Zhiyi Tang

Ph.D. student, HIT
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Research Interests

Structural Health Monitoring, Signal Processing, Machine Learning, Optimization

Education

Harbin Institute of Technology — Harbin, China — Sep 2016 –
Ph.D., Engineering Mechanics
- Advisor: Yuequan Bao

Harbin Institute of Technology — Harbin, China — Sep 2014 – July 2016
M.S., Civil Engineering
- Thesis: Blind Source Separation of Bridge Multi-Vibration
- Advisor: Hui Li

Harbin Institute of Technology — Harbin, China — Sep 2009 – July 2013
B.S., Theoretical and Applied Mechanics
- Thesis: Long-Span Bridge Aerodynamic Damping Analysis
- Advisor: Hui Li

Journal Publications

Bao Yuequan, Tang Zhiyi, Li Hui. "Compressive-Sensing Data Reconstruction for Structural Health Monitoring: A Machine-Learning Approach". *Structural Health Monitoring* (SHM). 2018. Under review.

Tang Zhiyi, Chen Zhicheng, Bao Yuequan and Li Hui. "Convolutional neural network-based data anomaly detection method using multiple information for structural health monitoring". *Structural Control and Health Monitoring* (SCHM). 2018.

Bao Yuequan, Tang Zhiyi, Li Hui and Zhang Yufeng. "Computer vision and deep learning–based data anomaly detection method for structural health monitoring". *Structural Health Monitoring* (SHM). 2018.

Work Experience

Asia-Pacific-Euro Summer School (APESS) on Smart Structures Technology — Qingdao & Harbin, China — 16 July – 5 Aug 2018
Volunteer
- Curriculum Planning, Daily Life Support, Final Group Project TA (https://github.com/dawnnao/APESS2018_Steel_Girder_Crack_ID_dataset)
- Manager: Hui Li

Tibetan Traditional Medical College — Lhasa, China — Aug 2013 – July 2014
Volunteer Teacher
- English Teaching, Non-Profit Public Service Activities
- Manager: Tsering

Teaching Experience

Harbin Institute of Technology — Harbin, China — Sep 2016 – Nov 2016

Teaching Assistant

- Developed course material and assignments for structural health monitoring of civil infrastructure
- Instructors: Hui Li, Yuequan Bao

Award and Honors

1st Prize Innovation Scholarship of Ministry of Industry and Information Technology (10 persons or teams over ~30000 yearly)	2018
Excellent paper of WTC 2018 (74 over 1829): "Artificial Intelligence-based Data Anomaly Detection Method for Structural Health Monitoring", Beijing	2018
Best Performance Award - 2nd Prize (8 groups) in APESS 2017, Yokohama	2017
JSTI co. Structural Health Monitoring Graduate Fellowship (3 over 200+ yearly)	2016
HIT Graduate Scholarship	2014 – 2016
Source of Love Scholarship for Volunteers	2014
HIT Best Thesis for Undergraduate (100 over 6,000+ yearly)	2013
Xianzi Zeng Scholarship for distinguished undergraduates	2010 – 2013
HIT Dong Liang Scholarship for top grades undergraduates	2010

Computer Skills

Python, TensorFlow, MATLAB, JavaScript, R, ANSYS, HTML, CSS, Linux, Mac

Academic service

Reviewer for *Structural Health Monitoring*