2001 Digital Library - TRI, NASA, (with M. Zubair), \$179,000

2001 NCSTRL - OAI realization, CIT, (with M. Zubair, E. Fox, J. French, M. Nelson), \$30,000

2001 NSDL - An OAI-compliant Physics digital library for NSDL, NSF, \$225,478

2001 Web Applications for e-commerce, Jefferson lab, \$29,875

2002 TRI, Los Alamos National Lab, (with M. Zubair), \$34,959

2002 TRI, Sandia National Lab, (with M. Zubair), \$34,959

2002 An Interoperable Platform Independent Digital Library for COMPTEVOR (US Navy)", Comptevor US Navy, \$72,000 (with M. Zubair)

2002 Kepler - A Communal Digital Library, NSF, \$250,000, (with M. Zubair, M. Nelson)

2002 NSDL - An OAI-compliant Physics digital library for NSDL, NSF, \$254,229, (with M. Zubair, M. Nelson)

2002 An Interoperable Platform Independent Digital Library for COMPTEVOR (US Navy)",
Comptevor US Navy, \$14,200 (with M. Zubair)

2002 Digital Library - TRI, NASA, (with M. Zubair), \$189,900

2002 Oracle E-business applications and High Performance Computing., SUN Microsystems, (with
A. Gupta), \$69,500

2003 NSDL - An OAI-compliant Physics digital library for NSDL, NSF, \$254,229, (extension; with M.
Zubair, M. Nelson)

2003 Kepler - A Communal Digital Library, NSF, \$250,000, (with M. Zubair, M. Nelson)

2003 Digital Library - TRI, Sandia, (with M. Zubair), \$12,000

2003 A self-sustainable Digital Library for Evolving Communities, NSF, \$152,000, (with M. Zubair)

2004 NSDL - An OAI-compliant Physics digital library for NSDL, NSF, \$254,229, (extension; with M.
Zubair, M. Nelson)

2004 Aggregating, Integrating, Preserving, and Enhancing the NASA Digital Information
Framework, NASA, \$240,000, (with M. Zubair, M. Nelson, J. Bollen)

2004 Tools For Extracting Metadata And Structure From Dtic Technical Documents Collections
Using Xml Technology, DTIC, \$50,000, (with M. Zubair)

2004 Enhancing Infrastructure for OAI, Andrew Mellon Foundation, \$121,364, (with M. Zubair, M.
Nelson)

2004 Dynamic Distributed Access Control Management System for a Federated Digital Library
Based on IBM Autonomic Policy Framework, IBM, \$40,000, (with M. Zubair, R. Mukkamala),
Research Excellency Award

2004 Kepler - A Communal Digital Library, NSF, \$200,000, (with M. Zubair, M. Nelson)

2004 A self-sustainable Digital Library for Evolving Communities, NSF, \$147,000, (with M. Zubair)

2005 Aggregating, Integrating, Preserving, and Enhancing the NASA Digital Information
Framework, NASA, \$40,000, (with M. Zubair, M. Nelson)

2005 Tools For Extracting Metadata And Structure From Dtic Technical Documents Collections
Using Xml Technology, DTIC, \$94,000, (with M. Zubair, S. Zeil)

2005 Enhancing Infrastructure for OAI, Andrew Mellon Foundation, \$121,364 (continuation), (with
M. Zubair, M. Nelson)

2005 Kepler - A Communal Digital Library, NSF, \$200,000 (continuation), (with M. Zubair, M.
Nelson)

2005 A self-sustainable Digital Library for Evolving Communities, NSF, \$147,000 (continuation),
(with M. Zubair)

2005 Dynamic Distributed Access Control Management System for a Federated Digital Library Based on IBM Autonomic Policy Framework, IBM, \$40,000, (with M. Zubair, R. Mukkamala), Research Excellency Award

2006 Enhancing Infrastructure for OAI, Andrew Mellon Foundation, \$121,364 (continuation), (with M. Zubair, M. Nelson)

2006 Kepler - A Communal Digital Library, NSF, \$200,000 (continuation), (with M. Zubair, M. Nelson)

2006 A self-sustainable Digital Library for Evolving Communities, NSF, \$147,000 (continuation), (with M. Zubair)

2006 Tools For Extracting Metadata And Structure From Dtic Technical Documents Collections Using Xml Technology, DTIC, \$94,000, (continuation), (with M. Zubair, S. Zeil)

2006 A Prototype of the HumanVirus Interactome Resource(HVIR), (with A. Pothen, M. Zubair, C. Osgood, O. Semmes), \$95,000, ODU

2006 Extracting Metadata And Structure From NASA Technical Documents Collections, NASA, \$34,000, (with M. Zubair, S. Zeil)

2006 Automating IT Infrastructure Management Processes in a Typical University Environment, IBM, \$40,000, (with M. Zubair, R. Mukkamala), Research Excellency Award

2006 Metadata and OAI, DTIC, \$7,000, (with M. Zubair)

2007 Kepler - A Communal Digital Library, NSF, \$200,000 (continuation), (with M. Zubair, M. Nelson)

2007 Extracting Metadata And Structure From NASA Technical Documents Collections, NASA, \$34,000 (continuation), (with M. Zubair, S. Zeil)

2007 Automating IT Infrastructure Management Processes in a Typical University Environment, IBM, \$40,000, (continuation) (with M. Zubair, R. Mukkamala), Research Excellency Award

2007 Tools For Extracting Metadata And Structure From Dtic Technical Documents Collections Using Xml Technology, DTIC, \$16,828, (continuation), (with M. Zubair, S. Zeil)

2007 Autonomic Approach to Change Management and Reservation of IT Resources in a Virtual Computing Lab Environment, IBM, \$25,000, (with M. Zubair, R. Mukkamala), Research Excellency Award

2007 Collaborative Classification of Large, Growing Collections with Evolving Facets, NSF, \$147,573, (with H. Wu, M. Zubair)

2007 Processes and Tools For Extracting Metadata, DTIC, \$54,726, (with M. Zubair, S. Zeil)

2007 Automated Extracting of Metadata for GPO, DTIC, \$84,700, (with M. Zubair, S. Zeil)

2008 Processes and Tools For Extracting Metadata, DTIC, \$84,371, (with M. Zubair, S. Zeil)

2008 Autonomic Approach to Change Management and Reservation of IT Resources in a Virtual Computing Lab Environment, IBM, \$25,000 (continuation), (with M. Zubair, R. Mukkamala), Research Excellency Award

2008 Collaborative Classification of Large, Growing Collections with Evolving Facets, NSF, \$128,067, (with H. Wu, M. Zubair)

2008 Automated Extracting of Metadata for GPO, DTIC, \$64,906, (with M. Zubair, S. Zeil)

2008 Marc21 Representation of Metadata, \$15,000,DTIC, (with M. Zubair, S. Zeil)

2009 Collaborative Classification of Large, Growing Collections with Evolving Facets, NSF, \$127,914, (with H. Wu, M. Zubair)

2009 Automated Extracting of Metadata for GPO, DTIC, \$64,906, (with M. Zubair, S. Zeil)

2009 Processes and Tools For Extracting Metadata, DTIC, \$84,371, (with M. Zubair, S. Zeil)

2009 REU- Collaborative Classification of Large, Growing Collections with Evolving Facets, NSF, \$16,000 (with H. Wu, M. Zubair)

2010 Processes and Tools For Extracting Metadata, DTIC, \$84,371, continuation, (with M. Zubair, S. Zeil)

2010 Collaborative Classification of Large, Growing Collections with Evolving Facets, NSF, \$127,914, continuation, (with H. Wu, M. Zubair)

2010 REU- Collaborative Classification of Large, Growing Collections with Evolving Facets, NSF, \$16,000 continuation, (with H. Wu, M. Zubair)

2010 Exploring Social Classification on Microsoft Azure, NSF, \$80,702 (with H. Wu, M. Zubair)

2011 Exploring Social Classification on Microsoft Azure, NSF, \$80,702 continuation (with H. Wu, M. Zubair)

2011 REU- Collaborative Classification of Large, Growing Collections with Evolving Facets, NSF, \$16,000 continuation, (with H. Wu, M. Zubair)

2014 Spaghetti Diagrams using Mobile Technology, (CHKD - \$52,500, Education Foundation - \$12,500, ODU match – \$40,000), (with Tamer Nadeem, Ajay Gupta, Sandip Godambe, Arno Zaritsky)

2014 Using a scaffolding-based blogging approach to improve IT and CS undergraduate students' disciplinary writing skills, ODU IDW, \$19,000, (with Wu, Harris, and Xu, Li and Wu, He)

PhD Students

Ketabchi, Mohammad, On the Management of Computer Aided Design Databases for CAD, December 1985, Santa Clara University

Sharrock, Suzanne, Mechanisms for Integrated Voice, Data, and Video in LAN-based systems, July 1987, (co-advisor with D. Du) Carlton College

Game, David, Performance Improvements for FDDI and CSMA/CS Protocols, December 1990, Christopher Newport University

Pattera, Frank, Parallel Transport Protocols in Support of Remote Visualization, December 1991, CTA Inc, (co-advisor with C.M. Overstreet)

Khanna, Sanjay, Parallel Network Systems, August 1993, IBM

Shubhangi, Kelkar, A Parallel and Distributed Environment for Scientific Applications, Dec. 1996 (co-advisor with M. Zubair), General Dynamics

Dharanikota, Sudheer, Quality of Service Architecture for Native TCP/IP Over ATM Networks, Raytheon, May 1996

Roberts, Cathy, A Decision-Based Environment for Project Management, May 98, Roberts, Inc., (co-advisor with C. Wild)

Alaa Youssef, A Quality of Session Control Framework for Multimedia Multicast Systems, August 98, IBM TJ Watson, (co-advisor with H. Wahab)

Ehab S. Al-Shaer, Hierarchical Filtering-Based Monitoring Architecture for Large-Scale Distributed Systems, August 98, DePaul University, (co-advisor with H. Wahab)

Michael Nelson, Smart Objects and Dumb Archives: Using Buckets in Digital Libraries, August 2000, NASA Langley/University of North Carolina, Chapel Hill

Dave Cavitt, An Architectural Framework for Performance Analysis: supporting the Design, Configuration, and Control of DIS/HLA Simulations, Dec 2000, BMH (co-advisor with C.M. Overstreet)

Xiaoming Liu, Federating Heterogeneous Digital Libraries by Metadata Harvesting, (co-advisor M. Zubair), Dec. 2002, Postdoc at Los Alamos National Lab

Mohamed Kholief, Event-based retrieval from digital libraries containing data streams, (co-advisor S. Shen), Dec. 2003, California University of Pennsylvania

Anan Hesham, A 3D Digital Library for Compressed 3D Models, (co-advisor M. Zubair), Dec 2004, ECPI

Rong Shi, A Lightweight Federation of Interoperable Digital Libraries, (co-advisor with M. Zubair), May 2005, Reynolds&Reynolds

Jianfeng Tang, Template-based Metadata Extraction for Heterogeneous Collection, (co-advisor M. Zubair), Dec 2006, University of Illinois, research scientist

Amrou Ashraf, Freelib: A Self-Sustainable Peer-To-Peer Digital Library Framework For Evolving Communities, (co-advisor M. Zubair), Dec 2007, Old Dominion University, research scientist

Paul Flynn, Document Classification in Support of Automated Metadata Extraction from Heterogeneous Collections (co-advisor with S. Zeil), April 2014, Applied Research Associates

Hui Shi, Scalable Reasoning for Knowledge Bases Subject to Changes, (co-advisor S. Zeil), August 2014, University of Southern Indiana

Postdoc

Francis Jayakanth, IISC, Bangalore, India, Fullbright Scholar, 2004-05.

Summary of Interest Areas

I am currently interested in the research areas of digital libraries, very high-performance networks, and Internet resource access.

Collaborators

Los Alamos National Laboratory, Unites States Geological Society, University of Melbourne, Open Language Archives Community, NASA Langley, Jefferson Lab, CERN, Emory University, IIT Dehli, IISC Bangalore, Virginia Tech, Raytheon, American Physical Society, IBM TJ Watson Research Lab

Patents

- (1) ``Control Access Through Local Carrier Sensing for High Data Rate Networks and Control of Access of Synchronous Messages Through Circulating Reservation Packets'', (with E. Foudriat, C.M. Overstreet, F. Pattera, S. Khanna), U.S. Patent No. 5,229,993, 7/20/93
- (2) ``System, Method, and Computer Program for Coordinated Browsing'', (with M. Zubair), 5/28/99, Provisional Patent Application; source license, non-exclusive, sold to Neteffect (which was bought by Ask Jeeves), Nov. 1999

Refereed Journals and Books

- (1) ``Software Paging in an Interpretive Environment'', International Journal of Computer Mathematics, Vol. IV, pp. 69-75, December 1974 (also Tech. Rep. 73-4)
- (2) ``A Programming Style'', International Journal of Computer Mathematics, Vol. IV, pp. 309-325, August 1975
- (3) ``Compressed Tries'', Communications of ACM, 19, 7, pp. 409-415, July 1976 (also Tech. Rep. 74-12)
- (4) ``A Multilevel Flow Control Statement'', International Journal of Computer Mathematics, (with W.R. Franta, also Tech. Rep. 74-20), Vol. V, pp. 297-307
- (5) ``An Efficient Data Structure for the Event Set'', Communications of ACM, August 1977, (with W.R. Franta), pp. 596-602
- (6) ``A Framework for Investigating a Class of Distributed Processing Algorithms'', IEEE Transactions on Systems, Man and Cybernetics, August 1977, pp. 597-604, (with W.R. Franta)
- (7) Fundamentals of the Computing Sciences, 512 p., Prentice-Hall, 1978 (with A. Hanson)
- (8) Supplement to Fundamentals of the Computing Sciences, 354 p., Prentice-Hall, 1978 (with A. Hanson)
- (9) ``A Note on Virtual Memory Indexes'', Communications of ACM, (also Tech. Rep. 77-9), September 1978, pp. 786-787
- (10) ``A Comparison of HEAPS of the TL Structure for the Simulation Event Set'', Communication of ACM, (with W.R. Franta, also Tech. Rep. 77-19), October 1978, pp. 873-875

- (11) "On the Representation of the Simulation Event Set", Communications of ACM, (with W.R. Franta), Technical Correspondence, March 1980
- (12) "Algorithms", Computer Handbook, Van Nostrand Reinhold Corp, pp. 805-815, 1984
- (13) "A Framed, Movable-Boundary Protocol for Integrated Voice/Data in a LAN", Computer Communications Review, special SIGCOMM issue, Vol. 16, No 3, pp. 111-119, August 1986, (with S. Sharrock, S. Ghanta, H. Du), same as II, 11
- (14) "Dynamic Resource Allocation in a Metropolitan Network", Computer Communications Review, special SIGCOMM issue, Vol. 18, No. 4, pp. 13-24, August 1988, (with C.M. Overstreet, Xiao-ping Qui, Deqing Tang), same as II, 14.
- (15) "An Efficient File Structure for Document Retrieval in the Automated Office Environment", IEEE, Transactions on Data and Knowledge Engineering, (with H. Du, S. Ghanta, S. Sharrock), Vol. 1 No. 2, July 1989, pp. 258-273
- (16) "A Framed, Movable-Boundary Protocol for Integrated Voice/Data in a LAN", Computer Networks & ISDN, (with S. Sharrock, S. Ghanta, H. Du), Vol. 18, No. 1, pp. 1-19, November 1989
- (17) "Decision-Based-Support-Paradigm: A New Method to Structure Source Code" (with C. Wild, L. Liu), Journal of Software Maintenance, pp. 17-43, March 1991
- (18) "A Carrier Sensed Multiple Access Protocol for High Data Rate Ring Network" (with E.C. Foudriat, C.M. Overstreet, S. Khanna, F. Pattera), Computer Communications Review, pp. 59-70, April 1991
- (19) "Dynamic Allocation of Bandwidth in Multichannel Metropolitan Area Networks" (with E.C. Foudriat, D. Game, R. Mukkamala, C.M. Overstreet), Computer Networks & ISDN Systems 25 (1992), pp. 203-223
- (19a) "Building a Phased, Structured Approach to Reengineering Legacy Software Systems", (with Tammy Taylor, Frank Sparks, Chris Wild), Crosstalk The Journal of Defense Software Engineering, Sept. 1994
- (20) Academic Careers for Experimental Computer Scientists and Engineers, p. 139, National Academy Press, Washington, D.C., 1994, Co-author (with L. Snyder, F. Baskett, M. Carroll, D. Coleman, D. Estrin, M. Furst, J. Hennessy, H.Kung, B. Reid)
- (21) "Average Waiting Time Profiles of Uniform Distributed Queue Dual Bus System Model" (with N. Rao, S. Olariu, S. Dharanikota, L. Zhang, D. Game), IEEE Trans. Parallel and Distributed Systems, 6, (1995), 1068 - 1084
- (22) "Wide Area Technical Report Service - Technical Reports Online" (with J. French, E. Fox, A. Selman), Communications of the ACM, p.45, April 1995
- (23) "Mosaic + XTV = CoReview" (with H. Abdel-Wahab, R.Mukkamala, A. Gupta, A. Prabhu), Computer Networks and ISDN systems, Vol. 27, No. 6, pp. 849-860, April 1995
- (24) High Performance Networking VI, 378 p., Chapman & Hall, 1995, Edited by Ramon Puigjaner: "Performance Trade-offs for a Multimedia Distributed Application", (with C.M. Overstreet, H. Abdel-Wahab, A. Gupta, Muthu Kumar, R. Srivastava), pp. 181-195, see also II,60
- (25) State-of-the-art in Performance Modeling and Simulation: Advanced Computer Systems, Gordon and Breach, Edited by Kallol Bagchi, 1996, "Modeling and Distributed Simulation Techniques for Synthetic Training Environments", (with D. Cavitt, C.M. Overstreet), pp. 194-218

- (26) Testing of Communication Systems 361 p., Chapman & Hall, Sept. 1996, Edited by Bernd Baumgarten and Heinz-Jurgen Burkhardt: A Workstation's Communication Performance Benchmark", (with A. Gupta, S. Mynam), pp. 60-76, see also II, 70
- (27) Advanced IT Tools, 566p., Chapman & Hall, Sept. 96, Edited by Nobuyoshi Terashima and Edward Altman: "PMS: Privilege Management System for Secure Distributed Resource Sharing" (with A. Gupta, B. Kvande, I.B. Levinstein, R. Mukkamala, M. Olson, R. Chambers, R. Whitney) pp. 348-355, see also II, 71
- (28) "Interactive Remote Instruction: Lessons Learned" (with C. Wild, C.M. Overstreet, H. Abdel-Wahab, A. Gupta, A. Youssef, E. Stoica, R. Talla, A. Prabhu), Journal of Networks and Computer Applications, Oct. 96,(20:4), pp. 395-404
- (29) Implementing Systems for Supporting Management Decisions, Chapman & Hall, Sept. 96, Edited by P. Humphreys, L. Bannon, A. McCosh, P. Migliarese and J.C. Pomerol: Processes for Managing Project Uncertainty with Contingency Planning" (with C. Roberts, C. Wild), pp. 352-365, see also II, 64
- (29) "Interactive Distance Learning over Intranets", (with H. Abdel-Wahab, C.M. Overstreet, C. Wild, A. Gupta, A. Youssef, E. Stoica, E. Al-Shaer and R. Talla), IEEE Journal of Internet Computing, Vol. 1, 1, Jan. 97, pp. 60-71
- (30) "Virtual Classrooms and Interactive Remote Instruction" (with C. Wild, C.M. Overstreet, H. Abdel-Wahab, A. Gupta, A. Youssef, E. Stoica, R. Talla, A. Prabhu), International Journal of Innovations in Education and Training, Vol.34, 1, pp. 44-51, 1997
- (31) Multimedia Modeling, World Scientific Publ. Co, Nov. 96, Edited by J. P. Courtiat, M. Diaz, P. Senac: Multimedia Integration into a Distance Learning Environment (with H. Abdel-Wahab, E. Stoica), pp. 69-84, see also II,74
- (32) "The Role of Multicasting in Interactive Multimedia Distance Learning Systems", (with H. Abdel-Wahab, E. Stoica and A. Youssef), Journal of Network and Systems Management: Special Issue on Multimedia Network/Service Management, Vol.5, No. 3, pp. 351-368, Sept. 1997
- (33) "Web Based Framework for Parallel Computing", (with Z. Chen, P. Mehrotra, P.K. Vangala, M. Zubair), Journal of Concurrency Practice and Experience, Wiley, Vol 9, Nov. 1997, pp. 1175-80
- (34) "Use of Web technology for interactive remote instruction", (with C. M. Overstreet, A. Gonzalez, M. Denbar, R. Cutaran, N. Karunatrane, C. J. Srinivas), Computer Networks and ISDN Systems, Vol. 30, 1-7, pp. 660-662, April 1998
- (35) "BTU: A Host Communication Benchmark", (with A. Gupta, S. Mynam), IEEE Computer, Vol.31, 5, May 1998, pp.66-75
- (36) "Buckets: Aggregative, Intelligent Agents for Publishing", (with M. L. Nelson, N.T. Shen, M. Zubair), WebNet Journal, Vol. 1, No. 1, pp. 58-65, March 1999
- (37) "Dynamic monitoring Approach for Multi-point Multimedia Systems", (with Ehab Al-Shaer, H. Abdel-Wahab), International Journal on Networking and Information Systems, Vol 2, 260,1&2, pp 75-88, June 1999
- (37a) Advanced Computer Systems, Gordon and Breach, Edited by George Zobrist, Kallol Bagchi, Kishor Trivedi, 1999, " Modeling and Distributed Simulation Techniques ", (with D. Cavitt, C.M. Overstreet), pp. 237 - 260

- (38) "Smart Objects, Dumb Archives A User-Centric, Layered Digital Library Framework", (with M. L. Nelson, M. Zubair), D-Lib Magazine, March 1999, Volume 5 Issue 3
- (39) "The Architecture of a Middleware Layer for Controlling the Quality of Multimedia Sessions", (with Alaa Youssef, H. Abdel-Wahab), invited paper, Cluster Computing: The Journal of Networks, Software Tools and Applications, Vol 2, pp. 187 – 194, Dec 1999
- (40) "Enabling Quality of Session Control in Adaptive Multimedia Multicast Systems", (with Alaa Youssef, H. Abdel-Wahab), Interoperable Communication Networks Journal, special issue on QoS Control in Multimedia Network/Services, Vol 2, No. 2-4, pp. 287-295, January 2000
- (41) "The UPS Prototype project: team, goals, motivation and relation to the {Santa Fe} Convention", (with H. van De Sompel, T. Krichel, M. L. Nelson, P. Hochstenbach, V. M. Lyapunov, M. Zubair, M. Kholief, X. Liu, H. O'Connell), D-Lib Magazine, Feb 2000, Volume 6 Issue 2
- (42) "Adaptive Object-Oriented Filtering Framework for Event Management Applications", (with Ehab Al-Shaer, Mohamed Fayad, Hussein Abdel-Wahab), ACM Computing Surveys' Symposium on Object-Oriented Application Frameworks, M.E. Fayad (Guest Editor), Vol. 32, No. 1, March 2000.
- (43) "Architecture for Event-Based Retrieval from Data Streams in Digital Libraries", (with Mohamed Kholief, Stewart Shen), Research and Advanced Technology for Digital Libraries, Lecture Notes in Computer Science, Springer Berlin / Heidelberg, Volume 2163/2001, pp. 300 – 311, January 2001, (see also Conference publication 128)
- (44) "An Architecture and Initial Performance Data for a JAVA-based Distance Education System", (with H. Abdel-Wahab, C. Wild, C. M. Overstreet, A. Gupta, A. Abdel Hamid, S. Ghanem, A. González, X. Zhu), ACM Journal of Educational Resources in Computing, Vol. 1, No. 1, Spring 2001
- (45) "Preserving the Pyramid of STI Using Buckets", (with M. L. Nelson), International Journal of Grey Literature, Vol 1, Issue 4, April 2001
- (46) " Buckets: Smart Objects for Digital Libraries", (with M.L. Nelson), CACM 44, 5, May. 2001, pp. 60 - 62
- (47) "Smart Objects and Open Archives", (with M. Nelson), D-Lib Magazine, February 2001, Volume 7 Issue 2
- (48) "Arc - An OAI Service Provider for Digital Library Federation", (with X. Liu, M. Zubair, and M. L. Nelson), D-Lib Magazine 7(4), April 2001.
- (49) "KEPLER - An OAI Data Provider for the Individual", (with M.Zubair, X.Liu), D-Lib Magazine 7(4), April 2001.
- (50) "Federated Searching Interface Techniques for Heterogeneous OAI Repositories", (with X. Liu, M. Zubair, Q. Hong, M. Nelson, F. Knudson, I. Holtkamp, JoDI Special Issue on Interactivity in Digital Libraries, Vol 2, Issue 4, May 21, 2002

- (51) "A Scalable Architecture for Harvest-Based Digital Libraries - The ODU/Southampton Experiments", (with X. Liu, T. Brody, S. Harnad, L. Carr, M. Zubair, M. L. Nelson), D-Lib Magazine 8(11), November 2002
- (52) "H3M - A Network Access Methodology Supporting QoS", (with E. Foudriat), Computing and Informatics, Vol.21, pp. 119-147, 2002
- (53) "An Advanced Satellite Uplink Media Access System", (with E. Foudriat, Stephan Olariu, Petia Todorova), Journal of Wireless Communications and Mobile Computing, Vol. 3, Issue 2, pp. 225-238, 2003
- (54) "Fairness in DQDB revisited: a new solution", (with S. Olariu, L. Zhang, N. Rao), International Journal of Computer Systems Science & Engineering, (2), pp. 63-70, May 2003
- (55) "The Essential Elements of Interactive Multimedia Distance Learning Systems, (with H. Abdel-Wahab, C. Wild, C. M. Overstreet, A. Abdel Hamid, S. Ghanem, Waleed Farag), International Journal of Distance Education Technologies, 1(2), pp. 17-36, April 2003
- (56) "Dependable Systems", H. Diab and A.Y. Zomaya, Eds, John Wiley & Sons, "A Dependable Architecture for Telemedicine in Support of Disaster Relief", 2004.
- (57) "Enhancing Infrastructure for OAI: the DLGrid", (with M. Zubair), D-Lib Magazine, In Brief, Volume 10 Number 6, June 2004
- (58) "Lessons Learned with Arc, An OAI-PMH Service Provider", (with X. Liu, M. Zubair, M. L. Nelson), Library Trends, Vol. 53, No. 4, Spring 2005 ("The Commercialized Web: Challenges for Libraries and Democracy," edited by Bettina Fabos), pp. 590–603
- (59) "Approaches to make CDS/ISIS databases interoperable with OAI-compliant digital libraries", (with F. Jayakanth, M. Zubair, and L. Aswath), Electronic Library & Information Systems, Issue 3 of Vol. 39, 2005
- (60) "Static and Dynamic Approaches to Make Legacy Databases OAI-compliant", (with F. Jayakanth, M. Zubair, and L. Aswath), D-Lib Magazine, In Brief, Volume 11 Number 10, October 2005.
- (61) "Scientific and Technical Reports – Preparation, Presentation, and Preservation", (with Kurt Molholm, Chair, Ramona Bernard, Jane L. Cohen, Eleanor G. Frierson, Maureen L. Long, Gabrielle Michalek, Gopalakrishnan Nair, Frederick M. O'Hara, Jane Ryan, Sharon Thibodeau, Thomas L. Warren), An American National Standard Developed by the National Information Standards Organization Published by the National Information Standards Organization, NISO Press, Bethesda, Maryland, U.S.A. Approved by NISO. ANSI approved, p. 96, June 2005
- (62) "Access Management in Federated Digital Libraries", (with Kailash Bhoopalam, Mohammed Zubair, Ravi Mukkamala), IADIS International Journal of WWW/Internet, Volume V III, 1, pp. 29-42, 2005
- (63) 'Telemedicine For Disaster Relief: A Novel Architecture', (with S. Olariu, E. C. Foudriat, C. M. Overstreet, S. Yamani, T. Luckenbach), Journal of Mobile Multimedia, Special Issue On Telemedicine, pp. 1-22, Vol. 1, No 4, pp. 285—306, (2006)
- (64) "Automated Template-Based Metadata Extraction Architecture", (with Paul Flynn, Li Zhou, Steven Zeil, and Mohammad Zubair), Asian Digital Libraries. Looking Back 10 Years and Forging New Frontiers, Lecture Notes in Computer Science, Springer Berlin / Heidelberg, Volume 4822/2007, pp. 326 – 336, January, 2008 (see also Conference publication 184)

(65) "Performance Evaluation of Freelib, a P2P-based Digital Library Architecture", (with A. Amrou, and M. Zubair), World Digital Libraries: An International Journal, April 2009, accepted for publication

(66) "Scheduling-Capable Autonomic Manager for Policy Based IT Change Management System", (with H. Abdel Salam, R. Mukkamala, M.Zubair, David Kaminsky), Journal of Enterprise Information Systems, Volume 4 Issue 4, pp. 423 – 444, November 2010

(67) "A Proactive Energy-Efficient Technique for Change Management in Computing Clouds", (with Hady AbdelSalam, Ravi Mukkamala, Mohammad Zubair, and David Kaminsky), vol 3, no 1&2, Sept. 2010, pp. 303-315, International Journal On Advances in Networks and Services, invited as top paper at SERVICES COMPUTATION 2009 conference

(68) "A Scalable Backward Chaining-based Reasoner for a Semantic Web", (with Hui Shi and Steve Zeil), International Journal on Advances in Intelligent Systems, issue no 1&2, pp. 23-38, June 2014

Reprinted Papers

(1) "The Effect of Microprocessors on Distributed Computing", reprinted in Canadian Datasystems, July 1977, pp. 33-37

(3) "Dynamic Resource Allocation in a Metropolitan Network", reprinted in Expert System Applications in Integrated Network Management, Artech House, Inc., 1990

Invited Talks and Workshops

(1) "Performance Issues in Metropolitan Area Networks: DQDB, FDDI", Third Triangle Conference on Computer Communications, High Speed Networks, March 26-27, 1990

(2) Gigabit Testbed Workshop, Washington, DC, February 12-15, 1991

(3) DARPA/ISTO Principal Investigators' Workshop, Monterey, CA, March 26-28, 1991

(4) Fiber-Optics Workshop, Blacksburg, VA, April 1-2, 1991

(5) Gigabit Testbed Workshop, San Diego, CA, January 1992

(6) Workshop on the Architecture and Implementation of High Performance Communication Subsystems, Tucson, AZ, February 1992

(7) International Workshop on Advanced Communications and Applications for High Speed Networks 91, Munich, March 1992

(8) Information Technology Workshop, Herndon, VA, June 2, 1992

(9) Workshop on Careers for Experimental Computer Scientists, Snowbird, Utah, July 1992

(10) Workshop on Electronic Dissemination of Technical Reports, Snowbird, Utah, 1992

(11) Educational Infrastructure Workshop, Washington DC, April 1993

- (12) Workshop on Software Reuse, Herndon, April 1993
- (13) Gigabit Testbed Workshop, Washington DC, June 1993
- (14) Workshop on Monticello Electronic Library Project, August 1994
- (15) Gigabit Maxijam, Washington D.C., November 1994
- (16) Distributed Multimedia for Software Engineering Educators, Software Quality Conference, Tyson's Corner, VA, March 1995
- (17) Bringing Industry Perspective with the Computer Science Curricula, Software Quality Conference, Tyson's Corner, VA, March 1995
- (18) HP Distance Learning Initiative Workshop, London, UK, Feb. 1996
- (19) Communication Benchmark, ICASE Roundtable, Williamsburg, Oct. 96

Refereed Conference and Symposium Proceedings

- (1) ``Simulation Structures and SETL'', IFIP Congress 1974, North Holland Publ. Comp., pp. 208-212, August 1974, (with W.R. Franta)
- (2) ``The Suitability of a Very High Level Language (SETL) for Simulation Structuring and Control'', Programming: Lecture Notes in Computer Science, Vol. XIX, pp. 156-169, November 1974, Springer-Verlag (with W.R. Franta)
- (3) ``A First Course in Computer Science: What It Should Be and Why'', Fifth Technical Symposium of the ACM SIGGSE, Proceedings, pp. 95-101, February 1975 (with A. Hanson, also Tech. Rep. 74-25)
- (4) ``Programming and its Implication on Programming Languages -- Introduction and Overview'', Annual Conference of ACM '75, Proceedings, pp. 213-214, October 1975
- (5) ``A Case for Proper Data Structure Selection'', Information Sciences and Systems Proceedings, pp. 184-188, February 1976 (with K. Ng, also Tech. Rep. 74-29)
- (6) ``Distributed Processing and Its Implication on Languages, Algorithms, and their Analysis'', Minisystems '76 Conference, Proceedings, pp. 144-158, April 1976 (with W.R. Franta, also Tech. Rep. 76-1)
- (7) ``An Event Scanning Algorithm of Nearly Constant Complexity'', Simulation of Systems, North-Holland Publishing Company, pp. 439-444, 1976 (with W.R. Franta, also Tech. Rep. 75-18)
- (8) ``A Note on Virtual Memory Indexes'', COMPSAC '77 Proceedings, pp. 450-452, November 1977
- (9) ``H-Trees'', IFIP Congress 1980, North-Holland Publishing Company, pp. 445-450, October 1980, (with L. Kampa, also Tech. Rep. 79-27)
- (10) ``Generalization per Category: Theory and Application'', Sixth Conference on Information Systems, Proceedings, December 1985, (with M. Ketabchi, V. Berzins, also Tech. Rep. 85-29)
- (11) ``A Framed, Movable-Boundary Protocol for Integrated Voice/Data in a LAN'', SIGCOMM '86, Proceedings, 9 pp., August 1986, (with S. Sharrock, S. Ghanta, H. Du)

- (12) "A Document Retrieval System for the Automated Office Environment", Third International Conference on Data Engineering, Proceedings, 12 pp., February 1987, (with S. Sharrock, S. Ghanta, H. Du)
- (13) "A Broadband Integrated Voice/Data/Video Network of Multiple LANs with Dynamic Bandwidth Partitioning" (with S. Sharrock, S. Ghanta, H. Du), Infocom '87, Proceedings, 11 pp., March 1987
- (14) "Dynamic Resource Allocation in a Metropolitan Network", SIGCOMM '88, Proceedings, pp. 13-24, August 1988, (with C.M. Overstreet, Xiao-ping Qui, Deqing Tang)
- (15) "Towards a Software Maintenance Support Environment", Software Maintenance Conference - 1988, Proceedings, pp. 79-86, October 1988, (with C. Wild)
- (16) "Decision-Based Software Development: Design and Maintenance" (with C. Wild), Software Maintenance Conference - 1989, October 1989, pp. 297-306
- (17) "Traffic Placement Policies for a Multi-Band Network" (with E.C. Foudriat, D. Game, R. Mukkamala, C.M. Overstreet), SIGCOMM '89, Proceedings, pp. 94-105, September 1989
- (18) "Decision-Based-Support-Paradigm: A New Method to Structure Source Code", (with C. Wild, L. Liu), Proceedings of the Conference on Software Maintenance, pp. 218-229, November 1990
- (19) "Distributed Simulation: No Special Tools Required." (with F. Pattera, C.M. Overstreet), Proceedings Winter Simulation Conference, December 1990, pp. 423-427
- (20) "Improvements for the Next Generation of FDDI" (with D. Game), International Phoenix Conference on Computers and Communications, pp. 710-716, March 1991
- (21) "A Software Development and Evolution Model Based on Decision Making" (with C. Wild, J. Dong), The Third International Conference on Software Engineering and Knowledge Engineering, pp. 9-14, June 1991
- (22) "Average Waiting Time: Profiles of DQDB", (with N. Rao, S. Olariu, L. Zhang, D. Game), 1991 International Conference on Parallel Processing, pp. 278-279, August 1991
- (23) "A Process Model for Decision Based Software Development" (with C. Wild, J. Dong, G. Hu), Maintenance Conference '91, pp. 12-22, October 1991
- (24) "Combining Two Media Access Protocols to Support Integrated Traffic", (with E. Foudriat, C.M. Overstreet, S. Khanna, L. Zhang), Local Area Networks Conference, Minneapolis, pp. 442-451, October 1991
- (25) "Parallelism for High Speed Networks" (with C.M. Overstreet, R. Mukkamala, M. Zubair, F. Pattera, S. Khanna, Y.S. Sekhar, R. Yerraballi), Workshop on High Performance Communication Subsystems, 6 pp., February 1992
- (26) "User Response Time Optimization in a Metropolitan Area Network Concept" (with C.M. Overstreet, L. Pate, R. Radhakrishnan, S. Khanna), IWACA '92, pp. 199-209, March 1992
- (27) "High Performance Interconnection Between High Data Rate Networks" (with E.C. Foudriat, C.M. Overstreet, L. Zhang, W. Sun), IWACA '92, pp. 441-449, March 1992
- (28) "Remote Visualization Using Parallelism in the Context of Existing Networks" (with F. Pattera, C.M. Overstreet, R. Mukkamala, S. Khanna), International Phoenix Conference on Computers and Communications '92, pp. 706-714, April 1992

- (29) "Concurrent Use of Parallel Communication to Enable Remote Visualization" (with F. Paterra, C.M. Overstreet, R. Mukkamala, S. Khanna), ICCI '92, pp. 449-453, May 1992
- (30) "Multiprocessor Architecture for High Speed Networks: A Performance Study" (with S. Khanna, C.M. Overstreet, R. Mukkamala, M. Zubair, Y.S. Sekhar), IFIP '92, pp. 645-652, September 1992
- (31) "Support for PC/Workstation Interconnection to High Speed Data Networks" (with E.C. Foudriat, C.M. Overstreet, L. Zhang, W. Sun), IFIP '92, pp. 122-125 September 1992
- (32) "Software Life Cycle Support - Decision Based Software Development" (with C. Wild), IFIP '92, pp. 72-79, September 1992
- (33) "Message Assignment for High-Speed Parallel Networks," (with R. Mukkamala, E.C. Foudriat, V. Kale, Y. Sekhar, R. Yerraballi), First International Conference on Computer Communications and Networks, pp. 77-81, June 1992
- (34) "Modeling and Analysis of High Speed Parallel Token Ring Networks" (with R. Mukkamala, E. Foudriat, V. Kale), 17th Annual Local Computer Conference, pp. 624-633, Minneapolis, September 1992
- (35) "Parallel TCP/IP for Multiprocessor Workstations" (with K. Maly, S. Khanna, R. Mukkamala, C.M. Overstreet), HPN '92, pp. C1.1 - C1.16, Liege, December 1992
- (36) "Parallel Communications: An Experimental Study", (with S. Khanna, E.C. Foudriat, C.M. Overstreet, R. Mukkamala, M. Zubair, R. Yerraballi, D. Sudheer), Second International Conference on Computer Communications and Networks, pp. 138-145, San Diego, California, June 1993
- (37) "A Prototype for Parallel Ethernets", (with S. Khanna, E.C. Foudriat, C.M. Overstreet, R. Mukkamala, M. Zubair, R. Yerraballi, and D. Sudheer), Second Workshop on High Performance Communication Subsystems, Section 3.4 pp. 1-8, Williamsburg, Virginia, September 1993
- (38) "Distributed Computing with Parallel Networking" (with M. Zubair, S. Kelkar), Fourth Workshop on Future Trends of Distributed Computing Systems, pp. 375-379, Lisbon, Portugal, September 1993
- (39) "Parallel Networking Improving Capacity and Multi-traffic Performance Together", (with E.C. Foudriat, R. Mukkamala, C.M. Overstreet), First International Conference on LAN Interconnection, pp. 297-312, North Carolina, October 1993
- (40) "Computer Productivity Initiative", (with D. Ray, J. Wild, I. Levinstein, S. Olariu, C.M. Overstreet, N. Rao, T. Ireland, G. Kantsios), Seventh SEI Conference on Software Engineering Education, pp. 441-459, San Antonio, Texas, January 1994
- (41) "Project Management Using Hypermedia Case Tools" (with J. Wild, C. Zhang, D. Eckhardt, C. Roberts, D. Rosca, T. Taylor), 1994 International Conference on Data and Knowledge Systems for Manufacturing and Engineering, pp. 722-727, Shatin, Hong Kong, May 1994
- (42) "Melding Television, Networking, and Computing for Interactive Remote Instruction: Exploiting Potentials" (with C.M. Overstreet, H. A. Wahab, A.K. Gupta), World Conference on Educational Multimedia on Hypermedia '94, pp. 367-372, Vancouver, Canada, June 1994*
- (43) "A Decision-based Hyper-multimedia Case Environment for the Computer Productivity Initiative, a Large Undergraduate Project" (with C. Wild, C. Zhang, D. Ray, I. Levinstein, S. Olariu,

C. Overstreet, N. Rao, D. Rosca, T. Taylor, T. Ireland, D. Sibol), World Conference on Educational Multimedia and Hypermedia, pp. 691, Vancouver, Canada, June 1994

(44) "Average Waiting Time Profiles of Uniform DQDB Model" (with N. Rao, S. Olariu, S. Dharanikota, L. Zhang, D. Game), IEEE, INFOCOM '94 Thirteenth Annual Joint Conference of the IEEE Computer and Communications Societies, pp. 1326-1333, Ontario, Canada, June 1994*

(45) "RAIN (Redundant Array of Inexpensive Networks): Expanding Existing Networks to Support Multi-traffic Performance" (with E.C. Foudriat, R. Mukkamala, C.M. Overstreet, L. Mathews, S. Balay), HPN '94 5th IFIP Conference on High Performance Networking, pp. 61-75, Grenoble, France, July 1994

(46) "Software Engineering Life Cycle Support-Decision Based Systems Development" (with C. Wild), IEEE TENCON '94, Singapore, pp. 781-784, August 1994

(47) "Scientific Computing Using pPVM" (with S. Kelkar, M. Zubair), International Conference on Parallel Processing, vol. 2, pp. 201-205, Pennsylvania, August 1994

(48) "A New Paradigm for Distance Learning: Interactive Remote Instruction" (with C.M. Overstreet), 13th World Computer Congress IFIP Congress '94, Hamburg, Germany, pp. 682-689, September 1994

(49) "The Wide Area Technical Report Service" (with J. French, A. Selman, E. Fox), Second International WWW Conference '94, Chicago, Illinois, pp. 523-534, October 1994*

(50) "Extending Schedulability Analysis in Distributed Real-time Systems" (with R. Mukkamala, H.A. Wahab, R. Yerraballi), International Conference on Parallel and Distributed Computing and Systems, Washington D.C., pp. 279-282, October 1994

(51) "Semantics-based Replication in Distributed Real-Time Systems" (with R. Mukkamala, H.A. Wahab, R. Yerraballi), Joint Conference on Information Sciences (JCIS), North Carolina, pp. 188-191, November 1994

(52) "An Application-oriented Analysis of TCP/IP in High Speed LANs" (with D. Sudheer, C.M. Overstreet, D.E. Keyes), Australian Telecommunication Networks & Applications Conference (ATNAC) 1994, Victoria, Australia, pp. 561-566, December 1994

(53) "Computer Productivity Initiative: Past, Present, and Future" (with D. Ray, J. Wild, I. Levinstein, S. Olariu, C. Overstreet, D. Sibol, G. Panayides), 8th Conference on Software Engineering Education (CSEE), pp. 15-29, New Orleans, Louisiana, March 1995

(54) "Fairness in DQDB Revisited: A New Solution" (with S. Olariu, L. Zhang, N. Rao), International Conference on Computers and Communications, Phoenix, Arizona, pp. 198-204, March 1995

(55) "Mosaic + XTV = CoReview" (with H. Abdel-Wahab, R. Mukkamala, A. Gupta, A. Prabhu), Third International WWW Conference '95, Darmstadt, Germany, pp. 849-860, April 1995

(56) "Issues in Scaling Multimedia Collaboration Tools for Remote Instruction" (with H. Abdel-Wahab, C.M. Overstreet, Ajay Gupta, Muthu Kumar, Rahul Srivastava), IEEE Symposium on Computers and Communications, Alexandria, Egypt, pp. 42-48, June 1995

(57) "Issues in Schedulability Analysis of Real-Time Systems" (with R. Yerraballi, R. Mukkamal, H. A. Wahab), 7th EUROMICRO Workshop on Real-Time Systems, pp.87-92, June 1995

- (58) "Providing Predictable Performance to a Network-based Application over ATM" (with S. Dharanikota, B. Kvande, C. M. Overstreet, R. Mukkamala), HPCS'95, Mystic, Conn., pp. 177-184, Aug. 95
- (59) "B(its) T(o the) U(ser): a Communication Benchmark" (with, A. Gupta, S. Khanna, M. Satish), HPCS'95, Mystic, Conn., pp. 83-91, Aug. 95
- (60) "Performance Trade-offs for a Multimedia Distributed Application" (with C.M. Overstreet, H. Abdel-Wahab, A. Gupta, Muthu Kumar, R. Srivastava), 6th IFIP International Conference on High Performance Networking, HPN'95, Palma de Mallorca, pp. 181-195, September 1995
- (61) "Application of a Decision Support Mechanism to the Business Rules Lifecycle" (with D. Rosca, S. Greenspan, C. Wild, H. Reubenstein, M. Feblowitz), KBSE-10, pp. 114-122, Boston, Mass., Nov. 95
- (62) "Telelearning: A New Paradigm for Interactive, Remote, Instruction" (with H. Abdel-Wahab, C. M. Overstreet, C. Wild), International Distributed Conference on Teleteaching, Madeira, Portugal, Nov. 95, pp. 1-14
- (63) "Interactive Remote Instruction: Initial Experience" (with C.M. Overstreet, C. Wild, H. Abdel-Wahab), SIGCSE/SIGCUE 96, pp. 153-155, Barcelona, Spain, June 1996
- (64) "Processes for Managing Project Uncertainty with Contingency Planning" (with C. Roberts. C. Wild), IFIP 8.3 Working Conference, London, England, June 96, pp. 352-365
- (65) "A Privilege Management and Enforcement System for a Secure Network" (with A. Gupta, B. Kvande, I.B. Levinstein, R. Mukkamala, M. Olson, R. Chambers, R. Whitney), SDNE 96, Macau, China, June 1996, pp 147-154
- (66) "The Software Architecture and Interprocess Communications of IRI: an Internet-based Interactive Distance Learning System", (with H. Abdel-Wahab, A. Youssef, E. Stoica, C.M. Overstreet, C. Wild, A. Gupta), WETICE'96, Stanford, June 96, pp. 3-9,34-37
- (67) "A Privilege Management and Enforcement System for Distributed Resource Sharing", (with A. Gupta, B. Kvande, I.B. Levinstein, R. Mukkamala, M. Olson, s. Nanjangud, R. Chambers, R. Whitney), WETICE 96, June 96, pp. 106-112
- (68) "QUANTA: Quality of Service Architecture for Native TCP/IP over ATM networks" (with S. Dharanikota), HPDC-5, Syracuse, August 1996, pp. 584-594
- (69) "QoS issues in HQNs: QUANTA's Approach" (with S. Dharanikota), 8th IEEE Workshop on Local and Metropolitan Area Networks, Berlin, August 1996, p 8
- (70) "A Workstation's Communication Performance Benchmark", (with A. Gupta, S. Mynam), IWTCS '96, Darmstadt, September 1996, pp. 60-76
- (71) "PMS: Privilege Management System for Secure Distributed Resource Sharing" (with A. Gupta, B. Kvande, I.B. Levinstein, R. Mukkamala, M. Olson, R. Chambers, R. Whitney), IFIP'96, Canberra, Australia, Sept. 1996, pp. 348-355
- (72) "Interactive Remote Instruction: Lessons Learned" (with C. Wild, C.M. Overstreet, H. Abdel-Wahab, A. Gupta, S. Purcell, A. Youssef, E. Stoica, R. Talla, A. Prabhu), Web Net - 96, San Francisco, Oct. 1996, CD-ROM.
- (73) "pPVM on Multiple FDDIs" (with M. Zubair, S. Kelkar), PDCS-96, Dijon, France, Sept. 96, pp. 487 - 493

- (74) "Multimedia Integration into a Distance Learning Environment" (with H. Abdel-Wahab, E. Stoica), Third International Conference on Multimedia Modelling, Toulouse, France, Nov. 96, pp. 69-84
- (75) "A Performance Analysis Model for Distributed Simulations" (with D. Cavitt, C. m. Overstreet), WSC '96, Coronado, Dec. 96, pp. 629-636
- (76) "Application Embedded Algorithms for Multiple Streams Synchronization in Multimedia Systems" (with E. Stoica, H. Abdel-Wahab), Third International Conference on Computer Science and Informatics, Durham, NC. , pp. 199-202, March 2-5, 1997
- (77) "A Comparative Study of Two Generic Resource Allocation Models" (with A. Youssef, H. Abdel-Wahab and C. Wild), Third International Conference on Computer Science and Informatics, Durham, NC. , pp. 47-50, March 2-5, 1997
- (78) "High-performance Monitoring Architecture for Large-scale Distributed Systems Using Event Filtering" (with E. Shaer, H. Abdel-Wahab), Third International Conference on Computer Science and Informatics, in Durham, NC. , pp. 42-46, March 2-5, 1997
- (79) "Synchronization of Multimedia Streams in Distributed Environments" (with E. Stoica and H. Abdel-Wahab), IEEE International Conference on Multimedia Computing and Systems Ottawa, pp. 395-402, June 3-6, 1997.
- (80) "Reliability , Scalability and Robustness Issues in IRI" (with E. Shaer, A. Youssef, H. Abdel-Wahab, C.M.Overstreet), WETICE97, Cambridge, pp. 320-327, June 18-20, 1997
- (81) "Inter-Stream Adaptation for Collaborative Multimedia Applications" (with A. Youssef and H. Abdel-Wahab), Second IEEE Symposium on Computers and Communications (ISCC'97), pp. 116-120, Alexandria, Egypt, July 1-3, 1997
- (82) "A Scalable Monitoring Architecture for Managing Large-scale Distributed Multimedia Systems" (with Ehab S. Al-Shaer, Hussein Abdel-Wahab), IFIP/IEEE International Conference on Management of Multimedia Networks and Services '97, pp. 237-248, Montreal, Canada, July 8-10, 97
- (83) "A System for Interactive Remote Instruction: An Assessment After Two Years' Use" (with C. M. Overstreet, Abdel-Wahab, C. Wild), 5th Annual Conference on the Teaching of Computing, pp. 190-194, Dublin, Ireland, Aug. 26-29, 1997
- (84) "Hierarchical Filtering-based Monitoring Architecture for Large-scale Distributed Systems" (with Ehab S. Al-Shaer, Hussein Abdel-Wahab), International Conference on Parallel and Distributed Computing Systems, pp. 422-427, New Orleans, Oct. 97
- (85) "Application-Layer Group Communication Server for Extending Reliable Multicast Protocols Services " (with E. Al-Shaer, H. Abdel-Wahab), IEEE International Conference on Network Protocols, pp. 267 - 274, Atlanta, Oct.. 29- 31, 97
- (86) "CoProcess: A JAVA-based Environment for Collaborative Process Management over the Web", (with H. Abdel-Wahab, R. Mukkamala, A. Gupta, M. Kholief, S. Dittakavi, C. Vermuru, H. Syed, B. Jacobs), WebNet 97, CD-ROM, Toronto, Nov. 97,
- (87) "Synchronization Algorithms for the Playback of Multiple Distributed Streams", (with E. Stoica, H. Abdel-Wahab), MMM'97, pp. 143 – 158, Singapore, Nov. 97

(88) "A Performance Monitoring Application for Distributed Interactive Simulations (DIS)", (with D. Cavitt, C. Overstreet), WSC '97, pp. 421 - 427, Atlanta, Dec 97

(89) "Performance Monitoring for the Design, Configuration, and Control of DIS/HLA Exercises", (with D. Cavitt, J. Bell, M. Checcio, C. Overstreet), SIW 98, CD-ROM, 98S-SIW-066, Orlando, March 98

(90) "NCSTRL+: Adding Multi-disciplinary and Multi-genre Support to the DIENST Protocol Using Clusters and Buckets", (with M. L. Nelson, M. Zubair, S. N. T. Shen), ADL98, pp.128-137, Santa Barbara, Calif. April 98

(91) "Use of Web Technology for Interactive Remote Instruction", (with C.M. Overstreet, A. Gonzalez, M. Denbar, R. Cutaran, N. Karunaratne), WWW7, pp. 660-662, Brisbane, Australia, April 98

(92) "Performance Evaluation of an Inter-Stream Adaptation Algorithm for Multimedia Communications" (with A. Youssef, H. Abdel-Wahab) , IFIP International Conference on Performance of Information and Communication Systems, PICS'98, pp. 333-344, Lund, Sweden, May 1998

(93) "Automated content synthesis for interactive remote instruction", (with C.M. Overstreet, A. Gonzalez, M. Denbar, R. Cutaran, N. Karunaratne), EDMEDIA 98, CD-ROM, Freiburg, Germany, June 98

(94) "A multi-discipline, multi-genre digital library for research and education", (with M. L. Nelson, S. T. Shen), EDMEDIA 98, CD-ROM, Freiburg, Germany, June 98

(95) "A coordinated browsing system", (with J. Z. Davis, M. Zubair), EDMEDIA 98, CD-ROM, Freiburg, Germany, June 98

(97) "A Method for and Results of Comparing ABR Flow Controls for ATM", (with E. C. Foudriat, M. Hou), ICATM98, pp. 334-343, Colmar, France, June 98

(98) "Inter-Stream Adaptation for Collaborative Multimedia Applications", (with A. Youssef, H. Abdel-Wahab, M. Gouda), 2nd IEEE Symposium on Computers and Communications (ISCC'97), pp. 115-120, Alexandria, Egypt, July 1998

(99) "The Software Architecture of a Distributed Quality of Session Control layer", (with A. Youssef, Abdel-Wahab), HPDC7, pp. 21-28, Chicago, July 1998

(100) "Learning paradigms and web technologies for interactive remote instruction", (with C.M. Overstreet, A. Gonzalez, M. Denbar, R. Cutaran, N. Karunaratne), IFIP 98, pp. 685-694, Vienna, Austria, August 98

(101) "A Scalable and Robust Feedback Mechanism for Adaptive Multimedia Multicast Systems", (with A. Youssef, H. Abdel-Wahab) , IFIP Conference on High Performance Networking (HPN'98), pp. 113-137, Vienna, Austria, September 1998

(102) "Controlling Quality of Session in Adaptive Multimedia Systems", (with A. Youssef, H. Abdel-Wahab) , proceedings of ICNP98, pp. 160-167, Austin, Texas, October 1998

(103) "GSREHB: An Electronic Handbook for Graduate Student Research", (with H. Abdel-Wahab, R. Mukkamala, A. Gupta, A. Bankeroglu, M. Kholief, T. Thompson, C. Vemurur, S. Vemuru), JCIS '98, Oct.98, pp. 193-197, Raleigh, NC

- (104) "Computer-Supported Protocols for Interactive Remote Teleteaching", (with H. Abdel-Wahab, M. Al-Aghbari), JCIS'98, pp. 34-38, Oct 98, Raleigh, NC
- (105) "Dynamic monitoring Approach for Multi-point Multimedia Systems", (with Ehab Al-Shaer, H. Abdel-Wahab), MMNS'98, Nov. 98, CD, Versailles, France
- (106) "Arcade: A Web-Java Based Framework for Supporting Distributed Computing over Heterogeneous Resources", (with Z. Chen, M. Zubair, P. Mrehotra), HiPC'98, CD, Chennai, India, December 1998
- (107) "Metadata Use in the Smart Object, Dumb Archive SODA Model, (with M.L. Nelson, D. R. Croom, S. W. Robbins), Third IEEE Meta-Data Conference, CD, April 99, Bethesda, MR
- (108) "HiFi: A New monitoring Architecture for Distributed Systems management", (with Ehab Al-Shaer, H. Abdel-Wahab), ICDCS'99, Austin, TX, pp. 171-178, June 99
- (109) "General and Scalable State Feedback for Multimedia Systems", (with A. Youssef, H. Abdel-Wahab, M. Gouda), ISCC'99, pp. 187 – 193, Sharm El Sheikh, Egypt, July 99
- (110) "Experiences with Structured Recording and Replay in Interactive Remote Instruction", (with C.M. Overstreet, A. Gonzalez, M. Ireland, N. Karunaratne), 2nd International Conference on New Learning Technologies, pp 94-101, Bern, Switzerland, Aug. 99
- (111) "SODA: Smart Objects, Dumb Archives", (with M. Nelson, M. Zubair, S. Shen), ECDL'99, pp. 453-464, Paris, France, Sept. 99
- (112) "Structured Course Objects in a Digital Library", (with M. Nelson, M. Zubair, S. Zeil, X. Liu), ISDL'99, pp. 89-96, Tsukuba, Japan, Sept 99
- (113) "Preserving the Pyramid of STI Using Buckets", (with M. L. Nelson), GL'99, CD, Washington DC, Oct 99
- (114) "A Web-Java Based Framework for Distributed Computing", (with Z. Chen, M. Zubair, P. Mrehotra), WebNet 99, Honolulu, CD, Oct. 99
- (115) "Event-based retrieval from digital libraries containing streamed data", (with Mohamed Kholief, Stewart Shen), itcc2000, CD, March 2000
- (116) "Dynamic Construction of Federated Digital Libraries", (with M. Zubair, I. Ameerally, M. Nelson), WWW9, pp 56-57, Amsterdam, May 2000
- (117) "Multi-faceted Evaluation of IRI", (with C. Overstreet, J. Brunelle, E. Young, M. Ireland), accepted, IFIP 2000, pp43—435, Beijing, August 2000
- (118) "H3M – a Rapidly Deployable Architecture with QoS Provisioning for Wireless Networks", (with S. Olariu, E. Foudriat), SmartNet2000, pp. 283-304, Vienna, Sept. 2000
- (119) "Scalable Digital Libraries based on NCSTRL/DIENST", (with M. Zubair, H. Anan, D. Tan, Y. Zhang), ECDL 2000, pp. 168-180, Lisbon, Sept 2000
- (120) "An Architecture for Robust QOS Provisioning for Mobile Tactical Communications", (with S. Olariu, E. Foudriat), MILCOM2000, Los Angeles, Oct 2000
- (121) "Focus Research Libraries in Support of Active Learning", (with M. Zubair), ED-ICT2000, Vienna, Dec 2000

- (122) "Personalized Portal for Wireless Devices", (with M. Zubair), WWW10, Hongkong, PRC, April 2001, pp. 74-75
- (123) "Interoperable Federated Digital Library using XML and LDAP", (with R. Shi, M. Zubair), NIT2001, Beijing, PRC, May 2001, pp. 277 - 286
- (124) "Arc - An OAI Service Provider", (with X. Liu, M. Zubair, M. L. Nelson), JCDL2001, Roanake, Virginia, pp. 65-66, June 2001
- (125) "CoBrowser: A Coordinated Browsing System", (with M. Zubair), Edmedia 2001, Tampere, Finland, July 2001, CD-ROM
- (126) "An Automated Classification System and Associated Digital Library Services", (with M. Zubair, H. Anan), NDDL 2001, proceedings, pp. 113-127, Setubal, Portugal, July 2001
- (127) "The Software Architecture of an Interactive Remote Instruction System for Heterogeneous Network Environments", (with A. Hamid, S. Ghanem, A. Wahab), ISCC2001, pp. 694-699, Hammamet, Tunisia, July 2001
- (128) "Architecture for Event-Based Retrieval from Data Streams in Digital Libraries" (with M. Kholief, S. Shen), ECDL'2001, pp. 300-31, Darmstadt, Germany, September 2001.
- (128) "Digital library framework for progressive compressed 3D models", with (H. F. Anan, M. Zubair), IS&T/SPIE Symposium, Proceedings pp. 138-147, San Jose, Jan 2002
- (129) "DL-COTF: An XML Based Digital Library for U. S. Navy's Operational Test and Evaluation Force", (with M. Zubair, S. Balusani, A. Mathur, and S. Sudeep, W. Wolters), pp. 493-497, SAC 02, March 2002, Madrid, Spain
- (130) "An Access Protocol for Use With a Wide Range of Network Environemnts", (with E. Foudriat, S. Olariu, Y Li), pp. 251-263, ECUMN02, Colmar, France, April 2002
- (131) " An Application Level Gateway for Interactive Remote Instruction", (with A. Abdel-Hamid, S. Ghanem, H. Abdel-Wahab, C. M. Overstreet, J. C. Wild, A. Gupta, W. Farag, B. Koodallur), pp. 3.1/3-7, ICNEE, Lugano, Switzerland, May, 2002
- (132) "Recording and Replay Support for Asynchronous Learning Modes within a Distance Learning System", (with A. Abdel-Hamid, S. Ghanem, H. Abdel-Wahab, C. M. Overstreet, J. C. Wild, A. Gupta, W. Farag, B. Koodallur), pp. 75 + CD-ROM, NLT 2002, Berlin, Germany, May 2002
- (133) "Preservation and Transition of NCSTRL Using an OAI-Based Architecture", (with H. Anan, X. Liu, M. Nelson, M. Zubair, J. French, E. Fox, P. Shivakumar), JCDL2002, pp. 181-182, Portland, Oregon, July 2002
- (134) "DP9- An OAI Gateway Service for Web Crawlers", (with Xiaoming Liu, Mohammad Zubair), JCDL2002, pp. 283-284, Portland, Oregon, July 2002
- (135) "Dynamic Interoperation of Non-cooperating Digital Libraries", (with R. Shi, M. Zubair), pp. 350-361, DLOC 2002, Beijing, July 2002
- (136) "Enhanced Kepler Framework for Self-Archiving", (with X. Liu, M. Zubair), ICPP-02, pp. 455-461, Vancouver, August 2002
- (137) "Technical Report Interchange Through Synchronized OAI Caches", (with X. Liu, M. Zubair, R. Tang, M. Padshah, G. Roncaglia, J. Rocker, M. Nelson, W. Ofenheim, R. Luce, J. Stack, F.

Knudsen, B. Goldsmith, I. Holtkamp, M. Blake, J. Carter, M. Giacomo, J. Nutter, S. Brown, R. Montbrand, S. Landenberger, K. Pierson, V. Duran, B. Moser), ECDL 2002, pp. 176-189, Rome, Italy, September, 2002

(138) "Archon - A Digital Library that Federates Physics Collections", (with M. Zubair, M. Nelson, X. Liu, H. Anan, J. Gao, J. Tang, and Y. Zhao), pp. 27-35, DC2002, Florence, Italy, Oct. 2002

(139) "Multiple-mode communication environments with Iri-h", (with C. Michael Overstreet, Hussein Abdel-Wahab, Ayman Abdel-Hamid, Sahar Ghanem, Ye Wang, Ankit Kothari), proceedings, pp. 303-309, ICNEE 03, Lucerne, Switzerland, May 2003

(140) "Archon: building learning environments through extended digital library services", (with Hesham Anan, Michael Nelson, Mohammad Zubair, Xiaoming Liu, Jinsong Gao, Jianfeng Tang and Zhao Yang), proceedings, pp.245-250, ICNEE 03, Lucerne, Switzerland, May 2003

(141) "Repository Synchronization in the OAI Framework", (with Xiaoming Liu, Mohammad Zubair, Michael Nelson), proceedings, pp. 191-198, JCDL 03, Houston, May 2003

(142) "Event-Based Retrieval from a Digital Library containing Medical Streams", (with Mohamed Kholief, Stewart Shen), proceedings, pp. 231-232, JCDL 03, Houston, May 2003

(143) "Automatic Metadata Discovery from Non-cooperative Digital libraries", (with Rong Shi, Mohamed Zubair), proceedings, pp. 735-739, ES2003, Lisbon, Portugal, May 2003

(144) "Free (sort of) Digital Library Software for Education and Science", keynote address, LACFREE 2003, Cuzco, Peru, August 2003

(145) "Digital Libraries, OAI and Free Software for Education and Science ", keynote address, 5th National Conference CACIS, Yinchuan, PRC, September 2003

(146) "ARC – An Open Source Metadata Harvesting System", (with Xiaoming Liu, Mohammad Zubair), Metascholar Workshop, Atlanta, proceedings pp. 36-41, Oct 2003

(147) "Navigating and Browsing 3D Models in 3DLIB", (with Hesham Anan, Mohammad Zubair), proceedings pp. 216-223, RCDL 2003, St. Petersburg, Russia, Oct. 2003

(148) "RVOT: a Case Study for Making Collections OAI-PMH Compliant", (with K. Sathis, M. Zubair, X. Liu), proceedings pp. 249-256, RCDL 2003, St. Petersburg, Russia, Oct. 2003

(149) "Challenges in Building Federation Services over Harvested Metadata", (with Hesham Anan, Jianfeng Tang, Michael Nelson, Mohammad Zubair, and Zhao Yang, proceedings, pp.602-614, ICADL2003, Kuala Lumpur, Malaysia, Dec 2003

(150) "A Case Study of a Stream-Based Digital Library: Medical Data", (with Mohamed Kholief, Stewart Shen, proceedings, pp.73-85, ICADL2003, Kuala Lumpur, Malaysia, Dec 2003

(151) "Improving Federated Service for Non-cooperating Digital Libraries", (with R. Shi, M. Zubair), proceedings, ICDL 2004, New Dehli, India, Feb. 2004

(152) "Light-Weight Communal Digital Libraries", (with M. Nelson, M. Zubair, A. Amrou, S. Kothamasa, L. Wang and Rick Luce), JCDL Proceeding 2004, pp. 237-238, Tuscon, June 2004

(153) "Freelib: A Self-sustainable Digital Library for Education Community", (with A. Amrou, M. Zubair), Ed-media 04, pp. 15-20, Lugano, Switzerland, June 2004

- (154) "Tool Sharing Modes in a Synchronous Interactive Remote Instruction System", (with A. Abdel-Hamid, S. Ghanem, H. Abdel-Wahab, C. M. Overstreet, W. Ye, A. Elango), pp., 1243-1250 Ed-media 04, Lugano, Switzerland, June 2004
- (155) "Tracking functionality Changes in IRI: A Distance Education Software System", (with A. Abdel-Hamid, S. Ghanem, H. Abdel-Wahab, C. M. Overstreet, W. Ye, A. Elango), pp. 950-954, e-society 2004, Avila, Spain, July 2004
- (156) "Wireless support for telemedicine in disaster management", (with S. Olariu, E. C. Foudriat, S. M. Yamany), pp. 649-656, ICPADS 04, Newport Beach, California, July 2004
- (157) "Optimizing Capacity Utilization in Point-to-Multipoint Networks" (with E. Foudriat), CD-Rom proceedings, WOC 04, Banff, Canada, July 2004
- (158) "Enhancing Kepler Usability and Performance", (with M. Nelson, M. Zubair, A. Amrou, S. Kothamasa, L. Wang, R. Luce), proceedings, pp. 317-329, Bath, England, Sept 2004. Also: Research and Advanced Technology for Digital Libraries, Editors: Rachel Heery, Liz Lyon Lecture Notes in Computer Science, Springer-Verlag Heidelberg, Volume 3232 / 2004, January 2004
- (159) "Access Management in Federated Digital Libraries, (with Kailash Bhoopalam, Mohammed Zubair, Ravi Mukkamala), proceedings, pp. 201-209, ICWI, Madrid, Spain, October 2004
- (160) "Approaches to make CDS/ISIS Databases Interoperable with other Digital Libraries", (with F. Jayakanth, M. Zubair), ALISE, Boston, Mass, Jan. 2005
- (161) "Integrating Legacy Collections into an Interoperable Digital Library Framework", (with J. Tang, M. Zubair), ICIM , Dehli, India February 2005
- (162) "Efficient Discovery Service for a Digital Library of 3D Models", (with Anan, M. Zubair), 3DIM 2005, proceedings, pp. 4 Ottawa, Canada, June, 2005
- (163) "GRID Based Federated Digital Library" (with Mohammad Zubair, V. Chilukumari, Pratik Kothari), pp. 97-105, Computing Frontiers Conference, Ischia, Italy, May 2005
- (164) "A High Performance Implementation of an OAI-Based Federation Service", (with Mohammad Zubair, Li Xuemei), pp.617-625, ICPADS, Fukuoka, Japan, July 2005
- (165) "A Flexible Framework for Content-Based Access Management for Federated Digital Libraries", (with K. Bhoopalam, F. McCown, R. Mukkamala, M. Zubair), pp. 489-490, ECDL , Vienna, Austria, Sept. 2005
- (166) "Similarity and Duplicate Detection system for an OAI Compliant Federated Digital Library", (with Haseebulla M Khan and Mohammad Zubair), pp. 531-532, ECDL , Vienna, Austria, Sept. 2005
- (167) "A Comparative Study of Access Control Specification Models for Self-Protecting Autonomic Systems ", (with K. Bhoopalam, R. Mukkamala, M. Zubair, D. Agrawal, D Kaminsky), CD-ROM proceedings, session 3-08, DRMTICS 2005, Sydney, Australia, Oct. 2005.
- (168) "A Standards-Based Approach for Supporting Dynamic Access Policies for a Federated Digital Library, (with K. Bhoopalam, F. McCown, R. Mukkamala, M. Zubair), proceedings pp. 242-253, ICADL 05 , Bangkok, Thailand, Dec. 2005
- (169) "Freelib: Peer-to-peer-based Digital Libraries", (with A. Amrou, M. Zubair), proceedings, pp. 9-14, AINA 2006, April, 2006

- (170) "Synchronization And Multiple Group Server Support For Kepler", (with M Zubair, H Siripuram, S Zunjarwad), proceedings pp. 111-117, ICEIS 06, Cyprus, May 2006
- (171) "Automated Building of OAI Compliant Repository from Legacy Collection", (with Jianfeng Tang, Steve Zeil, Mohammad Zubair, pp. 101-112, ELPUB 2006, Bansko, Bulgaria, June 2006
- (172) "Harvesting Social Knowledge from Folksonomies", (with H. Wu, M. Zubair), pp. 110-115, ACM Hypertext 06, Odense, Denmark, August 2006
- (173) "A Prototype of the HumanVirus Interactome Resource(HVIR)", (with A. Pothen, M. Zubair, C. Osgood, O. J. Semmes), pp. 172-180, RCDL Sept 2006, Vladimir Russia.
- (174) "Performance Evaluation of Freelib, a P2P based Digital Library Architecture", (with A. Amrou, M. Zubair), proceedings, ICDL, New Delhi, India, Dec 2006
- (175) "Framework for Information Sharing Across Multiple Government Agencies under Dynamic Access Policies, (with K. Bhoopalam, R. Mukkamala, and M. Zubair), ARES 2007, pp. 934-940, Vienna, Austria, April 2007
- (176) "IRI-Easy: A Distance Education Software System", (with Y. Wang, K. Maly , C.M. Overstreet), ICBL 2007, CD, Florianopolis, Brazil, May 2007
- (177) "Autonomic Approach to IT Infrastructure Management in a Virtual Computing Lab Environment", (with H. Abdel Salam, R. Mukkamala, M. Zubair, D. L. Kaminsky), ICVCIR 2007, CD, Raleigh, N. Carolina, May 2007
- (178) "Automated Metadata Extraction for Personal Publishing in Kepler", (with M. Zubair), Edmedia 2007, proceedings, pp. 4500-4505, Vancouver, Canada, June 2007
- (179) "Infrastructure-aware Autonomic Manager for Change Management", (with H. Abdel Salam, R. Mukkamala, M. Zubair), Policy 2007, proceedings, pp. 66-69, Bologna, Italy, June 2007
- (180) "A Machine Learning Approach for Automatic Text Categorization – A Case Study for DTIC Collection", (with S. Zeil, M. Zubair, N. Ratkal), ICSIIT 2007, proceedings, pp. 128-132, Bali, Indonesia, July 2007
- (181) "Collaborative Classification of Growing Collections with Evolving Facets", (with H. Wu, M. Zubair), proc. pp.167-170, HT07, Manchester, Sept 2007
- (182) "A Scriptable, Statistical Oracle for a Metadata Extraction System", (with Steven J. Zeil Mohammad Zubair, Ashraf Amrou, Ali Aazhar, Naveen Ratkal), proc. pp. 396 -404, STEV07, Portland, Oregon, Oct 2007
- (183) "Exploiting Dynamic Validation for Document Layout Classification During Metadata Extraction", (with Steven Zeil, and Mohammad Zubair), www/Internet 2007, CD-ROM, Vila Real, Portugal, Oct 2007
- (184) "Automated Template-based Metadata Extraction Architecture", (with Paul Flynn, Li Zhou, Steven Zeil, and Mohammad Zubair), proceedings pp. 327-336, ICADL 2007, Hanoi, Vietnam, Dec. 2007
- (185) "Collaborative Faceted Classification System", (with Harris Wu, Mohammad Zubair), WITS07, pp. 223, Montreal, Canada, Dec 2007

(186) "Metadata Extraction". (with S. Zeil, M. Zubair), CD-ROM, Metadata Open Forum, Sydney, Australia, May 2008

(187) "Exploring Historical Image Collections with Collaborative Faceted Classification", (with Harris Wu, Mohammad Zubair), pp. 44-47, DH2008, Oulu, Finland, June 2008

(188) "Scheduling-Capable Autonomic Manager for Policy Based IT Change Management System", (with H. Abdel Salam, R. Mukkamala, M.Zubair, David Kaminsky), EDOC 2008, proceedings, pp. 386-392, Munich, Germany, Sept. 2008

(189) "Maintaining and Evolving a Taxonomy with Social Tagging", (with H. Wu, M. Zubair), INFORMS08, CD-ROM, Oct. 2008, Washington DC

(190) "Automated Approach to Cross Linking References for a Large Technical Collection", (with S. Zeil, M. Zubair, S. Mavram, CD-ROM, ICoASL 2008, New Delhi, Nov. 2008

(191) "Automated Support for a Collaborative System to Organize a Collection using Facets", (with H. Wu, M. Zubair, V. Antonov), proceedings, pp. 187-203, ELPUB, Milan, June 2009,

(192) "Towards Energy Efficient Change Management in A Cloud Computing Environment", (with Hady AbdelSalam, Ravi Mukkamala, Mohammad Zubair, and David Kaminsky), AIMS 2009, proceedings pp. 161-167, Entwente, Netherlands, June 2009,

(193) "Supporting Multi-Criteria Decision Making through Collaborative Faceted Classification," (with H. Wu and M. Zubair), Proceedings of the 20th International Conference on Multi Criteria Decision Making, Chengdu, China, June 21-26, 2009.

(194) "Analysis of Energy Efficiency in Clouds", (with Hady AbdelSalam, Ravi Mukkamala, Mohammad Zubair, and David Kaminsky), pp.416-421, Services Computation 2009, Nov 15-19, 2009, Athens, Greece

(195) "A Collaborative Faceted Categorization System – User Interactions", (with H. Wu, M. Zubair), EIPub 2010, June 16-18, 2010, 69-78, Helsinki, Finland

(196) "Building Dynamic Image Collections from Internet", (with F. Liuliu, H. Wu, M. Zubair), DH 2010, July, 7-1-, 2010, London, England electronic publication:
<http://dh2010.cch.kcl.ac.uk/academic-programme/abstracts/papers/html/ab-863.html>

(197) "Collaborative Digital Library Services in a Cloud", (with Kurt Maly, Harris Wu, Mohammad Zubair, Milena Mektshева), pp. 98-103, Services Computation 2010, Nov 2010, Lisbon, Portugal

(198) "User Experiments of a Social, Faceted Multimedia Classification System", (with Liuliu Fu, Elizabeth Rasnick, Harris Wu, Mohammad Zubair), ICDK 2011, pp. 156-167, New Delhi, India, Feb. 2011

(199) "Comparison of Ontology Reasoning Systems Using Custom Rules", (with Hui Shi, Steven Zeil, and Mohammad Zubair), Article: No. 16, WIMS 2011, Sogndal, Norway, May 2011

(200) "Performance Evaluation of Oracle Semantic Technologies with respect to User Defined Rules", (with A. Yaseen, S. Zeil, M. Zubair), DEXA 2011, pp.252-256, Toulouse, France, August, 2011

- (201) "Ontology-based Reasoning Service for ScienceWeb", (with Hui Shi and Steven Zeil), Service Computation 2011, proceedings, pp. 132-138, Rome, Italy, Sept. 2011
- (202) "Social Curation of Large Multimedia Collections on a Microsoft Azure Cloud", (with Dazhi Chong, Samuel Coppage, Xiangyi Gu, Mohammad Zubair, Harris Wu), Digital Humanities 2012, proceedings, pp. , Hamburg, Germany, July 2012
- (203) "Using an Automated Web Harvesting System to Track Obesity-Related Policies", (with Hui Shi, Harris Wu, Qi Zhang, Mohammad Zubair), SAARC Conference for Library & Information Professionals, CD-ROM, New Delhi, India, Dec 2012
- (204) "Query Optimization in Cooperation with an Ontological Reasoning Service", (with Hui Shi, Steven Zeil), Services Computation 2013, pp. 26-32, June 2013, Valencia, Spain
- (205) "Use of Smart Devices to Solve Health Care Problems", (with Mostafa Uddin, Ajay Gupta, Tamer Nadeem, Sandip Godambe, and Arno Zaritsky), BIBM/BIH'13, pp. 40-45, Shanghai, China, Dec. 2013
- (205) "Trust and Hybrid Reasoning for Ontological Knowledge Bases", (with Hui Shi, Steven Zeil), BigScholar workshop of 23rd WWW conference, pp. 1189—1194, Seoul, South Korea, April 2014
- (206) "SmartSpaghetti: Accurate and Robust Tracking of Human's Location", (with Mostafa Uddin, Ajay Gupta, Tamer Nadeem, Sandip Godambe, and Arno Zaritsky), proceedings, pp. 129 – 132, International Conference on Biomedical and Health Informatics (BHI), Valencia, Spain, June 2014
- (207) "Optimized Backward Chaining Reasoning System for a Semantic Web", (with Hui Shi, Steven Zeil), WIMS 2014, Thessaloniki, Greece, Proceedings of the 4th International Conference on Web Intelligence, Mining and Semantics, Article No. 34, June 2014
- (208) "Scaffolding to Improve Writing Skills in Computer Science Literacy Course", (with He Wu, Wu Harris, Xu Li), SITE 2015, Volume 2015, Issue 1, Las Vegas, March 2015
- (209) "Dead Reckoning with Smartphone Sensors for Emergency Rooms", (with Ravi Pitapurapu, Ajay Gupta, Tamer Nadeem, Ramesh Govindarajulu, Sandip Godambe, Arno Zaritsky), ICOST2015, pp. 206 – 217, Geneva, Switzerland, June 2015
- (210) "Using a scaffolding-based blogging approach to improve IT and CS undergraduate students' disciplinary writing skills" , (with He Wu, Wu Harris, Xu Li), AMCIS 2015, Puerto Rico, August 2015
- (211) "Backward Chaining Ontology Reasoning System with Custom Rules", (with Hui Shi, Dazhi Chong and Gongjun Yang), BigScholar workshop of 25th WWW conference, pp. 381-387, Montreal, Canada, April 2016
- (212) "Detecting Agitation Onset in Individuals with Dementia using Smart Phone Sensors", (with Christianne Fowler, Ajay Gupta, Karen Karlowicz, Gunnam Maheedhar, Gudipati Rohila, Kukunooru Mahesh), proceedings, pp. 42-46, HEALTHINFO 2017, October 2017, Athens, Greece
- (213) "Reliability of Wearable Sensors to Detect Agitation in Patients with Dementia: A Pilot Study (with Christianne Nesbitt, Ajay Gupta, Shubham Jain, Hamid Reza Ohkravi), accepted ICBBT 2018, May 2018, Amsterdam , Netherland

Conference Proceedings and Other Publications

- (1) "Distributed Simulation of Network Protocol" (with C.M. Overstreet, F. Paterra), Twenty-First Annual Pittsburgh Conference on Modeling and Simulation, proceedings, pp. 1525-1530, May 1990
- (2) "Alternative Parallel Ring Protocols" (with R. Mukkamala, E.C. Foudriat, V. Kale), Twenty-First Annual Pittsburgh Conference on Modeling and Simulation, proceedings, pp. 1537-1542, May 1990
- (3) "Modelling High Data Rate Communication Network Access Protocol" (with E.C. Foudriat, C.M. Overstreet, S. Khanna, F. Paterra), Twenty-First Annual Pittsburgh Conference on Modeling and Simulation, proceedings, pp. 1543-1547, May 1990
- (4) "Performance Analysis of High Speed Network Protocols: FDDI at Gigabit Speeds" (with D. Game), Twenty-First Annual Pittsburgh Conference on Modeling and Simulation, proceedings, pp. 1531-1535, May 1990
- (5) "Utilization of Special Architectures In Support of Distributed Discrete Event Simulation" (with C.M. Overstreet, F. Paterra, R. Mukkamala), SouthEastCon 1991, pp. 822-826, April 1991
- (6) "Performance Studies of Parallel Networks for High Data Rate Systems" (with V. Kale, R. Mukkamala, E.C. Foudriat), SouthEastCon 1991, pp. 543-545, April 1991
- (7) "A Framework for Parallel Networking of PVM" (with S. Kelkar, M. Zubair, A. Wadaa), 1994 PVM Conference, 12 p., Oak Ridge, Tennessee, May 1994
- (8) "An Interoperable Architecture for Digital Information Repositories" (with S. Shen, R. Mukkamala, A. Wadaa, C. Zhang, H. Abdel-Wahab, A. Liu, M. Yuan), The First Annual Conference on the Theory and Practice of Digital Libraries, pp. 187 - 193, Texas, June 1994
- (9) "Wide Area Technical Report Service-technical Reports Online" (with J. French, E. Fox, A. Selman), SIGACTNEWS, ACM Press, pp. 124 - 127, Volume 25, Number 3, September 1994
- (10) "Building a Phased, Structured Approach to Reengineering Legacy Software Systems" (with Tammy Taylor, Frank Sparks, Chris Wild), Crosstalk, The Journal of Defense Software Engineering, Vol. 7, No. 9, pp. 25-30, September 1994
- (11) "The Entity Editor: the Development of a Flexible ModSaf Vehicle Editor" (with C. Roberts, C. M. Overstreet, D. Cavitt, M. McCorristin, D. Karpeev), DIS 95 Conference, FloridaSept. 95

Reports

- (1) "Sorting Algorithms", SETL Newsletter #10, Courant Institute of Mathematical Sciences, New York University, December 1970
- (2) "SETL 64-Character Set" -- 48-character set/026 keypuncher -- CDC 6600 64-character set/029 keypuncher, SETL Newsletter #16, Courant Institute of Mathematical Sciences, New York University, January 1971

- (3) ``Lexical Description of SETL'', SETL Newsletter #19, Courant Institute of Mathematical Sciences, New York University, February 1971
- (4) ``Comprehensive SETL specifications'', SETL Newsletter #44, Courant Institute of Mathematical Sciences, New York University, June 1971
- (5) ``Modifications on Newsletter #44'', SETL Newsletter #44a, Courant Institute of Mathematical Sciences, New York University, July 1971
- (6) ``Outline for a Parsing Scheme for SETL'', SETL Newsletter #47, Courant Institute of Mathematical Sciences, New York University, July 1971
- (7) ``Three-Phase Parsing Scheme for SETL'', SETL Newsletter #50, Courant Institute of Mathematical Sciences, New York University, September 1971
- (8) ``Phase One of the SETL Compiler'', SETL Newsletter #58, Courant Institute of Mathematical Science, New York University, October 1971
- (9) ``Syntactic Structure of SETL'', SETL Newsletter #61, Courant Institute of Mathematical Sciences, New York University, November, 1971
- (10) ``Final Specification Part of SETL and Parser'', SETL Newsletter #62, Courant Institute of Mathematical Sciences, New York University, December 1971
- (11) ``SETL Compiler with Elaborated Data Structures'', SETL Newsletter #64, Courant Institute of Mathematical Sciences, New York University, January 1972
- (12) ``Data Structures of the SETL Compiler for the LITTLE Version'', SETL Newsletter #67, Courant Institute of Mathematical Sciences, New York University, February 1972
- (13) ``USER's Guide to SETL Run-Time Library'', SETL Newsletter #73, Courant Institute of Mathematical Sciences, New York University, May 1972
- (14) ``The Front-End of the SETL Compiler'', Tenth Courant Computer Symposium on Direction in High Level Languages, May 1977
- (15) ``Optimal Hashing Function'', Tech. Rep. 74-21, Department of Computer Science, University of Minnesota, Minneapolis, September 1974
- (16) ``A Support System for Software Management and Implementation'', Tech. Rep. 77-1, Department of Computer Science, University of Minnesota, Minneapolis, January 1977
- (17) ``Computerized Generation of Crossword Puzzles'', Tech. Rep. 74-29, Department of Computer Science, University of Minnesota, Minneapolis, December 1979, (with K. Ng)
- (18) ``An Effective Algorithm for the Trivial Knot Problem'', Tech. Rep. 80-14, Department of Computer Science, University of Minnesota, Minneapolis, (with J. Skinner), May 1980
- (19) ``Component Aggregation: An Abstraction Mechanism for Design and Engineering Databases'', Tech. Rep. 84-35, Department of Computer Science, University of Minneapolis, Minnesota, (with M. Ketabchi, V. Berzins), December 1984
- (20) ``A Document Retrieval System for the Automated Office Environment'', Tech. Rep. 85-39, 45 p., Department of Computer Science, University of Minneapolis, Minnesota, (with H. Du, S. Ghanta, S. Sharrock), September 1985

- (21) "A CSMA/CD-Based Integrated Voice/Data Protocol with Dynamic Channel Allocation"(with S. Sharrock, S. Ghanta, H. Du), Tech. Rep. 86-09, 49 p., Department of Computer Science, Old Dominion University, Norfolk, Virginia, July 1986
- (22) "A Broadband Integrated Voice/Data/Video Network of Multiple LANs with Dynamic Bandwidth Partitioning" (with S. Sharrock, S. Ghanta, H. Du), Tech. Rep. 86-08, 38 p., Department of Computer Science, Old Dominion University, Norfolk, Virginia, July 1986
- (23) "Dynamic Resource Allocation in a Metropolitan Area Network" (with C. M. Overstreet, X. Qiu, D. Tang), Tech. Rep. 87-16, 27 p., Department of Computer Science, Old Dominion University, Norfolk, Virginia, August 1987
- (24) "Towards a Software Support Environment" (with C.Wild), Tech. Rep. 88-04, 32 p., Department of Computer Science, Old Dominion University, Norfolk, Virginia, March 1988
- (25) "Decision-Based Software Development: Design and Maintenance" (with C. Wild), Tech. Rep. 89-08, 25 p., Department of Computer Science, Old Dominion University, Norfolk, Virginia, February 1989
- (26) "Traffic Placement Policies for a Multi-Band Network" (with E.C. Foudriat, D. Game, R. Mukkamala, C.M. Overstreet), Tech. Rep. 89-09, 28 p., Department of Computer Science, Old Dominion University, Norfolk, Virginia, March 1989
- (27) "Parallel Communications" (with J. Wiencko), Tech. Rep. 89-46, 92 p., Department of Computer Science, Old Dominion University, Norfolk, Virginia, December 1989
- (28) "Extensibility and Limitations of FDDI" (with D. Game), Tech. Rep. 90-14, 24 p., Department of Computer Science, Old Dominion University, Norfolk, Virginia, February 1990
- (29) "Fairness Problems at the Media Access Level for High-Speed Networks" (with E.C. Foudriat, D. Game, S. Khanna, L. Zhang), Tech. Rep. 90-15, 28 p., Department of Computer Science, Old Dominion University, Norfolk, Virginia, March 1990
- (30) "A Carrier Sensed Multiple Access Protocol for High Data Rate Ring Networks" (with E.C. Foudriat, C.M. Overstreet, S. Khanna, F. Pattera), Tech. Rep. 90-16, 22 p., Department of Computer Science, Old Dominion University, Norfolk, Virginia, March 1990
- (31) "Performance Comparison of Two Parallel Token-Ring Protocols" (with R. Mukkamala, E.C. Foudriat, V. Kale), Tech. Rep. 90-17, 19 p., Department of Computer Science, Old Dominion University, Norfolk, Virginia, March 1990
- (32) "Decision-Based-Support-Paradigm: A New Method to Structure Source Code" (with C. Wild, L. Liu), Tech. Rep. 90-19, 36 p., Department of Computer Science, Old Dominion University, Norfolk, Virginia, March 1990
- (33) "Average Waiting Time and Fairness Studies in DQDB" (with N. Rao, S. Olariu, L. Zhang, D. Game), Tech. Rep. 90-32, 33 p., Department of Computer Science, Old Dominion University, Norfolk, Virginia, August 1990
- (34) "Fairer DQDB" (with S. Olariu, L. Zhang, N. Rao), Tech. Rep. 90-34, 15 p., Department of Computer Science, Old Dominion University, Norfolk, Virginia, August 1990
- (35) "Improvements for the Next Generation of FDDI" (with D. Game), Tech. Rep. 90-36, 20 p., Department of Computer Science, Old Dominion University, Norfolk, Virginia, September 1990

- (36) "A Process Model for Decision Based Software Development" (with C. Wild, J. Dong, G. Hu), Tech. Rep. 91-18, Department of Computer Science, Old Dominion University, Norfolk, Virginia, April 1991
- (37) "Parallel Communications: A Performance Evaluation" (with F. Pattera, C.M. Overstreet, R. Mukkamala, M. Zubair, S. Khanna, J. Wiencko, H. Srivatsan), Tech. Rep. 91-25, Department of Computer Science, Old Dominion University, Norfolk, Virginia, April 1991
- (38) "Overhead in Parallel Communication" (with F. Pattera, C.M. Overstreet, R. Mukkamala, M. Zubair, S. Khanna, J. Wiencko, H. Srivatsan), Tech. Rep. 91-26, Department of Computer Science, Old Dominion University, Norfolk, Virginia, July 1991
- (39) "Modeling and Analysis of High Speed Parallel Token Ring Networks" (with R. Mukkamala, E. Foudriat, V. Kale), Tech. Rep. 91-27, Department of Computer Science, Old Dominion University, Norfolk, Virginia, July 1991
- (40) "Remote Visualization Using Parallelism in the Context of Existing Networks", (with F. Pattera, C.M. Overstreet, R. Mukkamala, M. Zubair, S. Khanna, J. Wiencko and H. Srivatsan), Tech. Rep. 91-28, Department of Computer Science, Old Dominion University, Norfolk, Virginia, July 1991
- (41) "A Shared Memory Implementation of Time Warp" (with P. Holben, C.M. Overstreet, D. Cavitt), Tech. Rep. 91-29, Department of Computer Science, Old Dominion University, Norfolk, Virginia, July 1991
- (42) "Process Model for D-Hypercase, A Decision Based Support System" (with C. Wild), Tech. Rep. 91-30, Department of Computer Science, Old Dominion University, Norfolk, Virginia, July 1991
- (43) "Message Assignment Policies for High Speed Parallel Networks" (with R. Mukkamala, E. Foudriat, V. Kale, Y. Sekhar, R. Yerraballi), Tech. Rep. 92-09, Department of Computer Science, Old Dominion University, Norfolk, Virginia, January 15, 1992
- (44) "A Simple, Effective Media Access Protocol System for Integrated High Speed Networks", (with E. Foudriat, C.M. Overstreet, S. Khanna, L. Zhang), Tech. Rep. 92-10, Department of Computer Science, Old Dominion University, Norfolk, Virginia, February 27, 1992
- (45) "High Performance Interconnection Between High Data Rate Networks", (with E. Foudriat, C.M. Overstreet, L. Zhang, W. Sun), Tech. Rep. 92-11, Department of Computer Science, Old Dominion University, Norfolk, Virginia, March 24, 1992
- (46) "Support for PC/Workstation Interconnection to High Speed Data Network", (with E. Foudriat, C.M. Overstreet, L. Zhang, W. Sun), Tech. Rep. 92-12, Department of Computer Science, Old Dominion University, Norfolk, Virginia, April 20, 1992
- (47) "Scalable Parallel Communications", (with S. Khanna, C.M. Overstreet, R. Mukkamala, R. Zubair, Y. Sekhar), Tech. Rep. 92-15, Department of Computer Science, Old Dominion University, Norfolk, Virginia, February 4, 1992
- (48) "A Prototype for Parallel Networks", (with S. Khanna, E.C. Foudriat, C.M. Overstreet, R. Mukkamala, M. Zubair, R. Yerraballi, D. Sudheer), Tech. Rep. 93-22, Department of Computer Science, Old Dominion University, Norfolk, Virginia, August 16, 1993
- (49) "Interactive Remote Instruction Technology", (with C.M. Overstreet, H.A. Wahab, A. Raymond-Savage), Tech. Rep. 93-24, Department of Computer Science, Old Dominion University, Norfolk, Virginia, November 29, 1993

(50) "A Decision-based Hyper-multi-media Case Environment for the Computer Productivity Initiative, a Large Undergraduate Project", (with C. Wild, C. Zhang, D.E. Ray, I.B. Levinstein, S. Olariu, C.M. Overstreet, N. Rao, D. Rosca, T. Taylor, T. Ireland, D. Sibol), Tech. Rep. 93-25, Department of Computer Science, Old Dominion University, Norfolk, Virginia, November 17, 1993

(51) "Project Management Using Hypermedia CASE Tools", (with C. Wild, C. Zhang, D. Eckhardt, C. Roberts, D. Rosca, T. Taylor), Tech. Rep. 93-27, Department of Computer Science, Old Dominion University, Norfolk, Virginia, November 29, 1993

(52) "Scientific Computing Using pPVM", (with S. Kelkar, M. Zubair), Tech. Rep. 94-01, Department of Computer Science, Old Dominion University, Norfolk, Virginia, January 13, 1994

(53) "Collaborative and Remote Teaching of Project, Team Oriented Courses", (with C.M. Overstreet), Tech. Rep. 94-04, Department of Computer Science, Old Dominion University, Norfolk, Virginia, February 11, 1994

(54) "Melding Television, Networking, and Computing for Interactive Remote Instruction: Exploiting Potentials", (with C.M. Overstreet, H.A. Wahab, A.K. Gupta), Tech. Rep. 94-06, Department of Computer Science, Old Dominion University, Norfolk, Virginia, June 3, 1994

(55) "Average Waiting Time Profiles of Uniform DQDB Model", (with N. Rao, S. Olariu, S. Dharanikota, L. Zhang, D. Game), Tech. Rep. 94-12, Department of Computer Science, Old Dominion University, Norfolk, Virginia, June 3, 1994

(56) "Wide Area Technical Report Service", (with J. French, A. Selman, E. Fox), Tech. Rep. 94-13, Department of Computer Science, Old Dominion University, Norfolk, Virginia, June 3, 1994

(57) "Analysis of the Application of a Decision-based System Development Paradigm to a Large Development Project", (with J.C. Wild, C.C. Roberts, D.E. Eckhardt), Tech. Rep. 94-15, Department of Computer Science, Old Dominion University, Norfolk, Virginia, June 13, 1994

(56) "Issues in Scaling Multimedia Collaboration Tools for Remote Instruction" (with H. Abdel-Wahab, C.M. Overstreet, A. Gupta, M. Kumar, R. Srivastava), Tech. Rep. 94-32, Department of Computer Science, Old Dominion University, Norfolk, Virginia, December 2, 1994

(57) "Mosaic + XTV = CoReview" (with H. Abdel-Wahab, R. Mukkamala, A. Gupta, A. Prabhu, H. Syed, C.S. Vemuru), Tech. Rep. 94-33, Department of Computer Science, Old Dominion University, Norfolk, Virginia, December 2, 1994

(58) "Performance Trade-offs for a Multimedia Distributed Application" (with C.M. Overstreet, H. Abdel-Wahab, Ajay Gupta, Muthu Kumar, Rahul Srivastava), Tech. Rep. 95-03, Department of Computer Science, Old Dominion University, Norfolk, Virginia, February 7, 1995

List of persons, other than those cited in the publication list who I have collaborated with:

Lawrence Snyder, University of Washington, Chair, Forest Baskett, Silicon Graphics
Computer Systems and Stanford University, Michael M. Carroll, Rice University, Don Michael
Coleman, Howard University, Deborah Estrin, University of Southern California, Merrick L
Furst, Carnegie Mellon University, John Hennessy, Stanford University, H.T. Kung, Harvard
University, Brian Reid, Digital Equipment Corporation