

Qing SHUANG, Ph.D.

Department of Civil Management, Beijing Jiaotong University, Beijing, China

BOB: 04/1987

Email: shuangqing@acamail.net

Work Experience

- Lecturer (09/2014-present): Department of Civil Management, School of Economics and Management, Beijing Jiaotong University, Beijing, China
Courses: for undergraduate: *Construction Quality Control, Methods of Construction Management, Project Management*
for master student: *Project Finance and Risk Management, Empirical Research Methods*

Education

- **Doctor Degree** (09/2009-07/2014): Department of Civil Engineering and Management, Faculty of Infrastructure Engineering, Dalian University of Technology, Dalian, Liaoning, China
- **Bachelor Degree** (09/2005-07/2009): Department of Civil Engineering and Management, Faculty of Infrastructure Engineering, Dalian University of Technology, Dalian, Liaoning, China

Research Direction

Vulnerability, Cascading failures, Simulation, Water distribution network, etc.

Projects

- **Host:** 01/2016.1-12/2018.12, National Natural Science Foundation of China, "Research on cascade vulnerability of urban water distribution network under time-varying and its control strategies" (No. 71501008).
- **Host:** 01/2015.01-01/2018, Beijing Jiaotong University Fund for Young Scholars, "Research on vulnerability and optimization strategy of urban water distribution network with cascading failures" (No. 2015RC002).
- **Host:** 01/2015-03/2018, the Fundamental Funds for Humanities and Social Sciences of Beijing Jiaotong University, "Research on resiliency of urban infrastructure system with complex network" (No. 2015jbwj014).
- **Participant:** 01/2013-07/2014, National Natural Science Foundation of China, "Research on the Cascading Failure and its Minimized Risk of Lifeline Systems Based on Dynamic of Disaster Spreading". Responsible for mathematical modeling and system simulation.
- **Participant:** 01/2012-07/2014, Disaster risk comprehensive research program of the International Council for Science, "the ability and risk assessment of urban disaster carrying capacity: a case study of Wenchuan earthquake". Responsible for mathematical modeling and system simulation.
- **Participant:** 01/2012-12/2012, Project of Dalian Construction Commission, "Quantitative risk assessment of lifeline engineering system in disaster environment and Research on modern disaster reduction method ". Responsible for mathematical modeling and system simulation.
- **Participant:** 01/2012-12/2012, Project of Dalian Construction Commission, "Study on risk management in construction process of large infrastructure projects-a case study of Subway Engineering". Responsible for mathematical modeling and system simulation.

Conference Experience

- 01/2014, International Conference on Artificial Intelligence and Software Engineering, Phuket, Thailand. Oral report: Multiple criteria decision analysis based on variable fuzzy data envelopment analysis
- 05/2011, International Conference on E-Business and E-Government, Shanghai, China

Patents

- [1] 07/2012, Magnetic Flowerpot, 3/3. No. CN201120485369.8

- [2] 06/2011, Water tap with water consumption, 3/3. No. CN201020551539.3
- [3] 12/2010, Bookshelf with Sunshade Clip, 2/3. No. CN200920249143.0
- [4] 12/2010, Mashed Potato Squeezer, 2/3. No. CN200920249395.3
- [5] 01/2010, Power-Saving Newspaper Fence, 1/2. No. CN200920010720.0
- [6] 01/2010, Adjustable Bus Station Board, 1/2. No. CN200920010719.8
- [7] 01/2010, Magnetic Cloth Hanger, 1/2. No. CN200920010717.9

Software Copyright

- [1] 06/2012, Earthquake disaster prediction system for urban lifeline system, 3/5. No. 2012SR057306.

Social Activity

2010.08 Practiced in Glodon. Software test with rebar quantity calculation.

School Activities

2011-2014 Student leader of the Management and Spatial Information research group

2011- 2012 Assisted in Dalian University of Technology (DLUT) alumni association

2011-2012 Assistant in the DLUT long-distance education

2010.02-2010.03 Designed and manufactured the website of Faculty of Electronic Information and Electrical Engineering, Dalian University of Technology

2006-2007 Director of DLUT broadcasting station (responsible for broadcast quality)

2005-2006 Manager of entertainment department of DLUT broadcasting station

Language Level

Good command of English, effective written and oral communication. Past CET-6 and CET-4.

Computer Level

Proficient with the operation of MATLAB, EPANET, Photoshop, Dreamweaver, Windows Office software effectively.

Honors

Doctor:

12/2013 Doctoral State Scholarship

10/2012 Outstanding Student

12/2011 Outstanding Student

12/2011 Guofan Zhao Special Scholarship

12/2010 First Comprehensive Scholarship

Bachelor:

05/2009 Outstanding Graduate

10/2008 Outstanding Student and Second Comprehensive Annual Scholarship

10/2007 Outstanding Student and Second Comprehensive Annual Scholarship

Awards

- 12/2013 Third prize of Liaoning Science and Technology Progress Awards, "Research and application of the whole life cycle management decision in infrastructure project based on information and intelligence", 5/12, No. 2010J-3-86-05.
- 06/2013 First prize of Liaoning graduate student mathematical modeling competition.
- 01/2013 Scientific and Technological Achievement authenticated by the Ministry of Education "Research and application of engineering safety detection method based on 3S Technology ", 5/12, No. [the Ministry of Education DF2013].
- 12/2011 First prize of National investment and construction research.
- 01/2011 Third prize of Dalian innovative creative works competition.
- 10/2009 Third prize of Liaoning Challenge Cup competition (Academic works).

Papers

- [1] **Qing Shuang**, Yisheng Liu, Jing Liu, Qigang Chen. Serviceability assessment for cascading failures

- in water distribution network under seismic scenario. *Mathematical Problems in Engineering*, 2016, vol. 2016, Article ID: 1431457-1-10. (SCI, EI)
- [2] **Qing Shuang**, Yongbo Yuan, Mingyuan Zhang, Yisheng Liu. A cascade-based emergency model for water distribution network. *Mathematical Problems in Engineering*, 2015, vol. 2015, Article ID: 827816-1-11. (SCI, EI)
- [3] **Qing Shuang**, Mingyuan Zhang, Yongbo Yuan. Node vulnerability of water distribution network under cascading failures. *Reliability Engineering & System Safety*, 2014, 124: 132-141. (SCI, EI)
- [4] **Qing Shuang**, Mingyuan Zhang, Yongbo Yuan. Performance and reliability analysis of water distribution systems under cascading failures and the identification of crucial pipes. *PLOS ONE*, 2014, 9(2): e88445. (SCIE)
- [5] **Qing Shuang**, Mingyuan Zhang, Yongbo Yuan. Multi-criteria Evaluation Method for Fuzzy Interval Measure and Weights Determination. *ICIC Express Letter*, 2014, 8(7): 1883-1888. (EI)
- [6] **Qing Shuang**, Yunlong Ma, Kai Shuang, Xiaodong Lv. Multiple criteria decision analysis based on variable fuzzy data envelopment analysis. *International Conference on Artificial Intelligence and Software Engineering*, January, 2014, Phuket, Thailand. (ISTP)
- [7] **Qing Shuang**, Yongbo Yuan, Kai Shuang. Bidding Evaluation of Construction Engineering using Extend Data Envelopment Analysis Method. *Advanced Materials Research*, 2011, 243-249: 6369-6372. (EI)
- [8] **Qing Shuang**, Yongbo Yuan, Mingyuan Zhang, Dandan Yu. Bankruptcy prediction in construction companies via Fisher's Linear Discriminant Analysis. *International Conference on E-Business and E-Government*, May, 2011, Shanghai, China.(EI)

In Chinese:

- [9] **Qing Shuang**, Yongbo Yuan, Mingyuan Zhang. Multiple criteria decision model based on variable fuzzy data envelopment analysis. *Journal of Dalian University of Technology*, 2013, 53(3): 429-434.
- [10] Mingyuan Zhang, **Qing Shuang**, Yongbo Yuan. Research on efficiency evaluation of urban disaster prevention and its improvement way based on DEA. *Journal of Natural Disasters*, 2013, 22(1): 19-23.
- [11] **Qing Shuang**, Yongbo Yuan, Kai Shuang. A new method for construction engineering bidding evaluation. *Mathematics in Practice and Theory*, 2012, 412(8): 9-15.
- [12] Mingyuan Zhang, **Qing Shuang**, Yongbo Yuan. Disaster-preventing relative reliability evaluation of lifeline network node based on DEA. *Journal of Disaster Prevention and Mitigation Engineering*, 2011, 31(4): 20-25.
- [13] **Qing Shuang**, Yongbo Yuan. Digital project construction management system based on GIS. *Journal of Engineering Management*, 2010, 24(3): 428-431.
- [14] **Qing Shuang**, Yongbo Yuan, Gexu Jia. Dynamic control of construction project supervision based on WBS. *Construction Management Modernization*, 2009, 23(4): 335-338.