

Dallas Leading Edge

Institute of Industrial Engineers (IIE) - Supporting Your I.E. Career



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Issue 01

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Meeting Announcements

January 2006 Tour Information

*JC Penney Distribution Center
Alliance Park, Fort Worth, Texas*

DATE: Tuesday, January 16, 2006 **TIME:** 6:30 PM—8:30 PM
LOCATION: *JC Penney Distribution Center, Alliance Park, Fort Worth, Texas*
COST: \$5.00

PROGRAM: **CORRECTION!**

The January 2006 Facility Tour planned for January 16th was cancelled due to circumstances beyond our control. We sincerely regret any inconvenience this cancellation may have caused our members.

RSVP to Arturo at arturo.villarreal@fritolay.com or 972-963-6228 by noon Monday, January 15th.

February 2006 Combined Meeting

Dallas & Fort Worth Senior IIE Chapters + UTA & TAMUC Student IIE Chapters

DATE: Tuesday, February 21, 2006 **TIME:** 6:30 PM—8:30 PM
LOCATION: Engineering Auditorium, Nedderman Hall, Room #100
The University of Texas at Arlington campus.
COST: \$5.00

PROGRAM: The Joint Meeting will be held at the UT Arlington campus again this year. It is an opportunity for IE professionals and IE students to interact in an informal atmosphere where **"Free Pizza & Soft Drinks"** will be provided to all participants. Come join the festivities and participate in our Celebration of National Engineers Week and learn about Business Continuity Planning from Dr. Tami Dittmar, an expert in this area.

RSVP to Arturo at arturo.villarreal@fritolay.com or 972-963-6228 by noon Monday, February 20th.

March 2006 Facility Tour

Wal-Mart Cold Storage and Distribution Center

DATE: Tuesday, March 21, 2006 **TIME:** Tentatively 6:30 PM—8:30 PM
LOCATION: Wal-Mart Distribution Center, near I-20 in Terrell, Texas.
Complete details will be provided in the March-April 2006 Newsletter.

Members Activities: IIE Chapter 10 Tours Bell Helicopter

Bell Helicopter Tour
November 15, 2005
 By Chad Frye



How many times have you been saved by the traffic report on the radio? You know those friendly people with the helicopter rotor noise in the background who tell you where the bottlenecks are slowing down traffic? Next time you see a news helicopter flying overhead, odds are that the transmission was built at the Drive Systems Center in Grand Prairie, Texas. The same goes for the V-22 Osprey, the aircraft that takes off and lands like a helicopter, but flies like an airplane once it is airborne.

The 1,100 employees at the Drive Systems Center in Grand Prairie machine castings and insert steel liners, shafts, and gears into transmission housings. They ship these products to the end customer or to the assembly plants in Amarillo, TX (military) and Mirabel, Canada (commercial). They still make gear boxes for every product they've ever built. In an effort to reduce waste and to improve delivery time of their product, they have embarked on a Lean Six Sigma journey.

The Drive Systems Center was formerly a job shop with high mix and low volume. They used to "batch" their products, where, for example, none of the parts moved to the next process until all 40 of them were complete. They are now using Lean Manufacturing methods to reduce waste and designing new processes for Six Sigma to reduce variation. Where there were once groups of the same machines in different areas of the building, there are

now manufacturing cells that build the product basically from start-to-finish. To get an idea of what kind of improvements a simple cell layout can make, the V-22 bull gear that once traveled 11 miles and took 1 year to make its way through the facility now travels just 5,500 feet and is complete in 90 days!



Let's take a closer look at the V-22 gear manufacturing cell: The cell team owns the entire process that takes place in this cell where all operations except for heat-treat are performed. By simply creating a cell layout with all the required machinery and without changing the processes themselves, they eliminated 42% of their overall manufacturing time. When they were in a "job shop" layout, they weren't aware if they were satisfying the next customer who may be across the plant.

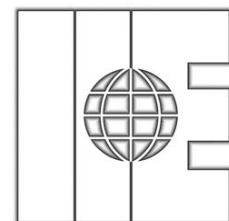
Now that they are all in the same cell, this is no longer an issue. They work to task time now, which means they know how many products their customer requires on a daily basis. They must produce 6 parts per day (*they are +26 parts for the year and the customer is happy*). Visual controls called "machine status cards" are located on each machine. If the card is turned to the green color, the machine is operating. If the card is turned to the red color, there is a problem. You can stand in one spot inside this cell and see every single status card in this cell.

Lean Manufacturing is evident in another of the transmission production areas. Here, there are cells for each category of gear box. Parts arrive in kitted shadow boxes in order to assure

the correct amount of parts is used for each assembly. A vendor-managed 2-bin system (*one-week lots per bin*) is used in these manufacturing cells. Bell Helicopter has long-term agreements in place with these vendors. These low-technology bins are better than high-cost computer systems. It means less paperwork, greater accuracy, and lower investment. These and other Lean Manufacturing concepts such as FIFO (First-In, First-Out) boards, Kaizen Newspapers, and Poka-Yoke (mistake proofing) result in lower assembly time, lower lead time, fewer shortages, and higher quality. Bell Helicopter has also implemented Lean Six Sigma concepts for their NC programming, Tool Design, Tool Make, Purchasing, Procurement, HR, Finance, and Accounts Payable.



During this Lean Six Sigma journey, Bell Helicopter has increased the number of Kaizens from 30 in 2004 to 90+ in 2005. These Kaizens include cell operators, NC programmers, supervisors, Lean Six Sigma professionals, planners, and Industrial Engineers. Bell helicopter utilizes 35 Black Belts, 8 Master Black Belts, and 350 Green Belts to facilitate this vast number of projects. This is a prime example of the impact that Industrial Engineering and Lean Six Sigma principles can make in a production facility.



President's Corner

President's Column January-February 2006 Newsletter

Happy New Year since this is the first newsletter of 2006. I hope your year is going great so far. We missed our hoped-for tour in January of the J. C. Penney's facility at Alliance Airport. We are still trying to get this tour planned.

Your dedicated Board of Directors held a very productive Winter Planning Meeting on Saturday, February 4, 2006. We discussed upcoming meetings and plant tours and the Chapter Activity Report – commonly known as CAR. In principle this report to the IIE headquarters is to measure the level of chapter health. The Dallas Chapter has done well in the past and 2005 will be no exception! We held nine meetings and had good attendance at our meetings and plant tours.

I hope each of you finds some way to participate in National Engineer's Week February 20th – 25th. Our annual joint meeting with the Ft. Worth senior chapter and the two student chapters, UTA and TAMU-Commerce will be held Tuesday, February 21st in Room 100 at Nedderman Hall on the UTA campus. This is a great opportunity to meet the students and hear a terrific speaker at the same time.

Hope to see you at more IIE meetings in 2006.

Susan Wright
President, Dallas IIE

Voices of Experience

In November, the editors of *Industrial Engineer* (the official publication of the Institute of Industrial Engineers) posed the following question on the eBrief Blog to people who supervise industrial engineers:

How could colleges and universities better prepare industrial engineering graduates for their careers?

In the December 2005 issue, they printed some of the answers that they received. These responses ran the gamut from making Dale Carnegie's *How to Win Friends and Influence People* required reading to mandating internships. Be sure to check these responses and see if you agree. What's your take on that question? The editors and the Chapter 10 Board of Directors would like to know your opinions on this topic.

Source: January 2006, eBrief, Volume 8, No. 1, <http://writetype.blogspot.com/>

[Industrial Engineer Magazine](#)

INDUSTRIAL ENGINEER SERVES THE DIVERSE AUDIENCE OF PROFESSIONALS AND STUDENTS WHOSE COMMON INTEREST IS INDUSTRIAL ENGINEERING. THIS BLOG IS A FORUM FOR DISCUSSING ISSUES RAISED IN IIE'S MEMBER MAGAZINE.

eBrief
An electronic publication of IIE



Member's Activities

Dallas IIE Chapter 10



Become Involved in Chapter 10 Activities

**Participate, Volunteer, &
Serve as a Mentor for new IEs!**

*It is Very Rewarding
And
It Helps Improve Our Career Field!*

NOTICE!

Chapter 10 — Winter Planning Meeting
Saturday, February 4, 2006
8:30 AM—12:00 Noon
All Members Are Invited

La Madeleine's Bakery and Cafe
6430 N. MacArthur Blvd. @ Royal Ln.
(South of LBJ, North of Hwy 114)

Contact Susan Wright for Details
smr@raytheon.com

Membership Update

Chapter 10 Membership is currently 161. We welcome three new members: 1) William Robinson, 2) Camille Major, and 3) Ashley Breslin. Chapter 10 also welcomes eight members who were reinstated after renewing their membership last month.

For Chapter 10 members who may have let their membership lapse, please renew your membership soon!

We want to remain **YOUR**
IIE "Chapter of Choice".

2006 National Engineers Week

Texas A&M University-Commerce Celebrates National Engineers Week for 2006

The IE Student Chapter at TAMUC (#791) has again created an ambitious program of events to celebrate National Engineers Week. All Senior Chapter Members are invited to attend the activities scheduled for Friday, February 17th & again on Monday, February 20th.

A schedule of events is posted on the IIE Student Chapter #791 website at:

<http://orgs.tamu-commerce.edu/iie/>

On Friday (2/17/06), guest speakers are scheduled for 45 minute time slots on Friday (2/17/06) between 9:00 a.m. and 12:00 noon, & again from 1:00 p.m. until 2:00 p.m.

On Monday (2/20/06), two short seminars are planned:

- 1) a resume workshop &
- 2) a technical writing workshop

Mock interviews will also be held during the morning on Monday and a facility tour of L-3 Communications is planned for Monday afternoon.

For further information, contact Dr. Andrew E. Jackson at:

Andy_Jackson@tamu-commerce.edu
or by phone at: (903) 468-8115

Campus Corner



Texas Tech University IIE Student Chapter Plans IIE Region 5 Conference IIE Showdown

The place for students from across the southwest to compete as they present their prowess and knowledge of engineering.



The Texas Tech University Student IIE Chapter #876 is hosting the upcoming 2006 Region 5 Student Technical Paper Competition and Conference. The conference is being held in Lubbock, Texas from Thursday, February 23rd through Saturday, February 25th, 2006.

The award committee plans to grant cash prizes of \$500, \$250, and \$100 for the First Place, Second Place and Third Place papers respectively. In addition to the technical paper competition, educational seminars will be offered to benefit all students, faculty members, and guests who attend the conference. Chapter #876 has asked both senior chapter members and student chapter members to participate and/or assist in sponsoring the conference in any way possible. For additional information, please contact one of the conference co-chairs: Bernie Tal Placido (ftalplacido@yahoo.com) or Bethany Ferguson (bethany.ferguson@ttu.edu).

For more detailed conference information, you may visit their conference website at: http://www.depts.ttu.edu/iieweb/student_society/iie/iie2006%20Paper%20Conference.php

UTA Hosts the Joint IIE Meeting February 21, 2006

Business Continuity Planning: How to get Back in Business

The University of Texas at Arlington (UTA) Student IIE Chapter (#878) will host the 2006 Joint IIE Meeting at Nedderman Hall (Room #100) on Tuesday, February 21st from 6:30 PM to 8:30 PM. This meeting will bring together two Senior IIE Chapters (Dallas Chapter #10 & Ft. Worth Chapter #152) and two Student IIE Chapters (UTA #878 & TAMUC #791) for an evening of celebration, networking, **Free Pizza**, and a stimulating presentation on **Business Continuity Planning** by Dr. Tami Dittmar.

In addition to the activities shown above, UTA and TAMUC scholarship and award winners will also be announced. Plan to give up one evening in front of the TV to mingle with our next generation of professional colleagues. NCIS is probably a re-run this week and the Olympics coverage will be replayed on the news and on the web, so you will not miss too much . . . and *you will eat for free!*

How much better can it get?

Business Continuity Planning

Tami Dittmar, Director of Business Continuity Planning at Raytheon's Network Centric Systems, will speak to us about planning what happens (*or what should happen*) in the business world AFTER the disaster strikes or after an interruption in your business.

Interruptions could be caused by natural events such as hurricanes, tornados and floods or they can be man-made such as fires, interruptions in your supply of materials or shipping lanes. Businesses have historically made plans for how to handle the actual disaster – making call lists and notification plans. But Business Continuity Planning takes it several steps further to set out plans on how the business expects to get back in business quickly.

Correction to CEU versus PDH for Texas P.E. License Renewal

According to Rule §137.17 — Continuing Education Program, **One** Continuing Education Unit (CEU), awarded by various professional and educational institutions, is equivalent to **Ten** Professional Development Hours (PDH), **or clock hours**, which is the required PDH unit of measurement for P.E. License renewal in Texas.

We regret any confusion or concern our last newsletter may have caused our members.



Career Development

Employment Opportunities

By Rod Siders

An Executive Recruiter is looking for an Industrial Engineer to fill a current job opening for a client outside of the Dallas area. [Note: His client is wanting to move fast to locate the right candidate.] Review the ad posted below to see if you have what it takes to compete for this new IE position.

Growing Multi-Billion dollar manufacturer is seeking an Industrial Engineer. Ideal candidate will have a BS in Industrial Engineering (BS Engineering a must), 2+ years as an Industrial Engineer in a Manufacturing setting with strong Lean, Six-Sigma, Line Balancing, Plant Layout & Time Study Experience.

Company is offering premier benefits with excellent relocation package plus Guaranteed Bonuses.

If you are interested in this position, please contact Jonathan A. Weiner, CPC, CSP, ACS Inc. at (704) 525-1997 or by e-mail at jaw@acs-clt.com.

Anyone interested in this opportunity, please contact Mr. Jonathan Weiner directly (but be sure to mention that you saw this position advertised in the Dallas IIE Chapter #10 newsletter).

You may also contact Rod Siders about this opportunity (and other IE positions). Rod is the Career Development Chairman for Chapter #10. His phone numbers are: (469) 233-0717 (Cell) or (817) 307-0400 (Daytime Work Number).



How Effective are the Chapter 10 Career Development Services?

By Andy Jackson

In a recent conversation among members of the IIE Board of Directors, a question was raised concerning the success rate of Ron's efforts on behalf of Chapter 10 members who have used his services as our Career Development Chairman. The Board was pleased to learn that Ron's efforts have led to new job offers for SEVEN Chapter 10 members within the past year. These seven members were counted among fifteen members who participated in the monthly Career Development Focus Groups during 2005.

The Career Development meetings are held each month immediately following our regularly scheduled business meetings and/or tours. Over the past year Rod has kept the career information flowing to all of our members through the newsletters. For our focus group participants his career assistance keeps our members competitive in a continuously changing job market.

Rod, congratulations on your good work!! We appreciate your continuing dedication and attention to detail.

IIE Newsletter Competition

Chapter 10 Wins Platinum AGAIN!

Your Dallas IIE Chapter #10 is pleased to announce the results of this year's national IIE newsletter competition. Chapter 10 has won the Platinum Award for the second year in a row. This important award gives the Dallas Chapter a distinct advantage during the Annual Award of Excellence Competition which includes several chapter activities as reported in the Chapter Activity Report (CAR).

CAR Reminder!

Your participation in events like the Dallas Morning News Annual Science Fair helps Dallas Chapter #10 achieve our Annual Chapter Activity Report goals.

IIE Volunteers Urgently Needed

Dallas Morning News Annual Science Fair

Judges Needed

Be sure to add the *Dallas Morning News Annual Science Fair* to your "To Do List" and add Saturday morning, March 25th to your "PDA or Trusted Calendar".

IIE Chapter #10 has a long-standing tradition of serving as judges for the Dallas Morning News Annual Science Fair where we recognize *the* outstanding high school student project where industrial engineering tools or methods are used. We *always* need members who are willing to serve as judges, so be sure to take this opportunity to volunteer your time and your expertise to this beneficial event.

Judging a Science Fair is a *Lot of Fun* and a great chance to see projects and ideas from outstanding high school students, while simultaneously promoting Industrial Engineering as a career!

We will need volunteers to serve for about four hours on Saturday morning, March 25th. Did I mention there is also a "Free Lunch" as you complete your activities for the day. Here is a website with more info on the event:

<http://www.dallassciencefair.org/>

Special Awards

Chapter #10 awards \$100 to the student who demonstrates the best Industrial Engineering application from among 800 or more student projects that are displayed at the Science Fair.

Contact IIE Event Coordinator:

Russ Aikman, IIE Chapter #10
Director and Past-President
Lean Six Sigma Program Manager
Texas Manufacturing Assistance Center
The University of Texas at Arlington
7300 Jack Newell Blvd, South
Ft. Worth, TX 76118
Ph: (214) 860-5732 or (817) 307-0400
Fax: (817) 272-5977



Institute of Industrial Engineers
Dallas Chapter Number 10
2115 Royal Oaks Drive
Irving, TX 75060

Dallas IIE Chapter Meeting Schedule

For latest updates visit our website!

January Event: ~~Tour of JC Penney Distribution~~

Date: ~~January 16th~~
Times: ~~6:30 PM — 8:30 PM~~ **January Event**
Location: ~~Alance Park~~ **CANCELLED**
Ft. Worth, Texas

February Event: Combined Chapter Meeting

Date: February 21st
Times: 6:30 PM — 8:30 PM
Location: Nedderman Hall #100
University of Texas at Arlington

Newsletter Compiled by:

Texas A&M University-Commerce Student Chapter of IIE
*who is sponsoring a portion of the costs for
printing and distributing the Chapter 10 IIE newsletter.*

The Dallas Leading Edge is the official publication of the Institute of Industrial Engineers, Dallas Chapter No. 10, a nonprofit, 501(c)(3) organization under the U.S. tax code. The Dallas Leading Edge is published monthly to bi-monthly as a service to its members. It serves the needs of business problem solvers, consultants, engineers, and managers who apply industrial engineering and business analysis methods and techniques to improve productivity and quality, integrate people and business systems, and re-engineer business processes within their organizations. It is distributed free to members. Subscriptions are available to non-members for \$12 a year.

1/4 Page Ad Rate
\$50

1/2 Page Ad Rate
\$75

1 Page Ad Rate
\$100

Board of Directors

*Note: IIE Career Leads & Events
are Posted on our IIE Website
<http://www.geocities.com/dallasie>*



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Committees & Communications

Newsletter Editor	Andy Jackson	C: (903) 450-3174
Email Liaison	Anthony Andrews	W: (214) 905-0509
WEB Master	Bryan Smith	W: (817) 302-7367
Program Coordinator	Arturo Villarreal	W: (972) 963-6228
Career Development	Rod Siders	W: (817) 307-0400

Student/Community Affairs

Student Affairs	OPEN	
Community Affairs	OPEN	

Special Committees

Director & PE Registration	Al Attah, PE	W: (214) 570-1604 C: (214) 673-6346
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Region V-Vice Pres.	Terry Collins	W: (806) 742-3543