Xiao Tan

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EDUCATION

Ph. D. in Civil, Environmental & Ocean Engineering (GPA: 4.0/4.0), 08/2019–Present
Stevens Institute of Technology, Hoboken, New Jersey

M. S. in Civil Engineering (Bridge Engineering) (GPA: 3.8/4.0), 09/2016–06/2019
Southeast University, Nanjing, Jiangsu, China

B. S. in Infrastructural Engineering (Road & Bridge Engineering) (GPA: 3.9/4.0), 09/2012–06/2016
Chang'an University, Xi'an, Shaanxi, China

WORKING EXPERIENCE

Lab Manager, Smart Infrastructure Lab, Stevens Institute of Technology, 09/2021–Present
Graduate Research Assistant, Stevens Institute of Technology, 08/2019–Present
Graduate Teaching Assistant, Stevens Institute of Technology, 09/2020–05/2021
Graduate Research Assistant, Southeast University, China, 09/2016–06/2019

RESEARCH INTERESTS

1. **Condition Assessment of Pipelines**
2. **Distributed Fiber Optic Sensors**
3. **Bridge Engineering**
4. **Structural Applications of Advanced Materials in Civil Engineering**

SELECTED HONORS AND AWARDS

Excellence Doctoral Fellowship, Stevens Institute of Technology, 2021
Graduate Teaching Assistant Fellowship, Stevens Institute of Technology, 2020
Provost Doctoral Fellowship, Stevens Institute of Technology, 2019
Best Poster Award, 21st Annual NJDOT Showcase Poster Competition, NJDOT, 10/2019
Second-Class Scholarship, Southeast University, China, 2017
National Graduate Math. Modeling Contest, Second Place, Southeast University, China, 10/2017
First-Class Scholarship, Southeast University, China, 2016
Excellent Graduate, Chang'an University, China, 06/2016
CCCC First Highway Consultants Co., LTD Scholarship, Chang'an University, China, 2014
National Encouragement Scholarship, Chang'an University, China, 2013 & 2015
2013 Chinese Mathematics Competitions (CMC), First Place, Chang'an University, China, 2013

PROFESSIONAL SOCIETIES AND SERVICES

Student Member, American Society of Civil Engineers (ASCE)
Student Member, American Concrete Institute (ACI)
Student Member, The International Association for Bridge and Structural Engineering (IABSE)
Reviewer of journals, *Automation in Construction, Engineering Structures, Measurement, Smart Materials and Structures, Structural Health Monitoring*

PUBLICATIONS

Journals Published: https://scholar.google.com/citations?hl=en&user=m5Ka3gEAAAAJ

CONFERENCE AND MEDIA

[1] **Tan, X.**, Bao, Y.*(2019), "Improving bridge performance using fiber reinforced polymer (FRP), Shape memory alloy (SMA) and engineered cementitious composite (ECC)", *21st Annual NJDOT Research Showcase Poster Competition*, New Jersey Department of Transportation. https://www.njdottechtransfer.net/wp-content/uploads/2019/10/01b-NJDOT-Presentation-Xiao-Tan-10222019.pdf

[2] **Tan, X.**, Xu, L., Huang, Y. and Bao, Y.*, (2020), "Distributed fiber optic sensor network (DFOS) for real-time monitoring of pipeline interactive anomalies", *2020 Pipeline Research & Development: Meetings - Forums*, Pipeline and Hazardous Materials Safety Administration. https://primis.phmsa.dot.gov/rd/mtgs/021920/Stevens%20Institute%20of%20Technology.pdf

[3] **Tan, X.**, Meng, W., Bao, Y.*, Nassif H. and Li, V. C., (2021), " Material redundancy for enhancing the resistance to collapse of the Florida International University (FIU) Bridge", 2021 *TRB Annual Meeting*, Transportation Research Board. https://trid.trb.org/view/1759138

[4] **Tan, X.**, Bao, Y.*(2021), "Achieving Resilient and Smart Concrete Bridges by Mapping Strains and Cracks Using Distributed Fiber Optic Sensors", *23rd Annual NJDOT Research Showcase - Breakout Session for Infrastructure*, New Jersey Department of Transportation. https://www.njdottechtransfer.net/wp-content/uploads/2021/10/Presentation-Xiao-Tan-Infrastructure.pdf

RESEARCH PROJECTS

1. **Distributed Fiber Optic Sensor Network for Real-time Monitoring of Pipeline Interactive Anomalies** (U.S. DOT PHMSA 693JK31950008CAAP, 2019-2022) https://primis.phmsa.dot.gov/matrix/PrjHome.rdm?prj=841
2. **Consecutive Assembly-and-Mineralization Processed Calcium-Silicate-Hydrate Nacre with High Specific Flexural Strength and Fracture Toughness** (National Science Foundation CMMI CAREER 2046407, 2020-2025) https://www.nsf.gov/awardsearch/showAward?AWD_ID=1944207
3. **Intelligent Corrosion Mitigation System of Steel Structures with Duplex Coating** (National Science Foundation CMMI CAREER 2046407, 2020-2025) https://www.nsf.gov/awardsearch/showAward?AWD_ID=1750316
4. **Thermal-mechanical properties and pre-stress activation mechanism of FRP/SMA Composites** (National Natural Science Foundation of China, 2019-2022)
5. **Research on the confined mechanism and restoring force model of earthquake-damaged concrete pier strengthened with FRP grid and sprayed ECC** (National Natural Science Foundation of China, 2016-2019)