Karen C. Chou, Ph.D., P.E.
2145 Sheridan Road, Rm A218, Northwestern University, Evanston, IL 60208
Office: (847) 491-4997 e-mail: karen-chou@northwestern.edu

EDUCATION:

NORTHWESTERN UNIVERSITY, Evanston, Illinois.
Doctor of Philosophy, August 1983.
Field of study in Structural Engineering.
Dissertation Title: *Stochastic Load Processes with Nonlinear Structural Response*

NORTHWESTERN UNIVERSITY, Evanston, Illinois.
Master of Science, June 1980.
Field of study in Structural Engineering.
Thesis Title: *Simulation of Wind Speed and Array Power at Wind Energy Conversion Sites*

TUFTS UNIVERSITY, Medford, Massachusetts.
Bachelor of Science in Civil Engineering, May 1978.
Magna Cum Laude, dual major in Civil Engineering and Mathematics.

PROFESSIONAL REGISTRATION:

Registered Professional Engineer: Minnesota (No. 42106, Civil and SE part I), Nevada (No. 020095), New York (No. 062813-1), South Dakota (No. 9165), Tennessee (No. 00101538, inactive), Wisconsin (No. 38570)

ACADEMIC EMPLOYMENT:

NORTHWESERN UNIVERSITY, Evanston, Illinois
Assistant Chair & Clinical Professor of Civil Engineering, 2010-

MINNESOTA STATE UNIVERSITY, Mankato, Minnesota
Professor of Civil Engineering, 2004-2010; Associate Professor, 2001-2004
Founding Coordinator of Civil Engineering, 2001-2007.

UNIVERSITY OF TENNESSEE, Knoxville, Tennessee
Associate Professor of Civil Engineering, 1993-2001.

SYRACUSE UNIVERSITY, Syracuse, New York.
Associate Professor of Civil Engineering, 1987-1993
Assistant Professor of Civil Engineering, 1983-1987.

UNIVERSITY OF MINNESOTA, Minneapolis, Minnesota
Visiting Associate Professor of Civil Engineering, 1991.
Adjunct Professor of Civil Engineering, Spring 2010.

THE JOHNS HOPKINS UNIVERSITY, Baltimore, Maryland.
Research Associate, 1982-1983.

NORTHWESTERN UNIVERSITY, Evanston, Illinois.
Research Assistant, 1978-1979; 1981-1982.

PROFESSIONAL EMPLOYMENT:

PAULSEN ARCHITECTS, Mankato, Minnesota
Senior Structural Engineer, 2008-2010; Project Structural Engineer, 2006-2008

U.S. NAVY, Navy Air Station, Patuxent River, Maryland
Navy Air Warfare Center
Senior Summer Research Faculty, Summer 1998

JOHN P. STOPEN ENGINEERING PARTNERSHIP, Syracuse, New York
Structural Engineer, Summer 1992

U.S. AIR FORCE, Wright Patterson AFB, Dayton, Ohio
Flight Dynamics Laboratory
Research Associate, Summer 1988

U.S. AIR FORCE, Tyndall AFB, Panama City, Florida
Headquarter of Service and Engineering Center
Research Associate, Summer 1985

MWH (formerly HARZA) ENGINEERING COMPANY, Chicago, Illinois.
Structural Engineer, 1979-1981.

CONSULTING ACTIVITIES:

IIT RESEARCH INSTITUTE, Chicago, Illinois.
KONSKI ENGINEERS, P.C., Syracuse, New York.
BLASLAND & BOUCK ENGINEERS, P.C., Syracuse, New York.
MINNESOTA TOOL & MACHINE, Mountain Lake, Minnesota
ABET Accreditation Consultant, Civil Engineering Program
CAPSTONE, engineering education consultant to children's books publisher on engineering, Chicago, IL

HONORS:

T. William Heyck Award, Office of Residential Academic Initiatives, Northwestern University, 2018
Civil Engineer of the Year, Illinois Section ASCE, 2012.
Certificate of Commendation for exceptional service as faculty advisor of Northwestern University Student Chapter, ASCE National, 2012, 2013.
Charles W. Britzius Distinguished Engineer Award, Minnesota Federation of Engineering, Science and Technology Societies, 2010.
Excellence in Teaching, College of Science, Engineering, and Technology, Minnesota State University, nominated, 2003.
Advisor of the Year, College of Engineering, The University of Tennessee, nominated, 2001.
Teaching Recognition, Department of Civil & Environmental Engineering, The University of Tennessee, 2001.
Certificate of Commendation for outstanding service as faculty advisor of the University of Tennessee Student Chapter (one of eight awarded nationwide), ASCE National, 1999.
Special Recognition for 5 years of outstanding service to ASCE Student Chapter at The University of Tennessee, ASCE Student Chapter, The University of Tennessee, 1999.
Largest Service Loads Recognition, Department of Civil & Environmental Engineering, The University of Tennessee, 1999.
Service Recognition Award, Department of Civil & Environmental Engineering, The University of Tennessee,

1998.
Certificate of Appreciation, ASCE Student Chapter, The University of Tennessee, 1997.
Outstanding Reviewer of the Year, International Journal of Structural Safety, Elsevier Science Limited, 1996.
Certificate of Appreciation in recognition of support to the ASCE Southeast Regional Student Chapter Conference, ASCE Knoxville Branch, 1996.
Special Recognition as Faculty Advisor for ASCE Southeast Regional Student Chapter Conference, Department of Civil & Environmental Engineering, The University of Tennessee, 1996.
Outstanding Faculty Advisor, ASCE Student Chapter, The University of Tennessee, 1996.
Faculty Member of the Year, ASCE Student Chapter, The University of Tennessee, 1995, 1999.
ALCOA Foundation Grant, 1994.
Outstanding Leadership in Education, recognition by Darien Lake Theme Park & Camping resort, 1990.
Outstanding Young Women of America, 1983; 1985; 1987.
American Association of University Women Fellow, 1982-1983.
The Johns Hopkins University Research Associate, 1982-1983.
Northwestern University Research Assistantship, 1978-1979; 1981-1982.

LISTINGS:

Who's Who in South & Southwest, Who's Who in Technology Today, The World's Who's Who for Women and 7 other listings in various "Who's Who".

PROFESSIONAL MEMBERSHIPS AND OFFICES HELD:

Member, American Society for Engineering Education
Member, American Concrete Institute (1983-2012)
Fellow, American Society of Civil Engineers

Illinois Section:	Board of Directors, 2013-2015
	Annual Dinner Committee – 2014
	Award Committee – co-chair (2014), chair (2015)
Knoxville Branch:	Branch Delegate to District 9 Council, 1998-2001
	Secretary-Treasurer, 2000-2001
Syracuse Section:	Board of Directors, 1984-1990
	Newsletter Editor, 1984-1985
	Secretary, 1985-1986
	President-Elect, 1986-1987
	President, 1987-1988
	New York State Council representative, 1989-1993
	Council Chair, 1993

Charter Member, International Association for Civil Engineering Reliability and Risk Analysis
Member, International Association for Structural Safety and Reliability
Member, Order of the Engineer
Member, Chi Epsilon Civil Engineering Honor Society.
Member, Tau Beta Pi National Engineering Honor Society.

RESEARCH GRANTS AND CONTRACTS:

National Science Foundation, “Collaborative Research: Mobile Virtual Steel Sculpture”, 2016, Lead PI, $120,572 (total $287,122 for 36 months, Collaborator: S. Moaveni, Minnesota State University, Mankato). not funded.

National Science Foundation, “Collaborative Research: The Five Whys Method”, 2016, PI, $87,691 (total $420,119 for 36 months, Lead PI: S. Moaveni, Minnesota State University, Mankato). not funded.

Northwestern University, Murphy Society, “Training Students Instrumentation in Structural Testing”, 2014, $20,000 for 12 months; 2013, $20,000 for 12 months.

National Science Foundation, "Collaborative Research: An Interactive Steel Connection Teaching Tool - A Virtual Structure", 2012, Lead PI, $99,725 (total $198,706 for 24 months. Collaborators: S. Moaveni, Norwich University and Minnesota State University-Mankato, and H, Dib, Purdue University.

Northwestern University, Murphy Society, "Online Self-Taught Review on Pre-requisite Topics for Required Mechanics Courses", 2011, $10,000 for 12 months. Renewal proposal 2012, $13,500 for 12 months.

Northwestern University, Murphy Society, "Hands-On Experience for Students Taking Basic Mechanics Courses", 2010, $18,500 for 12 months. Renewal proposal, 2011, $22,500 for 12 months. Renewal proposal 2012, $15,600 for 12 months

Minnesota State University, Mankato, “Detecting Structural Deficiency in Steel Bridges”, Faculty Research Grant, co-PI (Dr. S. Moaveni, PI), 2007, $4,600.

Minnesota State Colleges and University, system-wide Center for Teaching and Learning, “Engineering Education for the Visual Learner: an Innovative Approach”, co-PI with Drs. W.J. Wilde and D. Nykanen, 2004, $5,000. (Three grants were awarded to MSU, and only one to our College)

Minnesota State University, Mankato, Faculty Improvement Grant, 2003, $1,000.

Minnesota State University, Mankato, “Traffic Safety of Urban and Rural Highways in Southern Minnesota State”, Faculty Research Grant, 2002, $3,900.

University of Tennessee, National Alumni Association/CUE/ITC mini grant for teaching enhancement, 2001, $450.

National Science Foundation, “IGERT Full Proposal: Materials Lifetime Science and Engineering”, $2.1 millions for 60 months, 2000. (faculty participant; P.K. Liaw, lead PI).

University of Tennessee, Career Enhancement Award, 1999-2000, $1,800

U.S. Navy, Navy Air Station, Patuxent River, MD, contract to perform the safety assessment of aging aircraft, $55,000 for 1998-99; $40,000 for 1999-2000.

University of Tennessee, Career Enhancement Award, 1997-1998, $1,600.

Tennessee Department of Transportation, "Modeling of Highway Construction Tasks to Determine Project Duration", 5/1/96-1/31/99, $300,000; project continuation, 2/1/99 - 8/31/2000, $280,000 (Co-PI; J.H. Deatherage, PI).

University of Tennessee, Career Enhancement Award, 1995-1996, $1,200.

National Science Foundation, "Unstable Regions Around Underground Openings: A Model Based on Block Theory, Reliability, Stress Analysis & Linear Programming", 9/1/95-8/31/99, $150,000; Research Experience for Undergraduate Supplemental Grant, 1997, $4,500 (Co-PI; M. Mauldon, PI).

National Science Foundation, "Application of Neural Network for the Safety and Performance Evaluation of Infrastructure Systems", August 1994 - July 1996, $50,000.

Tennessee Department of Transportation, "Evaluation and Testing of the Software Program for the Analysis of Overweight Vehicles on Tennessee Interstates and Bridges", Dec. 1993 - Sept. 1994, $64,000 (Co-PI; J.H. Deatherage, PI).

Syracuse University, Gateway Program Instructional Grant, April 1991-May 1992, $1,500.

National Science Foundation, "Reliability of Existing Framed Structures Using Approximate Reasonings", October 1987-March 1991, $120,000.

U.S. Air Force Office of Scientific Research, U.S. Air Force - Universal Energy System, "Stochastic Modelling of Detonation Locations", January 1986-December 1986, $20,000.

Syracuse University, "Applications of Fuzzy Set Theory to Structural Reliability", July 1985-June 1986, $3,000.

National Science Foundation, "A Probabilistic and Statistical Study of Nonlinear Structural Response to a Stochastic Load Process", May 1984-October 1986, $48,000.

PUBLICATIONS (Refereed Papers):

CHOU, K.C., MOAVENI, S., and SAPP, J.D. (2017) "The Virtual Steel Sculpture – Limit State Analyses and Applications of Steel Connections", *Journal of STEM Education: Innovation & Research*, Volume 18, Issue 1, pp.73-91.

MOAVENI, S. and CHOU, K.C. (2016) "Using the Five Whys Method in the Classroom: How to Turn Students into Problem Solvers", *Journal of STEM Education: Innovation & Research*, Volume 17, Issue 4, pp. 35-41.

MOAVENI, S., KRUDTONG, S., and CHOU, K.C. (2016) "Finite Element Modeling of Bolted Connections for a Steel Sculpture", *Journal of STEM Education: Innovation & Research*, Volume 17, Issue 4, pp. 42-51.

CHOU, K.C., MOAVENI, S., and DRANE, D. (2016) "Virtual Steel Connection Sculpture – Student Learning Assessment", *Journal of STEM Education: Innovation & Research*, Volume 17, Issue 3, July-September, pp. 5 - 13.

MOAVENI, S. and CHOU, K.C. (2015) "Teaching Steel Connections Using an Interactive Virtual Steel Sculpture", *Journal of STEM Education: Innovation & Research*, Volume 16, Issue 4, pp. 61-68.

MOAVENI, S. and CHOU, K.C. (2014) "An Interactive Steel Connection Teaching Tool – A Virtual Structure", *121st ASEE Annual Conference & Exposition*, Indianapolis, June 15-18, 2014.

MOAVENI, S. and CHOU, K.C. (2011) "An Inverse Solution for Reconstruction of the Area Moment of Inertia of a Beam Using Deflection Data", *Inverse Problems in Science and Technology*, DOI:10.1080/17415977.2011.605883. Sept.

CHOU, K.C. and MOAVENI, S. (2009) "Making Steel Sculpture Available Online to Students in Developing Countries", *International Journal of Modern Engineering*, Volume 10, No.1, pp 45-54.

CHOU, K.C. and MOAVENI, S. (2009) "Web-Based Interactive Steel Sculpture for the Google Generation", *Journal of STEM Education: Innovations & Research*, Vol. 10, Issue 3& 4, pp 50-59.

CHOU, K.C. and NYKANEN, D. (2009) "Bringing Professional Experience into the Classroom – Faculty Experiences", *2009 ASEE Annual Conference and Exposition*, AC2009-2208, Austin, TX, June 14-17.

MOAVENI, S., NYKANEN, D., and CHOU, K.C. (2009) "Perspectives on "Career and Family" Alternatives for Female Engineering Faculty", *2009 ASEE Annual Conference and Exposition*, AC2009-2069, Austin, TX, June 14-17.

MOAVENI, S. and CHOU, K. (2008) "An Innovative Approach to A Cross-Disciplinary Senior Design Project", *International Journal of Modern Engineering*, Volume 8, No. 2, spring/summer, pp. 61-66.

CHOU, K.C., WILDE, W.J. and MOAVENI, S. (2007) "Subcontracting Senior Design Project in Civil Engineering", *Journal of Professional Issues in Engineering Education and Practice*, ASCE, Volume13, Issue 3, pp. 171-180, July.

CHOU, K.C., INGRAM, E., and COROTIS, R.B. (2005) "Optimization Approach to the use of Goodness-of-Fit Test", *Proceedings of 9th International Conference on Structural Safety and Reliability ICOSSAR'05,* June.

KOGUT, G.F. and CHOU, K.C. (2004) "Partial Resistance Factor Design on Steel-Concrete Beam-Columns", *Engineering Structures*, 26, pp.857-866.

CHOU, K.C., COX, G.C., and LOCKWOOD, A.M. (2004) "Crack growth life model for fatigue susceptible structural components in aging aircraft", *Structural Engineering and Mechanics*, Vol. 17, No. 1: 29-50.

MOLINA, A.V. and CHOU, K.C. (2002) "Evaluation of Existing Bridges Using Neural Networks", *Structural Engineering and Mechanics*, Vol. 13, No.2, pp.187-209.

WILLIAMS, C.A., CHOU, K.C., and PIONKE, C.D. (2001) "Multimedia Simulation Tool for Steel Tension Member Analysis and Design", *Proceedings of 2001 ASEE Annual Conference & Exposition*, June.

CHOU, K.C. (2001) "Enhancing the Teaching of Moment Distribution Analysis Using Spreadsheet", *Proceedings ASEE Southeast Section Meeting*, April.

WHITTEN, B.N., CHOU, K.C., and JACKSON, N.M. (2001) "Probabilistic-Based Performance Prediction Model for HMA Pavements", *Proceedings of 8th International Conference on Structural Safety and Reliability ICOSSAR'01,* June.

CHOU, K.C., COX, G.C., and LOCKWOOD, A.M. (2001) "Development of Probability Model for Fatigue Crack Growth Using Response Surface Method", *Proceedings of 8th International Conference on*

Structural Safety and Reliability ICOSSAR'01, June.
DEATHERAGE, J.H., CHOU, K.C., BURDETTE, E.G., and GOODPASTURE, D.W. (2001) "Productivity of Highway Construction Operations", *TRB 80th Annual Meeting*, January.
CHOU, K.C., DEATHERAGE, J.H., BROWN, E.R., BURDETTE, E.G., and GOODPASTURE, D.W. (1999) "Statistical Analysis of Repetitive Tasks in Highway Construction Operations", *International Conference on Applications of Statistics and Probability (ICASP8),* Vol.1, Dec., pp. 241-246.
YEW, E.C. and CHOU, K.C. (1999) "Reliability Analysis of Two-Way Reinforced Concrete Slab", *International Conference on Applications of Statistics and Probability (ICASP8),* Vol.2, Dec., pp.1033-1037.
CHOU, K.C. and OLIVEIRA, L.F. (1999) "Nonlinear Load Exceedance Model for Cyclic Load Processes: Development", *Structural Safety*, Vol. 21, No. 1, pp.65-90.
CHOU, K.C., DEATHERAGE, J.H., LEATHERWOOD, T.D. and KHAYAT, A.J. (1999) "Innovative Method for Evaluating Overweight Vehicle Permit on Tennessee Highway Bridges", *Journal of Bridge Engineering*, ASCE, Vol. 4, No.3, pp. 221-227.
FISHER, A.D. and CHOU, K.C. (1998) "Reliability Investigation of Prestressed Bulb-Tee Bridge Beams", *Structural Safety & Reliability - Proceeding of 7th International Conference on Structural Safety and Reliability ICOSSAR'97,* Nov.24-28, 1997, Vol. 1, pp.1921-1926, A.A. Balkema, Rotterdam.
CHOU, K.C. and PONKO, A.F. (1998) "Nonlinear Structural Response of Simply Supported Beam due to a Point Load Process", *Structural Safety & Reliability - Proceeding of 7th International Conference on Structural Safety and Reliability ICOSSAR'97,* Nov.24-28, 1997, Vol.1, pp.213-216, A.A. Balkema, Rotterdam.
MAULDON, M., CHOU, K.C., and WU, Y. (1997) "Uncertainty Analysis of Tunnel Roof Stability", *Transportation Research Record 1582*, TRB, pp. 53-59.
CHOU, K.C., FISHER, A.D. and MAULDON, M. (1997) "Reliability Analysis of A Cantilever Retaining Walls", 76th *Transportation Research Board Meeting*, TRB, Paper No. 971209, January 12-16.
TRAUTNER, J., CHOU, K., YATES, J. and STALNAKER, J. (1996) "Women Faculty in Engineering: Changing the Academic Climate", Journal of Engineering Education, ASEE, Vol. 85, No.1, January 1996, pp. 45-51.
CHOU, K. C. and HOFFMAN, P.C. (1994) "Repair Service Life Evaluations Based on Imprecise Information", *Structural Safety & Reliability*, ICOSSAR '93, Vol.2, pp. 953-956, Balkema, Rotterdam, Netherland.
KOGUT, G.F. and CHOU, K.C. (1994) "Reliability Based Design for Steel-Concrete Composite Beam-Columns", *Structural Safety & Reliability*, ICOSSAR'93, Vol.1, pp.703-708, Balkema, Rotterdam, Netherland.
BENNETT, R.M., GILLEY, R.D., BELK, C.A. and CHOU, K.C. (1994) "Macro Time Modeling of Wind and Snow", *Structural Safety & Reliability*, ICOSSAR '93, Vol.3, pp. 1617-1622, Balkema, Rotterdam, Netherland.
CHOU, K. C. and YUAN, J. (1993) "Fuzzy-Bayesian Approach to Reliability of Existing Structures", *Journal of Structural Engineering*, ASCE, Vol.119, No.11, pp.3276-3290, Nov.
CHOU, K.C. and YUAN, J. (1992) "Safety Assessment of Existing Structures Using Filtered Fuzzy Relation", *Structural Safety*, Vol. 11, No. 3-4, pp 173-189.
CHOU, K.C. (1990) "Nonlinear Load Exceedances with Correlated Sustained Load Process", *Structural Safety and Reliability*, ASCE, Vol. 3.
ARTLEY, M.E. and CHOU, K.C. (1990) "Reliability Analysis of Aerospace Structures Subjected to Thermal Mechanical and Flight Loads", *Structural Safety and Reliability*, ASCE, Vol.3, pp.2373-2376.
THAYAPARAN, P.A. and CHOU, K.C. (1988) "Stochastic Load Exceedances with General Material Nonlinearity", *Journal of Structural Engineering*, ASCE, July, pp. 1674-1685.
CHOU, K.C. and THAYAPARAN, P.A. (1988)"Nonlinear Structural Response to Live Load Processes", *Journal of Structural Engineering*, ASCE, May, pp. 1135-1151.
CHOU, K.C. (1986) "Probabilistic Analysis of Nonlinear Response to Sustained Load Processes", *Structural Safety*, Vol. 4, No. 1, October.
CHOU, K.C., COROTIS, R.B., and KARR, A.F. (1985) "Nonlinear Response to Sustained Load Processes", *Journal of Structural Engineering*, ASCE, Vol. 111, No. 1, Jan., pp. 142-157.

CHOU, K.C. and COROTIS, R.B. (1984) "Conditioned Gaussian Probability Distribution", *Journal of Engineering Mechanics*, ASCE, Vol. 110, No. 1, Jan., pp. 115-119.
CHOU, K.C., McINTOSH, C., and COROTIS, R.B. (1983) "Observation on Structural System Reliability and the Role of Modal Correlations", *Structural Safety*, Vol.1, No.3, April, pp. 189-198.
CHOU, K.C. and COROTIS, R.B. (1983) "Generalized Wind Speed Probability Distribution", *Journal of Engineering Mechanics*, ASCE, Vol. 109, No. 1, Feb., pp. 14-29.
CHOU, K.C. and COROTIS, R.B. (1981) "Simulation of Hourly Wind Speed and Array Wind Power", *Solar Energy*, Vol. 26, No. 3, pp. 199-212.

Conference Proceedings (Refereed Abstracts):

MOAVENI, S. and CHOU, K.C. (2012) "Using Structured Problem Solving and Five Whys Techniques in the Classroom: How to Turn Students into Problem Solvers", ICEES 2012, Finland. (Abstract accepted).
CHOU, K.C. and MOAVENI, S. (2008) "Enhancing Global Education: Making Steel Connection Sculpture Available Online to Students in Developing Countries", *2008 IJAC-IJME Conference*, Nashville, TN., Nov. (refereed conference proceedings)
MOAVENI, S. and CHOU, K. (2006) "An Innovative Approach to A Cross-Disciplinary Senior Design Project", *IJME-INTERTECH Conference*, New York, Oct. (refereed conference proceedings)
CHOU, K.C., RIPPKE, J.A., and FREY, J.E. (2004) "Engineering Community Participation in the Development of a Civil Engineering Program", *2004 ASEE North Midwest Conference*, University of Wisconsin-Milwaukee, October.
CHOU, K.C. and WILDE, W.J. (2003) "Integrating Major Design Experience throughout a Small Civil Engineering Program", *2003 Frontier in Education Conference*, Boulder, CO, November.
CHOU, K.C., WILDE, W.J., and MOAVENI, S. (2003) "An Unique Approach to Civil Engineering Design Experience", *2003 ASEE North Midwest Conference*, Iowa State University, October.
CHOU, K.C. and THOMAS, K.G. (2001) "Engineering Toy Display - Moment Distribution Model & Truss Instability Model", *2001 ASEE Annual Conference*, June.
CHOU, K.C. and THOMAS, K.G. (2000) "Mechanical Teaching Model for Moment Distribution and Other Structural Analysis Concepts", *2000 ASEE Southeast Section Annual Meeting Book of Abstracts*, April 3-4, Blacksburg, VA.
KERR, T.E., PIONKE, C.D., WONG, K.L. and CHOU, K.C. (1999) "Space Frame Analysis Using Parallel Processing on PC's Operating Under the Linux Operating System", *Proceeding of the Canadian Society for Civil Engineers 1999 Annual Conference*, Regina, Canada, June, pp.285-294.
MAULDON, M., DING, D., SAVAGE, G., CHOU, K.C. and WU, Y. (1999) "Stability of Statically Indeterminate Rock Blocks under Arbitrary Loads", *Proceeding of the 37th U.S. Rock Mechanics Symposium*, Vail, CO. 6-9 June, pp. 1099-1105.
CHOU, K.C. (1997) "Applications of Neural Networks for the Safety and Performance Evaluation of Infrastructure Systems", ASCE/CERF Workshop to Increase Collaboration Between Universities and the Design and Construction Industry, 19-20 October, Washington, DC. (By invitation only)
CHOU, K.C., FISHER, A.D. and MAULDON, M. (1997) "Reliability Analysis of Prestressed Bulb-Tee Bridge Beams and Cantilever Retaining Walls", *Innovation in Structural Design: Strength, Stability, Reliability - Theodore V. Galambos Symposium*, 6-7 June. (invited presentation)
MAULDON, M., CHOU, K.C. and WU, Y. (1997) "Linear Programming Analysis of Keyblock Stability", *9th Int'l Conf. of the Int'l Assoc. for Computer Methods and Advances in Geomechanics*, Wuhan, China, Nov. 2-7.
MAULDON, M., WU, Y. and CHOU, K.C. (1997) "2-d Limit Analysis of Tunnel Stability in Fractured Rock", *36th U.S. Rock Mechanics Symposium*, Columbia University, New York, June 29 - July 2.
MOLINA, A.V. and CHOU, K.C. (1996) "Application of Neural Networks for the Performance Evaluation of Bridges", *Proceedings of 7th ASCE Specialty Conference on Probabilistic Mechanics and Structural Reliability*, Worcester, MA, August, pp. 298-301.
CHOU, K.C. and BENNETT, R.M. (1995) "Stochastic Dynamic Analysis Using Nonlinear Load Exceedance Approach", *Proceedings of Int'l Conference on Structural Dynamics, Vibrations, Noise and Control*

SDVNC'95, Vol. 1, Hong Kong, December, pp. 696-701.
CHOU, K.C., HOFFMAN, P.C. and YAO, J.T.P. (1995) "Teaching Uncertainty Analysis and Risk Assessment in Civil Engineering", *Proceeding of Joint Conference of the 3rd Int'l Symposium on Uncertainty Modeling and Analysis, and the annual meeting of the North American Fuzzy Information Processing Society, ISUMA-NAFIPS'95*, University of Maryland, College Park, MD, September.
HOFFMAN, P.C. and CHOU, K.C. (1994) "Infrastructure Assessment: Fuzzy Regression with Neural Networks", *Proceeding of NAFIPS 94*, San Antonio, TX, December. (*invited paper*)
TRAUTNER, J.J. and CHOU, K.C. (1994) "Women Faculty in the Structural Engineering Professional: Academic Climate", *Proceeding of Women in Engineering Program Advocates Network (WEPAN) National Conference*, Washington, DC, June.
CHOU, K.C. (1992) "Probability Model of Load Exceedances Under Cyclic Loadings", *Proceedings of the 6th ASCE Specialty Conference on Probabilistic Mechanics and Structural Reliability*, Denver, CO, July.
CHOU, K.C. and GALAMBOS, T.V. (1992) "Reliability Consideration in Shake Down Analysis", *Proceedings of the 6th ASCE Specialty Conference on Probabilistic Mechanics and Structural Reliability*, Denver, CO, July.
CHOU, K.C. and YUAN, J. (1990) "Safety Assessment of Existing Structures Using Fuzzy-Bayesian Approach", *Proceedings of the North American Fuzzy Information Processing Society (NAFIPS'90) Conference*, Toronto, June.
FLEISCHMAN, W.M. and CHOU, K.C. (1988) "On Computing the PMF of the Number of Nonlinear Load Exceedances", *Proceedings of the Symposium on Reliability-Based Design in Civil Engineering*, Lausanne, Switzerland, July 7-9, pp. 49-56.
FLEISCHMAN, W.M. and CHOU, K.C. (1988) "Computing the Distribution of the Number of Time-Dependent Events", *Proceedings of 36th ISMM International Conference on Mini and Micro Computers and Their Applications, MIMI '88*, Sant Feliu, Spain, June 27-30.
CHOU, K.C. and FLEISCHMAN, W.M. (1988) "Probability of Load Exceedances for Structural Member with Nonlinear Structural Response Process", *Bulletin of The Institute of Management Science/Operation Research Society of America (TIMS/ORSA) Joint National Meeting*, Washington, D.C., April.
CHOU, K.C. (1987) "Fuzzy Set and Rigid Frame Reliability", *Proceedings of 5th National Conference on Microcomputers in Civil Engineering*, Orlando, FL, Nov.
THAYAPARAN, P.A. and CHOU, K.C. (1987) "Probabilistic Analysis of Live Load Processes with Nonlinear Structural Response", *Proceedings of 5th International Conference on Applications of Statistics and Probability in Soil and Structural Engineering (ICASP5)*, Vancouver, Canada, May.
CHOU, K.C. (1987) "Reliability of Existing Framed Structures Using Fuzzy Sets", *Proceedings of the North American Fuzzy Information Processing Society (NAFIPS'87) Conference*, W. Lafayette, IN, May.
CHOU, K.C. (1987) "Wind Effects on the Serviceability of Structures", *Proceedings of 6th ASCE-EMD Specialty Conference*, Buffalo, NY, May. (*Invited paper*)
CHOU, K.C. and THAYAPARAN, P.A. (1987) "Nonlinear Structural Response to Combined Stochastic Load Processes", *Proceedings of 6th ASCE-EMD Specialty Conference*, Buffalo, NY, May.
CHOU, K.C. and CHANG, M-C (1987) "Protective Structures from Nonnuclear Weapons: A Probabilistic Approach", *Proceedings of the 3rd International Symposium on the Interaction of Conventional Munitions with Protective Structures*, Mannheim, Germany, March.
CHOU, K.C. (1984) "Probabilistic Analysis of Nonlinear Load Exceedances", *Proceedings of the 5th ASCE-EMD Specialty Conference*, Laramie, WY, Aug. 1-3, pp. 1280-1283.
CHOU, K.C. and COROTIS, R.B. (1984) "Nonlinear Response to Stochastic Load Processes", *Proceedings of the 4th ASCE Specialty Conference on Probabilistic Mechanics and Structural Reliability*, Berkeley, CA, Jan. 11-13, pp. 389-392.
CHOU, K.C. and COROTIS, R.B. (1983) "Probability Distribution of Typical Wind Speeds", *Proceedings of the 4th ASCE-EMD Specialty Conference*, W. Lafayette, IN, May, 23-25, 1983.

Book and Book Chapters

MOAVENI, S. (2011) *Engineering Fundamentals, 4th edition*, Thomson. Contributor to the creation of power points presentation of the entire text book.

MOAVENI, S. and CHOU, K. (2009) "Conceptual Mechanics: A Holistic Approach to Introducing Engineering Mechanics to Freshman Students," Chapter 17 of *Innovation 2009 – World Innovations in Engineering Education and Research*, International Network for Engineering Education and Research (iNEER), pp 203-218. (Invited submission and refereed)

MOAVENI, S. (2007) *Engineering Fundamentals, 3rd edition,* Thomson. Contributor to the creation of power points presentation of the entire text book.

CHOU, K.C., WILDE, W.J., and MOAVENI, S. (2005) "Integrating Major Design Experience throughout a Small Civil Engineering Program – a 2-Year Assessment and Implementation", Chapter 17 of *Innovation 2005 – World Innovations in Engineering Education and Research*, International Network for Engineering Education and Research (iNEER), pp 188-198. (Invited submission and refereed)

CHOU, K.C. (2005) "Human Errors in Constructed Projects", Chapter 12 of *Monograph on Structural Safety and Quality Assurance of Tall Buildings*, Council on Tall Buildings & Urban Habitat, American Society of Civil Engineers, August.

WONG, F.S., CHOU, K.C., and YAO, J.T.P. (1999) "Civil Engineering Including Earthquake Engineering", Chapter 6 of *Handbook for Fuzzy Sets*, Vol. 7, Kluwer Publisher.

INVITED PRESENTATIONS:

"Experimental Stress Analysis Techniques for the Teaching Laboratory", Guest Speaker on the building model developed for the structural analysis courses, workshop sponsored by Vishay Precision Group, Lincolnshire, IL, July 17-18, 2013.

"An Interactive Steel Connection Teaching Tool - A Virtual Structure", Poster Presentation, *NSF TUES PI Conference* sponsored by AAAS and NSF, Washington, DC, Jan. 23-25, 2013.

"Innovative Method in Evaluating Overweight Vehicle Permit", *Minnesota Department of Transportation Bridge Office*, March 2005.

"Civil Engineering Program at MSU – an Update", *Minnesota State University Alumni Association Board of Directors*, April 2004. This presentation included the second student steel bridge team demonstration.

"Civil Engineering Program at MSU", *Minnesota State University Alumni Association Board of Directors*, May 2003. This presentation included the first student steel bridge team demonstration.

"Civil Engineering Program at MSU - A Progress Report", *Minnesota County Engineers Association Conference*, January 2003.

"Civil Engineering Program at MSU - A Progress Report", *Minnesota Public Works Association Conference*, Nov. 2002.

"Civil Engineering Program at MSU", *Minnesota State University Alumni Association Board of Directors*, April 2002.

"The Role of Civil Engineering Program at MSU to meet the needs of the State of Minnesota", *City Engineers Association of Minnesota Annual Meeting*, St. Paul, MN, January 2002.

"Women in Science" panelist, sponsored by the University of Tennessee-Knoxville Women's Coordinating Council, Nov. 1998.

"Reliability Analysis of Prestressed Bulb-Tee Bridge Beams and Cantilever Retaining Walls", *Innovation in Structural Design: Strength, Stability, Reliability - Theodore V. Galambos Symposium*, Minneapolis, MN, 6-7 June, 1997.

"The Highway System Associated with the New Hong Kong Airport", ASCE Student Chapter, Northwestern University, May, 1996.

"The Highway System Associated with the New Hong Kong Airport", ASCE Student Chapter, The University of Tennessee, February, 1996.

"Engineering Applications of Neural Networks", National Taiwan University, Republic of China, Dec., 1995.

"Engineering Applications of Neural Networks", National Chiao Tung University, Republic of China, December, 1995.

"Assessment of Existing Structures: A Fuzzy-Bayesian Approach", University of Utah, March 1995.

"Engineering Applications of Neural Networks", ALCOA Technical Center, October, 1994.

"Assessment of Existing Structures: A Fuzzy-Bayesian Approach", University of Washington at Pullman,

April, 1993.
"Reviewing Technical Papers", A Conference and Workshop on "Facing Issues: Women Faculty in Structural Engineering Professions", Snowbird, Utah, April, 1993.
"Women in Engineering", Greater North Syracuse Chamber of Commerce, February, 1993.
"Assessment of Existing Structures: A Fuzzy-Bayesian Approach", University of Pittsburgh, October, 1992.
"Nonlinear Structural Response to Cyclic Load Processes", ALCOA Technical Center, October, 1992.
"Assessment of Existing Structures: A Fuzzy-Bayesian Approach", Texas Tech University, May, 1992.
Lecturer, Workshop in "Structural Reliability", National Chiao Tung University, Republic of China, December, 1991.
"Assessment of Existing Structures: A Fuzzy Set Approach", National Taiwan University, Republic of China, December, 1991.
"Assessment of Existing Structures: A Fuzzy Set Approach", National Cheng Kung University, Republic of China, December, 1991.
"Assessment of Existing Structures: A Fuzzy Set Approach", National Defense Academy, Japan, Dec., 1991.
"Nonlinear Structural Response to Cyclic Load Processes", University of Minnesota, May, 1991.
"Nonlinear Structural Response to Cyclic Load Processes", University of Colorado at Boulder, March, 1991.
"Nonlinear Structural Response to Cyclic Load Processes", Northwestern University, January, 1991.
"Probability-Based Limit Design", Syracuse University, February, 1990.
"Nonlinear Structural Response to Stochastic Load Processes", Texas A&M University, March, 1989.
"Careers in Engineering", Career Days Program, Henninger High School, Syracuse, New York, March, 1989.
"What is Structural Engineering", High School Students Career Night sponsored by the Society of Women Engineers Syracuse University Student Chapter, March, 1985.
"What is Structural Engineering", Society of Women Engineers, Syracuse Section, February, 1985.
Slide Presentation of ASCE's "Infrastructures" to ASCE Student Chapter at Syracuse University, Jan., 1984.

TECHNICAL PRESENTATIONS:

"An Interactive Steel Connection Teaching Tool – A Virtual Structure", Poster presenter, *121st ASEE Annual Conference & Exposition*, Indianapolis, June 15-18, 2014.
"Virtual Sculpture Workshop: Use of An Interactive Steel Connection Learning Tool", *ASEE Illinois-Indiana Section Conference & RosEvaluation Conference 2014*, Terre Haute, IN, March 7-8, 2014.
"Bringing Professional Experience into the Classroom – Faculty Experiences", *2009 ASEE Annual Conference and Exposition*, AC2009-2208, Austin, TX, June 14-17.
"Perspectives on "Career and Family" Alternatives for Female Engineering Faculty", *2009 ASEE Annual Conference and Exposition*, AC2009-2069, Austin, TX, June 14-17.
"Enhancing Global Education: Making Steel Connection Sculpture Available Online to Students in Developing Countries", *2008 IJAC-IJME Conference*, Nashville, TN., Nov.
"Engineering Community Participation in the Development of a Civil Engineering Program", *2004 ASEE North Midwest Conference*, University of Wisconsin-Milwaukee, October, 2004.
"Integrating Major Design Experience throughout a Small Civil Engineering Program", *2003 Frontier in Education Conference*, Boulder, CO, November, 2003.
"An Unique Approach to Civil Engineering Design Experience", *2003 ASEE North Midwest Conference*, Iowa State University, October, 2003.
"Multimedia Simulation Tool for Steel Tension Member Analysis and Design", *2001 ASEE Annual Conference & Exposition*, Albuquerque, NM, June 2001.
"Engineering Toys", exhibition and demonstration of teaching models in engineering at the *2001 ASEE Annual Conference & Exposition*, Albuquerque, NM, June 2001.
"Development of Probability Model for Fatigue Crack Growth Using Response Surface Method", *8th International Conference on Structural Safety and Reliability, ICOSSAR'01*, Newport Beach, CA, June 2001. (Presented by the undergraduate student)
"Probabilistic-Based Performance Prediction for HMA Pavements", *8th International Conference on Structural Safety and Reliability, ICOSSAR'01*, Newport Beach, CA, June 2001. (Presented by the graduate student)
"Enhancing the Teaching of Moment Distribution Analysis Using Spreadsheet", *ASEE SE Section Meeting*,

Charleston, SC, April 2001.

"Mechanical Teaching Model for Moment Distribution and Other Structural Analysis Concepts", *2000 ASEE SE Section Annual Meeting*, Blacksburg, VA, April 2000.

"Statistical Analysis of Repetitive Tasks in Highway Construction Operations", *International Conference on Applications of Statistics and Probability (ICASP8)*, Sydney, Australia, Dec. 12-15, 1999.

"Reliability Analysis of Two-Way Reinforced Concrete Slab", *International Conference on Applications of Statistics and Probability (ICASP8)*, Sydney, Australia, Dec. 12-15, 1999.

"Reliability Investigation of Prestressed Bulb-Tee Bridge Beams", *7th Int'l Conf. on Structural Safety and Reliability ICOSSAR '97*, Kyoto, Japan, Nov. 24-28, 1997.

"Nonlinear Structural Response of Simply Supported Beam due to Office Live Load Process", *7th Int'l Conf. on Structural Safety and Reliability ICOSSAR '97*, Kyoto, Japan, Nov. 24-28, 1997.

"Linear Programming Analysis of Keyblock Stability", *9th Int'l Conf. of the Int'l Assoc. for Computer Methods and Advances in Geomechanics*, Wuhan, China, Nov. 2-7, 1997. (presented by the student).

"Reliability Analysis of A Cantilever Retaining Walls", 76th *Transportation Research Board Meeting*, January 12-16, 1997.

"Uncertainty Analysis of Tunnel Roof Stability", 76th *Transportation Research Board Meeting*, January 12-16, 1997. (presented by the student)

"Application of Neural Networks for the Performance Evaluation of Bridges", *7th ASCE Specialty Conference on Probabilistic Mechanics and Structural Reliability*, Worcester, MA, August, 1996. (presented by the student)

"Application of Neural Networks for the Performance Evaluation of Bridges", *Poster Presentation at the Colloquium on Neural Networks Applications*, Joint Institute for Computational Science, The University of Tennessee, Knoxville, Aug. 23, 1996.

"Stochastic Dynamic Analysis Using Nonlinear Load Exceedance Approach", *Int'l Conference on Structural Dynamics, Vibrations, Noise and Control SDVNC'95*, Hong Kong, December, 1995.

"Women Faculty in the Structural Engineering Profession: Academic Climate", *5th National Women in Engineering Conference*, WEPAN, June 5-7, 1994.

"Repair Service Life Evaluations Based on Imprecise Information", *6th Int'l Conf. on Structural Safety and Reliability ICOSSAR '93*, Innsbruck, Austria, Aug. 9-13, 1993.

"Reliability Based Design for Steel-Concrete Composite Beam-Columns", *6th Int'l Conf. on Structural Safety and Reliability ICOSSAR '93*, Innsbruck, Austria, Aug. 9-13, 1993. (presented by the student).

"Macro Time Modeling of Wind and Snow", *6th Int'l Conf. on Structural Safety and Reliability ICOSSAR '93*, Innsbruck, Austria, Aug. 9-13, 1993.

"Probability Model of Load Exceedances Under Cyclic Loadings", *6th ASCE Specialty Conference on Probabilistic Mechanics and Structural Reliability*, Denver, CO, July 8-10, 1992.

"Reliability Consideration in Shake Down Analysis", *6th ASCE Specialty Conference on Probabilistic Mechanics and Structural Reliability*, Denver, CO, July 8-10, 1992.

"Safety Assessment of Existing Structures Using Fuzzy-Bayesian Approach", *NAFIPS'90*, Toronto, June 6-8, 1990.

"Nonlinear Load Exceedances with Correlated Sustained Load Process", *5th Int'l Conf. on Structural Safety and Reliability ICOSSAR'89*, San Francisco, Aug. 7-11, 1989.

"On Computing the PMF of the Number of Nonlinear Load Exceedances", *Symposium on Reliability-Based Design in Civil Engineering*, Lausanne, Switzerland, July 7-9, 1988.

"Probability of Load Exceedances for Structural Member with Nonlinear Structural Response Process", *25th TIMS/ORSA (The Inst. of Management Science/Operation Research of America) Joint National Meeting*, Washington, D.C. April 25-27, 1988.

"Fuzzy Set Theory and Rigid Frame Reliability", *5th National Conference on Microcomputers in Civil Engineering*, Orlando, FL, Nov. 4-6, 1987.

"Probabilistic Analysis of Live Load Processes with Nonlinear Structural Response", *ICASP5*, Vancouver, Canada, May 25-29, 1987.

"Nonlinear Structural Response to Combined Stochastic Load Processes", *6th ASCE-EMD Specialty Conference*, Buffalo, New York, May 20-22, 1987.

"Wind Effects on the Serviceability of Structures", *6th ASCE-EMD Specialty Conference*, Buffalo, New York,

May 20-22, 1987. (*Invited paper*)
"Reliability of Existing Framed Structures Using Fuzzy Sets", *NAFIPS'87*, W. Lafayette, IN, May 5-7, 1987.
"Protective Structures From Nonnuclear Weapons: A Probabilistic Approach", *3rd International Symposium on the Interaction of Convention Munition with Protective Structures*, Mannheim, Germany, March 9-13, 1987.
"Probabilistic Analysis of Nonlinear Load Exceedances", *5th ASCE-EMD Specialty Conference*, Laramie, WY, Aug. 1-3, 1984.
"Nonlinear Response to Stochastic Load Processes", *4th ASCE Specialty Conference on Probabilistic Mechanics and Structural Reliability*, Berkeley, CA, Jan. 11-13, 1984.

PROFESSIONAL SERVICE

American Society of Civil Engineers, Structural Engineering Institute
Secretary, Technical Administrative Committee on Structural Safety and Reliability, 1989-92.
Member, Committee on the Safety of Buildings, 1984-87, 1989-97.
Control Group member, 1986-87, 1992-93.
Member, Committee on the Safety of Bridges, 1987-95, 1996-99.
Control Group member, 1992-95.
Member, Committee on the Load and Resistance Factor Design, 1996-2003
Corresponding Member, Committee on Academic Prerequisites for Professional Practice – Body of Knowledge subcommittee, 2005-2007
American Society of Civil Engineers, Technical Council on Computer Practices
Member, Publication Committee, 1986-2006.
American Concrete Institute
Member, Committee 348 - Structural Safety, 1984-2006.
American Council of Engineering Companies of Illinois – Engineering Excellence Awards jury (2016-17)
National Research Council, Transportation Research Board
Member, Committee on Steel Bridges, 1993-99.
Member, Committee on Soils and Rock Instrumentation, 1995-99.
Member, Committee on Modeling Techniques in Geomechanics, Section on Soil Mechanics, Group 2, 1996-99.
Project Panel Member, NCHRP project, 1997-2003
Structural Engineering Association of Illinois – Engineering Project Excellence Awards jury (2016)
Council on Tall Buildings and Urban Habitat
Vice Chair, Committee 9A - Structural Safety and Quality Assurance, 1996-
Peer Review Committee – Fulbright Specialist Program, Council for International Exchange of Scholars, 2011-
Proposal Reviewer: National Science Foundation (also serve on proposal review panels); Villanova University Office of Research and Sponsored Programs; Indonesian Directorate General of Higher Education.
Associate Editor, *Journal of Structural Engineering*, ASCE, 1989-1992.
Member of Editorial Board, *Structural Safety*, 1994-present
Member of Engineering Advisory Board, *Aluminum Association*, 1994-present
ABET (formerly Accreditation Board for Engineering and Technology), curriculum reviewer, 1996-present
Member of Site Review Team of National Science Foundation to evaluate National Research Centers.
Fellowship Review Panelist: NSF, ASEE, National Defense Science and Engineering, 2007-present
Reviewer for Prentice Hall on text manuscript, *Analysis and Behavior of Structures* by E.C. Rossow, 1994.
Member of Conference Scientific Committee, International Conference on Applications of Statistics and Probability in Soil & Structural Engineering (*ICASP8, 1999)*.
Member of Conference Scientific Committee, International Conference on Structural Safety and Reliability, (*ICOSSAR'01, ICOSSAR'05*)
Referee: numerous technical journals

COMMUNITY SERVICE

Presentation on "Role Modeling, Breaking Stereotypes and Achieving", to the Ethnic Heritage Pre-college Summer Institute camp at MSU on July 12, 2002.
Judge, Rube-Goldberg Competition, Minnesota State University, Mankato, MN, 2002-04.
Judge, South Central-Southwest Minnesota Regional Science Fair, Mankato, MN, 2002-03.
Secretary, Parkside Homeowners Association, Mankato, MN 2002-04
Judge, State of Tennessee Science Olympiads, Knoxville, TN, 1998-2001
Presenter, SHaring ADventures in Engineering and Science (SHADES), an interactive demonstration of science and engineering to 7th and 8th grades female students in Knoxville, 1994-97.
Science Fair Judge, Greater Syracuse Scholastic Science Fair, 1992-93.
Organizer, Bridge Building Contests for Greater Syracuse, middle, junior and senior high schools, 1990-93.

UNIVERSITY SERVICE

At Northwestern University

Structural Engineering Advisor, Engineers for the Sustainable World projects: Tiny House, Centennial Solar Panel, and Modular Roof, Solar Tree.
Faculty Advisor, NUASCE steel bridge team, 2010-2011
Civil Faculty Coordinator, McCormick Career Day for Girls, 2011-
Faculty Advisor, NUASCE Student Chapter, 2011-present
Civil Engineering Representative, McCormick School Curriculum Committee, 2011-
Department Representative, McCormick Undergraduate Council, 2012-
Department Representative, McCormick ABET Committee 2011-

At Minnesota State University, Mankato

College of Science, Engineering & Technology, Curriculum Committee, 2001-2005, 2006-2008
Chair, 2002-2005, 2006-2007; Secretary, 2007-2008
Founding Faculty Advisor, ASCE Student Club, 2002-2004
Chair, Personnel Committee, Department of Mechanical and Civil Engineering, 2004-2005
University Delegation to Kwame Nkrumah University of Science and Technology (KNUST), Ghana, West Africa, member of delegation to develop exchange program between two universities, October, 2006
Member, College of Science, Engineering & Technology Dean Search Committee, 2006-2007.
Chair, Department of Mechanical & Civil Engineering faculty search committees, 2002-2007.

At The University of Tennessee, Knoxville
UNIVERSITY

Mentor, UT Math and Science Regional Center, 1995-1997
Faculty Advisor, Hong Kong Students Association, 1998-2001

COLLEGE

College of Engineering, Outstanding Support Staff Award Committee, 1998-2001
College of Engineering, ABET 99 Coordinating Committee, 1998-99.
College of Engineering, Electrical Engineering Department Head Search Committee, 1997-98.
College of Engineering, Engineering Co-op Director Search Committee, 1994.
College of Engineering, Ad Hoc Committee on Women in Engineering, 1994.

DEPARTMENT

Department of Nuclear Engineering Faculty Search Committee, 1999
Maintenance Reliability Engineering Educational Programs Faculty Advisory Committee, 1998-2001
Department of Electrical Engineering Department Head Search Committee, 1998
Department of Civil & Environmental Engineering Scholarship Committee, Chair, 1997-99.
Department of Civil & Environmental Engineering (curriculum) Assessment Committee, 1998-2000
Department of Civil & Environmental Engineering Curriculum & Instruction Committee, 1996-97, 1998-2000.
Department of Civil & Environmental Engineering Computer Committee, 1993-96
Department of Civil & Environmental Engineering Curriculum Subcommittee #3, 1993-94
ASCE Student Chapter Faculty Advisor, 1994-99
Department of Civil & Environmental Engineering Faculty Meeting Secretary, 2000-01.

At Syracuse University

UNIVERSITY

Faculty Advisor of Hong Kong Students Recreation Club, 1984-85, 1988-93.
Faculty Advisor of ASCE Student Chapter, 1989-92.
Member, Hearing Panel, Committee on Academic Freedom, Tenure & Professional Ethics, University Faculty Senate, 1990.

COLLEGE

College of Engineering Library Committee, 1983-85.
Chair, 1984-85.
College of Engineering Promotion Committee, 1984-85, 1987-88.
College of Engineering Ad Hoc Committee on Computer, 1985-86.
College of Engineering Associate Dean Search Committee, 1987-88.
College of Engineering Committee on Students, 1987-88.
College of Engineering Steering Committee on College Open House, 1990-93.
Co-chair, 1990-93 and Co-initiator.
College of Engineering Tenure & Reappointment Committee, 1990.
College of Engineering & Computer Science, TECHREACH® program for junior and senior high school teachers on teaching the principal of engineering, 1992-93.

DEPARTMENT

Department of Civil Engineering Promotion Committee, 1984-85.
Department of Civil Engineering Planning & Curriculum Committee, 1984-85, 1988-93.
Chair, responsible for the revision of entire undergraduate curriculum, 1992-93.
Department of Civil Engineering Faculty Search Committee, 1984-85, 1988-90.
Editor, "Civil Engineering Survey", department alumni newsletter, 1985-93.
Institute of Sensory Research Faculty Search Committee, 1988.
Department of Civil & Environmental Engineering Tenure Committee, 1990-93.

CONTINUING PROFESSIONAL EDUCATION

American Institute of Steel Construction, October to December, 2017
"Fundamentals of Connection Design" – 8 weeks for a total of 12 hours online night school.
American Institute of Steel Construction, January to April, 2017
"Design of Industrial Buildings" – 8 weeks for a total of 12 hours online night school.
American Institute of Steel Construction, February to April, 2016
"Steel Design 2" – 8 weeks for a total of 12 hours online night school.
American Institute of Steel Construction, September to November, 2014
"Connection Design" – 8 weeks for a total of 12 hours online night school.
American Institute of Steel Construction, September to November, 2013
"Basic Steel Design" – 8 weeks for a total of 12 hours online night school.
Portland Cement Association, August 1-3, 2011.
"Reinforced Concrete Design" Professors' Workshop, Skokie, IL.
Vishay Micro-Measurement Group, July 19-21, 2011
"Experimental Stress Analysis" short course, Wendell, NC.
University of Minnesota, Structural Seminar Series, spring 2009
"Understanding ASEC 7-05 Wind Provisions and Simplification to those Provisions"
Midwest Prestressed Concrete Institute, December 8, 2008
"Basic Prestressed Concrete Design", Lino Lake, MN
American Institute of Steel Construction, October 30, 2008
"Intelligent Design! - Low Rise and Mid-Rise Building", Minneapolis, MN
University of Minnesota, Structural Seminar Series, spring 2008
"Cold Form Steel Design Standards"
"2007 Minnesota State Building Code Structures Provisions"
American Institute of Steel Construction, April 17-18, 2007
"Teaching the Principles of Seismic-Resistant Design of Steel Building Structures", New Orleans, LO
University of Minnesota, Structural Seminar Series, spring 2006
"Stability Design Rules in the 2005 AISC Specification"
American Institute of Steel Construction, October 20, 2005
"Educator Session on the 13th Volume of Steel Manual", Chicago, IL
Portland Cement Association, August 1-3, 2005.
"The Engineering and Economics of Reinforced Concrete Buildings" short course, Skokie, IL
The Masonry Society Workshops, March, 2004
"2004 University Professor's Masonry Workshop", 3 days at North Carolina State University
"Strength Design of Masonry", 3 hours seminar at North Carolina State University
ASCE ExCEEd Workshop, August 10-15, 2003
Vishay Micro-Measurement Group, May 20, 2003
"PhotoStress Plus for Stress Analysis Testing" - half day technical seminar.
North Dakota State University, August 9-10, 2002
"Teaching Engineering Mechanics Using Statics: The Next Generation Materials"- a workshop sponsored by a grant from National Science Foundation to NDSU.
Multihazard Building Design Summer Institute, Emergency Management Institute, July 22-26, 2002
"Wind Mitigation Design", short course sponsored by Federal Emergency Management Agency.
American Institute of Steel Construction, November 12, 2001
"Web-Based Steel Design", short course, Kansas University, Lawrence, KS.
Minnesota State University, September 2001
"UCOMPASS - Educator", a short course for developing online teaching which has been implemented to all the courses taught at MSU.
University of Tennessee, June 27, 29, 2000
"CourseInfo - an introduction and development", a short course for developing online teaching which has since be implemented to the course in fall 2000.
Portland Cement Association, August 5-6, 1999
"Design of Concrete Bridges by the AASHTO LRFD Specifications" short course, Skokie, IL.
Vishay Micro-Measurement Group, July 12-16, 1999

"Experimental Stress Analysis" short course, Raleigh, NC.
Georgia Institute of Technology, Sept. 6-8, 1995.
"GTSTRUDL" short course, Atlanta, Georgia.
Portland Cement Association, August 14-16, 1995.
"The Engineering and Economics of Reinforced Concrete Buildings" short course, Skokie, IL.
University of Southern California, July 14-17, 1980.
"SAP Seminar and Workshop", Los Angeles, California.
American Society of Civil Engineers, March-April 1981.
4 lectures series on "Applications of Theory and Techniques Related to Modern Steel Design and Fabrication", Chicago, Illinois.
American Institute of Steel Construction, March 1984.
3 lectures series on "Steel Design Current Practice", Syracuse, New York.
International Masonry Institute, May 1984.
One-day seminar on a new course about the design of structural masonry based on a series "An Educational Syllabus on Structural Masonry - Engineering Design Module III", Toronto, Canada.
Emergency Management Institute, July 16-20, 1984.
"Multiprotection Design Summer Institute Earthquake Protective Designs Course", N.E.T.C., Emmitsburg, Maryland.
Purdue University, October 17-19, 1985.
"NSF Workshop on Civil Engineering Applications of Fuzzy Sets", West Lafayette, Indiana.
Emergency Management Institute, July 14-18, 1986.
"Multiprotection Design Summer Institute Wind Engineering Course", N.E.T.C., Emmitsburg, Maryland.

COURSES TAUGHT

	Times Taught
At Northwestern University	
Theory of Structures I	9
Engineering Analysis 2 (statics, dynamics & mechanics of materials)	1
Capstone Design (one of four faculty team)	2
Reinforced Concrete	1
Professional Development I (lifelong learning, ethics & professional responsibility)	6[1]
Professional Development II (FE review)	1[1]
Structural Steel Design	6
M.S. Capstone Design I & II	2[1]
Theory of Structures II (UG/MS level)	6[1]
Lab development for Theory of Structures I, II and Reinforced Concrete, 2012-	
At Minnesota State University, Mankato	
UNDERGRADUATE	
Statics	5[1]
Mechanics of Materials	5
Civil Engineering Seminar	4[1]
Introduction to Problem Solving & Civil Engineering Design	3[1]
Structural Analysis (to both civil and mechanical engineering majors)	6
Steel Design	4[2]
Reinforced Concrete Design	3[1]
Civil Engineering Design I (course coordinator, this is the capstone design course)	5[1]
Civil Engineering Design II (course coordinator, this is the capstone design course)	5[1]
Engineering Analysis	5[1,2]
Introduction to Engineering - Civil	3[1,4]
Civil Engineering Experimentation (Structures lab & course coordinator)	6[1]
At University of Tennessee, Knoxville	
UNDERGRADUATE	
Introduction to Structural Design	9[1]
Reinforced Concrete Design	4[1]
Structures I	2
Structures II	4
GRADUATE	
Computer Aided Structural Analysis	2[1]
Risk Analysis in Civil & Environmental Engineering	5
Reliability of Constructed System	2[4]
Analysis of Indeterminate Structures	3

1. new courses developed by me
2. revised courses
3. taught as Visiting Associate Professor (1999) and Adjunct Professor (2010) at University of Minnesota
4. revised in the second offering with one credit hour added.

At Syracuse University

UNDERGRADUATE	
Civil Engineering Measurements, Probability & Statistics Module	5[1]
Mechanics of Materials	10
Civil Engineering Materials	1
Structures I (Analysis)	11[3]
Structures II (Reinforced Concrete Design)	2[2]
GRADUATE	
Risk Analysis in Civil Engineering	7[1]
Structural Reliability	5[1,3]
Structural Analysis I	1[2]
Structural Analysis II (Dynamic Analysis)	4[2]

1. new courses developed by me
2. revised courses
3. taught as Visiting Associate Professor (1999) and Adjunct Professor (2010) at University of Minnesota
4. revised in the second offering with one credit hour added.