

Xiaoduan Sun, Ph.D., PE

Professor of Civil Engineering Department  
Director of CASTS

Registered Professor Engineer, Louisiana, License # 28806

John E. & Joretta Achee Chance Endowed Professorship in Civil Engineering (2000-present)

SLEMCO/BORSF Professorship in Engineering (Spring 2006-2009)

Marine Survival Training Center/BORSF Professorship in Safety Engineering (2009-

Ph.D., the Ohio State University, Civil Engineering Department, 1994

### **PUBLICATIONS (last five years)**

- X. Sun and et al, "Estimate the Safety Impact of Differential Speed Limit and Truck Lane Restriction on Interstate-10 through Atchafalaya Basin in Louisiana" Journal of Transportation Research and Security, Volume 1 No.3, 2009
- X. Sun and et al, "Investigating Crash Characteristics of Multiple-Lane Highways in Louisiana" Proceedings of the First International Symposium on Transportation and Development Innovative Best Practices by Transportation and Development Institute of the American Society of Civil Engineers, 2008
- X. Sun and et al, "Applying HSM Network Screening Models to Louisiana Rural Two-lane Highway Network" Proceedings of The Seventh International Conference on Transportation, 2008
- Y. Chen, X. Sun, et al, "Speed Difference and Its Impact on Traffic Safety," Transportation Research Record: Journal of TRR, No. 2038, 2007
- X. Sun, et al, "Impact of Pavement Edge Lines on Vehicular Lateral Position on Narrow Rural Two-Lane Roadways in Louisiana," Journal of Transportation Research Record. No .1989, 2007.
- Y. Wang, X. Sun, "Influence of Mountainous Road Alignment on Traffic Safety and Reconstruction Measures" Proceedings of 2007 International Cooperation on Theories and Concepts in Traffic Safety", 2007
- X. Sun, et al, "Characteristics of Traffic Crashes on Freeways in China: A Case Study of Jingjintang Expressway" Journal of TRR, No. 2038, 2007.

- X. Sun, et al, "Application of Highway Safety Manual Prototype Chapter: Louisiana Experience," Transportation Research Record, No. 1950, 2006.

### **Research Project (last five years)**

- Principal Investigator, "Developing A Comprehensive Highway Accident Data Analysis Program with GIS: Part III," 2006-2009, \$175,000, Louisiana Department of Transportation and Development
- PI, "Safety Improvement from Edge Lines of Rural Two-Lane Highway, LTRC 2007-2010, \$107,060
- PI, "Developing A Comprehensive Highway Accident Data Analysis Program with GIS: Part III," 2006-2009, \$175,000, Louisiana Department of Transportation and Development
- PI, "Developing A Comprehensive Highway Accident Data Analysis Program with GIS: Part III," 2006-2009, \$175,000, Louisiana Department of Transportation and Development
- PI, "Developing A Innovative 3D Models for Highway Safety Analysis" \$190,000, UL ITI, 2007-09
- Co-PI, "Evaluation of the Traffic Safety Benefits of a Lower Speed Limit And Restriction Of Trucks To Use Of Right Lane Only On I-10 Over The Atchafalaya Basin," \$100,000 (UL subcontracted with LSU), 2005-2008, Louisiana Transportation Research Center
- Co-PI, " Automated Construction of 3-D Road Models From Right-of-Way Video" LTRC 07-09, \$29,000
- Co-PI, "Statewide Traffic Safety Study – Phase 1 and 2," \$38,000 (UL subcontracted with LSU), 2004-2008, Louisiana Transportation Research Center.
- Principal Investigator, "Project Evaluation and Assessment of Automated Enforcement of Red-Light Running (RLR) Project in Lafayette, Louisiana," 2004-2005, \$25,000, Louisiana Department of Transportation and Development.
- Principal Investigator, "Impact of Edge Lines on Narrow Rural Highways," 2003-2005, \$125,000, Louisiana Department of Transportation and Development.

### **OFFICE, HONORS AND AWARDS**

- The James M. Todd Technological Accomplishment Medal, Louisiana Engineering Society (2006)

- Certificate of Achievement, Lafayette Chapter of Louisiana Engineering Society (2005)
- Engineering Faculty Professionalism Award, Louisiana Engineering Foundation (2004)

## **PROFESSIONAL ASSOCIATION**

- Member of TRB Committee on Research under Task Force of Highway Safety Manual (2003-present),
- Member of TRB Committee on Transportation in developing Countries (
- Member of Association of Transportation Safety Information Professionals
- Panel Member of NCHRP of the Academy of Engineering Project 17-34 "Prepare the Parts IV and V of the Highway Safety Manual," 2004-2007,
- Panel Member of NCHRP Project 17-29 "Methodology to Predict the Safety Performance of Rural Multilane Highways," 2004-2007
- Panel Member of NCHRP Project 17-36 "Production of the First Edition of Highway Safety Manual," 2006-2007
- Panel Member of NCHRP Project 17-38 "Highway Safety Manual Implementation and Training Materials" 2007-2009
- Panel Member of NCHRP Project 17-40 "Highway Safety Core Competencies Model Curriculum," 2006-2008,
- Member of the Lafayette Metropolitan Expressway Commission
- Member of Lafayette Transportation Technology Committee