Dallas Leading Edge

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

Dallas, Texas Chapter 10

Volume 05 **March/April 2005** **Issue 02**

INSIDE THIS ISSUE

Meeting Announcements

March 2005 Facility Tour Information

Tuesday Morning Processing Distribution Center

DATE: Tuesday, March 22, 2005

TIME: 6:30 PM - Tour Begins

LOCATION: Tuesday Morning Processing Distribution Center
4404 South Beltwood Parkway
Farmers Branch, Texas
972-934-7280

COST: *$5.00*

*Please Note: For obvious reasons, some people will not able to attend the Tuesday Morning Facility Tour. These individuals are people from Big Lots, TJ Maxx, and Overstock. Consultants who **have worked with** and/or **are working with** any of these competitors will also be prohibited from attending the tour. Please read the article that Janet wrote on page 5 of the newsletter. You may contact Janet Berkenbile at 972-934-7280 for further information regarding the tour.*

If you plan to attend the Tuesday Morning Processing Distribution Center Facility Tour, please **RSVP** to ***Janet*** before 5:00 PM on Monday, March 21st. **Note: RSVP is the day *BEFORE* the Actual Tour Date!** Please provide Janet with your name and the company you are representing.

As an added courtesy, please send a RSVP to Arturo at arturo.villarreal@fritolay.com or 972-963-6228.

We hope to see you there.

April 2005 Facility Tour Information

DATE: Tuesday, April 19, 2005

TIME: 6:30 PM - 8:30 PM

LOCATION: DART Maintenance Facility

COST: *$5.00*

If you plan to attend the DART Maintenance Facility Tour, please **RSVP** to Arturo by 12:00 Noon on Tuesday, April 19th. You will need to provide Arturo with your name and the company you are representing. Please send your RSVP to Arturo at arturo.villarreal@fritolay.com or 972-963-6228.

May 2005 Installation of New Officers & Announce IIE of the Year Awardee

DATE: Tuesday, May 24, 2005 **TIME**: 6:30 PM - Networking
*Note this is the **Fourth Tuesday** to Avoid Conflict* 7:00 PM - Program
with the IIE International Conference in Atlanta

LOCATION: ***TBD — Complete details will be provided in the May/June newsletter.***

Curt Lewis Delivers an Exciting Presentation on Aviation Safety and Accident Investigation Procedures at the 2005 Joint IIE Meeting at UT Arlington

February 22, 2005 — UT Arlington
By Chad Frye

Our annual joint meeting between the Dallas and Ft. Worth chapters of IIE experienced a change for the better this year we were joined by the Texas A&M – Commerce chapter of IIE. We welcome this student chapter and their professor Andy Jackson, who also serves on the Dallas Chapter Board of Directors.

The evening began after the students arrived and indulged in pizza provided by the Ft. Worth chapter. Dr. Jamie Rogers introduced the Ft. Worth IIE Chapter President Rolando Colindres-Bran and the Ft. Worth SAVE (Society of American Value Engineers - International) chapter President Herman Goodwin. They announced the recipients of the Outstanding Junior and Senior IE students at UTA – Omar Al-Ansari and Rory Cannaday. Also announced were the recipients of these awards from Texas A&M-Commerce Cassandra Holtzman and Carrie Bradley.

Andy Jackson introduced our guest speaker this evening, whom he met while at Arizona State University. Curt Lewis, PE, CSP, has recently retired as the Director of Flight Safety and System Safety from American Airlines and is currently the President of Lewis Engineering & Associates. This consulting firm specializes in aviation safety, accident investigation and reconstruction, industrial safety, forensic engineering, product safety, system safety, automotive crash worthiness, railroad crossing collision investigations and reconstruction, and airport and aircraft security.

He serves as a member of the Educations Advisory Councils for the Center for Aerospace Safety/Security Education (CASE) of Embry-Riddle Aeronautical University, the School of Aeronautics of Florida Institute of Technology (FIT), and the Department of Aeronautical Technology of Arizona State University. He is the former Chairman of the Air Transport Association (ATA) Flight Safety Committee. He has in excess of thirty years of safety experience as a professional pilot, safety engineer/director, and air safety investigator. Mr. Lewis holds an Airline Transport Pilot License (ATPL), a Certified Flight Instructor Certificate (airplane single, multiengine, and transport) and has over 10,000 hours of flight experience. Curt spoke to a PowerPoint presentation entitled "The Use of Varied Engineering Disciplines, Methods, and Techniques in Aviation Safety and Accident Investigation"

Airplane safety has always been an interesting topic, especially since the tragic events of 9/11. At any one time, American Airlines has over 400 airplanes in the air that can travel to any one of 300 cities in the world. Curt's job was to investigate American Airlines accidents and major incidents. Skills required to perform this job include human factors and the following disciplines within engineering: aerodynamics, performance, reliability, transportation, mechanical, electrical, systems safety, software, and simulation. His group also included the traditional "tin kicker" hand's-on investigators as well as the people who investigate the bits and bytes of electronic data.

Curt's first accident investigation happened on May 20, 1988. A DC-10 had a rejected take-off due to master caution alarm going off at 147 knots or approximately 169 mph. Remember the formula for kinetic energy? For those of us who have been out of school for awhile: Kinetic Energy equals ½*mass*velocity squared ($KE=1/2mv^2$). The pilot chose to reject the take-off, hit the brakes, and ended up 1,000 feet past the end of the runway with the bottom section of the plane buried in the ground. The National Transportation and Safety Board claims the pilot took his feet off of the brakes. Upon Curt's continued review of the accident, hydraulic fluid was found on the runway. Curt suggested digging up the brakes for examination. Of the 10 brake sets on the plane, 8 of them failed. Brakes are heat transfer devices. In trying to dissipate all the kinetic energy in such a short amount of time, the brakes went into a molten state, the brake pistons exceeded their limits and allowed the escape of the hydraulic fluid. Normal airplane brake sets have a life expectancy of 1,200 landings. The eight failed brake sets were near 1,200 landings while the two sets that did not fail had less than 100 landings. Before this accident, airplanes were certified with brand new brake sets. Now new airplane certifications take into account worn brakes.

Another crash investigation included a Lauda Air flight bound for Austria from Bangkok that went down in the jungle just after take-off. Both the cockpit and data recorders ("black boxes") had melted due to the intense heat of the fire, so the main sources of answers were gone, right? Wrong. The "bits and bytes" investigators used the non-volatile memory found on the electronic engine control that recorded the fault codes in a series of 0's and 1's on a microchip which showed a thrust reverser activated just after take-off.

The Cali, Colombia crash in 1995 was a scary one. Imagine trying to piece together an airplane crash puzzle at 9,000 feet elevation in the Andes mountains in the "Red Zone" (an area uncontrolled by the Colombian government). Six hundred troops from the Colombian army escorted the crash investigators in order to run guerillas off of the mountains. Curt's group had to use 30-year old Russian helicopters to get somewhat near the crash site. From there, it was a 2-hour climb up the mountain from the original helicopter landing site before they used explosives to "build" a helicopter landing site on top of the mountain. In addition to the harsh environment, Curt had to deal with crash victim family members, first responders, and looters on the crash site. The plane had been flying in a non-radar environment and was given a change in runway destination as it approached the airport. Flying in between mountains during this destination change, the flight management computer began heading to the incorrect beacon and a crash resulted.

The AA Flight 587 crash occurred just after 9/11. The initial reaction was this: was it a terrorist, pilot, or tail issue? Recovered data recorders allowed Curt's team to build a computer simulation of the accident, which he showed to our group. This Airbus A300 plane weighing 350K lbs took off just 2 minutes after a Japanese 747-400 freighter weighing 900K lbs. Shortly after take-off, the Airbus was caught in the wingtip vortices of the 747. The Airbus encountered violent turbulence as a result of these vortices. Pilot reaction was to perform a "rudder doublet" maneuver, or slamming the rudder from one side to the other very quickly. As a result, the rudder limiting system failed and the vertical stabilizer and rudder were ripped from the plane, causing it to crash into a populated area. Five people were killed on the ground in addition to those aboard the plane. The rudder and vertical stabilizer were found in the bay. One engine fell into a man's garage and the other fell near a gas station blocks away from the remainder of the plane.
The rudder manipulation by the pilot increased the side force on the composite tail to the point of rupture. Why was the rudder stronger than the tail? The investigation found out the rudder limiting system was antiquated and allowed the rudder to move farther than it was designed. American Airlines had 35 of these Airbus A300's prior to this crash and in order to perform the investigation, American Airlines had to invent a test procedure for composite tails.

Curt's work has not only resulted in the answers to how and why major airline accidents and major incidents have occurred, but it also has pioneered the way aviation accident investigations are performed. We would like to express our appreciation to Curt for sharing his aviation safety, accident investigation, and systems safety experiences with us. The qualities required for this type of work include the qualities possessed by industrial engineers. This is just another of the many professions open to industrial engineers who are interested in safety, systems engineering, and simulation.

Curt mentioned an upcoming conference of the ***International Society of Air Safety Investigators***. It will be held September 12-17 in Ft. Worth. They anticipate 500 attendees from all over the world for "Investigating New Frontiers in Safety". For additional information, please visit the web site at www.isasi2005.com

President's Corner

March/April 2005

Wow, February was a great month with Chapter 10 celebrating National Engineer's Week with the Ft. Worth chapters of IIE and SAVE, and the IIE student chapters at both UTA and Texas A&M-Commerce. Our guest speaker, Curt Lewis, provided a comprehensive look at the multi-disciplined engineering and scientific fields used in aircraft safety and accident investigation. I encourage you to read the extensive write-up by Chad Frye from this meeting — his note taking is ***noteworthy***!

I also encourage you to seriously consider candidates for IE of the Year. Please share this newsletter requesting nominations with your co-workers and clients. We accept & encourage nominations from both IIE members and non-IIE members in order to broaden opportunities for getting a great candidate field. Finally, I have a plea. We are just beginning the annual nomination process to elect officers and board members for this chapter.

WE NEED YOU!!!

Elected positions include the officers of the chapter (President, President-Elect, Treasurer, Secretary, VP of Membership, and VP of Programs) and the three Board of Director positions. Directors provide input to the officers and help guide the chapter to deliver value to our members. Typically, the President-Elect ascends to the Presidency without election but since we never filled this President-Elect position in 2004 (*and I have cordially declined the board's offer for "President for Life"*) both of these positions will be filled in 2005.

I will be accepting nominations & volunteers for all chapter positions until April 1st. If you have an interest in any of these leadership positions, please call, e-mail, or mail your information to the address below. If you want to get involved but aren't quite ready for an elected position please consider serving on one of the committees: Programs, Membership, Career Development, and e-mail Liaison.

More participation is always welcome and it is a great way to learn how your chapter functions. Many of the board members will tell you this service is very rewarding and can help you develop skills away from work. I hope to see you at the Tuesday Morning tour on the 22nd.

Susan Wright
2115 Royal Oaks Drive
Irving, Texas 75060
972-952-5001
smr@raytheon.com

Dallas Chapter 10 IIE Member's Activities

FREE MEAL
Saturday, March 19th!

IIE volunteers are needed to support and benefit students from area high schools!

The Annual Dallas Morning News and Toyota Regional Science & Engineering Fair is back! We now have a *few volunteers* to judge student projects next weekend, but we can **always** use more help.

Come spend a rewarding Saturday Morning with these bright young students and see how they are *pushing back the envelope* in various engineering, science, and technical areas.

We think you'll be surprised and amazed at their efforts.

WHAT: Dallas Morning News & Toyota Regional Science & Engineering Fair

WHEN: Saturday, March 19th

TIME: 9:00 AM until ~Noon

WHERE: Automobile Building Fair Park in Dallas

Contact Russ Aikman (817-307-0400 or 214-860-5732) or Andy Jackson (903-468-8115 or 903-450-3174) to join us for an interesting day of judging Engineering Projects at Fair Park.

You'll be Glad You Did!

Become Involved in Chapter 10 Activities

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

Let Us Know How We Can Assist You Better

Region V Leadership Training

Region V Leadership Training

Senior Chapters met on March 4th at Kansas State University where the new Region V Vice-President, Dr. Terry Collins, from Texas Tech University was introduced. Leadership training included a discussion of the Chapter Leadership Seminar (CLS) planned for May 15th (pm) & 16th (am). Chapters were asked to send a representative to CLS.

Discussion topics

1) Planning and running effective meetings, 2) Tips from "Effective Chapter Meetings" webinar by Mark Levin, 3) Time is the new currency, 4) Members are less tolerant of our shortcomings (they expect us to: Promote the meetings effectively and in a timely manner, provide value, hold the meeting in a convenient location, make registration easy, run meetings professionally, start and end as promoted, make them feel welcome, 5) Increasing attendance – carpool, written invitations, phone trees, varied sites, contests & incentives, registration options, electronic promotions.

Things to consider: 1) Meeting checklist for chapter, 2) Have a designated host/greeter; encourage officers to mingle, 3) Icebreakers Structure: program opening, speaker, chapter business, 4) Don't forget recognition and follow up

Recruiting new officers and volunteers Tips from "Volunteer Recruitment and Retention" webinar by Mark Levin 44% of adults did some volunteer work of the 56% who didn't, most said "no one asked me" 71% said that if they were asked, they would serve

Understand what members want/expect from their involvement: 1) Top reasons to get involved – sense of accomplishment and recognition for good work. Generation gap, 2) Young members want to know what is expected of them, what training will they get, how much time is involved, how many others have volunteered, has anyone like me volunteered?, 3) Older members can serve as liaisons, speakers, mentors, writers, planners, and facilitators, 4) Have a plan for leadership succession and provide training.

Introduction of Lean Manufacturing to Forney Corporation

By John Melvin

Forney Corp. Manufactures a wide range of custom build-to-order gas duct burners, ignitors, flame detectors, fuel skids, blower assemblies, and environmental monitoring systems for the energy services industry. Processes utilized within the company are precision machining and sheet metals fabrication, MIG and TIG welding, sand blast, paint, mechanical assembly, electrical assembly, PCB assembly, and systems test. In an effort to improve process flow, product delivery to schedule, work efficiency, and production worker safety, I have introduced the company to Lean Manufacturing concepts.

The department chosen by company management for the initial introduction to Lean concepts is called the "A" cell (electrical bench assembly work). This area was an inefficient bottleneck in the Forney Corp. production value stream. Forney is a custom "job shop", not a high production "cookie cutter" shop. Typically, this means many work orders to many customers, but low quantities of items per work order, a complex mix of various types of items, and custom designed items to satisfy specific projects. In this environment, setups and changeovers are many but production runs are short. Therefore, my Lean concentration was a focus on the tasks required to prepare for a job: getting tools and materials, materials presentation, materials transport. Also, it was important to ensure that assembly stations are flexible to accommodate the complex item mix.

The first step in a Lean process is to determine priorities. The tool I used to do this was with the application of Pareto Analysis (the 80-20 rule). In this case, the rule states that the product in the "A" cell of the top 20% in value contributes to 80% of the bottleneck issues. A "torque" value of volume x unit cost for each item in the "A" cell was determined and compared. The HESI pack was the item chosen as our first target.

Next, the entire "A" cell line (not just HESI packs) was relocated from it's former location to a floor location more centralized, logistically, to tool and materials access. This reduced walking steps. Flow-charting the entire HESI process before and after allowed the entire "A" cell Lean Team to identify and eliminate wasteful task steps within the process flow. Next, a complete 5-S of the HESI station was performed. This consists of "Sort", "Set in place", "Sweep", "Standardize", and "Sustain". Many job preparation issues were addressed and improved upon. However, I will share a sample of two items that were addressed in the "A" cell.

Illustration 1 shows how "A" cell materials were once presented. They were stored on pallets, on the floor, in disarray, unmarked, and within packaging. The operators had to bend or stoop to retrieve these items, some of which were heavy for raising off of the floor. Then, the items had to be unpackaged and prepared for proper presentation by the assembler. Finally, the operator had to walk from the station to the pallet, and back to the station. Many parts were hard to identify. Illustration 2 shows the new "T" rack that we introduced. The tasks of unpacking and presenting HESI components are now performed by warehouse personnel.

The components are presented in tote compartments, situated in strategic dedicated spots on the T-rack, and clearly identified with labels (application of visual management). The T-rack is then transported (it is mobile, on wheels) to the exact point of process, beside the work station.

Electrical wire is also needed in the HESI assemblies. Before application of 5-S, all wire spools were presented, in disarray, in a common location, for all stations in the entire electrical assembly department. See Illustration 3. Since then, dedicated wire spool racks were developed for use at every individual station. See Illustration 4. The warehouse now sustains the wire, as required, for each station. Lengths of wire are pulled off and cut as needed, by the assembler, right at the point of process. The wire is clearly identified with labels.

Since the application of Lean concepts to the "A" cell assembly process, it has been determined that 23-1/2 miles of HESI process walking steps per year have been eliminated. 237 overtime labor hours, or $7419 in labor cost per year has been eliminated, and back injury incidents since the previous year have been reduced from two to zero.

Tuesday Morning Processing Distribution Center Facility Tour on March 22, 2005

By Janet Berkenbile

The Dallas IIE Chapter #10 will tour the Tuesday Morning Processing Distribution Center on **March 22, 2005 at 6:30 PM.** Tuesday Morning, Inc. offers 50%-80% discounts on closeout merchandise each day of the week but not every week of the year. Tuesday Morning merchandise selections include room and area rugs to luxury linens, fine crystal, china, decorative accessories, luggage, toys and seasonal decorations or gifts. Currently there are 663 store locations nationwide with an estimated growth to over a 1,000 in the next couple of years.

Kirk Longo, Director of Operations, for the Tuesday Morning Processing Distribution Center will lead the tour. Kirk Longo, a fellow IE and JAG lawyer in the Air Force, has 20 years of experience in Warehouse and Distribution Management and Consulting. Prior to Tuesday Morning he worked at Amazon.com as the Chief Engineer at Reno, NV. Prior to that he was the Director of Operations for Peranet, Inc. in Dallas, TX. He worked as General Counsel and Senior Consultant for Argent Consulting Services (ACS) in Oklahoma City. All Tuesday Morning merchandise is processed in the Processing Distribution Center with exception of "Bulk" items that get processed in Shipping. Within the last year there have been new innovative changes made to increase productivity and efficiency in Processing. A new *sortation* system and pack to light system were installed.

The distribution center is 400,000 square feet.

Please RSVP to Janet Berkenbile at 972-934-7280 with your name, your employers' name, and contact number by March 21st at 5PM.

You may also Email Janet your RSVP at janetb@tuesdaymorning.com. The contact number is necessary to ensure we have enough tour guides. Tuesday Morning has requested that anyone employed by their competitors (Big Lots, TJ Maxx and Overstock) or those parties who have conducted consulting or other business with these competitors not attend.

March 2005 Event: Tuesday Morning Processing Distribution Center Tour, $5 fee

When: March 22nd at 6:30 PM *(gather in the lobby at 6:25 PM)*

RSVP to Janet Berkenbile by March 21st at 5PM

Where: 4404 South Beltwood Parkway in Farmers Branch (between Midway Rd and Welch Rd and Spring Valley and Beltline Rd)

Directions : 635 to Midway Rd, North on Midway, East on Spring Valley, North on Gillis, Gillis runs into S Beltwood Pkwy. If coming from Beltline Rd, go west of Inwood (only a block or so) and go south onto Beltwood Pkwy (Kinko's is on the corner you would turn), continue on this street and it will be the last parking lot on the left before the street curves right.

Career Development

The Chapter 10 Employment Column

By Rod Siders

Career Development Plans

Rod has had 11 active members in his Career Development Group and 4 members have been placed. This was welcome news to the Board and Rod was congratulated for his efforts.

Rod reported that he plans to start bi-weekly career development focus group meetings. The first meeting will involve resume writing discussions. Rod will provide sample resumes and the group will be encouraged to exchange resumes, exchange job & company leads, strategies, and lessons learned. Look to future newsletter articles from Rod to announce the CDG Meeting Schedule.

Anyone interested in IIE positions, please contact Rod at (469) 233-0717 (cell) or (972) 458-6549 (work, day). He is our resident expert for Career Development issues!

Rod Siders
Career Development Chairman

Make Your Wishes Known

Nominate Candidates for Chapter 10 Officers for 2005-2006

Send Your Nominees (***including YOUR self-nomination***) to:

Susan Wright
2115 Royal Oaks Drive
Irving, Texas 75060
972-952-5001, smr@raytheon.com

Officer Positions (Elected)

President: _____
President-Elect: _____
VP-Membership: _____
VP-Programs _____
Treasurer: _____
Secretary: _____

Volunteer Committees

Newsletter Editor: _____
E-Mail Liaison: _____
Program Coordinator: _____
Student Affairs: _____
Community Affairs: _____

Special Committees (Elected)

Director & PE Registration: _____
Director: _____
Director: _____

IE of the Year Nominee: _____

Return by USPS Mail, E-Mail, or Call Susan with your recommendations by April 1st.

New IIE Executive Director Announced

Chapter 10 recently received this letter from Jerry Weinstein, President, Institute of Industrial Engineers:

I am excited and pleased to inform you that the IIE Executive Director Search Committee has completed its task, and named ***Don E. Greene*** the new Executive Director of IIE. This is effective April 1, 2005.

Don, a degreed I.E. with an MBA (*and P.E. registration as an I.E.*), brings strong credentials and background to this post. His unique combination of industry and association leadership experience (*including the Certified Association Executive — CAE — designation*) in IIE, Polaris International and the International Gas Turbine Institute (ASME) will add new dimensions to IIE and we feel will help us be successful in the coming years.

Please welcome Don back to IIE! I want to take this moment to recognize and thank the rest of the Search Committee (*Harvey Wolfe, Al Soyster, Marlin Thomas, Jane Algee, Don Milligan, and Susan Sinclair*) for their outstanding work and dedication to this important task. And also to thank John Powers for his assistance and dedication during this search period.

Chapter 10 Wins 2004 IIE Newsletter Award

We Did It!

Chapter 10 Achieved the Platinum Award (*Highest Award Level Available*) for the IIE Newsletter Competition for 2004

Chapter 10 Wins the Gold!

Chapter Activity Report

The Dallas Chapter earned the Gold Award in the 2004 Chapter Recognition Competition. Senior chapters are not required to enter the competition, however the Dallas chapter does so as tool to measure what has been accomplished in the chapter that year. The 2004 year kicked off with the submission of a strategic plan to the IIE Regional Vice President. This plan listed all of the planned events for the year. The Regional Vice President then assigned a score to the plan, which is factored into the Chapter Recognition Competition.

The strategic plan sets the IIE year in motion. The board uses the plan to set up the schedule of programs for the year. The Dallas chapter presented ten programs in 2004. These programs were evaluated by the attendees for quality. The program scores are factored into the Chapter Recognition Competition. Another area that the Dallas chapter earned maximum points in the competition was for Student Outreach and Community Affairs.

Every year the Dallas chapter supports the regional science fair, gives scholarships to UTA and TAMU-C students, has joint meetings with the student chapters and provides speakers and mentors to students. Dallas IIE members also provide many hours of volunteer support to community organizations. All these activities factored together earn the highest recognition from the Institute, which is the Gold Award.

While it is nice to have the Chapter's work recognized by IIE Headquarters, *the real value is in having a quantifiable measure of what the chapter has done to benefit the members throughout the year.*

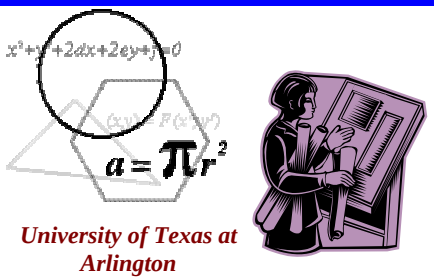
Campus Corner

Chapter 10 Congratulates the 2004-2005 Outstanding Juniors and Outstanding Seniors from UT Arlington & Texas A&M University-Commerce

At the Joint February IIE Meeting on the UTA Campus, Dr. Jamie Rogers introduced the Ft. Worth IIE Chapter President Rolando Colindres-Bran and the Ft. Worth Society of American Value Engineers International (SAVE) Chapter President Herman Goodwin who announced the 2004-2005 recipients of the Outstanding Junior and Senior IE students – Omar Al-Ansari & Rory Cannaday from UTA along with Cassandra Holtzman & Carrie Bradley from Texas A&M-Commerce .

IIE Student Chapter #791 (TAMUC) Hosts the Second Annual Engineers Week Celebration at Texas A&M University-Commerce

Seven Guest Speakers, Five Mock Interviews, & Two Facility Tours highlighted the day-long activities on February 24th as the newly formed IIE Student Chapter#791 from Texas A&M University-Commerce took a day off from their studies to celebrate National Engineers Week. Chapter #791 officers and members planned the entire event and were successful in gaining financial support for the event from campus administrators and local businesses to include a buffet lunch for all participating faculty and guests, donations for door prizes, and gift bags for participants. Everyone who participated in the event had good things to say about the celebration. Chapter #791 is really looking forward to next year's event!



University of Texas at Arlington

Summer Camp Program

The UTA Engineering & Computer Science Summer program is a way for students entering the 7th, 8th, 9th and 10th grades this fall to examine the various engineering disciplines and consider studying for a career in engineering.

During the one-week, residence camps, UTA engineering professors and graduate students provide classroom and laboratory demonstrations. Field trips to places such as Six Flags Over Texas, the General Motors Assembly Plant, the Bass Performance Hall and Sabre's environmentally green office campus let students see engineering principles in action.

We also challenge the campers with exciting team design/build projects that they present during a competition.

Applications are now being accepted!

Visit http://www.uta.edu/engineering/summercamps/ for more information on the camps and registration materials. Please help us open more young minds to the world of engineering and new career options.

Benefits of IIE Membership

Want to Make an Easy $35.00?

The Chapter 10 Board has agreed to provide a $35 voucher for ***the first five members*** who complete an application for renewing their dues. We will continue this program until all five vouchers have been issued.

You must attend a meeting or a tour to take advantage of this offer.

Membership Update

Our IIE Chapter Membership currently stands at ***177***. Chapter 10 is pleased to welcome Mr. Frank Mustadjab as the newest member of the Dallas Chapter.

For Chapter 10 members who may have let their membership lapse, please renew your membership soon. We are depending on you!

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

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!

March Event: **Facility Tour —** *Tuesday Morning*

Date: March 22nd 6:30—8:30 PM
Location: 4404 South Beltwood Parkway
Farmers Branch, Texas
Spouses & Guests Welcomed

April Event: **Facility Tour —** *DART Maintenance*

Date: April 19th (Tentative Date)
Times: TBD - Probably 6:30 PM
Location: DART Maintenance Facility
Details to Follow!

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	***1/2 Page Ad Rate***	***1 Page Ad Rate***
$50	**$75**	**$100**

Board of Directors

Note: IIE Career Leads & Events are Posted on our IIE Website
http://www.geocities.com/dallasiie

President	Susan Wright	W: (972) 952-5001
Past President	Russ Aikman	W: (817) 307-0400
President-Elect	*OPEN*	
VP - Membership	Janet Berkenbile	W: (972) 934-7280
Treasurer	Anna Cox	H: (972) 660-4689
Secretary	Chad Frye	W: (972) 659-2750
Committees & Communications		
Newsletter Editor	Andy Jackson	W: (903) 468-8115
Email Liaison	Anthony Andrews	W: (214) 905-0509
WEB Master	Bryan Smith	W: (817) 302-7367
Program Coordinator	Arturo Villarreal	W: (972) 334-3648
Career Development	Rod Siders	W: (972) 458-6549
Student/Community Affairs		
Student Affairs	Kevin Simonin	W: (972) 789-3233
Community Affairs	*OPEN*	
Special Committees		
Director & PE Registration	Al Attah, PE	W: (972) 579-0030
Director	Don Cox	W: (972) 495-3922
Director	Russ Aikman	W: (817) 307-0400
Region V-Vice Pres.	Terry Collins	W: (806) 742– 3543