K-State Engineering Student Receives Top Prize at Regional Conference

Jordan Bever, Hutchinson, a senior in Kansas State University’s industrial and manufacturing systems engineering’s (IMSE) concurrent bachelor’s and master’s program, received first prize in the technical paper competition at the 2013 South Central Regional Student Conference of the Institute of Industrial Engineers (IIE).

Bever’s paper, “Designing a Palletization Process for Heart to Heart International”, outlines the evaluation, design, and implementation of a solution to improve the warehouse performance of Heart to Heart International, a Kansas City based disaster relief agency. The paper was co-written by Lauren Cody and Brandon Mais, both December 2012 graduates of the IMSE department, as part of the team’s senior design course. The project advisor was IMSE assistant professor Jessica Heier Stamm.

The K-State team determined that improving the pallet pick process would have the greatest benefit to warehouse operations. It was observed that approximately 30% of the time was spent searching for which item to pick next. This led the team to create a customized algorithm that generates more efficient pick lists. After testing, it is estimated that at least half the time spent searching for the item, or 15% of total time, is eliminated. The savings for one picker is expected to be approximately 3.75 hours per week or 195 hours per year. Using this tool, Heart to Heart is able to decrease the time needed to fulfill customer orders, positively affecting the communities the agency serves.

Bever will be presenting the paper at IIE’s 2013 national conference in San Juan, Puerto Rico, May 18-22.

The 2013 IIE South Central Region Student Conference was hosted by the University of Houston. Held February 8-9, the conference attracted industrial engineering students from more than colleges and universities. In addition to the technical paper competition the event featured workshops, plant tours, and a career fair.

The Institute of Industrial Engineers is the largest professional membership society dedicated solely to the support of the industrial engineering profession and individuals involved with improving quality and productivity. The faculty advisor for Kansas State University IIE chapter is IMSE associate professor Malgorzata Rys.