

## IIE award to UA Professor Russell D. Meller for Technical Innovation



IIE President Jane Ammons, Russ Meller, Kevin Gue, and Past President Ken Musselman

The Institute of Industrial Engineering (IIE) recently honored University of Arkansas (UA) professor **Russell D. Meller** during their annual conference in Miami, Florida. Dr. Meller shared the **Technical Innovation in Industrial Engineering Award**. The recipient of the annual award is described as the industrial engineer that is responsible for an innovation that substantially benefits the profession. He was selected, along with a research colleague, because of their research related to innovative warehouse aisle designs.

In 2006, Dr. Meller and co-creator, Dr. Kevin Gue (Auburn University), announced two novel aisle designs for warehouses – the "Flying-V" cross aisle design and the "Fishbone" aisles design – as alternatives to conventional warehouse layout in which storage racks are laid out to create rows of parallel picking aisles with one or more cross aisles in the middle. Numerous articles (including *Modern Materials Handling*, *Material Handling Management*, and *DC Velocity*) featured the new designs that promised to optimize warehouse efficiency. The alternative designs improved operator travel times by 10 to 20%. The first implementation was at Generac in Whitewater, WI in 2008. Since that time, at least two additional facilities (a distributor in Florida and the La-Z-Boy warehouse in Springfield, MO) have implemented the designs.

Traditional designs limit efficiency and productivity because they require workers to travel longer distances and less-direct routes to retrieve products from racks and deliver them to designated pickup-and-deposit points. The new aisle designs implement a cross aisle making a "V" to give workers a "straight-line advantage" when traveling to and from some of the pick locations. Dr. Meller said, "Our results suggest that for unit-load warehouses, radically new designs could lead to faster retrieval rates and significantly reduced costs for operating distribution centers."

Dr. Meller is the James M. and Marie G. Hefley Professor of Logistics and Entrepreneurship and also director of the Center for Engineering Logistics and Distribution.

