## RAPIDS Laboratory

Research, Development and Education for Leaders in Safety & Technology

## Teizer, Cheng, and Allread Win ASCE Construction Research Congress (CRC) Best Paper Award

**C**ongratulations to Dr. Jochen Teizer, assistant professor in the School of Civil and Environmental Engineering, doctoral student Tao Cheng, and Ben Allread (MSCE '09), for receiving the Best Paper Award of the 2010 ASCE Construction Research Congress (CRC). CRC is the largest premier academic construction conference in North America. The Construction Research Congress (CRC) is held annually. This year, the conference took place May 8-10 in Banff, Canada.

**D**r. Aminah Robison Fayek and Dr. Mohammed Al-Hussein, professors at the University of Edmonton, Alberta, Canada, served as the CRC 2010 conference co-chairs. In his welcoming remarks, Professor Fayek stated more than 156 papers with more than 170 authors representing 14 countries competed for the Best Paper award. In addition, more than 15 general state-of-knowledge areas in construction engineering and management were represented at the conference. The award was announced during the congress. The photo above includes members of the technical chair committee: Professors Y, Mohamed, S. Lee, and J. Ruwanpura, and J. Teizer (2<sup>nd</sup> from right).

The title of the winning paper is "Blind Spot Measurements for Real-time Pro-Active Safety in Construction" which focuses on the methodology and experiment of a new measurement technique that simplifies and shortens



experiment of a new measurement technique that simplifies and shortens blind spot measurements of heavy construction equipment and vehicles, while at the same time reduces errors. About 25% of all construction fatalities (more than 1,100 every year) in the United States are related to heavy equipment operation. Of this 25%, the majority are attributed to the limited or poor visibility of equipment operators to identify workers on foot. The research findings on new blind spot measurement may lead to changes in existing ISO 5006 standards. This research was supported through the National Science Foundation (NSF), the Construction Industry Institute (CII), JCB North America, and Leica Geosystems Inc.



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Tao Cheng, is a Ph.D. candidate in construction engineering. He holds a B.S. and M.S. in aerospace engineering from Peking University in the People's Republic of China, and a M.S. in civil engineering from the University of Dresden in Germany. Tao's research focuses on advanced decision making and learning on capital intensive construction projects utilizing remote real-time data

sensing and collection, and real-time visualization technology. A major application area is safety construction.

**B**en Allread received his M.S. in construction engineering and was a member of the Real-time Automated Project Information and Decision Systems (RAPIDS) laboratory laboratory from 2007-2009. His thesis topic was on blind spot measurement and alert devices related to heavy construction equipment. He received the 2008 Georgia Engineering Student of the Year award and is currently working as an engineer within the nuclear division of Bechtel.

**D**r. Jochen Teizer joined the Georgia Institute of Technology as an assistant professor in August 2006. He received his M.S. degree in civil engineering from the University of Karlsruhe (KIT) in Germany in 2002, and his Ph.D. degree in civil engineering from the University of Texas at Austin in 2006. He is an active member of several academic and professional organizations, including the American Society of Civil Engineers (ASCE) and the International Association for Automation and Robotics in Construction (IAARC). Dr. Teizer serves as director of the Real-time Automated Project Information and Decision Systems (RAPIDS) laboratory (http://www.rapids.gatech.edu). The laboratory focuses on advanced remote sensing and data processing technologies to advance the construction and transportation industry. A particular research emphasis is on real-time pro-active safety, resource tracking and allocation for productivity analysis, and remote vision and wireless sensing.