

Curriculum Vita

Victor Anthony Zaloom

Professor of Industrial and Systems Engineering, Lamar University
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6930 Westgate Dr., Beaumont, TX 77706, Birth Place: Paterson, New Jersey

EDUCATION

Ph.D. (1970), Industrial and Systems Engineering, University of Houston,
Major in Systems Engineering with a minor in Mathematics.
M.S.E. (1967), Industrial and Systems Engineering, University of Florida,
Major in Operations Research with minor in Statistics.
B.S.I.E. (1966), Industrial and Systems Engineering, University of Florida

EXPERIENCE/POSITIONS HELD

2022- Professor of Industrial and Systems Engineering
2019-2022 Interim Chair and Professor of Industrial and Systems Engineering
2018-2019 Interim Dean and Charles and Eleanor Garrett Chair in Engineering
2016-2018 Professor of Industrial Engineering, Lamar University
2015-2016 Associate Dean of Engineering, Lamar University
2013-2015 Interim Dean College of Engineering, Lamar University
2010-2013: Interim Dean of Graduate School, and Associate Dean of Engineering
2006-2010: Associate Dean of Engineering, Lamar University
1981-2010: Professor and Chairman, Industrial Engineering, Lamar University.
Acting Dean of Engineering: summers 1984 & 1999
Director of Engineering Graduate Programs 1981-1986 & 1999 - 2015
Director Center for Ports and Waterways 1995-2011
Interim Chair Mechanical Engineering: 1986-1989 & 1996-1999.
1978-1981: Professor and Chairman, Industrial Engineering Department,
North Carolina A & T State University
1971-1978: Associate and Assistant Professor, Industrial Engineering,
Auburn University
1968-1970: Instructor & Teaching Fellow, Industrial and Systems Engineering,
University of Houston

ADMINISTRATIVE ACHIEVEMENTS:

- Served as Interim Chair of Industrial and Systems Engineering Department 2019-2022. Instituted the department name change from Industrial Engineering to Industrial and Systems Engineering. Increased enrollment dramatically to near record levels.
- Served as Interim Dean of Engineering Lamar University, 2018-2019. Achieved ABET reaccreditation for the full accreditation cycle for all engineering undergraduate programs.
- Serving as Interim Dean of Engineering Lamar University, 2013-2015. Enrollment increased by more than 50 percent over the two-year period and funded research increased by 12% per year. Previously served as Interim Dean of Engineering May – August, 1999, previously served as Acting Dean of Engineering on two occasions.

- Served as Interim Dean of the College of Graduate Studies Lamar University, 2010 -2013. Reorganized the College and achieved the following results: improved International Students Services, improved international and domestic student recruitment, improved Lamar Language Institute instruction and operation, accreditation, and profitability.
- Chaired the first Industrial Engineering Department at a historically black university (HBU) to gain ABET accreditation (North Carolina A & T State University 1978-1981).
- As Chair of the Industrial Engineering Department, increased enrollment from 99 to 335 students from 1999 to 2010 (Lamar University).
- Served as Interim Chair of Mechanical Engineering and increased graduate enrollment in Mechanical Engineering by more than 30% per year.
- Recruited and hired highly qualified faculty in Industrial and Mechanical Engineering Departments.
- Consistently receive highest merit in annual and three-year performance reviews.
- Developed the Industrial Engineering Department Advisory Council at Lamar University that has resulted in a scholarship endowment of more than \$800,000, over 100 scholarships awarded, and numerous offers of employment to IE's over the past twenty years.

TEACHING ACHIEVEMENTS:

- Consistently receive course ratings between 8 and 10 on a scale of 1-10 for courses I teach, and more recently between 4 and 5 on a scale of 1 to 5.
- Experience in teaching a wide variety of courses including at the undergraduate level: Engineering Economy, Quality Control, Probability and Statistics, Industrial and Product Safety, and several Operations Research courses. Experience at the graduate level includes: Advanced Engineering Economics, Advanced Scheduling Theory, Statistical Design of Experiments, and others.
- Developed and taught more than ten short courses for industry including: "Statistical Process Quality Control" which was sponsored by the American Institute of Chemical Engineers (AIChE). This course was taught to practicing engineers 3 or 4 times a year from 1984 to 1993. It was also taught in-house at Dow Chemical, E.I. DuPont, ExxonMobil, and more than 25 other major corporations.

RESEARCH ACHIEVEMENTS:

- More than 80 publications and paper presentations. Many of these were fully refereed. Others were refereed abstracts and five were invited papers or presentations at national or regional conferences
- Served as principal investigator on numerous grants or contracts that generated total extramural funding of more than \$1,000,000.

- Served as Interim Dean of Engineering Lamar University, 2013-2015. Enrollment increased by more than 50 percent over the two-year period and funded research increased by 12% per year. Previously served as Interim Dean of Engineering May –August, 1999, previously served as Acting Dean of Engineering on two occasions.
- Served as Interim Chair of Industrial and Systems Engineering 2019-2022, instituted the Department name change from Industrial Engineering to Industrial and Systems Engineering, increased department enrollment dramatically to near record levels.
- Served as Interim Dean of

- Continued research and publication while holding administrative positions as Department Chairman, Associate Dean, and Interim Dean since 1978.

- Encourage faculty to establish and maintain research programs in order to enhance their academic careers, enhance their teaching, and support their graduate students. Several former graduate students have gone on to department chair and dean positions at major universities. Two of my first three faculty hires have chaired IE Departments at Major Universities (Simen Pulat – Oklahoma, Tayfur Altioek – Rutgers)
- Chaired or Co-Chaired the following Doctor of Engineering Dissertations/Field Studies:
 1. Derchang Li, 1985, An Algorithm for Sequencing Jobs to Minimize Total Tardiness
 2. Thomas Henderson, 1988, Development of a Model to Determine the Technicalness of Manufacturing Industries and to Evaluate the Average Technicalness Score of an Area
 3. Gongtao Wang, 1998, Application of Genetic Programming and Artificial Neural Networks to Improve Engineering Optimization
 4. Hasan Chowdhury, 2000, The Use of Simulated Annealing to Solve Large Transportation-Location Problems with Euclidean Distances
 5. Thomas Honeycheck, 2005, The Effect of Age on Heat Rate in Central Station Power Plants
 6. Carol Schulte, 2008, A Heuristic Algorithm for Scheduling Hazardous Waste Incinerators.
- Chaired or Co-Chaired more than ten MS or MES Theses. The most recent are:
 1. Rajendra, M. 2005, Predictive Model to Aid Selection of Heat Treating Process Parameters for Alloy Steel Forgings
 2. Vinit Subrahar, 2006, Estimation of the Probability of Occurrence of "Events" that Could Disrupt Operations on the Sabine-Neches Waterway by the Delphi Method

SELECTED SERVICE ACTIVITIES:

- Fellow, Institute of Industrial and Systems Engineers (IISE), (Elected 2008)
- Elected Chairman IISE Fellows (2010-2011)
- IISE Fellow Selection Committee Member (2010-20013)
- National Maritime Security Advisory Committee, Appointed by Tom Ridge, Inaugural Secretary, U.S. Department of Homeland Security, December, 2004 –December, 2007
- Texas Higher Education Coordinating Board Engineering Statewide Engineering Field of Study Committee for community college transfers (2014-present)
- Texas Higher Education Coordinating Board Engineering Statewide Transfer Curriculum Assessment Committee (2010-2014)
- Texas Higher Education Coordinating Board Engineering Statewide Graduate Education Advisory Committee (2012-2013)

- Texas Higher Education Coordinating Board Mechanical Engineering Statewide Transfer Curriculum Committee (2009-2010)
- Lamar University Strategic Planning Committee (2006-2015)
- ABET program evaluator representing IIE, 2002- present
- Honorary President International Conference on Computer, Communication, and Control Technologies CCCT' 03. July 31-Aug. 2, 2003, Orlando, Florida
- International Advisory Committee Member, International Conference on Manufacturing, Dacca, Bangladesh, August, 2002
- Director Lamar University Center for Ports and Waterways a division of the Texas Transportation Institute TTI (1995-2011).
- Served on Academic Master Planning Committee (AMP) as representative of Council of Instructional Departments (CID) 2001-2003.
- Director of the Lamar University Division of TTI (1995-2014).
- Team Leader Rotary Goes To School (2010,2015).
- Selection team leader, SETX Better Business Bureau "Torch Award for Market Ethics" (1998-99).
- Secretary Lamar University Council of Instructional Departments (1998-1999).
- Funded scholarship endowment for the, Lamar University: Victor A. Zaloom Leadership in Quality Scholarship, (1995).
- Established and provided principal funding for the Shar Zaloom McCabe Memorial Endowed Scholarship in Business at Lamar University. (2006)
- Victor A. Zaloom Scholarship in Industrial Engineering endowed by the Industrial Engineering Advisory Council (2006)
- Established and funded the Victor Zaloom Scholarship in Industrial and Systems Engineering endowment at the University of Houston Cullen College of Engineering. (2008)
- Chaired Dean of Engineering Search Committee (1999).
- Chaired or served on numerous search committees including the Vice President for Research search committee (1988).
- Subcommittee Chair, Southern Association of Colleges and Schools Accreditation Committee (SACS), (1995-1997).
- Subcommittee Co-Chair, (SACS) Institutional Mission Subcommittee (2005-2007).
- Serve on numerous other (SACS) Committees (2005-2007).
- Team leader Texas Quality Award in Education Examiner 1993-94. Team leader 1994.
- Course Director, AIChE continuing education courses entitled: "Statistical Process Quality Control," (1984-1993) and "ISO 9000 Standards Implementation In the Petro-Chemical Industry" (1993).

RESEARCH AND INDUSTRIAL EXPERIENCE

- CO-Principal Investigator, "Benefit Cost Analysis Research and Development for Port of Port Arthur MARRAD Grant Application 2019" with Alberto Marquez PI, sponsored by Port of Port Arthur, April 1, 2020 – August 31, 2020, \$3,000.
- CO-Principal Investigator, "Benefit Cost Analysis Research and Development for Port of Port Arthur Grant Application 2019" with Alberto Marquez PI, sponsored by Port of Port Arthur, April 1, 2019 – August 31, 2019, \$3,000.
- Principal Investigator, "Wake Wash in the Sabine-Neches Waterway Phase II", Sponsored by Sabine-Neches Navigation District, with CO-PI's Qin Qian, Mein Jao, and Xing Wu, Oct. 1, 2017-Sept. 30, 2019, \$99,732.
- Principal Investigator, "Wake Wash in the Sabine-Neches Waterway", Sponsored by Sabine-Neches Navigation District, with CO-PI's Qin Qian, Robert Yuan, Mein Jao, and Xing Wu, Nov. 1, 2015-April 30, 2017, \$99,742.
- Principal Investigator, "Benefit Cost Analysis Research and Development for Port of Beaumont FHWD Fastlane Grant 2016" with Alberto Marquez Co-PI, and Sujay Mahale Co-PI. Sponsored by Port of Beaumont, April 1, 2016 – August 31, 2016, \$4,975.
- Co-Principal Investigator, "Benefit Cost Analysis Research and Development for TIGER Grant Port of Beaumont", with Alberto Marquez PI, and Sujay Mahale Co-PI. Sponsored by Port of Beaumont, April 1, 2016 – August 31, 2016, \$4,975.
- Co-Principal Investigator, "Reliability and Availability Analysis of Port Equipment", with Yisha Xiang as PI. Sponsored by Center for Advances in Port and Terminal Management, June 1, 2016 to August 31, 2017, \$25,000.
- Co-Principal Investigator, "Analysis of Vessel Conflicts in In-land Waterways: An AIS Data based Approach and Application to Sabine-Neches Waterways", with Xing Wu as PI. Sponsored by Center for Advances in Port and Terminal Management, June 1, 2016 to August 31, 2017, \$10,004.
- Principal Investigator, "Benefit Cost Analysis Research and Development for Port of Beaumont" with Alberto Marquez, and Sujay Mahale Co-PI's. Sponsored by Port of Beaumont, June 1, 2015 – August 31, 2015, \$3,753.
- Co-Principal Investigator, "Risk analysis and mitigation solutions of vessel accidents in the Sabine-Neches Waterways. Submitted to the Presidential Faculty Fellowships for Undergraduate Research of Lamar University. Xing Wu PI, \$10,089. Co-PI: April 2014-August 2014
- Principal Investigator, "Center for Ports and Waterways Lamar University Division – Research on Incident Data Analysis on the Sabine-Neches Waterway", funded by TTI, \$30,000, 09/1/07 - 8/31/013.
- Consultant, Texas International Education Consortium, "Development of Mechanical Engineering Curriculum for Prince Mohamad University, January – June, 2012.

Consultant, Air Liquide America, "Statistical Analysis of Power Price Blow Outs", June-September, 2007-8.

Consultant, ExxonMobil Corporation, "Risk Analysis of Equipment Replacement Decisions", March – April, 2007.

Principal Investigator, "Center for Ports and Waterways Lamar University Division – Research in Risk Assessment on the Sabine-Neches Waterway", \$20,000, funded by TTI, 09/1/03 - 8/31/07.

Consultant, Air Liquide America, "Availability of Two Alternative Compressor Systems", consulting report submitted to Air Liquide America, Houston, TX May, 2005.

Principal Investigator, "Elasticity and Viscoelasticity of Anisotropic Nonuniform Naturally Twisted and Curved Rods, Lamar University Research Enhancement Grant, 9/1/03 - 8/31/04, with Andrei Beyle.

Consultant, Air Liquide America, "Analysis of Hourly Oxygen Demand", May-June, 2004.

Consultant, "An Explanation of FDA Binomial Staged Sampling Plans with Binomial Confidence Levels, project report submitted May, 2004.

Consultant, "A Recommended Acceptance Sampling Plan for Raw Materials Used in the Manufacturing Processes at Helena Labs, project report submitted, April, 2004.

Principal Investigator, "Regional Mitigation Action Plan" South East Texas Regional Planning and Thompson Engineering, 6/1/03 -12/31/03, \$15,000, With Ryan Underdown

Principal Investigator, Jefferson County Highway 87 Shore Protection - Clay Sediment Characterization, funded by Jefferson County, Texas/ Pacific International Engineering, 02/15/03-08/15/03, \$10,000, with Xing Fang, Mien Jao, Jerry Lin, and Hsing-Wei Chu.

Principal Investigator, Field Investigation of Effluent Quality of Placement Areas along Sabine-Neches Waterway, funded by U.S. Army Corps of Engineers, 02/01/03-12/31/03, \$20,000, with Hsing-Wei Chu, Xing Fang, Mien Jao, and Jerry Lin.

Principal Investigator, Design of Confined Placement Areas for Sabine-Neches Waterway Dredged Materials" funded by U.S. Army Corps of Engineers, \$53,631, 9/1/02-8/31/03, with Xing Fang, Mien Jao, Hsing-wei Chu, N. K. Nagrani, and N. Thadani.

Principal Investigator, Ports and Waterways Information Systems and Sources", Texas Transportation Institute, Center for Ports and Waterways, Lamar University Division, \$5,000, 9/1/02-8/31/03.

Principal Investigator, Sabine-Neches Waterway Feasibility Study – Pipeline/Facilities Relocation and Removals, funded by U.S. Army Corps of Engineers, \$38,771, 9/1/01-8/31/02, with Xing Fang. M. Jao, A. S. Kumar, S. D. Chorghe, S. G. Muninarayana, Y. Scott, B. Little.

Consultant, Air Liquide America, Decision Support System for Merchant Operations, 2001-2002.

Consultant, Air Liquide America, Risk Assessment of Electricity Price Deregulation, 2001.

Consultant, Air Liquide America, Statistical Analysis of Meter Performance, 1994-2001.

Consultant, "Analysis and Recommendations for Industrial Engineering and Management", Universidad Autonoma De Neuvo Leon - Academic Excellence Project College of Chemical Science Final Project Report - Submitted by Texas International Education Consortium, Austin, Texas, July 1, 1996 (with Jim Smith and France Meier).

Principal Investigator, "An Operational Audit and Management Effectiveness Study of the Port of Galveston", Final Project Report CPW of TTI, May 31, 1996.

Principal Investigator, April, 1991 - March, 1994. "Materials Handling Systems and Approaches for Superfund Sites," U.S.E.P.A. and Gulf Coast Hazardous Substance Research Center.

Principal Investigator, "Development of Automated Garbage Truck Districts and Routes within Districts", City of Beaumont, Texas, 1988. (With Hsing-wei Chu)

Consultant, Mobil Corp., Texas, California and New Jersey Locations, 1985-1992. Training and consultation in statistical quality control and TQM.

Consultant, Texaco Research and Development, Beacon, New York and Port Arthur, Texas, 1987-1992. Training and consultation in Statistical Quality Control and Process Reengineering.

Consultant, Dow Chemical, Inc. Texas, Louisiana and Michigan Divisions, 1983-1990. Training and consulting in Statistical Quality Control.

Consultant, E. I. Dupont, Wilmington and other locations, 1987-1992. Training and consulting in Statistical Quality Control.

Consultant, Vought Aircraft Corporation, Dallas, Texas, May, 1980-1983. Engineering Cost Analysis of Advanced Defense and Commercial Systems.

Principal Investigator, January, 1979 - August, 1979. "Technology Assessment of Numerical Control Machining of Shoe Bottom Molds." Contract with the Research Triangle Institute, North Carolina.

Consultant, May, 1979 - June, 1979. Singer Corporation, Binghamton, New York. Analysis of production system capability to yield volume production. Analysis included hardware (facilities, machinery), software (management and information systems), and personnel.

Consultant, March, 1979 - April, 1979. AAI Corporation, Baltimore, Maryland, Recommend production systems improvements.

Contractor (part-time) to the Air Force Logistics Management Center, October, 1976 - July, 1978. Developed improved algorithms and processes for base level operations and maintenance scheduling.

Principal Investigator, Air Force Logistics Management Center, Gunter AFS, Montgomery, Alabama, June, 1976 - September, 1976. Developed computer assisted scheduling techniques for aircraft sorties.

Consultant, Frit Industries Incorporated, March, 1977 - January, 1978. Development of a Computerized Production and Inventory Control System.

Principal Investigator, NASA, Marshall Space Flight Center, Huntsville, Alabama, March, 1975, Simulation Model Validation and Statistical and Economic Analysis of Results.

Principal Investigator, June, 1975 - August, 1975. Development of a Human Resource Information System, Auburn University Engineering Experiment Station.

Principal Investigator, November, 1974 - March, 1975. Development of Financial Resource Allocation Model for the City of Hartford, Alabama.

Principal Investigator, June, 1973 - March, 1974. Auburn University Grant-in-Aid, No. 73-16. "The Development and Evaluation of an Improved Algorithm for Resource Scheduling."

Principal Investigator, June 1, 1971 - January, 1973. Auburn University Engineering Experiment Station, Applications of Industrial Engineering to State and Local Government Problems.

Senior Operations Analyst, May, 1970 - December, 1970. General Dynamics, Fort Worth, Texas. Statistical Analysis of Risk Associated with Aircraft Structural Testing. National Planning and Resource Allocation Studies.

Operations Analyst, May, 1967 - September, 1968. General Dynamics Fort Worth, Texas. Systems Evaluation and Cost Effectiveness and Resource Allocation Studies.

Research Assistant, April, 1966 - April 1967. Operations Research Department, J. H. Miller Medical Center, University of Florida.

PUBLICATIONS

Referred Publications:

- “Field Measurements and Modelling of Vessel-Generated Waves and Caused Bank Erosion—A Case Study at the Sabine–Neches Waterway, Texas, USA”. Water 2023, Qian, Q.; Su, L.; **Zaloom, V.**; Jao, M.; Wu, X.; Wang, K.-H. 15, 35, <https://www.mdpi.com/2073-4441/15/1/35>
- “Results of the First Six Years of a 2+2 Online BS Industrial Engineering Degree Pathway” Proc. of American Society for Engineering Education Virtual Annual Conference, July 2021, Robert Kelley Bradley, James C Curry, **Victor Zaloom**, Brian Craig, Berna Eren Tokgoz, Alberto Marquez, Yueqing Li, Maryam Hamidi, Weihang Zhu, Xinyu Liu, and Acyut Kaneria.
- “Streambank Erosion and Protection after Hurricane Harvey in the Sabine Neches Waterway”, 2020 World Environmental and Water Resources Congress, Qin Qian*, Mien Jao, **Victor Zaloom**.
- “Benefit estimations of port terminal infrastructure rehabilitation and construction project”, Proceedings of the 2020 IISE Annual Conference, May, 2020, Alberto Marquez, **Victor Zaloom**.
- “Risk assessment of commonly transported chemicals in the Port of Houston”, Ayberk Karakauz, Berna Eren Tokgoz, Victor Zaloom, and Alberto Marquez, International Journal of Critical Infrastructures, 2019.
- “Study of travel behavior of vessels in inland waterways using AIS data -- a case study at hotspots in Sabine-Neches Waterways”, Xing Wu, Afifa Rahman, and Victor Zaloom, Ocean Engineering, 2017. <https://www.sciencedirect.com/science/article/pii/S0029801817306601>
- “Stream bank erosion and protection due to wake wash in Sabine Neches Waterway”, Qin Qian, Benjamin Kolkmeier, Lin Su, Xing Wu, Mien Jao, Robert Yuan, Keh-Han Wang, Victor Zaloom, 18th Mainland-Taiwan Environmental Protection Conference (MTEPC), Taipei, Taiwan, Nov 10-15, 2017
- “Analysis of Waterway Transportation in Southeast Texas Waterway Based on AIS Data - A case study in the Sabine-Neches Waterway”, Xing Wu, Aesha L. Mehta, Victor A. Zaloom, and Brian Craig, Ocean Engineering 121 July, 2016 pp. 196-209, [doi:10.1016/j.oceaneng.2016.05.012](https://doi.org/10.1016/j.oceaneng.2016.05.012).
- “Probability Analysis of Vessel Collisions and Groundings in Southeast Texas Waterways”, Published in in the Transportation Research Record: Journal of the Transportation Research Board, No. 2426, Transportation Research Board of the National Academies Washington, D.C., 2014, pp. 44-52; Xing Wu, Hafizur Rahman, and Victor Zaloom.

- “Development of a Web-based Safety Survey Data Analysis System for the Maritime Industry,” Industrial Engineering Research Conference, May 2012, Orlando, FL, USA, James Curry, Weihang Zhu, Brian Craig, Victor Zaloom
- “Finite Element Analysis of Micro-grinding Process,” Industrial Engineering Research Conference, May 2012, Orlando, FL, USA, Xinyu Liu, B. Gangineni, Weihang Zhu, Victor Zaloom
- “Multi-Objective Optimization For The Micro-Milling Process With Adaptive Data Modeling” Proceedings of the ASME 2011 International Manufacturing Science and Engineering Conference, MSEC2011, June 13-17, 2011, Corvallis, Oregon, With Weihang Zhu, and Xinyu Liu.
- “Scheduling Hazardous Waste Incinerators Using a SA-LP Heuristic”, Journal of Environmental Engineering Science, July 2010, 27(7): 569-575. doi:10.1089/ees.2009.0380, with Schulte, Curry, Zhu, Lou, and Marquez.
- “An Experimental Study on the GPU-accelerated ACO for Parallel Machine Scheduling with Sequent Dependent Setup”, IERC 2010 Proceedings, Cancun, Mexico, June 2010, With Weihang Zhu, James Curry, Anjali Mishra, A. Marquez.
- “Sequence Dependent Parallel Machine Scheduling On a GPU Platform Using Ant Colony Optimization”, Proceedings of ASME Manufacturing Science and Engineering Conference, Oct 4-7, 2009, West Lafayette, IN, With Weihang Zhu, James Curry, Anjali Mishra, Victor Zaloom
- “A study of Ant Colony-Based Parallel Machine Scheduling with Graphics Hardware Acceleration, *Proceedings of the ASME 2009 International Manufacturing Science and Engineering Conference*, October 4-7, 2009, West Lafayette, Indiana, USA. Weihang Zhu, James Curry, Anjali Mishra and Victor Zaloom.
- “An Analysis of Correlation of Expert Opinions in Security Risk Assessment”, Proceedings of the 14th ISSAT Conference on Reliability and Quality in Design, Orlando, Florida, August 7-9, 2008 with Vinit Subhedar and Hsing-wei Chu.
- “Cooling Suits, Physiological Response, and Task Performance in Hot Environments for the Power Industry,” Industrial Journal of Occupational Safety and Ergonomics, 2007, Vol.12,No.3, pp287-299, with Craig, Futado, Chard, and Chu.
- “A Computer Based Training System for Process Safety Management,” Computers and Industrial Engineering, Vol. 31 No. 1/2, pp. 511-514, October, 1996 (with Prakash Ramachandran).
- “Developing Improvement,” Manufacturing Breakthrough, Vol 2, No. 5, September/October 1993 (with Tansukh Dorawala and Thomas J. Werner).
- “Further Experiments in Quality: Improving R&D Processes,” Transactions Association for Quality and Participation (AQP) Annual Spring Conference, pp. 211-221, May, 1993, New Orleans (with Tansukh Dorawala and Thomas J. Werner).

- "Computer Aided Link Analysis (CALA)," Computers in Industry, 1991 (with James Glass and David Gates).
- "Creating A Positive Work Environment," Chemical Engineering, June 1990 (with Terry McSween).
- "A Model to Determine the Technicalness of Manufacturing Industries," Engineering Management International, Vol. 5, No. 4, 1989.
- "Statistical Process Quality Control Training and Implementation," Training and Development, Vol. 42, No. 7, July 1988, pp. 59-61.
- "Bank Funds Management By Goal Programming," Proceedings of the 8th Annual Conference on Computers and Industrial Engineering, pp. 132-135, Orlando, Florida, March, 1986. (with A. Tolga)
- "A Repricing Model for Production Rate or Quantity Revisions," Cost Engineering, April, 1985, pp. 10-15.
- "An Automated Procedure to Establish Workzone Boundaries for Air Force Facilities Maintenance Operations," The Journal of the Operational Research Society, Vol. 33, pp. 913-919, 1982.
- "A Review of Cost Estimating for Advanced Composite Materials Applications," Engineering Cost and Production Economics, Vol. 7, pp. 81-86 (1982).
- "An Algorithm to Schedule Aircraft to Sorties," Computers and Industrial Engineering, Vol. 4, No. 2, pp. 95-101, 1980, (with W. R. Howard).
- "An Analysis of the Effect of Production Quantity and Inventory Selection Policy on the Probability of Meeting a Specified Launch Schedule," Winter Simulation Conference, Gaithersburg, Maryland, December, 5-7, 1977.
- "A Note on the Optimal Schedule of Two Parallel Processors," Naval Research Logistics Quarterly, Vol. 22, No. 4, (1975) (with D. H. Vatz).
- "Computer Science and Computer Engineering – A Cooperative Program," Transactions, American Society for Engineering Education, December, 1973 (with H. T. Nagle).
- "A Computer Science Option in Industrial Engineering," SIGSC Bulletin, (Special Interest Group on Computer Science Education of the American Association for Computing Machinery), Vol. 5, No. 1, 1973 (with D. B. Webster).
- "A Technical Note on the Proper Use of Compound Interest Factors," The Engineering Economist, Vol. 18, No. 4, 1973.

“On the Resource Constrained Project Scheduling Problem,” American Institute of Industrial Engineering AIIE Transactions, Vol. II, No. 4, 1971.

Invited Papers or Presentations

“Quality from Industry to Higher Education, Presented at the President’s home at Lamar University as part of the series of Cardinal Conversations, September 17, 2014.

“Risk Assessment on the Sabine-Neches Waterway”, Presented to the: 2006 Texas Ports and Waterways Conference, Beaumont, TX July 27, 2006, with Vinit Subhedar

“Six Sigma Concepts and Applications,” Sabine Neches Purchasing Management Association, May, 2001, Beaumont, Texas.

“Application of Statistical Methods to Improve a Measurement Process”, Industrial Engineering Conference for Monterrey, Mexico. Hosted by UANL, Oct. 1, 1997.

“ISO 14000 and OSHA PSM: A Comparison,” TCC/ACIT – Safety Seminar, Houston, Texas, June 5, 1997.

“A Comparison of ISO 9000 Quality System Standards and Process Safety Management Regulations of OSHA,” National Process Plant Safety Symposium Proceedings, Vol. 1, pp. 587-598, April 1, 1996.

“ISO 9000 Impact on Labor, Management and the Competitiveness of U.S. Industries,” Presidential Commission on Labor/Management Relations, Houston, Texas Regional Hearing, February 11, 1994.

“Total Quality Management or Industrial Engineering, What’s in a Name?” I.I.E. – Houston Chapter Conference on “Industrial Engineering—A Key to Quality and Productivity,” October 15, 1992, Houston, Texas.

“Practical Applications of SPC,” American Society of Quality Control-Houston Chapter, April 7, 1992, Houston, Texas.

“Improving the Quality of Purchased Materials and Services Through Statistical Process Quality Control,” Sabine Neches Purchasing Management Association, January 16, 1992, Beaumont, Texas.

“Quality in Research and Development, Engineering, and Academia,” Golden Triangle Society of Tribologists and Lubrication Engineers, January 7, 1992, Beaumont, Texas.

“Quality Control Applications in Maintenance,” International Maintenance Institute Annual Technical Conference, April, 1991, Beaumont, Texas.

“Application of Statistical Process Quality Control to Improve Quality and Productivity,”
Southeast Regional Conference of the American Institute of Chemical Engineers,
Kingsport, Tennessee, October, 1990.

“Improving Process Plant Quality and Productivity Through Statistical Process Quality Control,” Invited Paper Gas Processors Association, Oklahoma City, Oklahoma, April, 1990.

“Statistical Process Quality Control,” Computing and Systems Technology Division of AICHE Communications, Vol. 10, No. 1, pp. 9-16, 1987.

“Statistical Quality Control to Measure Changes in Organizational Effectiveness,”
Proceedings Refining Department. 49th Midyear Meeting American Petroleum Institute, pp. 154-157, New Orleans, Louisiana, May, 1984.

Papers Reviewed By An Editorial Review Board

- “Streambank Erosion and Protection Due to Wake Wash in the Sabine Neches Waterway” The 18th Mainland-Taiwan Environmental Protection Conference (MTEPC), Qin Qian, Benjamin Kolkmeier, Lin Su, Xing Wu, Mien Jao, Robert Yuan, Keh-Han Wang, Victor Zaloom, Taipei, Taiwan, November, 2017.
- "Study of Vessel Travel Behavior at Hot Spots in Sabine-Neches Waterways", Presented at the 96th Annual Conference of the Transportation Research Board, Xing Wu, Afifa Rahman, and Victor Zaloom, January, 2017 Washington, DC.
- “Analysis of Waterway Transportation in Southeast Texas Waterway based on AIS Data”, Presented at the 95rd Annual Conference of the Transportation Research Board, Xing Wu, Aesha L. Metha, Victor Zaloom, and Brian Craig, January, 2016 Washington, DC.
- “Probability Analysis of Vessel Collisions and Groundings in Southeast Texas Waterways”, Presented at the 93rd Annual Conference of the Transportation Research Board, Xing Wu, Md Hafizur, and Victor Zaloom, January, 2014 Washington, DC.
- “Multi-Objective Optimization for The Micro-Milling Process With Adaptive Data Modeling” Proceedings of the ASME 2011 International Manufacturing Science and Engineering Conference, MSEC2011, June 13-17, 2011, Corvallis, Oregon, With Weihang Zhu, and Xinyu Liu.
- “Predictive Model to Aid Selection of Heat Treating Process Parameters for Alloy Steel Forgings”, Proceedings: Materials Science and Technology 2006 Conference, Jointly sponsored by: Association for Iron & Steel Technology, ASM International, and The Minerals, Metals, and Materials Society”, October, 2006, with Satishkumar Rajendran
- “Wiredrawing Work Hardening Rate Prediction from Rod Composition and Stelmor Cooling Rate Variables”, 75th Annual Conference Proceedings of the Wire Association International, Atlanta, May, 2005. with S. Gade, P. Power, B. Yalamanchile
- “Design of Confined Placement Areas in the Sabine-Neches Waterway, Texas,” Proceedings PORTS 2004 National Conference, Houston, TX, May, 2004, With X. Fang, M. Jao, H. Chu, N. Nagrami, & J. T. Few
- “Neural Network Application for Analyzing the Performance of a Complex Industrial Process,” Proceedings Second International Conference on Information Systems in Engineering and Construction, Cocoa Beach, FL, June, 2002, With Ho and Chu

- "The Use of Simulated Annealing to Solve Large Transportation-Location Problems With Euclidean Distances," Proceedings of the International Conference on Computers and Industrial Engineering (29th ICC&E), Montreal, Canada, October 31 - November 3, 2001. with Chowdury, H. I., Chambers, T. L.
- "Application of Genetic Programming and Artificial Neural Networks to Improve Engineering Optimization", The International Conference on Industry, Engineering and Management Systems, Cocoa Beach, FL, March 2001, with Gontao Wang and Terry Chambers
- "Using Linear Goal Programming to Solve Chemical Mass Balance Model", The 2001 International Conference on Information Systems in Engineering Construction, June, 2001, with Chu, Ho and Tosirisuk
- "Analysis of the Effect of Air Transportation of PM in Houston Using NOAA HySPLIT 4.0 through Internet Applications", The 2001 International Conference on Information Systems in Engineering Construction, June, 2001, with Chu, Ho and Tosirisuk
- "The Texas Quality Award," Proceedings of ASEE Gulf South West Regional Conference, March, 1995, Beaumont, Texas.
- "An Expert System for Excavation and Drum Handling Equipment Selection at Superfund Sites," Proceedings of the International Conference on Industrial Engineering and Management Systems, pp. 178-183, March, 1994 (with H. Chu and J. Law).
- "An Expert System for Selecting the Right Pump," Proceedings of the International Conference on Industrial Engineering and Management Systems, pp. 184-189, March, 1994 (with H. Chu).
- "Statistical Process Control in Process Industries," Control, Vol. 2, No. 1 (1989), pp. 38-42.
- "Relationships Considered In Capital Budgeting Decisions," Industrial Engineering, Vol. 16, No. 8, pp. 19-22, August, 1984 (with D. Li).
- "A Learning Curve Model Selector," National Estimator, Spring, 1982.
- "Economic Analysis of a New Product," AIEE Spring Annual Conference Proceedings – 1981 (with C. Musselwhite).
- "A Model to Predict Minority Student Performance in Industrial Engineering," ASEE Southeastern Section Meeting Proceedings, April, 1980 (with C. Wang and A. Talik).
- "Decision Making with Limited Data – The Delphi Technique," Journal of Systems Management, October, 1974.

“An Occupational Safety and Health Option for Undergraduate Industrial Engineering Students,” National Safety News, January, 1974 (with L. B. Trucks and L. A. Smith).

“Research Abstract on a Feasibility Approach to Optimal Schedules,” Symposium on the Theory of Scheduling and Its Applications – Lecture Notes in Economic and Mathematical Systems No. 86, pp. 433-437, Springer-Verlog, New York, 1973.

“Comment on the Paper – Optimal Solution of Scheduling Problems Using Lagrange Multipliers: Part II – Marshall Fisher,” Symposium on the Theory of Scheduling and Its Application – Lecture Notes in Economics and Mathematics Systems No. 86, pp. 319-323, Springer-Verlog, New York, 1973.

“Project Selection Methods,” Journal of Systems Management, August, 1973.

Other Publications and Reports

“Statistical Analysis of Power Price Blow Outs”, Consulting report to Air Liquide America, October, 2008.

“Analysis of Hourly Oxygen Demand,” Consulting report to Air Liquide America, June 31, 2004.

“South East Texas Regional Planning Commission Regional Hazard Mitigation Action Plan” Sub-contract with Thompson Engineering from SETRPC. 5/1/03 – 5/30/04.

“An Explanation of FDA Binomial Staged Sampling Plans with Binomial Confidence Levels, project report submitted May, 2004.

“A Recommended Acceptance Sampling Plan for Raw Materials Used in the Manufacturing Processes at Helena Labs, project report submitted, April, 2004.

“Jefferson County Highway 87 Shore Protection - Clay Sediment Characterization,” Lamar University, Beaumont, TX, technical report submitted to Pacific International Engineering, May 14, 2003, with Xing Fang, Mien Jao, Jerry Lin, Hsing-Wei Chu, et al.

“Field Investigation of Effluent Quality of Placement Areas along Sabine-Neches Waterway”, Lamar University, Beaumont, TX, technical report submitted to U.S. Army Corps of Engineers, Galveston District, Galveston, Texas, May, 2003, with Hsing-Wei Chu, Xing Fang, Mien Jao, and Jerry Lin.

“Design of Confined Placement Areas in Sabine-Neches Waterway Texas, for the 50-Year Dredged Material Management Plan” Lamar University, Beaumont, technical report prepared for U.S. Army Corps of Engineers, Galveston District, Galveston, Texas, with Xing Fang, Mein Jao, H. W. Chu, N. K. Nagrani, N. Thadani, January 2003.

- “Sabine-Neches Waterway Feasibility Study – Pipeline/Facilities Relocation and Removals” Lamar University, Beaumont, technical report prepared for U.S. Army Corps of Engineers, Galveston District, Galveston, Texas, V. Zaloom, X. Fang, M. Jao, A. S. Kumar, S. D. Chorghe, S. G. Muninarayana, Y. Scott, B. Little, August 2002.
- “Analysis and Recommendations for Industrial Engineering and Management,” Universidad Autonoma De Neuvo Leon – Academic Excellence Project College of Chemical Science Final Project Report – Submitted by Texas International Education Consortium, Austin, Texas, July 1, 1996 (with Jim Smith and France Meier).
- “An Operational Audit and Management Effectiveness Study of the Port of Galveston, Final Project Report CPW, May 31, 1996.
- “Applications of Materials Handling Approaches and Systems to Remediation on Superfund Sites,” funded by GCHSR (with H. Chu).
- “Statistical Quality Control Training and Implementation, American Petroleum Institute, Gulf Coast Meeting on Training and Development, Lafayette, Louisiana, November, 1985.
- “Implementing Your SPC Training Program,” Training and Development, Vol. 42, No. 7, July, 1988, pp. 59-61.
- “Statistical Quality Control – Management of Quality Improvement in Industry,” A copyrighted training manual, 1984.
- “Institutional Request to Offer a Master of Engineering Management Program,” Department of Industrial Engineering, Lamar University, submitted, and approved by the Texas Coordinating Board, 1982.
- “Life Cycle Costing: A Better Method of Government Procurement,” by M. Robert Seldon, Book review for the Engineering Economists, Vol. 25, No. 3, 1980.
- “Technology Assessment of Numerical Control Machining of Shoe Bottom Molds,” Final Project Report, Submitted to Department of Commerce through the Research Triangle Institute of North Carolina, October, 1979.
- Annual Report – Department of Industrial Engineering – North Carolina A & T State University, 1978-79, 1979-80, 1980-81.
- “Request for Authorization to Establish the Master of Science Degree in Industrial Engineering,” North Carolina A & T State University, March, 1979.
- “A Final Report of the Engineering Experiment Station Study Committee,” Auburn University, June, 1978.

- “A Study of the Vehicle Maintenance Scheduling System with Emphasis on the Mileage Estimator,” Air Force Logistics Management Center, July, 1979.
- “An Evaluation of a Zero-One Programming Approach to Air Force Vehicle Maintenance Scheduling,” Air Force Logistics Management Center, January, 1978.
- “Scheduling in the Air Force Logistics Command State-of-the Art,” Air Force Logistics Management Center, September, 1976.
- “A Faculty Evaluation System for the School of Engineering,” Auburn University, June, 1975.
- “Optimum Allocation of Financial Resources in Municipality,” A Special Study in the Program of Engineering Field Service to Local Government – Auburn University, March, 1974.
- “Letter to the Editor,” Industrial Engineering, February, 1972.
- “An Examination of the Expected Minimum Time to Complete a Resource Constrained Project,” Ph.D. Dissertation, University of Houston, 1970.
- More Than a Score of Government Classified Documents and Company Reports on Cost Analysis and Economic Feasibility.

PRESENTATIONS

- “Analysis of Waterway Transportation in Southeast Texas Waterway Based on AIS Data”, Presented at the 95th Transportation Annual Meeting of the Transportation Research Board by Xing Wu with Aesha Mehta, Victor Zaloom, and Brian Craig, Washington, DC, January 2016.
- “Probability Analysis of Vessel Collisions and Groundings in Southeast Texas Waterways”, Presented at the 3rd Transportation Research Board Annual Meeting by Hafizur Rahman with Xing Wu, and Victor Zaloom, Washington, DC, January 2014.
- “An Expert System for Selecting the Right Pump,” Cocoa Beach, Florida, March, 1994 (with H. Chu).
- “Selection of Materials Handling Systems at Superfund Sites by Expert Systems,” 1994 Annual International Conference on Industry, Engineering and Management Systems, Cocoa Beach, Florida, March, 1994 (with H. Chu and J. Law).
- “Routing Model for Transporting Hazardous Wastes and Materials,” ORSA/TIMS National Conference, November, 1992, San Francisco, California (with H. Chu and H. Hu).

- “Quality and Productivity in Maintenance Management,” International Maintenance Institute, Southeast Texas Chapter Meeting, September, 1988.
- “Statistical Methods in the Chemical and Process Industries,” Chemical Engineering and Statistics Departments Invited Seminar, University of Southwest Louisiana, Lafayette, Louisiana, April, 1988.
- “The Quality and Productivity Challenge,” American Institute of Chemical Engineers Regional Conference, Beaumont, Texas, February, 1988.
- “Artificial Intelligence and Robotic Applications in Industry,” Association for Computing Machinery, Beaumont Section, April, 1986.
- “Implementing Statistical Quality Control,” American Chemical Society and American Institute of Chemical Engineers – Annual Joint Technical Meeting, Golden Triangle Chapters, March, 1986.
- “Training for Statistical Process Quality Control Applications,” American Society for Quality Control, Southeast Texas Section, December, 1985.
- “Management Responsibility for Statistical Quality Applications,” American Society for Quality Control, Southeast Texas Section, December, 1985.
- “Testing Data for Normality,” American Society for Quality Control, Southeast Texas Chapter tutorial, October, 1984.
- “Statistical Quality Control to Measure Changes in Organizational Effectiveness,” American Petroleum Institute 49th Midyear Refining Meeting, New Orleans, Louisiana, May, 1984.
- “Robotics in American Industry and Factory of the Future,” Sigma Xi annual Banquet Meeting, Lamar University Chapter, April, 1984.
- “Economic Analysis of a New Product,” AIIE-Spring Annual Conference, Detroit, Michigan, May, 1981 (with C. Musselwhite).
- “Sequencing Two Precedence – Constrained Queues of Jobs,” Computers and Industrial Engineering – The Third National Conference, Orlando, Florida, October 22-24, 1980.
- “A Model to Predict Minority Student Performance in Industrial Engineering,” ASEE Southeastern Meeting Proceedings, April, 1980 (with Drs. C Wang and A. Tilak).
- “A Systems Engineering Approach to Scheduling: Application to the Planned Space Shuttle,” Sigma Xi Society of Greensboro, North Carolina, December, 1978.
- “An Algorithm to Schedule Aircraft to Sorties,” ORSA/TIMS National Conference, Los Angeles, California, November, 1978.

“An Analysis of the Effect of Production Quantity and Inventory Selection Policy of the Probability of Meeting a Specified Launch Schedule,” Winter Simulation Conference, Gaithersburg, Maryland, December 5-7, 1977.

“Scheduling to Minimize Makespan Required to Process Independent Jobs on Nonequivalent Parallel Processors,” TIMS/ORSA Annual Conference, San Francisco, California, May, 1977.

“An Algorithm to Sequence Jobs with Stochastic Processing Times,” ORSA/TIMS Conference on Scheduling Theory and Application, Orlando, Florida, February, 1977.

“An Automated Procedure to Establish Workzone Boundaries for Air Force Facilities Maintenance Operations,” The First National Conference on Computers and Industrial Engineering, Tulsa, Oklahoma, June 2-4, 1976.

“A Personal Management Information Systems for the State of Alabama, Department of Rehabilitation and Crippled Children,” Alabama Academy of Science, Birmingham, Alabama, April, 1974.

“A Computer Science Option in Industrial Engineering,” The Special Interest Group on Computer Education (SIGSE) of ACM and the Computer Education Group.

“Regression Model as Aids to the Solution of Industrial Scheduling Problems,” Alabama Statistical Association, Birmingham, Alabama, June, 1972.

“On a Feasibility Approach to Optimal Schedules,” National Symposium on Scheduling in Theory and Practice, Raleigh, North Carolina, May, 1972.

“A Survey of the Project Scheduling Problem,” Seminar, University of Houston, April, 1970.

“Scheduling Problems with Special Structures,” Seminar, Texas A & M University, February, 1970.

PROFESSIONAL MEMBERSHIPS

American Society of Engineering Education (ASEE)
Institute of Industrial Engineers (IIE)
American Society of Mechanical Engineers (ASME)
American Society for Quality (ASQ)
International Society for Automation (ISA)
Texas Society of Professional Engineers (TSPE)

REGISTRATION

Professional Engineer, Texas (50791); formerly Registered in Alabama (9849) and North Carolina (8877).

HONORS AND AWARDS

Fellow member Institute of Industrial and Systems Engineers (IISE), (Elected 2008)
Chairman IISE Fellows (2010-2011)
IISE Fellow Selection Committee Member (2010-20013)
National Maritime Security Advisory Committee, Appointed by Tom Ridge, Inaugural Secretary, U.S. Department of Homeland Security, December, 2004–2007.
Distinguished Alumnus, Department of Industrial and Systems Engineering, Cullen College of Engineering, University of Houston, selected in 2006
ABET visitor representing IIE, 2002- present
Honorary President, International Conference on Computer, Communication, and Control Technologies, CCCT' 03. July 31-Aug. 2, 2003, Orlando, Florida
International Advisory Committee Member, International Conference on Manufacturing, Dacca, Bangladesh, August, 2002
Victor A. Zaloom Leadership in Quality Scholarship at Lamar at University
Phi Kappa Phi, Elected as student
Dean's List, 5 of 6 eligible terms College of Engineering, University of Florida
Listed in American Men and Women of Science
Who's Who numerous listings for Education, Research, Engineering, and Consulting both national and regional

SELECTED SHORT COURSES DEVELOPED AND PRESENTED

"ISO 9000 Implementation in the Chemical and Petrochemical Industries," American Institute of Chemical Engineers, New York, New York, 1994.

"Statistical Quality Control-Management of Quality Improvement in Industry," John Gray Institute, Beaumont, Texas, November, 1984.

"Statistical Quality Control in Industry," American Institute of Chemical Engineers. Taught four times per year at National meetings (1984-1994). Also, taught more than 100 times to major corporations including: Dow Chemical, EI DuPont, ExxonMobil, Chevron-Phillips, Air Liquide, Witco, Amway, and many others.

"Decision Theory," Vought Aircraft Corporation, Dallas, Texas, 1982.

"Economy and the Engineering Design Process," Vought Aircraft Corporation, Dallas, Texas, 1980.

"Design to Cost," presented to Marshall Space Flight Center (with Dr. David Brown), 1975.

"Decision Making for Cost," presented to Marshall Space Flight Center, Huntsville, Alabama, March, 1976 (with Dr. Grady Cox).

"Introduction to Operations Research," Marshall Space Flight Center, Huntsville, Alabama, May, 1976 (with Dr. Grady Cox).

MISC. ACTIVITIES

Reviewer

Naval Research Logistics Quarterly, Management Science, IIE Transactions
Engineering Economist, Computers and Industrial Engineering

Golden Triangle Dredging Conference

Certificate of Completion, Beaumont, TX Dec. 2, 2015.

President – ASQ South East Texas Chapter #1420 2017-18

Sigma Xi Society for Scientific Research, Lamar University Chapter 1984-85.

Board of Directors – American Institute of Industrial Engineers, Southeast Texas Chapter 1984-1994.

Paper Discussant for the Product Planning and Control Session at the Winter Simulation Conference, Miami Beach, Florida, December, 1978.

Session Chairman for the scheduling of papers at the National Conference of the Institute of Management Science, Atlanta, Georgia, November 5-7, 1977.

Education Chairman – American Society for Quality Control Southeast Texas Chapter 1984-1986.

Publication Chairman – American Institute of Industrial Engineers, Engineering Economy Division, 1979-1981.

Evaluator – National Science Foundation Systems Theory Research Proposals.

Vice-Chairman – Professional Engineers of North Carolina Education Division 1980-81.

Secretary – Southeastern Section American Society for Engineering Education, Industrial Engineering Division, 1980-81.

University Relation Chairman – American Institute of Industrial Engineers, Greensboro Chapter, 1979-80.

Treasurer – Alabama Society of Professional Engineers, Auburn Chapter, 1977-78.

Program Chairman – American Institute of Industrial Engineers, Central Alabama Chapter, 1973-78.

Advisor – American Institute of Industrial Engineers, Auburn University Chapter, 1974-78. (Chosen by student members).

Engineering School Delegate – American Society for Education, New Engineering Educators Form, 1974. (Chosen by Auburn University School of Engineering Administration).

Features Editor – The Florida Engineer, 1965-66