Jin YAN

EDUCATION

- **Iowa State University, Jan. 2017 - present**
  Doctor of Philosophy in Civil Engineering (expected – May 2020)
- **Georgia Institute of Technology, Aug. 2015 - Dec. 2016**
  Master of Science in Civil Engineering
- **Central South University, Hunan, China, Sep. 2011 – Jun. 2015**
  Bachelor of Civil Engineering

RESEARCH EXPERIENCE

- **Research Assistant in Iowa State University, major advisors: An Chen, Simon Laflamme, Jan. 2017 - present**
  Investigating static and dynamic model-assisted prognostics approaches for structures surface monitoring with dense sensor networks.
  Developing a multifunctional CFRP sensor for both strengthening and structural health monitoring.
  Collaborating on developing new thin film strain sensor for soft materials.
  Collaborated on building a hybrid dense sensor network using a capacitance-based sensor.
- **Research Assistant in Georgia Tech, major advisor: Yang Wang, Mar. 2016 - Dec 2016**
  Structural modeling of Bobby Dodd stadium for finite element analysis.
  Conducted dynamic experiments in a pre-stressed highway bridge and investigated model updating techniques.
- **Scientific Research Innovation Project in Central South University, Mar. 2013 - Mar. 2014**
  Conducted a creep simulation of reinforced concrete simply supported beam.
  Collaborated on residential and subway pit structures' health observation, static tests and evaluation.

PUBLICATIONS

- **Journals**
  [3] Mohammadkazem Sadoughi, Austin Downey, Jin Yan, Chao Hu, and Simon Laflamme, "Reconstruction of unidirectional strain maps via iterative signal fusion for mesoscale structures monitored by a sensing skin." Mechanical Systems and Signal Processing, April, 2018
  [2] Austin Downey, Jin Yan, Eric Zellner, Karl Kraus, Iris Rivero, and Simon Laflamme. "Use of Flexible Sensor to Characterize Biomechanics of Canine Skin." BMC Veterinary Research, January 2018.
  [1] Mohammadkazem Sadoughi, Austin Downey, Jin Yan, Chao Hu and Simon Laflamme. "Generation of unidirectional Strain Maps for a Structure Measured by a Sensing Skin through an Iterative Signal Fusion Method." Mechanical Systems and Signal Processing, January 2018.
- **Conferences**
  [6] Jin Yan, Sammy Hassam, Austin Downey, An Chen and Simon Laflamme. Multifunctional Carbon Fiber-Reinforced Polymer as structural capacitor for strain sensing. Engineering Mechanics Institute, May 2018.

[5] Xiaosong Du, Jin Yan, Simon Laflamme, Leifur Leifsson, Yonatan Tesfahunegn, and Slawomir Koziel. "Model-Assisted Probability of Detection for Structural Health Monitoring of Flat Plates." International Conference on Computational Science, May 2018.

[4] Srikanthan Ramesh, Iris V. Rivero, Jin Yan, Austin Downey, Simon Laflamme, Eric Zellner. "Solventless Fabrication of Biodegradable Sensors for Measuring Soft Tissue Deformation." Proceedings of the 2018 IISE Annual Conference, May 2018.

[3] Jin Yan, Xiaosong Du, Austin Downey, Alessandro Cancellia, Simon Laflamme, Leifur Leifsson, An Chen, and Filippo Ubertine. "Surrogate Model for Condition Assessment of Structures Using a Dense Sensor Network." SPIE Smart Structures and Materials + Nondestructive Evaluation and Health Monitoring, March 2018.

[2] Jin Yan, Sammy Hassam, An Chen and Simon Laflamme. "Novel Capacitive CFRP Sensor for Structural Health Monitoring." 9th International Conference on Fibre-Reinforced Polymer (FRP) Composites in Civil Engineering, July 2018.

[1] Austin Downey, Jin Yan, Simon Laflamme, and An Chen. "Dynamic Reconstruction of In-plane Strain Maps Using a Two-dimensional Sensing Skin." Structural Health Monitoring 2017, August 2017.

- **Posters**

[2] Jin Yan, Yunhe Song, Yichao Yao, Qinlan Zhang, Xu Zhang. "Real Estate Search and Recommendation System", Georgia Institute of Technology, December. 2016.

[1] Jin Yan, "Reinforced Concrete Simply Supported Beam Flexure Process Simulation about Creeping", Central South University, May. 2014.

HONORS AND AWARDS

Jul. 2018 ***ICRI Scholarship*** the International Concrete Repair Institute (ICRI) Great Plains Chapter Scholarship.

Apr. 2018 ***ASNT Fellowship*** of The American Society for Nondestructive Testing.

Oct. 2014 ***National Scholarship***, **the highest-level scholarship in China.**

Oct. 2014 ***First Prize Scholarship*** of Central South University.

Jun. 2014 ***First Prize*** in 2014 Mathematical Modeling Contest of Central South University.

Dec. 2013 ***Third Prize Scholarship*** of Central South University.

Sep. 2013 ***Hunan Provincial First Prize*** in 2013 Contemporary Undergraduate Mathematical Contest in Modeling.

ACCOMPLISHMENTS

- **Courses**

Data & Visual Analytics, Math Applications in CEE, Statistical Methods for Research Workers, Linear Systems, Probabilistic Engineering Analysis and Design, Machine Learning, Structure and Interpretation of Computer Programs.

- **Tools**

Python, Matlab, Latex, R, Arduino, Labview, Javascript, Unix script, SQL, Abaqus, Ansys, SAP 2000.