# Zhiyi Tang

Ph.D. student, HIT
Email: tangzhi1@hit.edu.cn | tang@stu.hit.edu.cn
Web: zhiyitang.info

## 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

| | |
|---|---|
| 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*