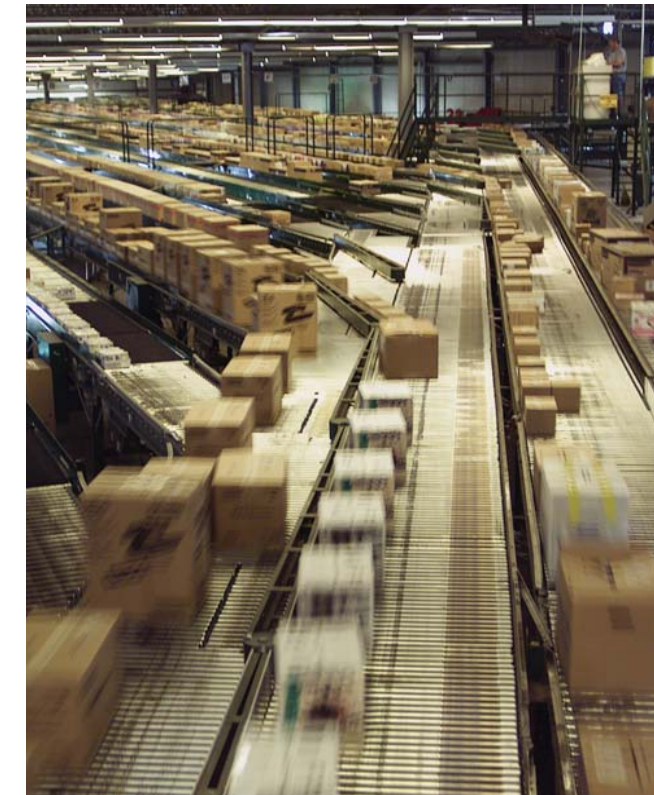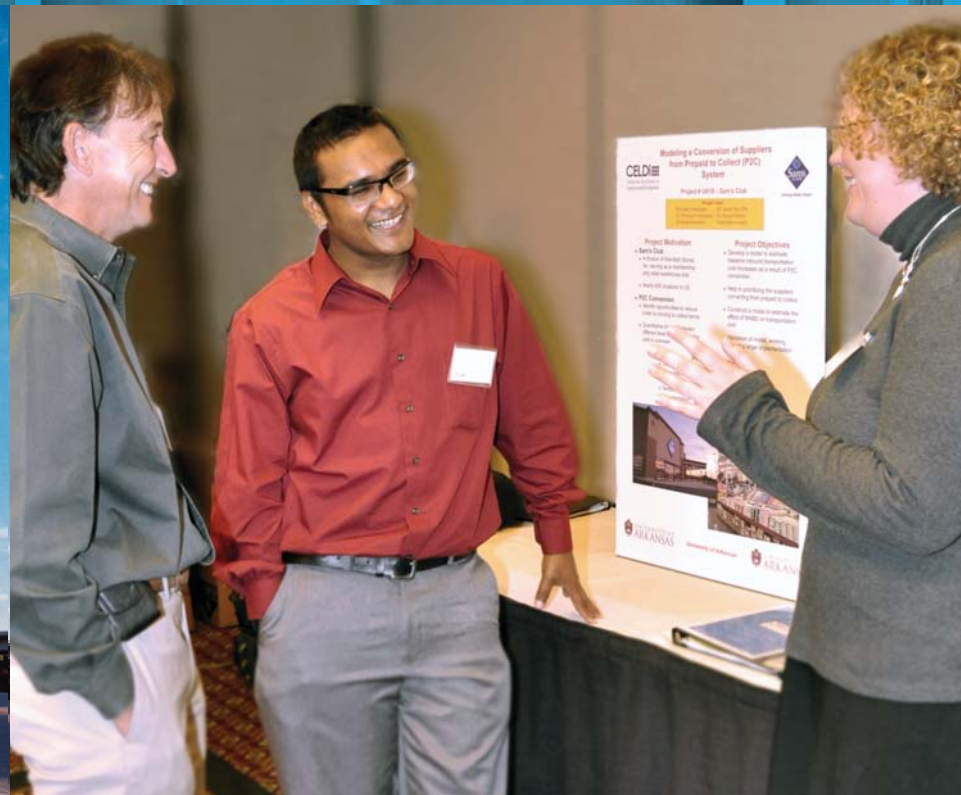# Center for Excellence in Logistics and Distribution

CELDi

CELDi Member Organizations

Air Liquide Inc.
Arkansas Electric Cooperative Corporation
Bayer Crop Science
Bayer Health Care
B&W Pantex
City of San Pedro, MX
CODESIN
Cook Technologies, Inc.
Entero Technologies
F.L. Smidth, Inc.
Freight Pipeline Company
Innovative Scheduling
Invistics Corporation
Leggett & Platt
Lockheed Martin Aircraft & Logistics Center
Mallinckrodt Baker Chemical Company
Medical Center Hospital, Odessa, Tx
Medline Industries, Inc.
MHI Consulting, LLC
Missouri Department of Transportation
NIOSH Center for Construction Safety
Oklahoma Department of Transportation
Red River Army Depot
Sam's Club
The Boeing Company
The Learning Chameleon, Inc.
U.S. Army Defense Ammunition Center
UPS - Supply Chain Solutions
Walmart Stores, Inc

Center for Excellence in Logistics and Distribution

NSF

A National Science Foundation sponsored Industry/University Cooperative Research Center (I/UCRC)

our mission:

Solving real problems that achieve bottom-line impact

Graduating students with real-world project experience

Producing cutting-edge research published in leading journals

Sharing research results amongst member organizations to leverage intellectual and monetary capital

Enabling member organizations to achieve logistics and distribution excellence by delivering meaningful, innovative and implementable solutions that provide a return on investment

CELDi

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Arizona State University
Clemson University
Oklahoma State University
Texas Tech University
University of Arkansas
UC Berkeley
University of Missouri
University of Oklahoma
Virginia Tech

The Center for Excellence in Logistics and Distribution (CELDi) is a university-based enterprise providing innovative solutions for logistics and distribution excellence. As an applied research and education consortium, CELDi is a partnership between the National Science Foundation (NSF), nine major research universities and more than 30 member organizations in commercial, military and government sectors of the economy. Research endeavors are driven and sponsored by the member organizations that specialize in distribution, transportation, manufacturing, information technology, and software solutions.

CELDi

Member Benefits

Member-specified project that utilizes the expertise and resources of a university team

Access to top students enables recruiting the best-prepared logistics graduates

Shared fundamental research results from other CELDi academic partners provides tremendous leveraging of each member's research dollars, for example, royalty-free license access to over $5M in previous research

Receive generalized CELDi work products such as software developed by other CELDi academic partners through pooled research funds

Membership in the CELDi Industrial Advisory Board (IAB) provides opportunity to interact with other faculty and industrial leaders in logistics, distribution, and supply chain, and provides direction to generalized CELDi work products

What do our members say about the value of their CELDi membership?

"We feel we get a great deal of value for the dollars we spend with CELDi."

"We are excited to have high-quality students learning about and working on problems in our industry. This creates a pool of potential future employees."

"In a recent review of the CELDi website, I found approximately 50 projects listed of interest to our company. I found a dozen with specific application to our business."

"This is what CELDi is all about: Exploring new ideas, solving problems, and most importantly, coming up with solutions and applying them in the field."

Sample Industry Projects

Logistics Systems Analysis and Design
Logistics Network Design and Consolidation
Integrated Winter Road Maintenance Logistics
Adaptive Logistics Network Optimization
Distribution Security
Supply Chain Modeling
Dynamic Supplier Network Partnerships
Spare Parts Inventory Management
Healthcare Supply Chain Modeling
Evaluation of Intermittent Demand Forecasting Techniques
Material Flow Design & Improvement
Staging Needs in a Cross-Docking Environment
Examination of "Next Generation" Material Handling Solutions
Production Scheduling in a Lean Remanufacturing Environment
Intelligent Systems
Logistics of Automatic Identification
Evaluation of RFID in the Rail Industry
Radio Frequency & Supply Chain Logistics

To read more about CELDi research visit www.celdi.org

Our Partnership Success Stories

AIR LIQUIDE – Bulk Tank Allocation Project Improves Asset Utilization Faced with a challenging resource allocation project, Air Liquide and CELDi faculty and students at Virginia Tech assembled an international team that developed a product storage allocation tool to reallocate resources. This CELDi project has already achieved significant bottom-line impact by reducing annualized storage investment and distribution costs.

WALMART – Networking Merchandise Logistics Partnering with CELDi faculty and students at the University of Arkansas to collect data and perform in-depth analyses has created opportunities for Walmart to reallocate distribution and store resources, rethink job activities and better manage how it uses personnel hours. CELDi projects have delivered bottom-line impact with measurable increased store associate productivity.

MEDICAL CENTER HOSPITAL – Improving the Flow of Discharged Patients CELDi faculty and students at Texas Tech University teamed with associates at the Medical Center Hospital in Odessa, Texas to improve patient flow and reduce discharge times. The CELDi project has resulted in savings of $250,000 for the hospital in the initial phase and the CELDi team is moving ahead with the next phase of the project.

UNITED PARCEL SERVICE – Safety Training System for Generation Y Virginia Tech's CELDi faculty and students partnered with United Parcel Service to design a safety training system for generation Y delivery service providers. Through the development of this computer-based training system designed for today's generation Y drivers, UPS delivers new training with a focus on safety. UPS has implemented several new state-of-the-art training facilities using the system, now trademarked as the UPS INTEGRAD™ System.

SAM'S CLUB – Inventory Improvements with Logistics Changes Overcoming the seemingly conflicting goals of reduced inventory and less stock outs, Sam's Club teamed with University of Arkansas and Clemson faculty and students to model their logistics system for ways to improve club performance levels. The team recommended changes to the logistics system that postponed orders, which were then completed with more accurate information. Significant savings in club inventory while improving in-stock levels were realized.