The Center for Excellence in Logistics and Distribution (CELDi) was initiated in 2002 as an applied research and education consortium. This multi-university, multi-disciplinary center is part of the National Science Foundation’s (NSF) sponsored collection of national Industry/University Cooperative Research Centers (I/UCRC).

CELDi has the mission of enabling its member organizations to achieve excellence in logistics and distribution by delivering meaningful, innovative and implementable solutions that provide a return on investment.

Industry, military and government member organizations join CELDi with a minimum $60,000-a-year contribution through one of the CELDi university partners. There are more than 15 member organizations in CELDi. Each university must maintain at least three member organizations each year that collaborate with that university’s team of research professors and students.

CELDi has built a strong foundation and is working to achieve national prominence in logistics and distribution research. A sampling of current CELDi projects covers a wide-range of solutions.

(Continued on page 8)
Dear Fellow Academy Members –

It’s getting to be that time of year. We are approaching our annual AAIE Banquet and Membership meeting and, as I said in your invitation letter, there is not a more beautiful place than Fayetteville in the spring. It should be a great weekend of networking and fellowship and then topping it off with some Razorback Spring Football and a little Hog Baseball. I hope each of you can join us this year.

Our Academy continues to grow. At our annual meeting, we will welcome fifteen exceptional inductees being presented for membership. AAIE members continue to lead in helping IE students through Mentor Programs, Mock Interviews, and Global Studies. The number of scholarships and award amounts that AAIE is able to offer continues to increase.

To keep the momentum going, we are kicking off a $2 million scholarship campaign that will allow AAIE to award $100,000 in student scholarships annually. We will learn more about this campaign at our banquet and hear from some students about what the scholarships mean to them. Again, all of this is made possible by your continued donations and participation. Thank you.

I would like to take this time to congratulate two of our members who will be receiving awards at the College of Engineering Alumni Awards Banquet. Melinda Faubel will receive a Distinguished Alumni award and Ami Spivey will receive an Early Career Alumni award. I would also like to congratulate Dr. Chase Rainwater as the recipient of the John L. Imhoff Chair in the Industrial Engineering Department.

As I wrote in the last DODEC, I would encourage everyone to find a way to become more involved in AAIE. Look at the committee list and contact me or the department to join one of the committees. This is a great way to re-connect with the U of A and the IE Department. Also, AAIE’s growth depends on a continued influx of quality new members. We all know someone that we work with or graduated with that would be a great member. Please send nominations to our Membership Chair, Brian Noland.

I have enjoyed serving as your AAIE President. Thank you for giving me this opportunity.

I will see you on April 24th.

Mike Gross (BSIE ’84)
md144-77@sbcglobal.net
Double the Impact of Your Donation!

AAIE Scholarship Endowments (Academic, Financial Need & Imhoff Global Studies) have now surpassed $1,600,000. This is generating annual student scholarships in excess of $60,000. Let's take it to $2,000,000 leading to $100,000 in annual scholarships!

As an incentive and to jump start the campaign, three anonymous AAIE members have committed funds to create a $150,000 pool. These funds will be used to match member donations (up to $75,000 a year for the next two years).

You donate $100 to AAIE Scholarship Endowment Funds and the members’ pool will donate $100. ($1000 generates a $1000, and so on.)

With your support we can take our annual donations from the $35K level of recent years to $100K. A new AAIE milestone of $2,000,000 could be reached in a short time leading us to being able to award $100,000 of student scholarships annually!

Any donations (not including our annual AAIE Membership Dues) you make for the 2014-15 school year (including those you have already made) will be matched as will all donations for 2015-16 until the $75,000/$150,000 level has been reached. So where do we go from here? Why not $100,000 of AAIE Scholarships?

Bryan Billingsly  Sam Chaffin
Kelvin Dedner  Dewey Freeman
Tim McKenzie  Bob Etien

Scholarship Committee


[source: http://admissions.uark.edu/1454.php]
Dear Academy Members,

Spring has sprung in Northwest Arkansas and we are getting ready to complete another great academic year. We recently held our student awards banquet with over 225 attendees. At the banquet we recognized all of our scholarship recipients, graduating seniors and graduating M.S. and Ph.D. students. We also recognized the support provided by our student leaders during the past year.

The Academy provided over $50,000 in scholarship support. The faculty and students are deeply grateful for the continued support we receive from the academy. Finally, the students recognized some of the faculty with awards for outstanding teacher (Dr. Sarah Root), outstanding graduate advisor (Dr. Ashlea Milburn), department raconteur (Dr. John White) and the coveted backbreaker award for most demanding instructor (Dr. Tish Pohl). We enjoyed having several academy members and their spouses present to share in this important celebration.

Perhaps the biggest news from the department is that Dr. Haitao Liao has agreed to join our faculty team as the Heфley Professor of Logistics and Entrepreneurship in the fall semester. Dr. Liao comes to us from the University of Arizona. His areas of expertise include reliability engineering, applied probability and statistics, applied operations research, probabilistic risk analysis, and sensors and signal processing. Dr. Liao is an NSF career award winner and has had several other NSF grants during his career. His research in accelerated testing, degradation modeling, sensor and signal processing, and service based logistics blends nicely with the college’s research vision and emphasis in transportation and logistics, energy, and electronics.

In other faculty news, I am excited to report that Dr. Chase Rainwater was recently named as the John L. Imhoff Chair.

From the Department...

Dr. Ed Pohl

The John L. Imhoff Chair in Industrial Engineering was initiated in 1983 by Dr. Imhoff’s family, friends, former students, and colleagues. The chair serves as means to reward faculty members who embody Dr. Imhoff’s passion for global studies and its importance to student growth in the profession, commitment to student success, enthusiasm for teaching, and excellence in research.

Dr. Rainwater joined the Industrial Engineering Department in fall of 2009 after receiving his Ph.D. from the University of Florida. Dr. Rainwater is an accomplished scholar with 15 published journal articles and over $1.1 M dollars in research expenditures. Dr. Rainwater is a versatile and excellent teacher, having won the department’s Outstanding Teacher Award twice. He has taught 7 different classes including both undergraduate and graduate level courses while maintaining one of the department’s highest average
teaching scores. He is a popular teacher who has a reputation of being demanding, but fair. Students appreciate his willingness to make an extra effort to help ensure their success in the classroom. Dr. Rainwater has made numerous contributions to service internally within the department, college, and university, and externally through his engagement with his professional societies. Most notable is his level of service to the High School STEM community through his involvement with the FIRST® Robotics Competition. Dr. Rainwater is the epitome of a “team player” whose passion for student success, excellence in the classroom and excellence in research embody the ideals of John L. Imhoff. Dr. Rainwater is well suited to uphold this vision in his capacity as the Imhoff Chair.

In 2004 Dr. John and Mrs. Lois Imhoff endowed the John L. Imhoff Global Studies Endowment in an effort to promote global experiences for our students. The endowment has quietly grown over the past decade and provided more than 40 students with opportunities to study abroad or attend international workshops and conferences. The recent gifts from AAIE members have sparked a new enthusiasm for the program. In the past two years AAIE members have been contributing above their annual dues or scholarship gifts to help grow the endowment. I would like to personally thank these generous donors for supporting this important endeavor and building on the legacy left by Dr. and Mrs. Imhoff.

We have also had some significant industry support in exploring ways to give more of our students a global experience. Last year we had one of our students, Ms. Daysi Guerra Garcia, participate in an international internship. This program was developed and led by Ami Spivey with support from Walmart. The program was a resounding success and we will have another IE student, Claudia Chavez, participating in an international internship this coming summer and fall with Walmart. In addition, we tried something new this semester in our senior design course. Again, working with Ami Spivey and Walmart, we had our first international senior design project. Mentored by Dr. Greg Parnell, a team of four IE students worked on an industry problem at one of Walmart’s stores in Mexico City. The team of students worked virtually for most of the semester with the team in Mexico City and then had the opportunity to spend 10 days on site to collect additional data, interface with their stakeholders and refine their potential solutions to the problem under study. This opportunity enabled our students to get a valuable global experience as part of their senior design effort.

If you or your company has international internship opportunities or if the possibility of international senior design experiences exist within your organization please let me know. We are always looking for opportunities to provide our student body with these valuable global experiences.

Finally, I am looking forward to seeing many of you at the AAIE banquet on April 24th as well as the AAIE business meeting and catfish luncheon on the 25th of April. If you are in town for the weekend, I would recommend that you consider making reservations to attend the College of Engineering Dean’s alumni banquet and ball being held on the evening of the 25th at the Embassy Suites in Rogers. Several of our outstanding academy members will be recognized at the event this year!

Warmly,
Edward A. Pohl, Ph.D.
Department Head and
21st Century Professor
of Industrial Engineering
Professor Sarah Root was kind enough to ask me to guest lecture in her Industrial Engineering in the Service Sector class on April 6, 2014. The class had 28 senior level students with approximately 70% of those students graduating this May. They told me there were only five weeks of class left before finals. Can you remember how you felt when you were about to graduate? I certainly felt pride in getting through school, but there were also some big unanswered questions, such as: Where would I work? Where would I live? What's it going to be like going to work instead of going to school everyday? Although the economy is certainly better today than when I graduated (1992), these students are going through the same trials and tribulations. So let’s jump into talking about A4U’s programs and how they are preparing our students for the future.

Mentor Circles

The program started off with a bang: 34 students signed up and 24 mentors. We divided the students and mentors into 8 Mentor Circles. The AAIE group partnered with the Northwest Arkansas IIE Chapter to offer the students diversity among the mentors. A kick-off mixer was held in the Imhoff Lounge on September 20th at 2pm, before the Arkansas-N. Illinois football game. For the first time, mentor circles gathered together, introduced themselves and set up meeting dates for the fall semester. I’m pleased to say that seven of the eight groups had at least one mentor circle meeting and many had held two meetings. We will follow-up with a survey at the end of the spring semester to get feedback so that we can have continuous improvement in this program.

Mock Interviews

Mock Interviews were held September 25, 2014 from 8:00 am – 2:30 pm, prior to the STEM Career Fair held October 7th so that our students can excel at the fair. Our usual partners supported this initiative: ABF, JB Hunt, and Wal-Mart, as well as a few individual AAIE members. Dillard’s Inc. will be a new participant in the fall. Turnout was excellent – we had over 20 students and 6 interviewers. The interviews were followed by an excellent Q&A session that allowed all the student interviewees to ask whatever they wanted of the interviewers.

Guest Lecturers

The Guest Lecturer program is in its infancy. We are organizing a bank of IE talent that the department can call on to supplement their teachings with real world applications. Teachers attend conferences have scheduled vacations, etc. each semester where they can use a substitute. Rather than cancel class, we propose bringing in someone to guest lecture. It doesn’t matter if you have a logistics, finance, medical device or consulting background. What matters is that you are enthusiastic and can add value to what the students are learning in the classroom. Please let me know if you are interested.

Request for Your Participation

As always, these activities are only as good as the time and effort we put into them. Consider how you can participate in the 2015-2016 school year. Are you a good interviewer? Can you serve in a mentoring role? Are you available to guest lecture? We need you. Please email me at vance.clement@gmail.com or call 901-351-9270 to get involved.

Vance Clement
A4U Committee Chair
Global Studies: First International Senior Design Project Team

International experiences are invaluable and are becoming increasingly important to employers and universities across the country. The U of A IE Department and AAIE have partnered for many years, leveraging the Imhoff Global Studies Endowment, to provide international experiences through different types of study abroad programs and scholarships. We were challenged by AAIE membership to look for ways to expand those offerings to include both Coop/Internships and project work in other countries. A coop/internship or project work for Global Companies allows the student a low-cost option to obtain global experience, while gaining relevant business experience at the same time.

Over the last two years, the IE Department and Walmart have partnered to pilot two different concepts. The first, presented at last year’s AAIE Annual Business meeting, was an example of Global Internship/Coop programs. (A video highlighting the success of Walmart’s International Coop program can be found at the page of the AAIE website or by inserting the following link into your browser: http://aaie.ineg.uark.edu/AAIE/Media/WM_Coop_Video.mp4)

This year, Walmart partnered with Dr. Parnell, who is teaching the Senior Design Class to develop an International Sr. Design Project. A group of four Industrial Engineering students, Adam Klausing, Kelsey Kraynik, Lucas Ivanovic, and Stephanie Bakewell, traveled to Mexico City as part of their international senior design project this Spring. The team worked with engineers in Mexico to collect data on their project (defining routines and standard operating procedures for job roles in Sam’s Mexico) and will be presenting their findings at the end of the semester. Through leveraging their knowledge and learnings, they gained insight into the international operations of the world’s largest retailer, while adding a benefit to Walmart in moving forward a key strategic initiative. The Sr. Design team will be giving a presentation to highlight their experience in piloting this program at the AAIE business meeting on April 25th. Because of the success of both the Global Coop/IE program and the Sr. Design project, we asking if any other AAIE members or their companies would like to participate in similar programs. Please let the Committee or the IE Department know if you have interest.

Ami Spivey
Global Studies Committee Chair

“International experiences are increasingly important to employers and universities”
For the Defense Logistics Agency (DLA), Dr. Manuel Rossetti is working toward the goal to create, analyze, test and render to practice new methods that can improve DLA’s management processes within the context of performance-based logistics and vendor sourcing.

For a major medical device manufacturer, Dr. Shengfan Zhang and Dr. Manuel Rossetti are analyzing how the manufacturer’s current CPR (continuous replenishment planning) model compares to best-in-class VMI (vendor-managed inventory) or demand-driven solutions and business processes.

For Red River Army Depot (RRAD), Dr. Harry Pierson and Dr. Manuel Rossetti are working toward the goal to develop new methods for RRAD’s fabrication division that can leverage alignment with enterprise resource planning systems in order to improve work planning, supply, and production capabilities. An additional outcome will be to create models and designs that examine the use of group technology and cellular manufacturing within a job shop environment in order to reduce lead-time.

Dr. Chase Rainwater and Dr. Shengfan Zhang are working with a corporate transportation company specializing in less-than-truckload (LTL) freight shipping services to contribute to their goal of improving their network and operations in order to remain a leader in the industry. This is being accomplished by creating a tool that provides decision-makers with an understanding of the robustness of both existing and potential LTL terminal networks by identifying critical nodes in the network that pose a high risk of causing operational losses in the case of unexpected system disruption.

CELDi also offers their members the benefit of participating in center-designated projects. The projects are voted on and approved by the CELDi industrial advisory board and result in CELDi research and products that are available to all members.

In February, CELDi hosted their first local half day conference on the University of Arkansas campus. Twenty-one companies from northwest and central Arkansas attended the conference. The conference highlighted current projects and projects that were recently completed. Each faculty member who worked on the project gave a brief overview of their research and answered questions. A poster session was held to allow attendees to ask questions of the students and faculty that worked on each project.

CELDi consistently strives to bring solutions to real problems that achieve savings to our members’ bottom lines. We offer real-world project experience to college students by assigning them to a current member project. CELDi is helping to bring engineering into middle and high school classrooms in Arkansas, Oklahoma and Missouri by sponsoring the IE Challenge. This allows area teachers and university faculty to work together to develop programs that introduce students to the field of industrial engineering. To learn more about CELDi, please go to www.celdi.org

The National Science Foundation (NSF) administers more than 50 I/UCRCs. More than 750 faculty researchers, along with some 750 graduate students and 200 undergraduate students, carry out the research at these Centers, which encompass almost the entire spectrum of current technological fields. Over the past 30 years, the Centers have produced several thousand M.S. and Ph.D. graduates, who can be found throughout American industry and academe.
Dr. Harry Pierson: Developing Advanced Manufacturing Systems

Harry Pierson is a recent addition to the IE department’s faculty. Prior to joining the department, he was a Visiting Assistant Professor in the Department of Mechanical and Manufacturing Engineering at Miami University in Oxford, Ohio. He studied at The Ohio State University, earning a Ph.D. in Industrial & Systems Engineering in 2012, and at The University of Missouri-Rolla, receiving both a M.S. in Engineering Management and BSME. Prior to attaining his Ph.D., he worked for Ingersoll-Rand's Centrifugal Air Compressor division as a manufacturing engineer, and for the Magnetics Division of Spang & Company as a process automation engineer and division engineering manager.

Dr. Pierson’s primary academic interests are in advanced manufacturing, especially automation, robotics, and additive manufacturing (otherwise known as 3D printing). He is especially interested in applied research that enhances manufacturing flexibility, productivity, and capability. His recent research focused on new applications of magnetorheological fluids, and on solving the viscoelastically supported beam problem in support of developing a bar stock feeder to provide machine shops with enhanced flexibility at lower cost.

Dr. Pierson is excited to be teaching Applications or Robotics this Fall, and with the help of the department, has added a new Baxter collaborative robot to the Automation Lab. He is also looking forward to bringing his industrial experience to the Manufacturing Design course in the Spring.

Dr. Pierson resides in Fayetteville with his wife, Jessica, and sons, Stephen and Scott. When not at work, he enjoys cycling, building model aircraft, and flying/driving radio controlled airplanes, helicopters, and cars with his sons.

“My primary interests are in automation, robotics and additive manufacturing (often called 3D printing)”
“Fifteen new nominees bring a diverse set of skills and experiences to the academy in 2015”

To nominate new AAIE members, fill out the PDF nomination form available on the AAIE website:

http://aaie.ineg.uark.edu/AAIE/Membership.html

then email to:
Karen Standley standle@uark.edu

or mail to:
AAIE Dept of Industrial Engineering 4207 Bell Engineering Center University of Arkansas Fayetteville, AR 72701

Membership Committee

AAIE membership recently approved fifteen nominees for induction this year. This group represents a unique set of individuals who will further contribute to the success of the academy. They bring diverse professional work backgrounds and experience that directly reflects on the quality of engineering ability and skill sets that the IE department continues to produce each year. Please meet and welcome each of our new members at the annual meeting.

Marc Alley (BSIE 2000) – A native of Springdale, Arkansas, Marc has worked for J. B Hunt Transport Services Inc. in various engineering and logistics positions during his career with them. He earned an MSIE from Georgia Institute of Technology. Marc currently serves as Senior Director, Execution Optimization leading their Final Mile Engineering and Routing Teams. He and his family reside in Rogers, Arkansas.

Jairo de Jesus (BSIE 1999) – Born and raised in Sao Paulo, Brazil, Jairo was an exchange student and graduated from Gravette High School in Arkansas. He held engineering positions with companies throughout the US. Jairo earned an MBA from Baker University in Kansas and an MS in IE and Management Systems (MSIMSE) from the University of Nebraska. He is currently working on a Ph.D. in IE at the University of Texas at Arlington. Jairo is Plant Director for the Kellogg Company in Atlanta, Georgia and resides with his family in Suwanee, Georgia.

Mark Goings (BSIE 1980) – Mark is originally from Helena, Arkansas. He held engineering and management positions with International Paper and Southwestern Bell in Arkansas before becoming the Owner Operator of the Allstate Insurance Company agencies in Cabot and Jacksonville, receiving several regional sales and service designations. Mark his family reside in Cabot.

Jeff Hardcastle (BSIE 1995) – Jeff was raised in Fayetteville, Arkansas and has worked as a Software Architect and Technical Consultant before becoming the Owner and Co-Founder of capSpire, Inc. Formed in 2009, the company has received several national recognitions and awards. He currently holds the title of Co-Founder and Chief People Officer and resides with his family in Fayetteville.

Drew Harrison (BSIE 2000) – A native of Little Rock, Drew has worked in the energy business, holding engineering, service and sales positions with Trane and Harrison Energy Partners of Little Rock, Arkansas. He is currently Vice President for Operations leading four business units. He will become the third member of his family in the academy joining his sister Angela Harrison Kuli (2010) and father William “Bill” Harrison (1991) as members. Drew and his family reside in Little Rock.

Randall Hughes (BSIE 1981) – Randall was born and raised in Fayetteville. His father, Dr. Raymond H. Hughes, was on the faculty of the Physics Department at the UofA. Randall held engineering and sales/marketing positions with Daisy Mfg Co. and BS&B Safety Systems before joining Wal-Mart Stores Inc. and currently holds the position of Senior Buyer Small Format. He earned an MBA from the U of A. Randall and his family reside in Rogers, Arkansas.

Mary Kirby Iverson (BSIE 1980) – Born in Italy, Mary was raised in Fayetteville where her father, Lee M. Kirby, worked in the U of A’s administration. She held marketing, sales, training and engineering positions with Mobil Oil, Hewlett-Packard and GlaxoSmithKline in the US, Japan, Hong Kong and New Zealand. Mary and her husband took five years off from their corporate positions to sail the world. She currently resides in Raleigh, NC and works for Cisco Systems as World Wide Partner Organization Integrity & Compliance Manager.
Karen Jewell (BSIE 2000) – Karen was born and raised in Arkansas and attended schools in Russellville, Arkansas. She previously worked for Neilson as a Client Manager before going to work for J.B Hunt where she has held several positions in Logistics Engineering before moving to her current position as an Information Service Manager. She and her family reside in Fayetteville.

Jeff Loftin (BSIE 1996) – A native of Fayetteville, Jeff held management positions with Intel Corp. and ABF before going to work for Tyson Foods. He has held several positions in the Food Service Distribution and currently serves as Director – Pricing Analytics/Pricing Administration. Jeff earned an MBA from the University of Arkansas. He resides in Fayetteville with his family.

Derek Malstrom (BSIE 2000 and MSIE 2002) – Derek is a native of Fayetteville. His father, Dr. Rick Malstrom, was the former Department Head of IE and was instrumental in the formation of the AAIE. Derek has worked for Lockheed Aeronautics Company since he left Fayetteville after obtaining his MSIE. He has held several engineering positions with Lockheed and is currently Technical Specialist Senior Staff – Supply Chain Management. Derek and his family reside in Fort Worth, Texas.

Steve Schulte (BSIE 1985) – Steve’s hometown is North Little Rock. He has held engineering and executive positions with Skill Corporation, Prostaff Personnel, Staffmark and FirstStaff where he currently serves as President and is also an attorney with the Schulte Law Firm. He earned an MBA from the University of Central Arkansas in Conway and a Juris Doctorate from the University of Arkansas at Little Rock. Steve and his family reside in Little Rock, Arkansas.

Wesley Trussell (BSIE 1990) – Wesley is originally from Dewitt, Arkansas and has worked as a soils technician, assistant surveyor, plant and industrial engineer, production manager and director of plant and facilities operations with McClelland Consulting Engineering, Windsor Door, and Jefferson Regional Medical Center in Pine Bluff where he serves as Administrative Director, Facilities and Support Services. He and his family reside in Little Rock, Arkansas.
The Arkansas Academy of Industrial Engineering (AAIE) was established in 1986 to recognize the achievements of University of Arkansas Industrial Engineering graduates and to provide continuing guidance and support to the Department of Industrial Engineering.

The Academy also provides its members with the opportunity to nurture and support the organization that played an important role in their professional growth and development.

THE DODECAHEDRON is a publication of the Arkansas Academy of Industrial Engineering, and the views expressed are those of the AAIE only and do not reflect the official view of the University of Arkansas, the College of Engineering, or the Department of Industrial Engineering. THE DODECAHEDRON is published semiannually and is intended for the membership of the Arkansas Academy of Industrial Engineering.

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