

XINZHONG CHEN

Professor Department of Civil, Environmental and Construction Engineering

Texas Tech University



Professional Preparation

B.S. in Civil Engineering, Southwest Jiaotong University, 1983

M.S. in Civil Engineering, China Academy of Railway Sciences, 1986

Ph. D. in Civil Engineering, Kyoto University, 1995

Pos-Doc in Civil Engineering, University of Notre Dame, 1998-2004

Professional Positions

Assistant Associate, and Full Professor, Dept. of Civil and Environmental Engineering, Texas Tech University (2004-present)

Assistant Professor, Dept. of Civil Engineering, Kyoto University, Kyoto, Japan (1998-1998}

Research Assistant, Dept. of Civil Engineering, Kyoto University, Kyoto, Japan (1986-1991)

Research Engineer, Institute of Railway Engineering, China Academy of Railway Sciences, Beijing, China (1991-1995)

Research and Education Interests

Wind load effects on Bridges and Buildings; Fatigue and Extreme Loads and Responses of Wind Turbines; Structural Reliability and Performance-Based Structural Design

Significant Honors/Awards

- Bernie E. Rushing, Jr. Faculty Outstanding Researcher award, Texas Tech University, 2018
- The Jack E. Cermak Medal, ASCE, 2017
- The Ed and Linda Whitacre Faculty Fellowship, 2014-2017, Texas Tech University
- Whitacre Engineering Research Award, 2012, Texas Tech University

Synergistic Activities

- Editorial Board Member for Journal of Bridge Engineering, Engineering Structures, and Wind and Structures, an international journal
- Member of System Reliability Review Panel, ASCE/SEI Pre-standard for PBD of Tall Buildings for Wind
- Committee Member of ASCE/SEI Wind Effects Committee, ASCE EMI Dynamics Committee, ASCE/SEI Tall Buildings Committee
- Keynote (Invited) Presentations in High-end Forum on Structure and Wind Engineering in 2017 (IHFSEWE 2017), October 14-15, 2017, Chongqing, China; 14th International Symposium on Structural Engineering, Beijing, China, October 12-15, 2016; Workshop on Research Frontier of Bridge and Structural Wind Engineering, Shijiazhuang, China, October 8-9, 2016; the 2nd International Symposium on Life-Cycle Performance of Bridge and Structures,, Changsha, Hunan, China, December 17-20, 2015; the 5th International Symposium on Innovation & Sustainability of Structures in Civil Engineering (15155-2013), Harbin Institute of Technology, Harbin, China, July 6-7, 2013; the 16th National Conference on Structural Wind Engineering, Chengdu, China, July 29- August 3, 2013
- Scientific Committee Member/International Advisory Committee Member/Session Chair for the International Symposium on Computational Wind Engineering, June 18-22, 2018, Seoul, Korea; the 9th Asia-Pacific Conference on Wind Engineering, December 3-7, 2017, Auckland, New Zealand; the 8th International Colloquium on Bluff Body Aerodynamics and Application (BBAA8), Boston, Massachusetts, USA, June 7-11, 2016; 14th International Symposium on Structural Engineering, Beijing, China, October 12-15, 2016 (Primary session chair); the 2014 International Conference on Advances in Wind and Structures (AWAS'14), 24- 29, August 2014, Seoul, Korea

Arindam Gan Chowdhury

Professor

Dept. of Civil and Environment Engineering
Florida International University (FIU)
10555 W. Flagler Street, EC 3604, Miami, FL 33174
Tel: 305-348-0518, E-mail: chowdhur@fiu.edu



A. Professional Preparation

Jadavpur University, Kolkata, India, Civil Engineering, B.C.E.,
Indian Institute of Technology, Mumbai, India, Structural Engineering,
M.Tech. Iowa State University, Ames, Iowa, USA,
Engineering Mechanics, Ph.D., 2004

B. Academic/Professional appointments

- 2017-Present- Professor, Department of Civil and Environmental Engineering (CEE); Co-Director, Wall of Wind (WOW) Facility, International Hurricane Research Center (IHRC), FIU, Miami, FL
- 2012-2017- Associate Professor, CEE; Director, WOW Facility, IHRC, FIU, Miami, FL
- 2006-2012 - Assistant Professor (CEE) and Director of LWER {IHRC}, FIU
- 2005-2006 - Project Director, Thornton Tomasetti, Fort Lauderdale, FL
- 2003-2005 - Project Engineer, Lear Corporation, Iowa City, IA
- 2002 Summer Pollution Prevention Intern, Iowa Department of Natural Resources, Des Moines, IA

C. Research and Education Interests

Aerodynamics and aeroelasticity of structures; Wind and wind-driven rain effects on buildings; Vulnerability assessment; System identification of aerodynamic/aeroelastic parameters; Database Assisted Design {DAD}; Mitigation methodologies; Integration of research and education through inductive learning.

D. Significant Honors/ Awards/Patents

- Under Dr. Chowdhury's leadership the NHERI WOW EF was lauded by the American Society of Civil Engineers (ASCE) to receive the 2018 Charles Pankow Award for Innovation.
- In collaboration with his colleagues, Dr. Chowdhury obtained U.S. Patents for Hurricane Resistant Concrete Roof System and Aerodynamics Mitigation and Power System (AMPS).
- 2012 Winner of FIU President's Council "Worlds Ahead Faculty Award" in recognition of sustained excellence in teaching, research, and service.
- Winner of Florida Sea Grant's "2012 Research to Application Award" for research that has identified innovative and practical ways to improve the structural integrity of buildings.
- Received Iowa State University Research Excellence Award for Spring 2004.

E. Synergistic Activities

Development of Research Tools, Databases, and Mitigation Products. WOW has been developed as a multi-user large- / full-scale holistic testing facility to support research and education. Extensive databases were developed on aerodynamic and wind driven rain effects on structures. Moreover, new databases are being archived on NHERI DesignSafe-CI portal and made available to other researchers.

Broadening the Participation of K-12 Students and Underrepresented Groups in STEM. In collaboration with his colleagues, Dr. Chowdhury is reaching out to K-12 students and underrepresented groups for fostering the next generation of wind engineers. The goal is to engage K-12 students in grade-appropriate, interactive wind effect lessons, reflecting WOW-enabled wind mitigation innovations.

BRADLEY T. EWING

C. T. Mclaughlin Chair of Free Enterprise
Professor of Energy Commerce
Texas Tech University



Professional Preparation

B.S. in Economics, Kent State University, 1987
M.S. in Economics, Kent State University, 1991
Ph.D. in Economics, Purdue University- Krannert School of Management, 1994

Professional Positions

C. T. Mclaughlin Chair of Free Enterprise and Professor of Energy Commerce, Texas Tech University (2016-present)
Rawls Professor in Energy Economics, Texas Tech University (2004-2016)
Area Coordinator, Information Systems and Quantitative Sciences, Texas Tech University (2007-2011) Fellow, FDIC Center for Financial Research, Washington, D.C (2005-2006)
Research Associate, Center for Natural Hazards Research, East Carolina University (2005-present) Associate Professor of Economics and Statistics, Baylor University (2003-2004)
Faculty Associate, National Wind Institute (formerly WISE), Texas Tech University (2000-present) Assistant-Associate Professor, Dept. of Economics, Texas Tech University (1998-2003)
Assistant Professor, Dept. of Economics and Finance, Georgia Southern University (1995-1998)

Research and Education Interests

- Economics of Energy, Infrastructure, Risk and Disasters
- Economic impact analysis, cost-benefit analysis, Life-cycle cost analysis, Avoided cost analysis
- Over 170 research publications

Significant Honors/Awards

- 2015 Schulze Award for "How Much are Trade Secrets Worth? Here's How to Figure it Out" from Richard M. Schulze Family Foundation recognizing the study and practice of entrepreneurship
- Recent research grants from:
 - US Economic Development Administration, \$649,146
 - Plains All American Pipeline, \$104,766
 - National Science Foundation CRISP, \$390,830
 - National Science Foundation, \$350,398
 - Texas Pipeline Association, \$83,560
 - Permian Basin Petroleum Association, \$90,000

Synergistic Activities

- Co-Editor of Journal of Business Valuation and Economic Loss Analysis
- Research cited or interviews given in a number of media outlets including: Miller-McCune, American Bar Association, Entrepreneur.com, Debt & Equity, Industrial Engineer magazine, Dallas Morning News, LA Times, Christian Science Monitor, Natural Gas Intelligence's Shale Daily, NGL's Daily Gas Price Index, Science Daily, Shale Markets, Energy Global, Pipelines International, Inc. Magazine

Amal Elawady

Assistant Professor
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A. Professional Preparation

Ain Shams University (ASU), Civil Engineering, B.Sc., 2008
Ain Shams University (ASU), Structural Engineering, M.Sc., 2012
The University of Western Ontario (UWO), Structural Engineering, Ph.D., 2016

B. Academic/Professional appointments

- 2017-Present - Assistant Professor, Department of Civil and Environmental Engineering (CEE); Leadership team member, Wall of Wind (WOW) Facility, International Hurricane Research Center (IHRC), FIU, Miami, FL
- 2012-2016 - Assistant Researcher, UWO, Ontario, London, Canada
- 2008-2012 - Assistant Researcher, ASU, Cairo, Egypt
- 2008-2012 - Structural Engineer, Dar Group Consultant, Cairo, Egypt

C. Research and Education Interests

- Wind effects on buildings; non-synoptic down burst flow simulations, downburst effects on infrastructure and transmission lines, aero-elastic response of structures.

D. Significant Honors/ Awards/Patents

- Received O.H. Ammann Research Fellowship awarded by the American Society of Civil Engineers to highlight diverse and talented researchers who are able to explore original ideas in the field of structural engineering, VA, USA.
- Received Alan G. Davenport Award of Excellence in the wind engineering research at wind tunnel lab (BLWTL), London, Canada
- Received Best Student Paper Award, CSCE Annual Conference, London, Canada

E. Synergistic Activities

Improving Building Codes, Policy, Regulation, and Construction Practices for Transmission line structures through communicating research findings with the ASCE-74 manual committee. The new manual provisions are geared toward decreasing the vulnerability of transmission line systems damage in non-synoptic winds.

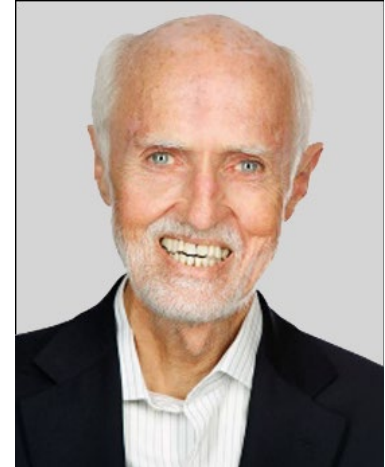
Broadening the Participation of School and Undergraduate Students and Underrepresented Groups in STEM through activities that are strategically designed to engage high-school and mid-school students and underrepresented groups for fostering the next generation of STEM workforce; Chairwoman of the 5th American Society of Wind Engineers Workshop. The workshop involved various student activities including organizing the workshop, research presentations, and arranging laboratories tours.

PETER A. IRWIN, CM, FASCE, FSEI, FCSCE, FEIC, FCAE

Wall of Wind Professor of Practice

Department of Civil and Environmental Engineering, and Extreme Events
Institute

Florida International University



Professional Preparation

B.S.E. in Aeronautical Engineering, University of Southampton, UK, 1967 M.S.E.

in Aeronautical Engineering, University of Southampton, UK, 1969 Ph. D. in
Mechanical Engineering, McGill University, Canada, 1974

Professional Positions

Research Officer, Royal Aircraft Establishment, Farnborough, UK (1968-1971)

Research Officer, National Research Council of Canada, Ottawa, Canada (1974-1980)

Director of Technical Services, Rowan Williams Davies and Irwin Inc. (RWDI), Guelph, ON, Canada (1980 -1999)

President and CEO, RWDI, Guelph, ON, Canada (1999-2008)

Senior Executive Consultant, RWDI, Guelph, ON, Canada (2008-present)

Professor of Practice, FIU, 2012-present.

Research and Education Interests

Wind Engineering, Aerodynamics, Wind Tunnel Testing, Structural Dynamics, Snow Engineering, Climatic
Statistics

Significant Honors/Awards

- Gzowski Medal for Civil Engineering - 1995, Canada
- Coopers Hill Medal for Civil Engineering, Institute of Civil Engineering, 2003, UK
- Jack E. Cermak Medal for Wind Engineering, ASCE, 2007, USA
- Innovation Award of the American Association for Wind Engineering, 2013
- Fazlur Khan Award of the Council on Tall Buildings and Urban Habitat, 2014
- Alan G. Davenport Medal of the International Association for Wind Engineering, 2015
- Member of the Order of Canada, 2018

Synergistic Activities

- Current Voting Member of ASCE 7 wind subcommittee.
- Current Voting Member (and past chair) of Task Group on Climatic Loads of the National Building Code of Canada.
- Current Member Peer review panel of ASCE 7 guideline document on Performance Based Wind Engineering.
- Principal Investigator at RWDI into incorporating climate change into the National Building Code of Canada.
- Ongoing research projects at FIU into wind effects on infrastructure and residential buildings.
- Co PI of Wall of Wind NHERI Experimental Facility at FIU.

SEUNG JAE LEE

Assistant Professor

Dept. of Civil and Environment Engineering

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A. Professional Preparation

Sungkyunkwan University, Korea, Architectural Engineering, B.S., 2002

Sungkyunkwan University, Korea, Architectural Engineering, M.S., 2004

Univ. of Illinois at Urbana-Champaign, USA, Civil Engineering, M.S., 2007

Univ. of Illinois at Urbana-Champaign, USA, Civil Engineering, Ph.D., 2014

B. 8. Academic/Professional appointments

- 2015-Present - Founding Faculty Fellow, STEM Transformation Institute, FIU
- 2014-Present - Assistant Professor, Department of Civil & Environmental Engineering, FIU
- 2004-2005 - Building Facade Research Engineer, Industrial Materials Research Institute, LG Chem

C. Research and Education Interests

- Computational mechanics; Discrete systems; Wind loads on buildings and structures; Hurricane-induced landslide and soil erosion; High-performance building envelope; Simulation-based learning

D. Significant Honors/ Awards/Patents

- Ralph E. Powe Junior Faculty Enhancement Awards (2016)- Selected as one of 35 awardees nationwide among all junior faculty members within 2 years of career in 121 member institutions of Oak Ridge Associated Universities
- Teacher Ranked as Excellent by Their Students (2010)-Awarded by the Center for Innovation in Teaching and Learning, University of Illinois at Urbana-Champaign
- Korea Science and Engineering Foundation Scholarship (2005) -A national scholarship for study abroad

E. Synergistic Activities

- Disseminated the Knowledge through Software Development. Developed finite/ discrete element analysis codes for structural and geotechnical engineering problems over 15 years including SWAN (a program for Shear Wall Analysis; An overview video available at <https://tinyurl.com/y8tdwc6fl>, BAILAST-BLOKS3D, etc.
- Promoting Extracurricular Student Activities to Motivate Students in the Numerical Analysis. Initiated and currently serves as the faculty advisor of Florida International Student Institute for Computational Applications (FISICA), academic student club that aims to study the numerical modeling, simulation techniques and programming skills for analysis of civil engineering problems.
- Broadening the STEM Participation of Underrepresented Groups. Provided research supervision to Hispanic and female undergraduate students, and high school students on a spectrum of research topics; Co-organized Accelerated Bridge Construction-University Transportation Center summer camps in 2015 and 2017 for underrepresented students.

TING LIN

Assistant Professor of Civil, Environmental and Construction Engineering Texas Tech University

Professional Preparation

B.S. (Hons.) in Civil Engineering, Architecture (Cone.), Cornell University, 2006

M.S. in Structural Engineering, Stanford University, 2008

Ph.D. in Structural Engineering, Stanford University, 2012

Professional Positions

Assistant Professor, Texas Tech University. (September 2018- Present).

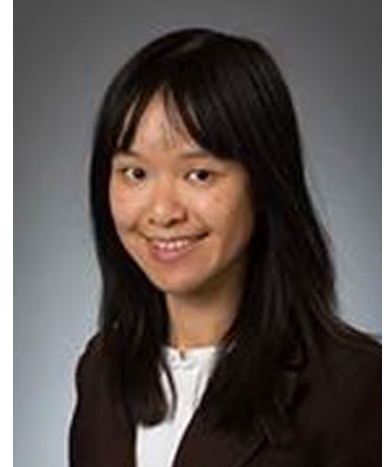
Director, Multi-Hazard Sustainability Research Group (HazSus). (August 2013-Present).

Assistant Professor, Marquette University. (August 2013 -August 2018).

Lecturer, Stanford University. (October 2012 · December 2012).

Consultant, National Earthquake Hazards Reduction Program (NEHRP) Consultants Joint Venture. (June 2011 • September 2011).

Delegate, United Nations Climate Change Conference, Worldwatch Institute. (December 2009). Structural Engineering Intern, Leslie E. Robertson Associates. (July 2006 - August 2006).



Research Interests

Performance-Based Engineering, Earthquake Science, Engineering, and Technology, Climate Change Mitigation and Adaptation, Multi-Hazards, Risk, and Uncertainty, Community Resilience

Honors/ Awards

- Science NextGen VOICES "Measures of Success" Essay Winner (2016)
- Earthquake Engineering Research Institute (EERI) 2011 Outstanding Paper Award for Earthquake Spectra (2013)

Synergistic Activities

- The National Academies of Sciences, Engineering, and Medicine (NASEM) Policy and Global Affairs (PGA) Planning Committee Member for Resilient Technology Workshop
- American Society of Civil Engineers (ASCE) Structural Engineering Institute (SEI) Board of Governors Level Task Committee Member on Confirmation & Update of Vision for the Future
- Institutional Representative and Ground Motion Simulation Validation (GMSV) Technical Activity Group Member of the Southern California Earthquake Center (SCEC)
- Computational tools of the Conditional Spectrum and Ground Motion Prediction Model Deaggregation implemented in the U.S. Geological Survey (USGS) hazard mapping interface and adopted by the Global Earthquake Model (GEM)
- Findings on risk-based and intensity-based seismic assessments recommended as the Applied Technology Council (ATC-82) analysis guidelines (featured on NIST GCR 11-917-15 cover), the 2015 NEHRP provisions, and the ASCE 7-16 building codes

KISHOR C. MEHTA, WHIP Center Director

P. W. Horn Professor of Civil, Environmental and Construction Engineering
Texas Tech University



Professional Preparation

B.S.E. in Civil Engineering, the University of Michigan, 1957
M.S.E. in Civil Engineering, the University of Michigan, 1958
Ph.D. in Civil Engineering (structures), the University of Texas-Austin, 1965

Professional Positions

P. W. Horn Professor of Civil, Environmental, and Construction Engineering,
Texas Tech University (1964- 2011; 2015-present)
Program Director of Structural and Architectural Engineering and Materials and
Co-Program Director of Engineering for Natural Hazards, the National Science
Foundation, Washington, DC (2011-2015) Interim Dean of Engineering, Texas Tech University (1994-1995)
Design Engineer, MC & S Corp., Glen Canyon Dam Construction Site, Page, Arizona (1958-1961)

Honors/ Awards

- Elected to the National Academy of Engineering (2004)
- Inducted as Fellow of the National Academy of Inventors (2017)
- Distinguished Member of the American Society of Civil Engineers (2002)
- ASCE Cermak Medal for Wind Engineering (2014)

Synergistic Activities

- Developed new programs in Engineering for Natural Hazards and Structural and Architectural Engineering and Materials at the National Science Foundation during the tenure as Program Director (2011-2015).
- Chairman of three conferences on wind engineering at Texas Tech University; 1. The Tornado Symposium in 1976, 2. The Fifth Americas Conference on Wind Engineering in 1985, and 3. The Eleventh International Conference on Wind Engineering in 2003.
- Organized and instructed in annual professional short course on Engineering for Extreme Winds held at Texas Tech University (1972 - 2005). Also developed and instructed in a two-day professional short course Wind loads on Buildings and Structures at 50 locations around the country for ASCE during 1995 - 2006.
- Director and Principal Investigator for Cooperative Program on Wind Engineering with Colorado State University funded by NSF (1986-1995) and Windstorm Mitigation Initiative program funded by the National Institute of Standards and Technology, NIST (1998-2005).
- Committee member of the National Advisory Committee on Windstorm Impact Reduction , NIST, 2017; Advisory Board for the Global Center of Excellence in Wind Engineering, Tokyo Polytechnic University, Japan, 2009-2013; National Institute of Building Science Oversight Committee for Wind in HAZUS, 2001-2007; Wind Damage Mitigation Committee of the Insurance Institute for Property Loss Reduction, 1992-1995; Panel on Assessment of Wind Engineering Issues in the United States, National Research Council, Chairman of the Wind Load Committee for ASCE 7, 1977 -1995.

ARIS PAPADOPOULOS

Distinguished Expert in Resilience, Extreme Events Institute
Florida International University



Professional Preparation

BS and MS in Chemical Engineering, Massachusetts Institute of Technology, 1974-1978

Master's in Business Administration, Harvard University, 1983-1985

Professional Positions

Founder & Chair, Resilience Action Fund (2015-present)

Distinguished Expert in Resilience, Extreme Events Institute, Florida International University (2015• present)

Executive Chairman, ST Equipment & Technology, Titan Group (2014-2019)

Chief Executive Officer, Titan America (1994-2014)

Assistant to General Manager, Titan America (1992-1994)

Manager, Sales & Marketing, Cogeneration and Gas Chiller Products, Thermo Fisher Scientific Inc. (1985- 1992)

Supervisor, Offshore Production Engineering, Saudi ARAMCO (1978-1983)

Research and Education Interests

Chemical and Environmental Engineering, Disaster Resilience and Sustainability, Built Environment.

Significant Honors/ Awards

American Concrete Institute (ACI) Sustainability Award, 2013

Synergistic Activities

1. Resilience Action Fund (2015-present)
 - a. Founder & Chair: Founded a 501(c)3 non-profit organization aiming to advance awareness, transparency and education for greater disaster resilience in the built environment (www.buildingresilient.com)
 - b. In 2016 founded and chair a related non-profit organization in the UK
 - c. Author: 'Resilience-The Ultimate Sustainability: lessons from failing to Develop a Stronger and Safer Built Environment'. Book is inspiration behind 1-hr international documentary 'BUILT TO LAST?' (www.built2last.org) featured on PBS.
2. UN International Strategy for Disaster Reduction (UNISDR) (2010-present)
 - a. Board Member, UN Alliance for Disaster Resilient Societies (ARISE), 2015-present
 - b. Founding Chair, Private Sector Advisory Group, 2011-2013
 - c. Private Sector Representative, 3rd World Conference on Disaster Risk Reduction, Sendai, 2015
 - d. Private Sector Representative, Rio+20, three UN/SOR Global Platforms and UN Global Compact
3. Construction Materials Industry (2006-2014)
 - a. Founding Chair, Concrete Joint Sustainability Initiative, 2008-2014
 - b. Chairman of Board, Portland Cement Association, 2010-2012
 - c. Chairman of Executive, Sustainability, Communications, Audit & Nominating Committees, Portland Cement Association, 2006-2014
 - d. Board Member, CTL Group, 2006-2014

4JEAN-PAUL PINELLI, PH.D., P.E.

Professor of Mechanical and Civil Engineering
Florida Institute of Technology



Education

B.S. in Civil Engineering, University of Buenos Aires Argentina 1982 M.S. in Civil Engineering, Georgia Institute of Technology 1984
Ph.D. in Structural Engineering, Georgia Institute of Technology 1992

Professional Positions

Professor, Department of Mechanical and Civil Engineering,
Florida Institute of Technology
Visiting Professor, Disaster Prevention Research Institute, Kyoto University
(2009 and 2017)
Lead Engineer, EQE International, San Francisco, California, 1994
Project Engineer, Techint S.A., Buenos Aires, Argentina (1984-1988)

Research Interests

Natural hazard risks modeling and prediction; wind engineering, vulnerability, and mitigation; natural hazard engineering cyber-infrastructure development; wireless instrumentation for monitoring of the effect of hurricanes on structures.

Significant Honors/ Awards

Florida Tech Senate Award for Excellence in Research, 2007

Synergistic Activities

Wind and Hurricane Impact Research Laboratory (WHIRL) (<http://research.fit.edu/whirl/>) Founder and Director.
Florida Public Hurricane Loss Model: leader of the engineering team.
Natural Hazard Engineering Research Infrastructure (NHERI) cyber-infrastructure component DesignSafe.ci: co-PI and leader of the data requirements team.

JOHN L. SCHROEDER

Professor of Atmospheric Science
Texas Tech University



Professional Preparation

B.S. in Rolla Civil Engineering, University of Missouri, 1994 M.S. in Atmospheric Science, Texas Tech University 1997 Ph.D. in Civil Engineering, Texas Tech University, 1999

Professional Positions

Professor of Atmospheric Science, Texas Tech University (2012-)
Senior Director, National Wind Institute, Texas Tech University (2019-)
Director, National Wind Institute, Texas Tech University (2012-2014)
Director, Wind Science and Engineering Research Center, Texas Tech University (2010-2012) Associate Professor of Atmospheric Science, Texas Tech University (2006-2012)
Assistant Professor of Atmospheric Science, Texas Tech University (2001-2006)
Research Associate, Wind Science and Engineering Research Center, Texas Tech University (2001)

Research and Education Interests

Boundary Layer Structure, Instrument Development, Wind Engineering, Wind Energy

Significant Honors/ Awards

- National Weather Association's Larry R. Johnson Special Award, October 2008
- International Association for Wind Engineering Junior Award, August 2012
- Texas Tech University Integrated Scholar Award, January 2014
- Texas Tech University President's Excellence in Commercialization Award, April 2017

Synergistic Activities

- Led the development of several noteworthy atmospheric observation technologies that serve the meteorological and wind engineering communities. These include the adaptable and rapidly deployable StickNet platforms, TTUKa mobile research radars, and the DOE-X prototype radar. Dr. Schroeder has also led the expansion of the West Texas Mesonet to include 121 near-surface weather monitoring stations and an integrated regional SO DAR network.
- Led and/or participated in numerous field projects to acquire meteorological information from severe storms, tornadoes and hurricanes. He established an active hurricane research program at Texas Tech University in 1998, which has continued for two decades.
- Dr. Schroeder has given numerous conference presentations and published various peer-reviewed publications based on the collected tower and radar data providing insights into the boundary layer structure. His research agenda has been focused on relating the meso, micro and turbulence scales of the atmosphere to engineering communities.
- Dr. Schroeder has been very active in commercialization and has won Texas Tech University President's award for commercialization. He has been a co-author on three awarded patents in the US, another in Europe, and another patent application is pending. He has developed a start-up company, SmartWind Technologies, which remains in incubation with the support of Texas Tech University, but has received multiple contracts, including a major award from a European partner. He has been responsible for two different license agreements between industry and Texas Tech University.

DOUGLAS A. SMITH

Associate Professor of Civil Engineering
Texas Tech University



Professional Preparation

B.S.C.E. in Civil Engineering, Texas Tech University, 1977 M.S.C.E. in Civil Engineering, Texas Tech University, 1979 Ph.D. in Civil Engineering, Texas Tech University, 1993

Professional Positions

Associate Professor of Civil Engineering, Texas Tech University (2003-present}
Assistant Professor of Civil Engineering, Texas Tech University (1998-2003}
Research Assistant Professor, Wind Science and Engineering Research Center, Texas Tech University (1994-1998}
Research Associate, Wind Science and Engineering Research Center, Texas Tech University (1993- 1994)
Research Assistant, Wind Science and Engineering Research Center, Texas Tech University (1990-1993)
Senior structural Engineer, Utility Engineering Corporation, Amarillo, Texas (1988-1990)
Supervisory Structural Engineer, Southwestern Public Service Company, Amarillo, Texas (1983-1987)
Structural Engineer, Southwestern Public Service Company, Amarillo, Texas (1979-1983)
Research Assistant, Institute for Disaster Research, Texas Tech University (1978-1979)

Research and Education Interests

Bluff body aerodynamics, structural response to wind loads, damage prediction for wind and surge loads on buildings, wind engineering, structural reliability, design of structures, and development of structural engineering curriculum for undergraduate and graduate levels

Significant Honors/Awards

- Fellow of American Society of Civil Engineers 2014
- Fellow of Structural Engineering Institute, ASCE 2013
- Elected to Texas Tech University Teaching Academy 2005
- Halliburton Faculty Teaching Award 2001-2002
- Civil Engineering Teacher of the Year 2002
- Elected to the Civil Engineering Academy, Texas Tech University, 1995
- Texas Engineering Foundation Graduate Student Scholarship, 1991

Synergistic Activities

- As member of the task committee on wind loads of the American Society of Civil Engineers Committee ASCE 7, he played a significant role in the development of the wind load provisions of the national standards ASCE 7-05 and 7-10 and 7-16 revisions.
- Has conducted and supervised windstorm damage documentation effort of Wind Science and Engineering Research Center and collaboration of damage investigations with other public and private entities.
- Has helped develop a doctoral degree in Multidisciplinary (engineering, atmospheric sciences, and economics) Program in Wind Science and Engineering which is funded by NSF IGERT program for graduate student fellowships.
- Has performed and directed research in wind engineering principally focused on full scale experiments in the field. These include experiments on transmission towers, signs and a 30 ft. x 45 ft. x 13' high test building.

Yisha Xiang

Assistant Professor of Industrial Engineering
Texas Tech University



Professional Preparation

Ph.D., Industrial Engineering - University of Arkansas, 2009
M.S., Industrial Engineering - University of Arkansas, 2006
B.S., Industrial Engineering - Nanjing University of Aeronautics & Astronautics, China, 2003

Professional Positions

Assistant Professor of Industrial, Manufacturing, and Systems Engineering,
Texas Tech University -9/2018 - present
Assistant Professor of Industrial Engineering, Lamar University
Associate Professor of Management Science, Sun Yat-sen University, China
Assistant Professor of Management Science, Sun Yat-sen University, China

9/2015 - 8/2018

7/2014 - 7/2015

2/2010 - 6/2014

Significant Honors/Awards

- Best Paper Award, International Conference on Quality, Reliability, Risk, Maintenance, and Safety Engineering, 2019
- Doug Ogden Best Paper Award, Society of Reliability Engineering (SRE), Reliability and Maintainability Symposium, 2019
- Best Track Paper Award, Production and Scheduling Track, IISE Conference, 2017
- Most Helpful Professor from the LU IIE Student Chapter, 2017
- Stan Oftshun Best Paper Award, Society of Reliability Engineering (SRE), Reliability and Maintainability Symposium, 2013, 2017
- Ralph A. Evans/P.K. McElroy Best Paper Award, Reliability and Maintainability Symposium, 2013

Synergistic Activities

- Dr. Xiang has recruited and advised 15 female students in undergraduate and graduate programs (2 PhD, 6 MS and 8 BS). She is also actively involved in the Society of Women Engineers program at Texas Tech University, promoting the recruitment and retention of female students in the College of Engineering.
- Dr. Xiang has collaborated with several industrial companies (most recent: Schlumberger, Delek, Covestro) to transition research findings. Many of the research findings were used to inform maintenance policies for complex engineering systems at these companies.
- Dr. Xiang has organized many invited sessions at national and international conferences (e.g., IISE annual conference, INFORMS annual conference).
- Dr. Xiang has served as a reviewer for more than 10 journals such as *Productions and Operations Management*, *IISE Transactions*, *IEEE Transactions on Reliability*, and *European Journal of Operational Research*.
- Dr. Xiang has developed new online courses “Maintenance Modeling and Optimization” and “Production and Inventory Control” for innovative teaching.

JAMES YANG

Associate Professor of Mechanical Engineering
Texas Tech University



Professional Preparation

B.S. in Vehicle Engineering, Jilin University, China, 1989
M.S. in Automobile Engineering, Jilin University, China, 1992
Ph.D. in Mechanical Engineering, The University of Iowa, USA, 2003

Professional Positions

Associate Professor of Mechanical Engineering, Texas Tech University (2014-)
Ed and Linda Whitacre Faculty Fellow, Texas Tech University (2016-2019)
Fulbright Scholar, University Center for Defence, Navy Academy/University of Vigo, Spain (08/2017-12/2017)
Associate Chair, Director of Undergraduate Studies of Mechanical Engineering, TTU (2015-2017)
Visiting Professor, University of Technology Sydney (01/2017)
Assistant Professor of Mechanical Engineering, Texas Tech University (2008-2014)
Visiting Professor, Chinese University of Hong Kong (11/2012)
Faculty Research Fellow, Air Force Research Lab, Wright-Patterson Air Force Base, Dayton, Ohio (2012 Summer)
Visiting Professor, Universitat Politècnica De Catalunya (UPC), Spain (11/2009)
Research Engineer and Adjunct Assistant Professor, University of Iowa (03/2004-08/2008)
Postdoctoral Research Scholar, Center for Computer-Aided Design, University of Iowa (08/2003-02/2004)
Assistant Professor of Automobile Engineering, Tsinghua University, Beijing, China (04/1992-12/1998)

Significant Honors/Awards

- SAE 2003 Arch T. Colwell Merit Award, 2003
- ASME Outstanding Paper Award, 2004
- The Prometheus Award (Top U.S. Government Technology Award), 2007
- Publish Forever Award, Center for Computer-Aided Design, The University of Iowa, 2007
- IIE/Joint Publishers Book-of-the-Year Award, Handbook of Military Industrial Engineering, (Chapter), 2010
- Whitacre Excellence in Research Award, College of Engineering, TTU, 2011
- TTU Alumni Association New Faculty Award, 2011
- Faculty Research Award, Department of Mechanical Engineering, TTU, 2011
- Chancellors' Council Distinguished Research Award, TTU System, 2012
- Outstanding Faculty Mentor Award, Center for Undergraduate Research, TTU, 2012
- Most Influential Faculty Member, College of Engineering, TTU, 2012
- SAE Ralph R. Teetor Educational Award, 2012
- Air Force Summer Faculty Fellowship. 2012
- ASME IDETC/CIE Advanced Modeling and Simulation Best Paper Award, 2015
- Ed and Linda Whitacre Faculty Fellowship, College of Engineering, TTU, 2016
- Elected Fellow of The Society of Automotive Engineers (SAE) International, 2016
- ASME IDETC/CIE Advanced Vehicle Technology Best Student Paper Award, 2016
- Fulbright US Scholarship, 2017
- MTNA e-Journal Article of The Year, Music Teachers National Association, 2017
- Elected IEEE Senior Member, 2018
- Elected Fellow of The American Society of Mechanical Engineers (ASME), 2018

Synergistic Activities

- As a PI/Co-PI, Co-I, Dr. Yang's career total grants are \$16,756,992 with \$2,060,335 prorated. His projects are from NSF, NPSF, NIOSH, NIST, NASA, US Army Soldier System Center (Natick), US Army TACOM, US Army Research Institute of Environmental Medicine, DOE, Honda R&D North Americas, USCAR, Caterpillar Inc., Griffins and Sons LLP, Pantex Inc., and American Institute of Steel Construction.
- Dr. Yang has published 155 peer-reviewed journal papers, 177 peer-reviewed conference papers, 26 book chapters, 16 technical reports, 2 keynote lectures and 96 invited seminars/presentations. He has graduated 10 PhD students and 10 master students, 5 PhD students and 2 master students are in progress. He has also supervised 35 undergraduate researchers, 3 high school students and 29 visiting scholars.
- Dr. Yang's research areas mainly in digital human modelling, biomechanics, vehicle dynamics, tornado door/building panel under debris impact, hail damage simulation on roof and vehicles, and slip/falls.

IOANNIS ZISIS-WHIP Center / FIU Site Director

Associate Professor, Dept. of Civil and Environment Engineering
Florida International University



Professional Preparation

Dipl.-Ing in Civil Engineering, Aristotle University of Thessaloniki, Greece, 2003
M.A.Sc. in Building Engineering, Concordia University, Canada, 2006
Ph.D. in Building Engineering, Concordia University, Canada, 2011

Professional Positions

Associate Professor, Department of Civil and Environmental Engineering,
Florida International University (2018-present)
Co-Director, Laboratory for Wind Engineering Research, International
Hurricane Research Center, Florida International University (2017-Present)
Assistant Professor, Department of Civil and Environmental Engineering, Florida International University (2012-2018)

Research and Education Interests

Structural and Environmental Wind Engineering, Wind Tunnel Testing, Field Monitoring, Building Codes of Practice and Wind Standards, Building/Architectural Engineering.

Significant Honors/Awards

- In collaboration with his colleagues NHERI WOW EF was lauded by the American Society of Civil Engineers (ASCE) to receive the 2018 Charles Pankow Award for Innovation
- Faculty Research Award, College of Engineering, Florida International University (2018)
- Postdoctoral Industrial R&D Fellowship: Natural Sciences and Engineering Research Council of Canada (2011)
- Catherine Lalonde Memorial Scholarship, Canadian Wood Council (2008)

Synergistic Activities

- Member of: the ASCE/SEI Standards Committee ASCE/SEI 7 - Minimum Design loads and Associated Criteria for Buildings and Other Structures (Wind Loads Subcommittee - WLSC); ASCE/SEI Standards Committee ASCE/SEI 49 - Wind Tunnel Testing for Buildings and Other Structures; the Technical Council on Wind Engineering (TCWE-ASCE), Structural Wind Engineering Committee (SWEC) and Environmental Wind Engineering Committee (EWEC)
- Co-PI in the NHERI Experimental Facility at Florida International University - The Natural Hazards Engineering Research Infrastructure (NHERI) is supported by the National Science Foundation (NSF) as a distributed, multi-user national facility that provides the natural hazards research community with access to research infrastructure that will include earthquake and wind engineering experimental facilities
- Organizer and Chair of the 4th American Association for Wind Engineering Workshop (4AAWE) August 2016, Miami FL.
- Co-organized and served as a judge in the 2013, 2014, 2015, 2018 "WOW Challenge!" where South Florida high school student teams develop and test hurricane mitigation concepts. The event is sponsored by the International Hurricane Research Center and Florida Division of Emergency Management

DELONG ZUO-WHIP Center / TTU Site Director

Associate Professor, Department of Civil and Environmental Engineering Texas Tech University



PROFESSIONAL PREPARATION

B.A. in Civil Engineering (with Highest Honor), Chongqing Jiaotong University, China, 1996

M.S. in Structural Engineering, Chongqing Jiaotong University, China, 1999 M.S. in Civil Engineering, Johns Hopkins University, Baltimore, MD, 2003

Ph.D. in Civil Engineering, Johns Hopkins University, Baltimore, MD, 2005

Professional Positions

Associate Professor, Texas Tech University (2012-present)

Assistant Professor, Texas Tech University (2006-2012)

Postdoctoral Fellow, Johns Hopkins University (2005-2006)

Research and Education Interests

Structural Dynamics, Wind Loading of Structures

Significant Honors/ Awards

- Whitacre Research Award, College of Engineering, 2018
- Board Member 2017 - Present, International Joint Research Laboratory of Wind Engineering
- Faculty Research Award 2010, Department of Civil and Environmental Engineering
- Meyerhoff Fellowship 1999-2000, The Johns Hopkins University
- Wufu-Zhenhua Scholarship 1999, Department of Transportation, China

SYNERGISTIC ACTIVITIES

- Serves as a member of the Wind Speed Estimation in Tornadoes subcommittee of the Standards Committee of the American Association of Civil Engineers
- Serves as a member of the Strategic Committee of the Network Coordinating Office of the Natural Hazards Engineering Research Infrastructure supported by the National Science Foundation
- Serves as a board member of the Joint International Laboratory for Wind Engineering hosted by Tongji University, China
- Participant on the Wind and Seismic Effects Committee of the US-Japan Cooperative Program in Natural Resources
- Served as a reviewer for "Engineering Structures", "Journal of Bridge Engineering", "Journal of Engineering Mechanics", "Journal of Fluids and Structures", "Journal of Sound and Vibration", "Journal of Structural Engineering", "Journal of Wind Engineering and Industrial Aerodynamics", "Journal of Wind Energy", "Probabilistic Engineering Mechanics", "Structural Health Monitoring" and "Wind and Structures"