

BIOGRAPHICAL DATA SHEET

LIVELY, William M.
Professor of Computer Science

July 23, 2011



Department of Computer Science
Texas A&M University
College Station, TX 77843

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Birth date: April 10, 1941 Citizenship: U.S.
Birthplace: Dallas, Texas Security Clearance: Expired Secret
Registered Professional Engineer, Texas #37033 (Software Engineering, Electrical Engineering)

EDUCATION:

Ph.D., Computer Science and Electrical Engineering, Southern Methodist University, 1971

M.S., Electrical Engineering, Southern Methodist University, 1967

B.S., Biology, Southern Methodist University, 1962

PROFESSIONAL INTERESTS:

Software engineering: AI/KB; software development methodologies and environments; CHI; medical IS; Expert Witness: C++ software systems; embedded systems, C++ medical software systems; medical devices

EXPERIENCE:

Educational

- Professor, Computer Science Department, Texas A&M University, 1992
- Director, Laboratory for Software Research, Texas A&M University, 1987
- Associate Professor, Computer Science Department, Texas A&M University, 1977
- Assistant Professor, Computer Science Division, Texas A&M University, 1972-1977
- Teaching Assistant, Computer Science Center, Southern Methodist University, 1968-1971
- Teaching Assistant, Biology Department, North Texas State University, 1964-1965

Industrial

- Member Technical Staff, Advanced Scientific Computer (ASC), Texas Instruments, Inc., 1971-1972
- Design Engineer, Government Equipment Group, Texas Instruments, Inc., 1967-1968

Consultant

- Dechert LLP [national]
- Bell Legal LLP [national]
- Trammel Crow, Inc [Bickel & Brewer LLP]
- Davis LLP [Fort Worth firm]
- Tommy Hasting LLP
- Fulbright & Jaworski LLP
- Fort Worth firm
- Penton Learning Systems
- Micro-Mode, Inc.
- Navarro County Hospital
- Dr. Charles Fenner
- Bickel and Brewer
- IBM
- JB Ringer Global Credential Evaluators
- General Electric HealthCare Systems '06
- Ringer Global Credential Evaluators '06

Organization/Person

Dates

Jackson-Walker, LLP

2004

Michener, Larimore, Swindle, Whitaker, Flowers, Sawyer, Reynolds and Chalk, L.L.P.	1999-2000
Susman and Godfrey	1999
Bickel and Brewer	1992-3
Bernard Johnson, Inc	1989
Trammel Crow, Inc	1989
IBM	1983-1987
American Medical Association	1982-1983
Dr. Charles Fenner	1981-1983
Navarro County Hospital	1980
Micro-Mode Inc.	1979
Penton Learning Systems	1978

Detail Provided in Addendum

Research

SSiP for teaching and developing Software Engineering OO Infrastructure Capstone College
 Courses, resources provided to universities across US
 IBM, Intel and AvNET
 Co_PI's Dick Simmons and William Lively 2004-7 \$573,000

Design and Implementation of an OO Scheduling, CHI and Information System for the
 Operating Room Suites at Scott and White Memorial Hospital
 Department of Anesthesiology Texas A&M College of Medicine
 PI – W.M. Lively 1993-1999 \$430,671
 Four students funded

HALS/S Parser in Java/JavaCC
 United Space Alliance, Inc.
 PI – William Lively Jan – Dec 1998 \$42,000
 One student funded

PInternet and Intranet Training Templates
 United Space Alliance, Inc.
 PI – William Lively Sept – Dec 1996 \$15,000
 One student supported

“Path Plus” Automation of Software Test Path Coverage
 United Space Alliance, Inc.
 PI – William Lively Sept – Dec 1996 \$10,000
 One student supported

Undergraduate Laboratory for Software Engineering
 National Science Foundation

Principal Investigator	1991-1993	\$156,000
Structured Methods for Information Integrated Engineering and Manufacturing Systems Phase IV		
United States United States Air Force		
Co-Principal Investigator	1990	\$279,000
Four students funded		
Structured Methods for Information Integrated Engineering and Manufacturing Systems Phase III		
United States Air Force		
Co-Principal Investigator	1989	\$299,000
Four students funded		
An Optimal Replacement Methodology Augmented with a Knowledge Based System Texas Advanced Technology Program		
Co-Principal Investigator	1988-1990	\$106,000
Two students funded		
Structured Methods for Information Integrate Engineering and Manufacturing Systems Phase II		
United States Air Force		
Co-Principal Investigator	1988	\$280,000
Four students funded		
Neural Networks for Intelligent Data Display		
General Dynamics Electronics Division		
Project Director	1988	\$28,000
One student funded		
Formal Specifications Derived from Visual Images		
Lockheed Missile and Space Phase III		
Project Director	1987-1989	\$95,000
Four students funded		

Structured Methods for Information Integrated Engineering and Manufacturing Systems
Phase I

United States Air Force
Co-Principal Investigator 1987 \$260,000
Four students funded

Formal Specifications Derived from Visual Images

Lockheed Missile and Space Phase II
Co-Principal Investigator 1987 \$160,000
Four students funded

Knowledge Based Integrated Information Systems Development Methodologies

United States Air Force
Research Investigator 1987 \$100,000

A Field Diagnosis Expert System for the S-1500

Texas Instruments, Inc.
Principal Investigator 1986 \$22,000
One student funded

A Field Service Intelligent Operations Systems

Texas Instruments, Inc.
Co-Principal Investigator 1986 \$55,500
Four students funded

Formal Specifications Derived from Visual Images

Lockheed Missile and Space Phase I
Co-Principal Investigator 1986 \$99,000
Four students funded

A Mitral Valve Model for Diagnosis of Prolapse

United States Air Force
Principal Investigator 1978-1979 \$80,000
Two students funded

CODAP System Design and Development

United States Navy
Co-Principal Investigator 1978-1979 \$116,000
Three students funded

Impact of Microprocessors on Health Care Delivery

National Science Foundation
Co-Principal Investigator 1977-1979 \$40,600
One student funded

Research Investigator – VA Vehicle Simulation, 1976-1977

Research Investigator – CAI in Medicine, 1975-1976
Research Investigator – NASA Software Reliability, 1974-1975
Research Investigator – NASA Automatic Documentation, 1973-1974
Research Investigator – Metabolic Modeling, 1972-1973

SOCIETY MEMBERSHIPS:

Institute for Software Engineers (co-founder and member Board of Directors)

Institute for Electrical and Electronic Engineers (Life Member)

Association for Computing Machinery

IEEE-Computer Society:

Chapter Activity Newsletter, Editor, 1973-1974

Vice Chairman for Chapter Activities in Southwestern Area, 1973-1974

Chairman for Chapter Activities in Southern Area, 1974-1975

Software Engineering Technical Committee Newsletter, Editor, 1975-1976

National Coordinator for Student Activities, 1975-1976

SIGBIO (special interest group in biomedical computing)

SIGART (special interest group in artificial intelligence)

SIGOPS (special interest group in operating systems)

SIGPLAN (special interest group on programming languages)

SIGARCH (special interest group on architecture)

SIGMICRO (special interest group for micro-programming)

SIGSOFT (special interest group for software engineering)

Sigma XI

Eta Kappa Nu

American Society for Engineering Education

American Association for the Advancement of Science

Upsilon Pi Epsilon

PROFESSIONAL ACTIVITIES AND COMMITTEES:

National

Consultant for Texas PE examination preparation of Exam in Software Engineering

Consultant for Texas PE examination in Software Engineering

IEEE Computer Society Standards Committee (Software Engineering) 2005-present

Society for Software Quality National Debate, "Customer Involvement Beyond the Requirements Phase Unnecessarily Impact Software Schedules," San Diego, Jan. 28, 1993

United States Army Proposal Review 1990

NSF Proposal Review 1990

Alpha Test for Knowledge Base Software Assistant Consortium, Rome Air Development Center, University Representative, Sept. 1988-1990

SEI University Affiliates Program, University Representative, Sept. 1988-present

Reviewer, IEEE Software, 1988-present

Fall Joint Computer Conference Program Committee, 1987

Fall Joint Computer Conference, Conference Committee member, 1987

Fall Joint Computer Conference, Conference Committee member, 1986

Invited participant by American Professional Resources for China to help develop a graduate degree in Computer Science, 1985

IEEE Computer Society, member Software Engineering Technical Committee on Software Engineering Taxonomy, appointed national committee, August 1985-present

IEEE Computer Society, member Software Engineering Technical Committee on Software Design Descriptions, appointed national committee, August 1985-present

National Committee to evaluate DoD METHODMAN efforts, member, 1984-1985

IEEE Computer Society, member Software Engineering Technical Committee on Test Documentation, appointed national committee, April 1982-present

IEEE Computer Society, member Software Engineering Technical Committee on Terminology Standard, appointed national committee, November 1981-present

IEEE Computer Society, member Software Engineering Technical Committee on Quality Assurance Standards, appointed national committee, January 1981-present

American Federation of Information Processing, member NCC Programming Contest Committee, national appointed office, November 1976-June 1977

IEEE Computer Society, National Coordinator for Student Activities, appointed national office, January-December 1976

Texas A&M University

Coordinator, ABET and CSAB visits for Computer Engineering and Computer Science Programs, respectively, 1997-1998; 2003-2004

Chairman, Computer Science Undergraduate Curriculum Committee, 1990-1999

Coordinator, ABET Focus Visit for Computer Engineering Program, November 1995

Chairman, TQM Effort for Undergraduate Advising, 1994-1995

Member, Promotion and Tenure Committee, 1993-1999

Member, Faculty Search Committee, 1994-1998

Member, College of Engineering 20X Committee, 1994-1995

Chairman, Computer Science Accreditation, ABET and CSAB, 1991-1995
Coordinated both first time visits in Fall 1992

Chairman, Computer Science/Electrical Engineering Computer Engineering Curriculum Committee, 1991-1995

Chairman, Computer Science Faculty Search Committee, 1989-1990

Head, Software Systems Area of Graduate Program, 1989-1991

Member, Endowed Chair Search Committee, 1990-1991

Member, Colloquium Committee, 1989-1990

Member, Graduate Advisory Committee, 1989-1991; 1995

Member, General Computing Advisory Committee, 1989-1991

Member, Department Development Council, 1989-1991

Member, Committee on Computer Science/Electrical Engineering Relations, 1989-1991

Chairman, Computer Science Department Equipment Committee, 1988-1989

Computer Science Department Graduate Advisor, 1975-1987

Department of Computer Science Committee on Developing Computer Engineering Curriculum, 1986

Senate Election Committee, 1986

Senate Personnel & Welfare Committee, 1986

University Core Curriculum Committee, member, 1984-1985

College of Engineering Graduate Curriculum Committee, 1983-1987

Faculty Senator (charter member), 1983-1987

Faculty Sponsor for Campus Crusade for Christ, 1983-present

College of Engineering Innovative Teaching Committee, 1982-1983

TEES Committee on Computer Science Research, 1982-1983

College of Engineering Search Committee for Computer Science Department Head, 1983

Department of Industrial Engineering Enrollment Committee, 1983

Mentors Program, 1980-1981

University Undergraduate Fellows Program, 1979-1980

Computer Science Faculty Selection Chairman, 1977, 1989

Faculty Sponsor ACM, 1977-1978

Industrial Engineering Goals Committee, 1977

Engineering Faculty Advisory Council (EFAC) Representative, 1975-1978

Organized and Faculty Sponsor IEEE-Computer Society Student Chapter, 1975-1985

Computing Science Division Head Selection Committee Chairman, 1975

Industry Liaison Committee Chairman, 1975

Faculty sponsor Upsilon Pi Epsilon, 1974-1976

PUBLICATIONS

Y. Wang, W. M. Lively, and D. B. Simmons, "Optimal patching software vulnerability and bugs using stochastic model", have been accepted by *Computer Technology and Applications*, Spring 2011

Y. Wang, W. M. Lively, and D. B. Simmons, "A Stochastic Model for Optimizing the Patching Time of Software Bugs." *International Journal of Computers and Applications*, Dec. 2010

Y. Wang, W. M. Lively, and D. B. Simmons, "Software security analysis and assessment for web-based applications," *Special Issue of Journal of Computational Methods in Science and Engineering*, Oct 2009.

Y. Wang, W. M. Lively, D. B. Simmons, "Web traffic characteristics and failure prediction model selection," *Special Issue of Journal of Computational Methods in Science and Engineering*, July 2009.

"Principled Modeling and Automatic Classification for Enhancing the Reusability of Problem Solving Methods of Expert Systems," John Yen, Swee Hor The and William Lively, *Applied Intelligence – International Journal of AI, Neural Networks and Complex Problem Solving*, Vol. 8, No. 2, 1998.

"Selecting System Functionality's for Interface Evaluation," Deborah Mitta, Catherine Delk, W.M. Lively, *Human Factors*, Vol. 37, No. 4, pp 817-834, December 1995.

"Using Comments and Token Names to Predict Software Readability," R.B. Dubbs (PhD thesis), W.M. Lively and D.B. Simmons, accepted to *Journal of Computer and Software Engineering*.

- “Undergraduate Software Engineering Lab Experiences,” W.M. Lively and M. Lease, *International Journal of Engineering Education*, Vol. 11, No. 4 & 5, pp 277-286, 1995.
- “Design Considerations and Analysis Techniques for Medical Expert Systems,” C.E. Williams, W.M. Lively and W.A. Hyman, *Medical Service Technology*, May 1992.
- “The Development of an Integrated Mathematical and Knowledge-Based Maintenance Delivery System,” R. M. Feldman, Tom Slade and W.M. Lively, *Computers and Operations Research*, Vol. 19, No. 3, pp 425-434, October 1992.
- “On the Use of Neural Networks in Intelligent Tutoring Systems,” S. Mengel and W.M. Lively, *Journal of Artificial Intelligence in Education*, Vol. 2, No. 2, pp 43-56, Winter 1990/1991.
- “A Survey and Analysis of Non-programming Approaches to the Design and Development of Graphical User Interfaces,” J. DeSoi and W.M. Lively, *Information and Software Technology*, June 1991.
- “Using an Issue Based Hypertext System to Capture the Software Life Cycle Process,” M. Lease, W.M. Lively and J. Leggett, *Hypermedia Journal*, Vol. 2, No. 1, pp 28-45, 1990.
- “A Graphical Environment for User Interface Design,” J. DeSoi, W.M. Lively, M. Lease, Tom Slade and Sallie Sheppard, *The Software Engineering Journal*, Vol. 5, No. 5, pp 289-299, September 1990.
- “A Graphical Specification System for User Interface Design,” Andy Harbert, W.M. Lively and Sallie Sheppard, *IEEE Software*, Vol. 7, No. 4, pp 12-20, July 1990.
- “Software Function Allocation Methodology,” Michael O’Neal, W.M. Lively and Sallie Sheppard, *Software – Practice and Experience*, Vol. 19(8), pp 775-786, August 1989.
- “Accommodating the Software Engineering Evolution in Education,” W.M. Lively and Sallie Sheppard, *Issues in Software Engineering Education*, pp 324-345, Springer-Verlag, 1988.
- “Computer Systems for Augmentation and Management of the Medical Practice for the 1990’s,” W.M. Lively, B. Childs and C.E. Fenner, *Software in Healthcare*, Vol. 3, No. 5, pp 52-58, October/November 1985.
- “Modeling Systolic Mitral Valve Motion: A Tool for Clarifying Mitral Valve Prolapse,” J. Hunter, W.M. Lively and J. Miller, *Texas Journal of Science*, Vol. 25, No. 1, pp 5-36, 1983.
- “A Note on Mitral Valve Mechanics: A Pre-stressed Leaflet Concept,” J. Miller, W.M. Lively and J. Hunter, *Journal of Biomechanics*, Vol. 14, No. 5, pp 373-375, 1981.
- “The Effect of Microcomputer Based Medical Equipment on Hospital Cost Containment,” W.A. Hyman and W.M. Lively, *Hospital Topics*, Vol. 58, No. 4, pp 33-36, 1981.

“Microcomputers and the Cost of Medical Care,” W.A. Hyman and W.M. Lively, *Texas Hospitals*, Vol. 35, No. 7, pp 24-25, December 1979.

“Modeling Techniques for Medical Diagnosis II. Differential Diagnosis of Neonatal Hepatitis and Biliary Atresia,” C.E. Mize, W.M. Lively and S.A. Szygenda, *Computers and Biomedical Research*, Vol. 9, No. 3, pp 1-7, 1976.

“Heuristic Models in Medicine,” C.E. Mize, W.M. Lively and S.A. Szygenda, *Clinical Research*, Vol. 21, No. 1, January 1973.

“Modeling Techniques for Medical Diagnosis I. Heuristic and Learning Programs,” W.M. Lively, C.E. Mize, and S.A. Szygenda, *Computers and Biomedical Research*, Vol. 6, No. 4, August 1973.

Other Publications

Y. Wang, W. M. Lively, D. B. Simmons , “A Stochastic model for optimizing software patch time” was presented in International Conference on Software Engineering and Knowledge Engineering. The Conference is held on July 1-3, 2010 at Red Wood city, California.

Y. Wang, W. M Lively, D. B. Simmons, “Software security testing using priority ranking”, completing 1st draft. Ready for submission to a conference, 2009.

Y. Wang, W. M. Lively, and D. B. Simmons, “Vulnerability based risk assessment for multiple component software in web-based application,” *IASTED 12th International Conference on Software Engineering and Applications*, 2008.

Y. Wang, W. M. Lively, and D. B. Simmons, “Software security analysis and assessment for web-based applications,” *17th International Conference of Software Engineering and Data Engineering*, Los Angeles, USA, 2008.

Y. Wang, W. M. Lively, D. B. Simmons, “Web traffic characteristics and failure prediction model selection,” *17th International Conference on Software Engineering and Data Engineering*, Los Angeles, USA, 2008.

D.B. Simmons, Chris Nelson, Joe Urban and William Lively, “Rapid Insertion of Leading Edge Industrial Strength Software into University Classrooms”, *Handbook of Research on Open Source Software: Technological, Economic, and Social Perspectives*, Fall 2006 – Book Chapter

Sang Eun Kim, William Lively, and Dick Simmons, “An Effort Estimation by UML Points in Early Stage of Software Development”, *The 2006 International Conference on Software Engineering Research and Practice*, June 26-29, 2006, Las Vegas, USA) Academic Co-Sponsors: The Massachusetts Institute of Technology's (MIT) Media Lab and Texas Advanced Computer Center of University of Texas at Austin

- Flores-Mendoza, A. E., and Lively, W., "Weval: A Web Usability Evaluation Tool and Model," *The 2002 International Conference on Software Engineering Research and Practice*, June, 2002
- "Teaching CS/1 Courses in a Literate Manner," S.B. Childs, D. Dunn and W.M. Lively, *Proceedings of the TEX Users Group Conference*, St. Petersburg, Florida, July 1995.
- "Automation of SW Effort Estimation," F. Fisher, D. Hicks and W. Lively, *International Symposium on Applied Corporate Computing*, Monterrey Mexico, October, 1994.
- "Principled Modeling and Automatic Classification for Enhancing the Reusability of Problem Solving Methods of Expert Systems," J. Yen, S. Teh and W. Lively, *Seventh International Conference on Industrial and Engineering Applications of Artificial Intelligence and Expert Systems*, Austin Texas, 1994.
- "Heuristic Modeling Guidelines for Expert System Reuse," See Hor The, J. Yen and W.M. Lively, *Proceedings of Florida AI Research Symposium (FLAIRS-94)*, May 1994.
- "Principled Modeling and Automatic Classification of Functional Requirements for Improved Reusability of the Design of Knowledge-Based Systems," J. Yeh, S.H. Teh and W.M. Lively, *Proceedings of CAIA 1994*.
- "Customer Involvement Beyond the Requirements Phase Unnecessarily Impacts Software Schedules," W.M. Lively, *Proceedings of Achieving Quality Software III*, San Diego California, January 1993.
- "Undergraduate Software Engineering Laboratory at Texas A&M University," W.M. Lively and Mark Lease, *Software Engineering Institute 6th Annual Conference on Software Engineering Education*, October 1992.
- "Using CASE Tools to Teach Software Design in an Undergraduate Software Engineering Lab," W.M. Lively and Mark Lease, *Proceedings ASEE Annual Conference*, June 1992.
- "On the Use of Neural Networks in Intelligent Tutoring Systems," S. Mengel and W. Lively, *Proceedings of the 1992 ACM/SIGAPP Symposium on Applied Computing*, Volume II, pp 669-676, 1992.
- "Safety Issues for Expert Systems which 'Learn'," W.A. Hyman, W.M. Lively and C.E. Williams, *Tenth International System Safety Conference*, July 1991.
- "User Perspectives and Design Considerations for Medical Expert Systems," Clay Williams and William Lively, *Proceedings IEEE Conference on Engineering Medicine and Biology*, Chicago Illinois, October 1990.
- "A Software Development Environment to Generate External Interfaces for Microcomputer-Based Expert Systems," Harry M. Mathis, Sallie V. Sheppard and William M. Lively, *Proceedings*

IEEE Conference on Managing Expert System Programs and Projects, pp 193-200, Washington, D.C., September 1990.

- “Graphical Specification of User Interfaces with Behavior Abstraction,” J.F. DeSoi, W.M. Lively and S.V. Sheppard, *Proceedings CHI’98 Conference – Human Factors in Computing Systems*, pp 139-144, April 1989.
- “Where AI/KB Techniques Fit into Software Development/Engineering,” W.M. Lively, *Proceedings of the 13th Annual COMPSAC Conference*, p 777, 1989.
- “Comparing Production System Architectures,” Mark Lease and W.M. Lively, *Computer Architecture News*, Vol. 16, No. 4, pp 108-116, September 1988.
- “Automatic Development of Parallel Simulation Models in Ada,” C.K. Davis, S.V. Sheppard and W.M. Lively, *Proceedings of the 1988 Winter Simulation Conference*, pp 339-344, 1988.
- “Architectural Design Methodology for Supporting High Level Programming Languages,” S.O. Aletan and W.M. Lively, *Proceedings of the International Conference on Computer Languages ’88*, October 1988.
- “Executable Graphical Specifications for User Interfaces,” with Tom Slade, W.M. Lively, Sallie Sheppard, John DeSoi, Randall Duncan and Mark Lease, *Proceedings of the 3rd Annual User-System Interface Conference*, pp 209-216, February 1988.
- “Alternative Software Design Paradigms,” W.M. Lively, *Proceedings of the Fall Joint Computer Conference*, p 2, October 1987.
- “Insuring Software Safety in Robot Control,” Peter Wetterlind and W.M. Lively, *Proceedings of the Fall Joint Computer Conference*, pp 34-38, October 1987.
- “Express: Rapid Prototyping and Product Development via Integrated, Knowledge-Based, Executable Specifications,” Phillip Topping, John McInroy, W.M. Lively and Sallie Sheppard, *Proceedings of the Fall Joint Computer Conference*, pp 3-10, October 1987.
- “The ATMAda Environment: An enhanced APSE,” Ed Matthews and W.M. Lively, *Ada Letters*, Vol. VI, No. 3, pp 61-64, May 1986.
- “Syntax-Directed Editing Revisited,” J. Heyman and W.M. Lively, *Software Engineering Notes*, Vol. 10, No. 3, pp 24-27, July 1985.
- “Multiprocessor/Multiarchitecture Microprocessor Design,” S. Aletan and W.M. Lively, *Proceedings Computer Science Conference*, March 13-14, 1985.
- “Medical Practice Management Systems Should Manage More than Financial Data,” W.M. Lively, B.S. Childs and E.E. Fenner, *Proceedings AAMSI Congress*, Vol. II, pp 92-96, May 20, 1984.

- “A Mitral Valve Model for Studying Prolapse,” W.M. Lively, G.E. Miller, J. Hunter and D.L. Stoner, *Texas Engineering Experiment Station Technical Bulletin*, No. 80-1, pp 19-25, January 1980.
- “Workshop Report I: Microprocessor Impact in Health Care,” W.A. Hyman and W.M. Lively, *Proceedings of the 12th International Conference on System Sciences*, Vol. III, pp 272-276, January 1979.
- “A Proposed Study to Assess the Impact of Microprocessors on Health Care Delivery,” W.M. Lively and W.A. Hyman, *AFIPS Conference Proceedings – 1977 National Computer Conference*, Vol. 9, pp 309-312, June 1977.
- “A Multi-Lingual High Level Language Computer Architecture,” P.L. Crews, W.M. Lively and D.B. Simmons, *Spring COMPCON '77 Digest of Papers*, February 1977.
- “A Computer Assisted Instruction Program To Teach Medical Diagnosis,” L. Thompson, W.M. Lively and D.B. Simmons, al., *Proceedings 3rd Texas Computing Conference*, November 1974.
- “Computer Methods for Medical Differential Diagnosis,” W.M. Lively, C.E. Mize and S.A. Szygenda, *1973 SWIEECO Record of Technical Papers*, Houston Texas, April 1973.
- “Dissertation: Heuristic and Learning Program Applications to the Differential Diagnosis of Neonatal Hepatitis and Extrahepatic Biliary Atresia,” W.M. Lively, *Computing Reviews*, Vol. 13, No. 8, August 1972.
- “Modeling Techniques Utilizing Heuristics and Learning Programs for Medical Diagnosis of Infant Liver Abnormalities,” W.M. Lively, C.E. Mize and S.A. Szygenda, *IEEE Proceedings of the Islands of Application Conference*, Tokyo Japan, June 1972.
- “Computer Models for the Differential Diagnosis of Neonatal Hepatitis and Extrahepatic Biliary Atresia,” W.M. Lively, C.E. Mize and S.A. Szygenda, *Proceedings of the San Diego Biomedical Symposium*, February 1972.
- “Analysis of Modeling Techniques for the Differential Diagnosis of Neonatal Liver Malfunctions,” W.M. Lively, C.E. Mize and S.A. Szygenda, *Proceedings of the Ninth Annual Symposium on Biomathematics and Computer Science in Life Sciences*, Houston Texas, March 1971.

Graduate Students

Masters students graduated – 120

Ph.D. students graduated - 35

Technical Reports

Knowledge Based Integrated Information Systems Development Methodologies Plan, United States United States Air Force, May 1987.

An Evaluation of ART, KEE and Knowledge Craft on the Texas Instruments Explorer, October 1986.

Final Report: A Characterization of Expert System Development Tools for Manufacturing Applications, United States United States Air Force Contract #F33615-82-C-5060.

Final Report: Mitral Valve Model, United States United States Air Force Contract #D33615-75-D-0629.

Final Report: The Impact of Microprocessors on Health Care Delivery, NSF Grant MCS 77-02191.

Automatic Documentation System Extension to Multi-Manufactures' Computers and to Measure, Improve and Predict Software Reliability, NASA Contract No. NAS 5-20715.

Lectures and Presentations

Society for Software Quality National Debate, "Customer Involvement Beyond the Requirements Phase Unnecessarily Impacts Software Schedules," San Diego California, January 28, 1993.

CASE88 Workshop, "CASE Tool Education – Professional, Senior/Executive," Boston Massachusetts, July 14, 1988.

Carnegie-Mellon's Software Engineering Institute Symposium on Software Engineering Education, "Industry/Academia Interfaces," April 30, 1987.

Dunbar JETS for Engineering Professions, "Artificial Intelligence," Fort Worth Texas, April 28, 1984.

Round Rock JETS Meeting, "Artificial Intelligence," November 16, 1983.

Las Vegas JETS Meeting, "Artificial Intelligence," October 19, 1982.

IBM Employee Educational Development Seminar, "Software System Specifications," October 1981.

NIH Consensus Development Conference, "The Use of Microprocessor-based Intelligent Machines in Patient Care," 1980.

Needville JETS Meeting, "Microprocessors in Health Care," April 17, 1979.

Orange Science Symposium, "Microprocessors in Health Care," March 10, 1979.

Micro-Expo, "Microprocessors in Biomedical Engineering," March 3, 1979.

Stratford JETS Meeting, "Microprocessors in Medical Care," February 19, 1979.

16th Annual Science Symposium, “The Microprocessor – Current Trends in Computers and Applications,” March 11, 1978.

Westchester JETS, “The Ubiquitous Microprocessor,” February 14, 1978.

Stratford JETS, “Artificial Intelligence – Will Computers replace Man?,” November 22, 1976.

Mt. Carmel JETS, “Computers in Medicine,” November 22, 1976.

John Jay JETS, “The Computing Milieu,” January 22, 1975.

Spring Wood JETS, “The Computing Science Milieu,” December 17, 1974.

Central Texas Science Symposium, “Computing Science in Medical Science,” February 16, 1974.

Extension

ITESM – Objected Oriented Software Design, Monterrey Mexico, Summer 1992.

Computer Science Fundamentals, IBM, October 1984.

Computer Architecture, IBM, April & June 1984.

Computer Science Fundamentals, IBM, November 1982.

Networks and Databases, Summer Faculty Development Program for the Mexican Regional Institute of Technology, 1981.

Software Engineering, Moody College of Marine Sciences, Texas A&M University, May 1975.

Programming Minicomputers, Texas A&M University, July 1974.

Conference and Session Chairman

Fall Joint Computer Conference, Alternative Software Development Paradigms, October 1987.

12th Hawaii International Conference on System Science, The Impact of Microprocessors on Health Care Delivery, January 1979.

Workshop on the Impact of Microprocessors on Health Care Delivery, September 18-19, 1978.

ACM '76 National Conference – Computers in Medicine.

HONORS AND AWARDS

President's Associate Southern Methodist University 2010-11

Southern Methodist Distinguished Alumnus Award 2007

Outstanding Faculty Advisor to Texas A&M University CORPS of Cadets, 1997-98

ACM/IEEE Outstanding Service Award 1986.

UPE

Tau Beta Pi

Sigma Xi