

**Tao Cheng Wins 2<sup>nd</sup> Prize at 2012  
Construction Research Congress (CRC) Student Poster Session**



Purdue University, West Lafayette, Indiana  
May 23, 2012



*Tao Cheng presenting his research and receiving the award from  
Dr. Mani Golparvar-Fard during the award ceremony*

Tao Cheng, a Ph.D. candidate under the guidance of Prof. Teizer in the RAPIDS Construction Safety and Technology Laboratory (<http://www.teizer.com>), won the 2<sup>nd</sup> Prize at the 2012 Construction Research Congress (CRC) Student Poster Session. CRC is among the biggest academic construction engineering and management conferences in North America featuring state-of-the-art research led by many public and private universities. This year's event was held at Purdue University.

Tao's research on "Algorithms for Automated Operator Visibility and Proximity Hazard Evaluation" competed among 53 academic student poster submissions. In his research, Tao converted range point clouds from laser scanners of as-built conditions into an information model that automatically detected blind spaces. Blind spaces from physical obstructions can limit the situational awareness of tower crane operators. Fusing real-time trajectory data of ground personnel and the automatically generated blind spaces allow keeping track of and mitigating proactively potential safety hazards, such as crane parts or loads swinging above construction workers or crews. Congratulations, Tao, on winning this prize!