now and then...
As I write this letter, we are easing into a hot summer here in Austin, Texas. The temperatures are only just starting to climb - it has to be in the triple digits here before we consider it hot - and I think everyone is ready for a good rain. The students are preparing for the fall semester and we are trying to prepare ourselves as well. There is plenty to do here. New buildings seem to be popping up all over the city (even across the street from ME) and the music scene keeps humming along; Buena Vista Social Club just left town.

Without a doubt we are having a great year. UT Mechanical Engineering has made the U.S. News & World Report’s Top Ten Mechanical Engineering Graduate programs in the United States- a goal we have been striving to attain for some time. Professor John Goodenough brings honor to the department by winning the Japan Prize, the counterpart of the Nobel Prize, Dr. Ron Matthews heads up an innovative new discovery, ME Alum, Don Evans (BSME '69) becomes U.S. Secretary of Commerce, Operation Phoenix claims victory in it's first stage and Ford Motor Company becomes our most generous benefactor.

This Edition of our ME Newsletter contains many news items that I hope you’ll find interesting and entertaining. Thanks go out to our Alumni, Faculty and Staff for their participation in supplying material for this edition. Your letters and stories are always appreciated.

Of final note - we are embarking on a project to collect historical data about our department. Dr. Grady Rylander (54 years in the department) is leading this effort along with help from Joanna Hofer, our editor for ME Alum and Billy Wood, our Director of Alumni Relations. If you have any memories, funny stories, serious stories that you would like recorded for posterity, please send them to Joanna Hofer (hofer@mail.utexas.edu) as we would like to record this information before it is lost to us forever.

Thank you again for your generous support. It allows us to sustain a vibrant community of Mechanical Engineering researchers, entrepreneurs, benefactors, academic leaders and ambitious students. Your comments and ideas are always welcome.
From the Associate Chair of Alumni & Industrial Relations

We have had an exciting year of challenges and of change since the last Newsletter, a new chairman, new programs, new faculty, and new students (Replacing the 331 undergraduate and graduate students that graduated last year). The Newsletter that you hold in your hands shares some of the progress that we have made in that 12 short months. I will highlight three related items in my remarks.

Last year, we had just started the effort for Operation Phoenix, the resurrection of the old T-Room. Many of us remember the T-Room from Taylor Hall days (pre 1984). As you will read in another portion of the Newsletter, we have successfully completed Phase I of Operation Phoenix. (We have dedicated alumni and Ford Motor Company to thank for that.) The successful completion of Phase I ensures that we will be able to significantly improve the academic experience for our Mechanical Engineering students and provide our alumni a comfortable place to meet when you are on campus. We have initiated work with University Administration to begin the planning process for these significant changes. That is certainly something to celebrate.

You will receive more information on Phase II of Operation Phoenix in the near future.

In 1999, the faculty of the Department of Mechanical Engineering completed our Strategic Plan. As part of the plan, we envisioned reinventing the way that we educate our students. Look at the Section titled “PROCEED” for more information on this exciting program. (At least I think that it is exciting.)

Lastly, you will find in this Newsletter a description of some of the awards and honors granted to our students, our faculty, our staff, and our alumni in the last 12 months. I hope that you will let us know about your accomplishments so we can include you in next year’s newsletter.

From the Director of Alumni Relations

In 1987, Chairman Jack Howell asked me if I would be interested in organizing a yearly event to get the alumni together for a reunion. So I made a note on my calendar to coordinate a reunion. A few months passed and Jack called to see how things were going. “Fine”, I said, “I’ll get details to you right away.” In the next hour I made a great friend in the athletic ticket office and blocked 100 of seats to the New Mexico football game, found a caterer available on that Saturday and flexible enough with the serving time to accommodate the traditional “last second kickoff time change in order to be televised” ritual, and the right person in the College of Engineering to get me your names and addresses.

The M.E. Longhorn Alumni Club has come a long way since 1987. There are so many people to thank for all of these wonderful years. Thanks to Dr. Diller for forming an alumni steering committee. Thanks to Dr. Lamb for getting Kerry Russell to join the steering committee. Thanks to Keys Curry for being such an outstanding alumni leader. Thanks to my wife, Lajuan, for all the Job Jar Saturdays she has excused me from so I could be your gracious host. I am looking forward to working with you in the years to come. I enjoy seeing those of you that return each year for the Engineering Expo. Don’t be surprised if you come to an ASME Friday in the Park if you see me working a grill. As students you weren’t too shy to come by my office. The door is still open. You are still welcome.
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July 26, 2000

ME ALUM OFFICE,

Just a note to say thanks for all your efforts putting the SAE Reunion together. I made it up there with my 2 boys on Sunday morning and it was great to see everyone again. SAE has come a long way since the early days. The awards are impressive and the opportunity to be involved in such an organization is immeasurable and does indeed last a lifetime. Certainly a job well done.

Thanks again,

Tim Ryan, P.E.
(BSME '84)

March 5, 2001

This past Saturday, our Department opened its doors to the public for the UT Open House Event and our program was a big success. Thanks are in order to David Dart who coordinated our program, and the following faculty and staff who made it happen.

Faculty organized and presented demonstrations/sessions:
Ron Barr - 'Concurrent Engineering' session.
Ron Matthews - Worked all day preparing the automotive shop and then demonstrating engines and cars.
Phil Schmidt - Several long 'Toy Dissecting' sessions.
Gary Vliet - 'Solar Energy' demonstrations on the roof & lab all day.
Billy Wood - Greeted, answered questions, provided lots of give-away stuff, and helped the student groups. Staff volunteers greeted people, guided them to displays, and answered questions: Desiree Abram, David Dart, Curtis Johnson, Susan Pedregon, and Alejandro Tyler.

Student Workers assisted in various capacities: David & Jeremy from the Shop, John from Computer support, Several T.A.'s in the various exhibits/demonstrations. Dr. Bryant's grad students worked in the mechatronics lab with some really nice presentations & displays. David Dart is working on webpages featuring the events, so check our website for updates.

http://www.me.utexas.edu/

Thanks again to all for bringing our community together in this fun and educational event.

Dr. Joseph J. Beaman, ME Chairman (BSME '72, MSME '75, ScD MIT '79)

March 19, 2001

ME's Project Chemcan, removal of chemicals from ETC, is an incredible success. By the end, we will have removed over 3500 containers from the building. Handling and disposing of this large volume of chemicals required stretching the schedule some. Contract labor is finished up with packaging chemicals in big black barrels. Starting today, the Safety Office is making a sweep of the staging rooms to take care of a few items the contract labor did not pick up. Following this sweep, custodial will be asked to pick up what's left. This should take no longer than a week or two.

I hope the delay in finishing up Chemcan doesn't cause too much undue hardship on everyone involved. Thanks to everyone who participated, and thanks especially to Dr. Desi Kovar for the Herculean task of coordinating the project with the Safety Office.

Dr. Dave Bourell,
ME Vice Chairman

March 1, 2001

Recently, I learned the bad news of Mr. John Spurgeon from Sam Holt, after not seeing John's name on ME's web site and sending e-mail to Sam. I am very sorry to hear of John's passing away. When I worked on my Ph.D. Project at ME in UT, I got a lot of help from John, and learned a lot from him as well. John left me a very profound impression that I will never forget. It might not be too difficult for people to be kind and helpful just to some particular people and in some cases, but it is absolutely unusual for a person to be kind and helpful all the time to all the people, such as John did in ME. Best regards.

Kun Shen, ME Ph.D. '96
Sr. Engineer, Advanced Analysis
John Deere, C&CE

February 16, 2001
(excerpt from the FIC Newsletter)
Faculty Innovation Center

Greetings. Most of you have known us as the Instructional Media Lab and you may have noticed we are now called the Faculty Innovation Center (FIC). We changed our name due to a generous equipment grant from HP to open a center where faculty can find ongoing training and support for integrating technologies into teaching and learning. Sometime this spring, the FIC will open a faculty center on the 2nd floor of ETC. At that time, we'll have an open house for the new center and for our newly renovated lab in ETC 5.154.
Last summer we signed a license for Prometheus, a courseware tool. Since that time, we now have 60 faculty accounts and over 1500 students using Prometheus. We conduct hands-on training sessions as well meeting with you individually. Our next training is scheduled for February 19th from 2:00 - 4:00 in ETC 2.144. Please see http://fic.engr.utexas.edu/prometheus.html for more information and to sign up for the next training.

Professor spotlight! Sheldon Landsberger, Nuclear and Radiation Engineering professor, began distance teaching in 1992 when he was at the University of Illinois. At that time, he was sending out videotapes of his lectures. Since arriving at the University of Texas in 1997, he is overcoming the barriers these students faced by using streaming media and providing class resources on the web. Sheldon was an early adopter of WebCT, but made the switch to Prometheus last summer. He has now become one of the most vocal supporters of distance education and claims, “you can feel at home with distance learning.” He warns that you’ll spend a lot of time initially developing web-based resources, but that the rewards outweigh the initial input. While developing his course for online delivery, he has become very well organized. Plus students are able to access materials on-demand and don’t have any excuses for missing class.

March 9, 2001

UT SAE Student Team Takes 1st Place in SAE World Congress Booth Competition AGAIN

A big TEXAS size congratulations goes to the UT SAE student organization for their first place win of the student booth competition at the 2001 SAE World Congress in Detroit, MI this week.

This achievement is notable because this is the team’s second year entering the competition and it is their second year taking home the top prize and award money. The Ford Motor Company Team is excited about the award and is happy to provide support for the SAE student organization to participate in this event. The Ford Motor Company Team is hosting the SAE student group today in tours of the SE Michigan facilities today. We hope that the students will get recognition of this significant achievement upon returning to Texas.

Thank you.

Jerri Paul (BSME ’95 MSME & MBA ’97)
Project Manager
U263-Project Management,
Business Analyst
Ford Motor Company

March 11, 2001

To: ME Community

I assume most of you know that I had a heart attack two weeks after retiring on January 15. Fortunately they did not have to open my chest but were able to clean out some clogged arteries using catheterization procedures (angioplasty). This has enabled me to recover my strength much quicker than if bypass surgery had been required. I am now feeling much better than I was in the months before the attack. I had been concerned but had no warning that an attack was imminent.

I want to express my thanks for all the cards and notes that were sent to me during the first week or so after I returned home. Such expressions, which I received from friends throughout the nation, gave me a big boost in remaining positive about the long road to full recovery.

Sincerely,

Parker Lamb

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J. Parker Lamb, Professor Emeritus
Department of Mechanical Engineering
The University of Texas at Austin
Ford Motor Company Gives $7.3 Million

From the University of Texas Office of Public Affairs Website:

February 19, 2001
AUSTIN, Texas—Ford Motor Company has donated $7.3 million to the UT College of Engineering and the UT McCombs School of Business for a range of student programs.

Brian P. Kelley, Vice President of Ford Motor Company, said the gifts are designed “to assist the University in addressing a critical need to provide facilities and programs that promote teamwork and diversity, increase student retention and achievement, and develop just-in-time learning and alternative instruction techniques.”

“The Ford Motor Company has a long history of support to The University of Texas at Austin and we are delighted and humbled at this latest, most generous gift,” said UT Austin President Larry R. Faulkner. “This contribution will have a far-reaching impact on UT Austin and will help ensure our position as one of the great public research universities in the nation.”

The gifts will be used for multiple purposes, including the following:

- Renovating part of the second floor area of the Engineering Teaching Center II to create a Ford Motor Company Academic and Student Life Center.
- Creation of two technology learning laboratories that will equip engineering students and faculty to interact with their counterparts at other universities and industry representatives.
- Funding for scholarships, continuing education and other programs that will promote student diversity in the business school.
- Renovation and re-equipment of 10 mechanical engineering laboratories to accommodate a new curriculum known as Project-Centered Education (PROCEED), an educational paradigm that simultaneously teaches theory and practical application.
- Undergraduate scholarships, graduate fellowships, an engineering honors program and other support programs.
- Support for Business for Engineering Graduates, a program co-designed by business and engineering to teach business disciplines to recent graduates.
- Launch of the Center for Technology Commercialization and Enterprise Education, which will foster leadership, creativity, innovation and entrepreneurship among students.
- Addition of a third university-wide LeaderShape -- Texas Institute, a retreat where students work with industry, faculty and their peers on individually conceived projects involving leadership skills.

“We are both excited and grateful that Ford is investing so creatively in the education of engineering students,” said Ben Streetman, Dean of the College of Engineering.

“Ford has put a great deal of thought and foresight into this grant, which will better equip our engineering students for the professional challenges they will face,” he said.

Robert May, Dean of the McCombs School of Business, said, “The infusion of business acumen into engineering education will help the engineers of the future better market their ideas in the world of commerce. We are thrilled at the possibilities that lie ahead because of Ford’s generosity.”
In Spring 2001 **Don Evans, BSME 1969,** was confirmed by the U.S. Senate as head of the U.S. Commerce Department.

Evans, a Houston native, learned the oil industry from the ground up, working as a roughneck on a drilling rig for Tom Brown, Inc. in Midland, Texas. Within 5 years Evans advanced to company president and then chief executive in 1985. Evans received a Mechanical Engineering degree from the University of Texas in 1969 and a Master’s in Business Administration from UT in 1973.

In the 1970’s Don Evans developed a solid friendship with George W. Bush while they both lived in Midland, Texas. Evans’ wife, Susie, would wash Bush’s clothes while Bush visited the Evans’ household. The Fort Worth Star Telegram reports that Evans counseled Bush to read the Bible. “at one point giving him a Bible divided into 365 readings, one for each day of the year.” Evans and his wife, Susie, also introduced Bush to Laura Welch, the first lady.

In 1978 Evans worked as a fundraiser for George W. Bush in his unsuccessful bid for a seat in the U.S. House of Representatives. In 1994 and 1998 Evans headed up Bush’s winning campaigns for Texas governor. In 1995 Bush appointed Evans to the University of Texas Board of Regents. Evans was elected Chairman in 1997 and again in 1999. In 2000 Evans raised more than $100 million as Bush’s national finance chairman during Bush’s campaign for president - a record-breaking sum! Evans then served as Bush’s lead negotiator on the fall 2000 presidential debates and was a spokesman for the recount effort in Florida. He resigned as Chairman of the UT Board Regents to accept the position of U.S. Secretary of Commerce this Spring. “The opportunity to be of public service to the State of Texas during my term on the Board of Regents has been a high honor and a great privilege.”

As Secretary of Commerce, Evans is charged with overseeing domestic commerce, international trade agreements, import and export levels,

Tom Brown, Inc. is an independent energy company engaged in the exploration for, and the acquisition, development, production and marketing of, natural gas, natural gas liquids and crude oil in North America. Its largest operations are in Texas, Wyoming and Colorado. Rich Griebling, State Regulatory Director for the Colorado Oil and Gas Conservation Commission told the Fort Worth Star-Telegram that Tom Brown, Inc. is “a model operator ... They’re one of the handful of top responsible gas operators in the state.”

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**Don Evans, BSME 1969**

- “[Leadership] is a matter of surrounding yourself with some very able people, delegating to them, giving them responsibility and holding them accountable for their job.”
- - Don Evans
Dr. John Goodenough, Professor of Materials Science and Engineering, has earned the prestigious Japan Prize. The Japan Prize is a counterpart of the Nobel Prize established in 1985 by the Science and Technology Foundation of Japan. Professor Goodenough was awarded the Japan Prize for his “original and profound achievements” in battery research. His work with lithium manganese oxide and lithium cobalt oxide has led to the development of lighter, longer-lasting batteries that produce twice the voltage of their predecessors. Dr. Goodenough, 78, was honored in the category of “Science and Technology of Environment Conscious Materials.”

Dr. Goodenough is credited with the discovery of lithium manganese oxide, lithium cobalt oxide, and lithium iron phosphates, which have made possible the development of environmentally benign and high energy density rechargeable batteries. The Japan Prize is awarded each year by the Science and Technology Foundation of Japan to scientists from around the world whose “original and outstanding achievements in science and technology have advanced the frontiers of knowledge and served the cause of peace and prosperity for mankind.”

Dr. Goodenough received a certificate of merit, a commemorative medal and a cash award of 50 million yen (approximately $445,000). Goodenough will be the 25th American to receive the Japan Prize.

Dr. Goodenough earned his mathematics degree from Yale University in two years and then served as a U.S. Air Force meteorologist during World War II. He continued his education at the University of Chicago, earning Master’s and Doctoral degrees in physics. He spent the next 25 years at the Massachusetts Institute of Technology’s Lincoln Laboratory, where he performed research that led to the first practical high capacity memory for digital computers. Some of his other honors and awards include Docteur Honoris Causa, University of Bordeaux, 1967 Fellow National Academy of Engineering, (U.S.), 1976 Von Hippel Award, 1992 University of Pennsylvania Medal for Distinguished Achievement, 1996 John Bardeen Award, and the 1999 Olin Palladium Award from the Electrochemical Society.

John B. Goodenough, Ph.D., P.E.
Professor, Virginia H. Cockrell Centennial Chair in Engineering

Congratulations
Professor Goodenough!
Gasoline is a conglomeration of different hydrocarbon molecules, some heavier and some lighter. Only the lighter portion (the vaporized portion) burns while the engine is cold, and the rest, about 80 percent, is expelled as pollutants and toxins such as benzene, 1,3-butadiene, formaldehyde and acetaldehyde. After the engine warms up, combustion is more efficient. On startup, in temperate weather, only about 20 percent of the gasoline injected onto and engine's intake valves vaporizes and powers the engine. The rest forms a puddle in the intake manifold and evaporates when the engine gets warm, causing the engine to emit higher levels of hydrocarbons. The system the engineers devised creates a second fuel for startup by using the engine's heat to separate the vapor from the heavier gasoline. It then runs the vapor and the heated gasoline through a condenser to cool and stores the "lighter" and "heavier" gasoline in separate fuel tanks. Storage is determined by vehicle's computer which thermodynamically determines which fuel tank valve to open for either "light" gasoline (for starting) or regular gasoline (after the engine warms up). The fuel pump then sends the appropriate fuel to the engine. Matthews explains, "What we're doing is separating the molecules (of gasoline) that are easy to evaporate - the highly volatile ones - from all the other molecules. Then we store those highly volatile molecules separately and use them to start the car."

The system consists of four pieces: the startup fuel tank, volatiles condenser, return fuel heat exchanger and the distillation column. The total apparatus adds less than five pounds to the engine. "Most people looking under the hood wouldn't recognize anything different," stated Matthews.

The system initially will be implemented on a Ford 2001 Lincoln Navigator in UT Austin's Mechanical Engineering Laboratories, where it will be refined for both performance and cost-effectiveness over the next year and a half until ready for mass production. The goal of the engineers is to reduce costs from the current price of about $400 to around $60 per unit in production. If the new systems finds widespread market acceptance, UT Austin and Ford will share royalties for its use in other companies' vehicles.

Ford's contribution to the effort, aside from its engineers' time, has been $20,000 to $30,000 for the patent process and $54,000 for a 2001 Lincoln Navigator that the Austin team will use as a guinea pig for the next year as it tries to cut the system's cost from $400 to $60, installed. Under the terms of the patent, Ford will be able to use the system on its cars without paying a licensing fee to UT, but Ford and UT will be able to license the system to other car makers. Normally such agreements bring in 2 percent to 10 percent of the cost. At $60 a unit, UT could take in as much as $6 a vehicle. Under UT rules, Matthews and Stanglmaier would split half of that.
Dennis Wilson (BSME ’70, ME PhD ’76) 
& Nanotechnologies, Inc.

Nanotechnologies, Inc., a nanoparticle synthesis company, was founded in September 1999 by UT Mechanical Engineering Associate Professor Dr. Dennis Wilson, (BSME ’70, Ph.D ’76). Nanotechnologies, Inc. uses a proprietary process to synthesize nanoparticles of unique size and composition based on customer specifications and needs. Nanoparticles are a new and revolutionary class of materials which have tremendous marketing potential due to their inherently novel properties.

Nanotechnologies, Inc., a nanoparticle synthesis company, was founded in September 1999 by UT Mechanical Engineering Associate Professor Dr. Dennis Wilson, (BSME ’70, Ph.D ’76). Nanotechnologies, Inc. uses a proprietary process to synthesize nanoparticles of unique size and composition based on customer specifications and needs. Nanoparticles are a new and revolutionary class of materials which have tremendous marketing potential due to their inherently novel properties.

By developing materials in the near atomic size range and incorporating them into other materials, it is possible to improve existing products and create entirely new products. Dr. Wilson believes, “The commercial scale production and application of these new materials is one of the most important opportunities of the 21st century.”

Thanks to the capabilities of its revolutionary plasma device, Nanotechnologies, Inc. is capable of easily producing materials which cannot be produced by conventional plasma processes.

These custom-designed nanoparticles range from 5 to 100 nanometers and have immediate application in a number of rapidly growing, high-value markets. Electronic materials, photovoltaics and transparent ceramic coatings represent the most lucrative market segments and the most elusive due to the difficulty involved in creating the right combination of particle properties.

The application of nanoparticles as an enabler for a new class of photovoltaic (solar cell) sources is a particularly exciting follow-on application of enormous revenue potential. Current photovoltaic technology is an unattractive alternative energy solution. The barrier for broad application has been the cost of the electronic-grade silicon materials and fabrication needed for effective solar cells. In a major breakthrough, Dr. Michael Graetzel has demonstrated that the use of nano-titania in special application to ordinary window glass, and even thin flexible films, can produce similar photovoltaic effects as expensive solar cells. The barrier to the adoption of these Graetzel Cells has been the availability of nano-titania on the 5-15 nanometer size scale. According to Dr. Graetzel, “The trend for solar cell and other applications of nanotitania is definitely to use particle pastes.” Nanotechnologies has demonstrated the synthesis of the nano-titania needed for this photovoltaic application, and Dr. Graetzel is enthusiastic about the suitability of our material for this application.

-Nanotechnologies, Inc.

Nanotechnologies, Inc. strives to be a solution provider and value adder for high-end markets, not a commodity supplier for the low-end markets that are currently being served. To achieve this goal, they begin by working closely with customers to provide engineered solutions for market-driven, nanoparticle-applications. This process typically involves joint engineering, materials testing and product development since the customers may not know in advance what nanoparticle specifications are required for a new material. For example, particle size, crystallinity, size distribution, phase, morphology, surface treatment and purity can all affect the final product.

Nanotechnologies, Inc. closed a $4 million Series A funding round last year to complete the development of the process technology and to launch marketing and business development efforts, including establishing collaborative relationships with client companies. They recently secured a new 14,000 sq.ft. facility which will house their pilot-production operations which is to come on-line in the fall of 2001. According to Darrin Willauer, VP of Engineering this will allow the company to begin limited production of a new class of materials. They have recently begun selling nanoparticles for transparent ceramic coatings and thermally conducting adhesives for the electronics industry and have begun to formalize two strategic alliances with Fortune 100 companies.

Today, Nanotechnologies, Inc. employs a full-time staff of 24 with expertise in science and engineering, as well as business and finance, and 6 additional part-time staff and consultants. The company is located in Austin, Texas and has a complete in-house development and test capability.

Nanotechnologies, Inc. has sponsored 2 capstone UT ME Senior Design projects in support of company research and development.

Contact Information: Dennis Wilson, CEO (512) 491-9500
Operation Phoenix: Phase One VICTORY!

Stage One: Victory is Declared!

Two years ago in August 1999 Operation Phoenix, a fund raising project with the goal of creating more study and lounge space for Mechanical Engineering students, was initiated by the UT Mechanical Engineering Alumni Club. This project was named Operation Phoenix, because its goal was to resurrect the study and lounge area that students, faculty and alumni had originally created in Taylor Hall. In 1983 Mechanical Engineering students lost access to these study and lounge facilities when the Department of Mechanical Engineering moved from Taylor Hall to the Engineering Teaching Center (ETC). Today, in August 2001 we are pleased to declare Operation Phoenix an overwhelming victory. Thanks to the generous participation and support from our Mechanical Engineering Alumni Community and Ford Motor Company, Operation Phoenix has successfully raised $1,234,250.26

Plans to recreate the “T Room” in the Engineering Teaching Center (ETC) are expected to get underway around Spring 2002.

Individual plaques will be awarded to Ford Motor Company and Rick Relyea for their overwhelming generosity.

Many thanks to everyone who participated in Operation Phoenix. You have the gratitude of the Department and of many future generations of Mechanical Engineering students.

Stay Tuned for Phase Two!
SAE Donations

Gifts to the UT Society of Automotive Engineers can be targeted in two ways, each of which is explained below.

THE UT SAE is heavily involved in intercollegiate academics—designing and fabricating cars, or optimizing cars for alternative fuel use, to compete against other universities. One example is Formula SAE, a competition that UT founded in 1981 and hosted for its first four years. This competition has gone BIG TIME, and is now hosted by a consortium of Ford, GM, and DaimlerChrysler, held at the Pontiac Silverdome each year, and includes about 100 teams from as far away as England and Japan—true world championship. The 2000 Ethanol Vehicle Challenge had teams from the US and Canada, including three from the Big XII (UT won the 2000 EVC!!). It costs at least $10,000 per year for each of the UT SAE vehicles, including parts and travel. If you can help support our efforts to showcase the University of Texas as the #1 engineering school in the world, make a check out to “UT Society of Automotive Engineers” and mail it to:

Prof. Ron Matthews
Department of Mechanical Engineering
Mail Code C2200
The University of Texas
Austin, TX 78712

In return, we will acknowledge your support via a decal with your name on our competition vehicles.

UT alum and former UT SAE active Jerri Paul (BSME, MSME, MBA all at UT) established Operation SuperCharge in June 2000. She has pledged $3000 out of her own pocket plus a $3000 match from Ford if other former students will donate $6000. The UT College of Engineering will match this as well, for a total of $18,000. Additionally, the College of Engineering will match the next $4000 in alumni donations, for a total of $26,000. If the company you work for also has a matching program, the total will be more than $26,000, all of which will be used to improve UT SAE’s infrastructure. The need for improved infrastructure is obvious during the various competitions. As one example, of the almost 100 universities and colleges at the Formula SAE, almost all have their own team trailer—excluding small schools like Clarkson but NOT including UT! With funds from Operation SuperCharge, we plan to buy a team trailer, stock it with tools and equipment, and pay for other infrastructure needs. If you wish to make a donation, the benefits to you will consist of:

1) Your name permanently on the Longhorn racing Team trailer
2) Your name on our competition vehicles in 2001 and 2002
3) If we can raise $1000 in donations for any given SAE year (e.g., 1991-92) we will hang a large color poster on the main floor of the ME building permanently commemorating this year, including photos of our competition cars that year, lists of accomplishments for that year, lists of officers, team members, andOperation SuperCharge donors for that poster. Our goal is a poster for all 21 years, from 1980-81 to 2000-01. Prof. Matthews will provide the last $100 toward each and every poster up to $2100 out of his own pocket.
4) If you were a grad student in our Combustion and Engines Program, but were not active in SAE, a $100 donation to Operation SuperCharge will get you a plaque in our main combustion/engines lab (ETC 7.134) including a color photo of you, the title of your thesis or dissertation, and current contact information for you (we will update these any time your contact info changes).
5) If you were a grad student in our Combustion and Engines Program and were also active in SAE, you can either take your choice of items 3 or 4, or donate more than $100 to get both.


The Fantastic ME Class of 1940

There is little doubt that the ME Class of 1940 has remained actively involved with the ME Department throughout the last 6 decades. Notably, the Class of ’40 was the first to establish an Endowed Presidential Scholarship as a tribute to an Engineering professor.

Through the ME Class of ’40, five scholarships in Mechanical Engineering have been endowed. They are:

1. Dr. Byron E. Short Endowed Presidential Scholarship in Mechanical Engineering
2. Charles “Bill” Lubbock Endowed Scholarship in Mechanical Engineering
3. John M. Scott Endowed Presidential Scholarship in Mechanical Engineering
4. Edwin L. Pace Endowed Presidential Scholarship in Mechanical Engineering*
5. Charles “Ed” Smith Endowed Presidential Scholarship in Mechanical Engineering*

*Edwin Pace and Ed Smith expressed interests in establishing Endowed Presidential Scholarships in Mechanical Engineering; so these scholarships were established by their widows in memory of their husbands.

Other Scholarships supported by the ME Class of ’40 are not limited to but include the Carl J. Eckhardt, Jr. Endowed Scholarship in Mechanical Engineering and Friends of Alec.

In recent years, the Class of 1940 held its 50 year reunion on April 4, 1990 where it honored Dr. Byron E. Short and Professor Carl J. Eckhardt, Jr. and presented them with elegantly engrossed certificates. On January 31, 1993 the Class of ’40 held a Mini Reunion at the Stage Coach Inn in Salado, Texas. This mini reunion was held for the express purpose of presenting Dr. Byron Short with a Certificate informing him that the “Dr. Byron E. Short Endowed Presidential Scholarship in Mechanical Engineering has been established by Members of the Mechanical Engineering Class of 1940 of the University of Texas as a Permanent Tribute to this Highly Esteemed Professor”.

The leadership and involvement of the Class of 1940 is sincerely appreciated by the Department of Mechanical Engineering and will be felt by the generations of Mechanical Engineering students yet to come. The Class of 1940 has truly created an enduring legacy. Thank You!
DEPARTMENT NEWS

July 2000 SAE Reunion

July 22 and 23 - SAE celebrated its 20th anniversary in Austin, Texas through events held at the Engineering Teaching Center, Walnut Creek Park and Pickle Research Center. Events included boxed lunches, tour of SAE projects including videos of past competitions, swimming, games, reminiscing over memorabilia of past SAE activities (photo albums, etc.), a BBQ dinner, and test drives of Formula SAE cars. More than 120 SAE Alumni attended. Thank you to all those who participated!


UT Mechanical Engineering Faculty and Alumni met for the Fourth Annual ME Tailgate Party on Saturday, October 21, 2000. Around 150 Alum converged on the Engineering Teaching Center meeting old friends and reminiscing about their days as mechanical engineering students. Alumni listened to the guitar stylings of Austin classical/jazz guitarist, Randy Spence, as they ate fajitas and mingled. Outgoing ME Chair Dr. J. Parker Lamb then said a few words as did Associate Chair of Industrial and Alumni Relations, Dr. Steve Nichols followed by remarks from incoming Chair Dr. Joseph Beaman. Afterwards, the brave and dedicated football fans among us proceeded on to the football game where we valiently endeavored to stay dry. In spite of the unabating torrential rain of that day, UT triumphed over Missouri. Hook ‘em Horns!

We’re ready to do it all again in 2001!!

Your comments and ideas are always welcome. Please send them to J. Hofer at hofer@mail.utexas.edu.

January 15, 2001 Dr. Lamb retired as Mechanical Engineering Department Chairman.

January 16, 2001 Dr. Joseph Beaman becomes the new Mechanical Engineering Chairman.

March 3, 2001 EXPLORE UT

On Saturday, March 3, 2001, the people of Texas had the opportunity to attend EXPLORE UT! The Biggest Open House in Texas! The doors of the campus were opened widely for Texans to discover the diversity of their University, learn from the intellectual wealth of students and scholars, and experience the unique nature of a world-class institution. People of all ages had the opportunity

Mechanical Engineering Department VISION STATEMENT

Strategic Objective
To be the foremost Mechanical Engineering Department.

5 Year Goal
To be, and to be recognized as being, in the top five public Mechanical Engineering Departments.

Mission
The mission of the Mechanical Engineering Department at the University of Texas at Austin is threefold:

Educate the next generation of leaders in the Mechanical Engineering profession.
Create, explore, and develop innovations in engineering science and technology.
Provide beneficial service to the local, state, national, and international communities.

Mechanical Engineering at The University of Texas at Austin

Mechanical Engineers develop engineering systems to transform energy, materials, and information to meet the needs of humanity. The needs of humanity include the basics of sustenance, shelter and health. They also include the desire for security, association and communication, and pursuit of knowledge and skill.

Mechanical Engineering emerged as a new field during the Industrial Revolution, and, today, it is the broadest and most versatile of the engineering professions. The work of Mechanical Engineering spans the full spectrum of modern technology and produces the many products and machines that meet human needs. Given the diversity of these needs, Mechanical Engineering is ideally positioned as a practical profession and is marked as a field that is a bastion for beneficial creative endeavors.

The Mechanical Engineering Department at The University of Texas at Austin has tremendous intellectual breadth. Besides strength in the
to take part in fun hands-on activities, attend stimulating
lectures, witness fascinating demonstrations, view one of
the best art collections in the nation, and visit cutting-edge
research laboratories. Thanks to all who were involved and
attended.

APRIL 9, 2001

UTME Makes U.S. News & World
Report Top Ten

The Mechanical Engineering Department at the University of
Texas at Austin was named one of the top ten mechanical
engineering graduate programs in the United States in the
2001 "America's Best Graduate Schools" issue of U.S. News &
World Report. This designation for the Department is derived
through rankings by Engineering School Deans from around
the country. The UT College of Engineering was also ranked
in the top ten among American Universities.

August 9, 2001

Schlumberger presented $25,000 in matching funds for a cur-
rently funded NSF proposal under the direction of Kris Wood.
The abstract is as follows:

Schlumberger Abstract

The objective of this proposal is to fundamentally change the engineering
design process through rapid integration of virtual and physical proto-
typing to produce tested quality products and realistic virtual models for
adaptive and design. Recent advances in physical prototyping allow the
production of freeform solid objects directly from a computer model
without part-specific tooling or human intervention. These technologies
have been termed Solid Freeform Fabrication (SFF) or Rapid Prototyp-
ing (RP). Benefits of this technology include greatly reduced fabrication
time and cost, and the capability to achieve, in one operation, shapes
that would otherwise require multiple operations or in some cases are
impossible to manufacture with standard techniques. Significant advances
have also been made in virtual prototyping methods, especially computa-
tional analysis of dynamic systems, solid modeling, and fluid dynamics.
These advances include high performance computing, virtual geometric/
fundamental modeling, and parametric/non-parametric design tools to sup-
port rapid analysis and synthesis of engineering components and systems.
In the proposed research, the engineering technology needed to integrate
advances in both solid freeform fabrication and virtual prototyping will
be developed. We plan to develop a method for testing rapid prototypes
with in situ or embedded sensors fabricated from our SFF process; product
states will be predicted through an advanced similarity method. The pre-
picted product states will be incorporated with virtual prototypes to refine
designs and/or create increasingly robust and complete virtual models.
The general concepts of adaptation and filtering from control theory and
signal processing will provide the framework for integration of virtual and
physical models. We have termed this process CyPhy engineering design
(from cybernetic-physical). When successful, this technology has the
potential to dramatically shorten development cycle times for engineering
systems by breaking the design-test-parameter-tuning bottleneck.

Values
Creativity
Novel Application of Fundamental Engineering Science
Interdisciplinary Activities
Community of Scholars
Development of Future Leaders
Professionalism
Excitement in Discovery

Long Term Strategy
This plan is a living instrument and will be updated yearly
by faculty review.

Five Year Strategy
In the next five years, the Department will concentrate on
enhancing and developing four major thrusts. They are:

A. A Community of Scholars
B. Future Leaders in the Profession
C. Creativity and Innovation
D. Interdisciplinary Activities

Strategic Plan for the UT Mechanical
Engineering Department

The strategic plan is focused on a core belief in Leadership and Innovation.

Core
Leadership and Innovation. The plan emphasizes and values
Creativity, Novel Application of Fundamental Engineering Science, Interdisciplinary Activities, Community of Scholars,
Development of Future Leaders, Professionalism, and Excite-
mnt in Discovery.
Factory Logic Becomes First Software Development Company to Win the Coveted Shingo Prize for Research and Applied Programs in Manufacturing

Richard Lebovitz, BSME ’88, served on the UT Mechanical Engineering Visiting Committee from 1997 - 2000 and is the President of Factory Logic Software, Inc. located in Austin, Texas.

AUSTIN, Texas, May 21, 2001 - Factory Logic Software, Inc., a provider of Web-based manufacturing software that seamlessly integrates the factory into a complete e-business strategy, today announced that it has been awarded the 2001 Shingo Prize for Research and Applied Programs in manufacturing. "This makes Factory Logic the first software winner in the history of the Shingo Prize," said Dave Smith, vice president of marketing. "It validates our premise that software is not only a desirable component on the path to lean, but it also is being recognized as a critical element for successful and enduring lean implementations."

The Shingo Prize is named in honor of the late Dr. Shigeo Shingo, who helped create several lean manufacturing processes, including the original Toyota Production System. The Prize promotes world-class manufacturing and recognizes companies that achieve superior customer satisfaction and business results. Factory Logic's Web-based solution, Streamline™, was nominated for the Shingo Prize and underwent an extensive review process by prominent academicians and practitioners. Streamline comprises seven services that utilize lean, option-driven methods to manage factory operations and Web-based technology to connect customers and suppliers directly to the factory floor.
"We are elated to be the first software company to receive such a prestigious award for world-class, lean manufacturing," stated Richard Lebovitz, co-founder and CEO of Factory Logic Software, Inc. "Our domain experts have spent years working around the world to implement lean technologies and have experienced first hand the problems companies have had in making lean stick. With lean expertise built into our Streamline software solution, companies are given what is most often missing from lean conversions: an infrastructure that supports lean initiatives and manages continuous improvement on a day-to-day basis."

Co-founder and CTO, Henry Perez added, "This award is for the developers and the manufacturing domain experts who have contributed their knowledge, long hours and skill into making Streamline an extraordinary solution-set. It makes those long hours getting the newest 4.0 release ready … worth every minute!"

Referred to as the "… Nobel prize of manufacturing…" (May 15, 2000) by Business Week magazine, the Shingo Prize is to manufacturing as the Malcolm Baldrige Award is to quality. The Shingo Prize is awarded annually to companies in the United States, Canada, and Mexico that demonstrate excellence in lean manufacturing leading to superior customer satisfaction and business performance. "We are unique in the criteria by which we judge and Factory Logic Software is unique in its Streamline software offering," stated Ross Robson, Shingo Prize executive director. "This is the first time we have seen a software application which ties lean manufacturing techniques and processes within the factory directly to customers and suppliers outside the four walls."

Headquartered in Austin, Texas, Factory Logic Software, Inc. is the leading provider of Web-based manufacturing software that seamlessly integrates the factory into a complete e-business strategy. Web-based technology connects customers and suppliers directly to the factory floor while dynamic manufacturing operations significantly improve responsiveness, reducing costs and improving service.
WHEREAS, The University of Texas at Austin chapter of the American Society of Mechanical Engineers (ASME) claimed top honors in the national Rube Goldberg Machine Contest in 2000, and this feat indeed merits special praise; and WHEREAS, Inspired by cartoonist Rube Goldberg, who is famous for his sketches of elaborate contraptions that perform simple tasks, this annual competition is sponsored by the Purdue University chapter of the professional engineering fraternity Theta Tau; students from colleges across the nation construct machines that are designed to perform a simple task in as many steps as possible, with the machines being judged on reliability, creativity, complexity; and how well they embody the spirit of the original cartoons; and WHEREAS, To advance to the national competition, the ASME team had to first win a local meet, which included besting its arch-rival, UT's American Institute of Aeronautics and Astronautics aerospace engineering organization; and WHEREAS, The objective of the 2000 contest was to construct a machine that could fill and seal a time capsule; the 10-member ASME team spent more than 1,000 hours creating its machine, which used 47 steps, and at the national final in West Lafayette, Indiana, on April 6, 2000, the invention proved to be second to none; and WHEREAS, The talented engineers of the ASME team, all of whom are Texans, include Chad Bruns, Jeff Krimmel, Neal Tanner, John Franco, Nik Lane, Kirsten Cole, Justin Olsen, Danny Booth, Ed Southerland, and Michael Bruns; now, therefore, be it RESOLVED, That the House of Representatives of the 77th Texas Legislature hereby congratulate all the members of the American Society of Mechanical Engineers from The University of Texas at Austin on their national victory at the Rube Goldberg Machine Contest and extend to them sincere best wishes for continued success; and, be it further RESOLVED, That an official copy of this resolution be prepared for the ASME team as an expression of high regard by the Texas House of Representatives.

Dukes

_______________________________
Speaker of the House

I certify that H.R. No. 296 was adopted by the House on February 22, 2001, by a non-record vote.

March 5 - 9, 2001
UT SAE TEAM REPEATS AS NATIONAL CHAMPS

The UT Society of Automotive Engineers student organization won first place in the Honeywell Student Booth Competition at the 2001 SAE World Congress in Detroit, MI during the weeklong festivities March 5-9. This achievement is notable because this is the team's second year entering the competition and their second year taking home the top prize and award money.

The SAE Team members are: Courtney Frey, David Kieke, John Chung, Terry Alger, Yiqun Huang, Aaron Hutchison, Byron Hendrix, and Ted Kane.

The Faculty sponsors are Ron Matthews and Matt Hall.

March 29, 2001
Dustin Shaw and Jesse "J.R." Garcia, Seniors in Mechanical Engineering, are winners of a 2001 Undergraduate Materials Research Initiative grant from the Materials Research Society. The award carries a prize of $1000 to be used for research and travel to the Spring Meeting of the Materials Research Society, as well as an obligation to complete research suitable for a poster presentation at the meeting. Dr. Lew Rabenberg, Associate Professor of Mechanical Engineering, is the faculty advisor.

The prize selection was based on a research proposal submitted by Shaw and Garcia, entitled, "The Effects of Cold Work on the Thermal Expansion of Metals." The research attempted to reproduce and quantify an effect observed in Dr. Rabenberg's lab, that the coefficient of thermal expansion (CTE) of a pure metal like copper would be reduced by mechanical deformation. Shaw and Garcia were able to measure significant changes in CTE with cold work for various temperatures. This seems to be a totally new contribution to the fundamental science of metals. Shaw and Garcia's poster will be presented at the Spring Meeting in San Francisco, CA on April 17, 2001.

April 16, 2001
Dimitrios Dardalis, a mechanical engineering graduate student, has patented a design that holds promise for dramatic fuel savings in heavy duty diesel engines of the future.

His Rotating Liner Engine (RLE) is not yet in production. But Ph.D. candidate Dardalis predicts his concept ultimately could result in fuel savings of 4.5 percent to 5.5 percent for engines powering today's 18-wheel rigs.
"That may seem like a small number, but it's actually huge," said Dr. Ronald Matthews, professor of mechanical engineering and head of UT Austin's Engines Research Program. Matthews said diesel engines consume vast quantities of fuel to begin with, so any gains in fuel efficiency quickly result in cost savings. And he explained that the fuel economy benefit rises to as much as 27 percent at idle — a significant figure because cross-country truckers often leave their engines idling all night.

A UT Austin economic analysis looked at the potential benefit for a truck driven 120,000 miles per year that averages 6.5 miles per gallon of fuel at a cost of $1.40 per gallon. It showed that Dardalis' design could yield annual fuel savings of up to $2,000 per truck per year — a major incentive for companies with fleets of trucks.

Dardalis said his rotating liner technology can be used on any type of diesel engine, and that all engines using the technology will last longer and require less maintenance. He said the technology could become even more important as the number of trucks on U.S. highways increases, driven by NAFTA, and as new Environmental Protection Agency emissions standards for heavy-duty diesel trucks are phased in.

"Some additional capital cost may not be so painful if you get these payoffs," he said.

Dardalis, 30, is an entrepreneurial thinker who went through the complicated, costly patent process on his own nickel. He received early support for his project from an $89,000 State of Texas Advanced Research Program grant.

Dardalis' design employs rotating liners: the metal cylinders in which an engine's pistons move up and down. Typically, heavy-duty diesel engines have six fixed cylinders tightly pressed into precast cavities within the engine block. A lubricated piston ring moving up and down inside each cylinder generates considerable friction.

This is especially true as a piston ring approaches zero-velocity near the top of its cycle — a point where lubrication vanishes while the cylinder gas pressure is very high. Eventually, friction wears out the cylinder wall.

Dardalis developed a three-dimensional model, which shows a constant, evenly distributed lubrication film between the piston and inner cylinder wall will occur if the cylinders themselves are rotated throughout the entire cycle. Friction and its attendant wear are both drastically reduced as fuel efficiency rises. Harmful emissions also decrease.

"I got the idea from a design the British used for their World War II combat aircraft," Dardalis said. "I first read about it as a kid, in a technical encyclopedia my parents bought me."

The British aircraft engine model employed rotating liners strictly as a space-saving strategy, to decrease drag on the planes. But it reaped unexpected side benefits in friction reduction, decreasing cylinder wear rate by 10 times the normal rate.

When he began his own work several years ago, Dardalis recognized the value of incorporating the rotational feature into a diesel engine that would reduce fuel consumption.

The success of the rotating liner engine hinges on the "face seal" between the rotating liner and the stationary cylinder head. Coming up with both ideal specifications and the best materials for the high-precision seal is a formidable challenge, Dardalis explained. His current prototype is made from a steel alloy, but he is continuing to test new materials.

Dardalis' next step will be working with John Crane Packing Company, an international face seal technology producer with ultra-high precision manufacturing capabilities, to perfect the prototype. Chicago-based Crane, an international face seal technology manufacturer, has lent its support by providing expert consultation at a minimal cost.

Dardalis recently set up a corporation to perfect, test and ultimately commercialize the core technology worldwide. A team of business and engineering experts with startup experience already is on board to provide strong technical support for its future customers. Dardalis, with his attorney's guidance, was able to do much of the work on the patent application himself, reducing the cost from $10,000 to a little over $2,000. "I got a very cheap deal, because the patent lawyer was willing to work with me," he said. Dardalis holds two prior applications: one pending and one already issued that is held in conjunction with Southwest Research Institute.

Contributed by Becky Rische at COE.
May 9, 2001
Mr. Neal Tanner, BSME 2001, is one of 21 Hertz Foundation Fellows chosen from a field of 570 applicants to receive a 5 year, $200,000 Graduate Fellowship award in the applied physical sciences. The Hertz Foundation would like to extend its congratulations to the University of Texas at Austin for attracting this Fellow to their undergraduate program. See www.hertzfoundation.org for more details. Congratulations Neal!

SPRING 2001
RADIO-CONTROLLED CAR RACE

Bellmont Hall on May 1, 2001.
The idea of incorporating teams and radio-controlled cars into the Mechanical Engineering course on Machine Elements (ME338) was that of Professor Kristin Wood, June and Gene Gilis Endowed Faculty Fellow in Manufacturing. During the Spring of 2001, Professor Fred Ling, continued the idea in the section of Machine Elements he taught. The class was divided into twelve teams with two to four members each; each team assembled an RC10 B3 remote control car kit. Over the course of the semester, problems were assigned related to machine elements found in the car. The race was scheduled as a culmination to the semester’s work with the car. The winning team is shown with Professor Joe Beaman, Chairman of the Mechanical Engineering Department, who presented trophies after the race.

May 16 - 20, 2001
The UT SAE Formula SAE team just returned from Detroit, taking 21st overall out of 125 teams that registered, and 109 that actually competed. Big XII teams that we beat included OU, K State, OK State, Colorado, and Iowa State. Other rivals that we beat included Penn State, Purdue, Temple, Florida, and Duke. Unfortunately, we didn’t beat the Aggies - we need more $!!!
Project PROCEED (Project-Centered Education) is a major department-wide curriculum reform initiative being undertaken by the ME faculty over the next several years. An initiation grant of $875,000 has been received from Ford’s Center of Excellence Fund to support pilot implementation of projects in selected courses throughout the ME curriculum. The PROCEED paradigm entails close integration of hands-on experience with theory being taught concurrently on a “just-in-time” basis. Corporate engineers will collaborate with UTME faculty in formulating appropriate projects, and will participate actively in mentoring student project groups via video teleconferencing. Thirteen pilot projects, ranging from lab/lecture/design integration in fluid mechanics to development of an electronically-based student project portfolio system, are being initiated during the coming academic year.

Proposals are also being submitted to the National Science Foundation and to additional corporate sponsors to support equipment and facilities needed to implement the project-based learning paradigm, project activities to assist new engineering students in making the transition from high-school to professional study, industry/faculty collaboration in program planning and project formulation, and faculty/grad student fellowships for curriculum content development.

The Department will welcome inquiries from alumni about how your company can become a corporate partner in PROCEED.

For further information, please contact Dr. Philip Schmidt, PROCEED Director, pschmidt@mail.utexas.edu, or Dr. Joe Beaman, ME Department Chair, jbeaman@mail.utexas.edu
Faculty News

Summer 2000
Dr. Ron Barr received the Outstanding Zone III Campus Representative Award of ASEE, was named Fellow of the American Society for Engineering Education (ASEE), and was elected First Vice President (national office) of the American Society for Engineering Education (ASEE).

July 31, 2000
Dr. Dale Klein, Vice Chancellor for Special Engineering Programs of the UT System and mechanical engineering professor, was appointed chairman of the Texas Radiation Advisory Board by then governor, George W. Bush.

August 28, 2000
The American Nuclear Society Board of Directors elected Dr. Billy Koen Fellow Member.

November 6, 2000
Dr. Kristin Wood, Dept. of Mechanical Engineering, The University of Texas at Austin and Dan Jensen, Dept. of Engineering Mechanics, U.S. Air Force Academy have won the 2000 Curriculum Innovation Award of the American Society of Mechanical Engineers.

Title: Incorporating Learning Styles to Enhance Mechanical Engineering Curricula by Restructuring Courses, Increasing Hands-on Activities, & Improving Team Dynamics

Beginning in 1997 and continuing to the present, the U.S. Air Force Academy (USAFA) and the Univ. of Texas at Austin (UTA) have collaborated in a project to use learning style theory to enhance Mechanical Engineering curricula. Our primary learning styles indicator has come from the Myers Briggs Type Indicator (MBTI); although two other learning styles indicators (VARK and 6 Hats) and four models of the learning process (Kolb, Bloom’s taxonomy, Scaffolding and Inductive/Deductive) were also incorporated. The project focused initially on our undergraduate design methodology courses. However, the impact of this work has now affected a large number of other courses in our departments. We have endeavored to extend, significantly, what others have done in this area to enhance our curriculum. The three educational objectives which have driven this project are:

1. Reformulate course content to better correspond with what is known about diverse learning styles.

January 15, 2001
Dr. J. Parker Lamb, retired as Chairman of the Department of Mechanical Engineering.

EDITOR’S NOTE: The following is an excerpt from a roast that the Mechanical Engineering Department’s Executive Assistant, Jac Erengil, prepared for her retiring boss, former ME Chair Dr. J. Parker Lamb:

“Well, I could just go on & on. It’s a riot around here with Dr. Lamb, and I’m sure we’ll miss that.

A couple of funny items:

1. The Senior Staff around here still remember an incident from Dr. Lamb’s previous term as Chair (way back in 1970’s when ME was in Taylor Hall). A group of staff were all drinking coffee & chatting in the hallway. Dr. Lamb, comes along and asks in his booming voice, “Don’t you all have offices to go to?!” And he meant it.

2. Related to the previous item, this one proves if you can’t beat ‘em, join ‘em........ Nancy, Dr. Lamb’s wife, called recently to speak with her husband. Now, Dr. Lamb usually drops what he’s doing to pick up the phone when Nancy calls. Turns out, I found him chatting with one of the Senior Staff members, laughing right out loud, and he told me to just tell Nancy he’d have to call her back because he was busy gossiping (his words, verbatim).

3. If anything goes wrong with Dr. Lamb’s computer, the first words out of his mouth, in a booming voice that gets us scrambling, go something like.....

"Where the hell is David Dart.....what has he done now; my computer’s not working.....#@!#-----, that David Dart" David’s our computer guy & we all feel sorry for him because JPL won’t ever admit user-error when it comes to his computer.

4. Speaking of technical problems....

When the staff see JPL in the Copy Room, they duck out of the way ---- "Blasted copiers; can’t we afford anything better; they never work.....What’s WRONG WITH THIS THING!!"

And, oh my gosh, sharing a printer with Dr. Lamb is loads of fun: get out of the way when your print job gets printed on his letterhead paper because HE refuses to use the manual-feed feature. "HERE! as he slams the print job on your desk...this must be YOURS, I’ll just have to do mine OVER AGAIN!"

5. Kitchen Theft. We had a rash of food-thefts in our kitchen. The staff was up in arms. Dr. Lamb stepped up to the plate with a sure-fire solution:
fake security cameras to scare-off the criminals, and he threatened to guard the kitchen himself if necessary.

6. Somewhat connected to the previous item...
Recently, the incoming Chair, Joe Beaman, borrowed Dr. Lamb's office for a conference call & meeting, with Dr. Lamb's permission. Dr. Lamb had forgotten about this arrangement & happened to arrive just after the closed-door meeting started, to find - of course - that he couldn't get into his office. To make matters worse, we had provided coffee and cookies to Dr. Beaman's office guests - a service never experienced by Dr. Lamb. Nevermind that we did this only because we happened to have some leftover refreshments on hand --- Dr. Lamb wondered why 'they' got 'goodies', when we never even offer to make him a fresh pot of coffee.

He ended up sitting in the kitchen for about an hour or so while the meeting went on --- yet the staff thought what he was doing was making good on his threat to guard the kitchen.
It worked -- our kitchen theft problem went away!

7. Coffee. You just don't get special treatment around here ---
Dr. Lamb often has to re-heat old, cold coffee because no one will make him a fresh pot, despite his oh-so-subtle hints. What he doesn't know is that it's an inside-joke: we just like to see JPL so out-of-character when it comes to coffee.

8. Now the softer side....
Before his grandson was born, he said he'd probably wait a year or so to make the effort to travel out of state & meet the baby (gasp!). What a crusty ole guy, huh? Well, all it took was one picture of his new grandbaby, and MY GOSH.....JPL was all mush. He carries around a grandbaby bragbook (although he swears "it's just something Nancy put together, but since I have it handy....would you like to look at my grandbaby's pictures..."). And, for a man who hardly ever spoke about his family, now he just beams with stories about his son & grandson. He's absolutely anxious to go meet that grandbaby & spoil him, spoil him, spoil him.

As you can see, Dr. Lamb will be a hard act to follow. Dr. Beaman has his work cut out for him in providing this much material for the department funny bone. Congratulations on your retirement Dr. Lamb! "

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2. Use hands-on and multimedia content in conjunction with learning styles theory to enhance specific “target” lectures which students previously identified as low-motivation or low-interest.
3. Use learning style theory to enhance team dynamics, both in terms of initial team formation and improving team communication.

The project, overall, has resulted in dramatic increases in learning effectiveness for many of our courses. Specifically, a completely revised syllabus for the Design Methodology classes at both USAFA and UTA has resulted in significant increases in student ratings for those classes. Similar results occurred due to evolution of our machine design courses. Our assessment indicates that the addition of hands-on content and multimedia in these courses has significantly improved motivation and interest, especially for certain under-represented learning styles. Finally, the team dynamics work has resulted in a new team formation algorithm, which has led to significant improvements in team performance and better team communication.

These enhancements have resulted in the publication / presentation of 17 papers (3 still in review) and 1 book, and they have affected 7 classes at USAFA and 8 classes at UTA (some of which are interdisciplinary classes). Over 600 students at USAFA, and a similar number at UTA, have benefited directly from this work. In addition, colleagues at Univ.of Missouri-Rolla, Stanford, University of the Pacific, and MIT have collaborated with us in this work and, as a result, some of these techniques are included in their classes as well.

November 7, 2000
Dr. Paul Ho won the Callinan Award of the Dielectric Science and Technology Division of the Electrochemical Society.

December 8, 2000
Dr. Raul Longoria wins the Teetor Award. The Society of Automotive Engineers (SAE) presents the Ralph R. Teetor Education Award to recipients at the annual SAE Congress and Exposition in Detroit, which took place this past March. The awardees are invited to the meeting, to an award presentation, and to special meetings and tours with industry representatives. This year, they visited the Daimler-Chrysler Technical Center outside Detroit. The purpose of the award is to enhance the awardees relationship with industries represented at SAE (and here the Ground Vehicle industries) as well as with colleagues in SAE.
December 14, 2000
Dr. John B. Goodenough, professor of engineering at The University of Texas at Austin, has received the $450,000 Japan Prize for his discoveries of the materials critical to the development of lightweight rechargeable batteries. (see featured article.)

January 1, 2001
Dr. Paul Jensen was elected as the Vice President for Meetings for the Institute for Operations Research and the Management Sciences. This is a national organization that holds several meetings a year. The largest is the annual meeting that draws about 2000 attendees. The next annual meeting is in Miami in the fall of 2001. Dr. Jensen is in charge of all meetings for this organization.

January 8, 2001
Dr. Ronald Matthews, a UT Austin professor of mechanical engineering, and Dr. Rudy Stanglmaier, (Ph.D. ME '97) a former UT Austin doctoral student along with two Ford engineers, patented a new technology aimed at reducing vehicle emissions by 50 percent or more. The Ford engineers are Dr. Wen Dai, (MSME ‘92, Ph.D. ‘95) a UT Austin College of Engineering graduate, and Dr. George Davis.

January 16, 2001
Dr. Joe Beaman appointed Chairman of the Department of Mechanical Engineering.

February 6, 2001
Eric Taleff of the Department of Mechanical Engineering is one of two professors selected from the College of Engineering by the Ex-Students Association to receive one of this year’s Texas Excellence in Teaching Awards.

Spring 2001
Dr. Ron Barr was given the Distinguished Service Award, Gulf-Southwest Section of ASEE.

March 27, 2001
patent #6,207,941 was issued to Drs. Phil Schmidt and John Davis (Associate Prof. of Electrical and Computer Engineering) and Tyler Blessing MSME ’97, former ME graduate student, on “Method and Apparatus for Rapid Drying of Coated Materials with Close Capture of Vapors”. The patent describes a device to flash evaporate liquid films (such as solvent-based coatings) from a surface as it moves through a specially-configured microwave cavity. The geometry of the cavity is designed to maintain a particular microwave pattern (“mode”) which allows for slots through which material can enter and leave, while blocking any leakage of microwave energy. At the same time, volatile vapors are captured in nearly pure form, permitting them to be recovered and recycled into the process. Potential applications of the system include printing and coating of paper or plastic webs and rapid clean coating of semiconductor wafers.

April 13, 2001
The American Society for Engineering Education (ASEE) chose Dr. Steve Nichols to receive the 2001 ASEE Fred Merryfield Design Award in recognition of his distinguished accomplishments. The presentation of ASEE’s National Awards took place at the Annual Awards Banquet on Wednesday evening, June 27, 2001 in Albuquerque, New Mexico. Dr. Nichols is the Chair of the Entrepreneurship Division of ASEE and just completed a 2 year term of office as Chair of the Management Division of ASME, International. Dr. Nichols has also joined the Board of Directors of the Association for Manufacturing Excellence.

FACULTY RETIREEs:
DR. J. PARKER LAMB
DR. JOE THORNHILL
DR. BERNARD WEHRING
DR. DAVID T. BLACKSTOCK
April 2001 - Innovative Instructional Technology Awards Announced at CIT Open House - Three University of Texas faculty members received cash awards totaling $6500 in this spring’s Innovative Instructional Technology Awards Program, underscoring their accomplishments on behalf of enhancing teaching and learning for their students. First prize of $3500 went to Prof. Billy Koen of the Mechanical Engineering Department and his collaborator Kathy Schmidt from the College of Engineering’s Faculty Innovation Center, for ME 205, Computers and Programming, a Web-based implementation of the classic Personalized System of Instruction (PSI) in a freshman computer course. PSI is mastery oriented, self-paced, and emphasizes direct interaction between student, proctor, and professor. An innovative goal of this site is to blur the boundary between what is available through the Web and through live course interactions by using Web cams and chat programs in all aspects of proctoring, teaching, and evaluation.

May 1, 2001
Desi and Libby Kovar have an 8lb. 3oz. addition to their family ----- Jeffrey Jia-ming Kovar was born Tuesday May 1 at 11:00am! Congratulations to the Kovars; here’s to sleepless nights and absolute bliss!

May 4, 2001
The DTEACH program won an award from the Engineering, Science and Technology Council of Houston for their work with the Aldine ISD. The Design Technology and Engineering for America’s Children (DTEACH) project is a grassroots science-mathematics-technology teacher education project for elementary school educators. Initiated as science enrichment within the Austin Independent School District (AISD), it is now tied into teacher training provided by three Mechanical Engineering professors, Drs. Kristin Wood, Richard Crawford, and Jerold Jones, and by teacher educator Dr. Marilyn Fowler of the UT Dana Center for Mathematics. The DTEACH website is http://www.engr.utexas.edu/dteach.

June 17, 2001
Dr. Matthew Hall and his wife, Kellie, gain an addition to their family with the birth of their son, Sean. What a wonderful Father’s Day present! Congratulations to the Halls.

Check out the Changes to the New Alumni Web Site. A special area of the website which is available only to ME Alumni is in the works. You will be able to log in, pick out a password for yourself and utilize bulletin boards organized especially for your class. This is a tool to help you stay in touch with your former classmates, maintain contacts, plan events or just see what’s going on. As always any comments or questions are very welcome. Please let us know if we can post your e-mail address.
F.C. Rushing, BSME 1928

C.R. von Bieberstein, BSME 1930

R.L. Ohls, BSME 1929

STUDENTS OF DAYS GONE BY...
Recently a wonderful collection of old photographs was found hidden away in a remote closet in the Mechanical Engineering Building. The collection spans from 1928 to 1960. This office thought it might be fun to share these old photos with our readers some of whom may recognize themselves!

Volunteer for Alumni Events!

Build the UT ME Community

See Old Friends

Meet New Friends

Organize UT ME Alumni Events

A. At Your Company
B. In Your City

Contact the ME Alumni Office for Opportunities

Phone: 512-471-2832
E-Mail: hofer@mail.utexas.edu
Russell Dee Hicks, BSME ’34, “I better get into this coming issue of the ME Alumni Newsletter--as I may not make it for many more, although I am in excellent health coming up on 90 years of age come Christmas Day. I retired in 1979 after 12 years in Civil Service for the Air Force (Kelly Air Force Base), following about 15 years each with Continental Motors Corp. in Detroit and Muskegon, Michigan (Aircraft Engines) and Cummins Engine Company in Columbus, Indiana. (Diesel Engines) Most positions were Sales and Service Engineering. I have enjoyed every minute of my 45 years of doing the things I loved to do. Boy, am I glad that I became a Mechanical Engineer rather than one of those Law guys!!

“In 1997, I decided to tackle the basics of computers --at least the e-mail and word processing parts, and have beat out many pages of pleasure since that time. My e-mail address is RDHicks@Mail.com and I live in San Antonio --where I have for the past 40 years. A great many of my school buddies have not been so fortunate as to live as long as I have, but to any and all that are living, I will be glad to hear from you.”

Werner Goldsmith, BSME ’44, MSME ’45, professor of the graduate school, University of California at Berkeley was the first graduate from UT to become an honorary member of ASME. He is a member of the National Academy of Engineering, and has received countless other honors. This year in September, Werner will be receiving the award for outstanding graduate in Mechanical Engineering from the University of California.

Leonardt Ferdinand Kreisle, BSME ’44, Alumnus Professor of Mechanical Engineering, The University of Texas at Austin is doing fine living alone with his three dogs at his Lake Austin home at:

Leonardt F. Kreisle, Ph.D.
1807 North River Hills Road
Austin, Texas 78733-2710
Telephone: (512) 263-5052
E-Mail Address: LKREISLE@FLASH.NET

JOIN US
for the
FIFTH ANNUAL
TAILGATE PARTY

NOVEMBER 10, 2001

UT vs. KANSAS

Hotel Block:
Homestead Studio Suites Hotel
507 S. First Street
Austin, Texas 78704
(Corner of Barton Springs & S. First St.)
Telephone: 512-476-1818

Please identify yourselves as
“U.T. Mechanical Engineering Alumni”

A block of 50 rooms has been reserved on a first come first serve basis until October 15, 2001. To stay in this block of rooms, please call the hotel and reserve your room with your personal credit card before October 15, 2001.

The rate is $70 plus tax for a queen studio.

The event will be held in the Mechanical Engineering Building, ETC 2nd floor lounge area. Free parking will be available behind the ME building in lot 53 just north of ETC. One hundred spaces have been reserved for you on a first come first serve basis. Please identify yourselves to the guard as “Mechanical Engineering Alumni”. To Receive More Information about Parking and/or to RSVP for the catered pre-game meal:

Contact Joanna Hofer
Phone: 512-471-2832
E-Mail: hofer@mail.utexas.edu
Or check the ME Alumni Website at http://www.me.utexas.edu/~alumni

To Reserve your Pre-Game Meal Tickets, Send Checks payable to “UT-Mechanical Engineering” for $10 per plate by October 15, 2001

Send Checks to:
The University of Texas at Austin
Mechanical Engineering
Joanna Hofer/Alumni Office
ETC 5.160
Austin, Texas 78712
1968

James D. Lowther, Ph.D. ’68, retired as Professor and Program Chair of Mechanical Engineering at Louisiana Tech University in May 2000 after 35 years on the faculty.

Michael B. McShane, BSME ’68, won the Motorola U.S. Patent of the Year Award for his patent titled “Semiconductor Device Having a Pad Array Carrier Package”. At the awards banquet in October, Mike said, “Thank you. I am very honored to receive this award and recognition. I would like to thank my co-inventors and many global Motorola colleagues who helped take this new technology and make it a manufacturing success.”

“Intellectual property has been transformed from a sleepy area of law and business to one of the driving engines of a high-technology economy.” said Sabra Chartrand of The New York Times.

Michael B. McShane is a 25 year Motorolan who works in the Final Manufacturing Technology Center in Austin, Texas. He is a member of IEEE, CPMT, Vice-general Chairman of ECTC, a Distinguished Innovator, member of the Motorola Science Advisory Board Associates, member of the Silver Quill and recipient of Patent of the Year.

1969

Sandy W. Hagan, Jr, BSME ’49, of Tyler, Texas participated in the Class of ’49’s 50th Reunion.

1970

Gary Watt, BSME ’70, moved to Chicago, IL almost 2 years ago to become Senior VP - Sales and Marketing of Superior Bulk Logistics, Inc. This $200 million per year privately owned company serving the chemical and food products industries is among the largest tank truck operators in North America. Prior to that move, Gary was VP Marketing of a division of Schlumberger in Houston, TX. Gary’s oldest son, Daniel, begins his BS Computer Science curriculum in the College of Engineering of the University of Illinois at Champaign-Urbana in August.

1971

Mike Kaler, BSME ’71, is president of a company called Motocoolstuff, Inc. which develops and markets items of apparel and accessories for motorcycle racers, automobile racers, and the general motorsports public. The unique aspect of their products is that they all utilize a patented technology (owned by Outlast Technologies) which incorporates phase change materials to help control the rider’s skin temperature. Their products have been used in the motorcycle racing circuit from Daytona to Loudon to Mid Ohio. Lately, more street riders are starting to use the apparel in order to stay more comfortable under street leathers and enhance their personal safety year around. More information can be found at their website www.motocoolstuff.com

Mike is also marketing manager for Mestex, Ltd., a 30 million dollar division of a 500 million dollar company in the heating and air conditioning industry which markets products to industrial and “heavy commercial” users.

1973

Oscar J. Zuniga, Jr., P.E., BSME Dec. ’73, owes much of his professional success to Byron Short, Leonardt Kreisle, and the other excellent staff who were there during his time on campus in ’69-’73. He says he was fortunate to have worked part-time in the Engineering Placement Office (Career Guidance Center) under Joe Bruns, so was able to meet many other engineering students during interviews and counseling scheduling. He is excited to become a grandfather in March of 2001 (first one)!
1978

Bernardo Cardenal, P.E., BSME ‘78, has formed a new company, Younggross Cardenal & Associates, LLC now operating in West Palm Beach. Their services include Mechanical, Electrical, Plumbing and Fire Protection design for a variety of clients.

1979

Steve Diserens, BSME ‘79, has been involved in the energy industry for his entire career - all in Houston. He has worked for Exxon, then started a consulting engineering group and for the past 12 years has been involved in natural gas and power marketing.

Linda Saia Woosley, BSME ‘79, is a principal Safety Analysis engineer at Columbia Generating Station for Energy Northwest. Linda and her husband, Steve, have “two cats instead of kids because they take care of themselves”. Linda recently started quilting, and is passionate about it, working on them whenever she can. She received her MSIE from Lamar University in 1987.

1980

Ted A. Aanstoos, PE, BSME ‘80 and MSE ‘87, was elected to Fellow grade in ASME International in April 2001. Ted is a Research Engineer/Scientist Associate V at UT’s Center for Electromechanics and a Senior Lecturer in the ME department.

Gerardo Delgado, BSME ‘80, gdelgado@tecnoco nsult.com, is currently living in Caracas, Venezuela working for Tecnoconsult, SA, an engineering, procurement and construction company as an Engineering Project Manager. Though it serves all kinds of industries, Tecnoconsult’s main client portfolio is the oil, chemical, petrochemical, and refining industry.

In 1997, Gerardo was awarded the Honor Merit at Work in its Third Class by the Venezuelan Government through the Ministry of Labor. Gerardo plans to teach engineering subjects at college and to lead engineering programs that contribute to the advancement of the engineering careers and the betterment of future engineering students. He longs to return to UT as a student, a professor, and a researcher. Personal email: gerardoytamara@yahoo.com

1981

Daniel Roy Villarreal, PE, BSME ‘80, is Chief - Facilities Engineer for William Beaumont Army Med Center in El Paso, Texas. His wife is Maumi Caine Villarreal, MS, RPh. She is Chief of Patient Care Services & Assistant Professor of Pharmacy Practice (UT, 1980 & 1996) at Texas Tech University Health Sciences Center, School of Pharmacy in El Paso, Texas. Daniel’s daughters are Sarah Marie Villarreal and Chelsea Anne Villarreal. Sarah is a highschool freshman and participates in the marching band, honors classes, swim team, Debutant Ball and symphony guild. Chelsea is in the 6th grade and attends honors classes, plays violin, and is on the swim team.

Jon D. McWhirter, BSME ‘81, Ph.D. ’95, determined a new scientific constant. The dimensionless constant, S, is called the Sanders constant, and is named after Dr. McWhirter’s predecessor in the magnetohydrodynamics field at UT, Dr. T. L. Sanders, Ph.D. ’85. The constant is relevant to flows of liquid metals through porous media such as packed beds of spheres and granular rock. The Sanders constant is an electromechanical counterpart to the dimensionless Ergun constants commonly employed in the analysis of porous media. The value of the constant as determined by Dr. McWhirter is $S = 0.23$. Dr. McWhirter is currently on the faculty of the College of Engineering at Idaho State University, Pocatello, Idaho.

1982

Richard Jennings, BSME ‘82, loved his engineering computing classes at UT and always knew that Engineers are the best computer drivers! During his first two years out of UT as a turbomachinery designer at Ingersoll Rand, Richard got really hooked into computer data acquisition systems and engineering analysis software. He made a job change in ’84 to become a Software Engineer with General Dynamics and never looked back. After a more years of hard work and a Masters in Management from Stanford, Richard landed his current position of Vice President and General Manager for CSC’s Western United States information systems services business unit back in 1994. He enjoys computers,
Minh-Hien Nguyen, BSME ‘87, had a baby boy, Liam Ziaja, in October 2000. Minh-Hien currently practices intellectual property law at Vinson & Elkins in Austin, Texas with a focus on patent and trademark litigation.

Patti Scheurich, BSME ‘87, MSE ‘96, works for Siemens AG in Bocholt, Germany. She started out at ROLM in Austin, Texas which was later acquired by Siemens AG. In 1998, she and her German husband Joachim moved to Munich, and one year later to NW Germany. “I am currently working in a Service function, writing technical documents for the call centers worldwide. It has been a real experience moving away from Texas to a German speaking country. We are thrilled to be expecting our first child late August / early September and expect to be here in Germany a couple more years. We hope to make a little longhorn out of him/her!”

Suzanne Stanton (Peterson), BSME ‘87, MSE ‘90, married Michael Logan on September 5, 2000. They met at an Experimental Aircraft Association holiday party, and both pilots were busy building their own experimental airplanes. Their lives were merged, and both aircraft were finished and flown in 2000 - what a busy year! Suzanne’s Pulsar XP is a bit faster than Michael’s Kitfox V, but the two spend weekends flying around the countryside together, attending fly-ins and impromptu gatherings. They live on a private airfield in Southern Maryland, where Suzanne is currently searching for just the right engineering position.

Brian Fox, BSME ‘88, and Hector Tello, BSME ‘88, friends since middle school, are the principals at MySoftwarePartner, the San Antonio software development division of California based Applied Engineering Management Corporation. (see article on page 29.)

Richard G. Merrill, BSME ‘88, was married to Susan Gaucher (an SMU graduate) on June 9 outdoors in Galveston during a lull in Tropical Storm Allison. He remains employed as a software developer for United Space Alliance in support of the Space Shuttle program for NASA.
Brian Fox (BSME ’88) and Hector Tello (BSME ’88), friends since middle school, are the principals at MySoftwarePartner, the San Antonio software development division of California based Applied Engineering Management Corporation. In 1996, when Fox was recruited by AEM’s founder and President, Dr. Sharon deMonsabert, to spearhead this new AEM division, Fox contacted Tello then the Director of Technology at Carlson Wagonlit. Exhibiting the entrepreneurial streak found in both men, Tello immediately signed on. Together the men have created a “company within a company,” building a multi-million dollar division that handles the software development and implementation for some of the most complex enterprise systems in the world.

This partnership fulfills a dream the two began discussing while attending the University of Texas at Austin where both were mechanical engineering undergraduates. The idea of working together grew out of respect for each other and a shared desire to succeed. However, it was several years before this dream was realized. Fox went on to attend graduate school at the University of Southern California and the University of Denver, earning a Master’s degree in Systems. Tello received a Master’s degree in Material Science from the University of Texas at Austin and also pursued doctoral studies at Rice University.

Each man also ventured into the working world. Fox signed on as a flight engineer, eventually becoming the Chief Flight Test Engineer for the Navy’s TOMAHAWK Cruise Missile. Tello headed to McDonnell Douglas where he worked on NASA’s space station. These years were very important to the eventual partnership and success of MySoftwarePartner. The rigorous training received gave both men a thorough grounding in developing and maintaining large, sophisticated systems.

The methodology learned during this time currently plays an essential and crucial role in MySoftwarePartner’s ability to deliver complex systems on time, on budget, and on scope, thus allowing their clients to reap maximum benefits. For example, MySoftwarePartner developed a comprehensive e-commerce system for LensCrafters, the world’s largest optical retailer, that allowed LensCrafters to almost double its number of providers within two months of going live. A phenomenal increase in an unbelievably short amount of time. The software system developed for LensCrafters heightened the company’s productivity and efficiency and resulted in significant increases in revenue and profitability. It’s this “on budget, on time, on scope” ability that sets MySoftwarePartner apart from the competition and puts it in a class by itself.

And while the impact of MySoftwarePartner’s systems can be felt worldwide, both Fox and Tello have maintained strong “hometown ties,” choosing to locate both their business and families in San Antonio. Both men believe in helping others, whether it’s through being involved in the community or solving problems for the world’s largest companies. Helping others achieve their goals has been the foundation of their friendship and the foundation of their company. And both have proven extremely successful.

MySoftwarePartner specializes in designing, integrating and improving all aspects of a company’s systems and processes. The addition of Schwab expands MySoftwarePartner’s already growing client base, which also consists of other notable national companies such as 3Com, Nortel Networks, Hewlett Packard, EyeMasters, Lens Crafters, and Cole Managed Vision (including Pearle Vision, Sears Optical, Target Optical and Montgomery Ward Optical).

James (Jim) Norris, BSME ’88, is currently living in Arlington, Texas. Jim has a wife and three children. Jim worked for two years immediately after graduation for a subsidiary of Cameron Iron Works in Houston called Cameron Offshore Engineering (COE). He has lived in Arlington since 1990, and currently works for Oil States Industries, Inc. (OSI) as a Project Manager. Typical duties include managing projects from concept through manufacture of products for the offshore oil industry. Products include FlexJoints for Steel Catenary Risers and drilling operations and Tension Leg Platform (TLP) tendon equipment. Jim recently spent 2 months in Aberdeen Scotland with an OSI division designing and analyzing a TLP tendon top connector.

1989

Debra Hentz, BSME ‘89, is a R&D Project Manager for the Hewlett Packard Company in their Vancouver, Washington, site where HP’s personal inkjet printers are designed. Debra loves the Pacific Northwest, bicycles to work, and is still finding lots of stimulating ways to apply her UT engineering degree at work. She says some of her most rewarding work is as Hewlett Packard’s College Recruiting Campus Manager for The University of Texas at Austin where she gets the opportunity to return to campus and bring more Longhorns to work for HP in all their USA locations.

1990

Mark Boyden, BSME ’90, has been working as a Consultant at Athens Group, Inc., in Austin, TX, since October 1999. Athens Group is Austin’s premier consulting company, employee owned, specializing in the integration of technology strategy and software solutions. For the previous seven years, he had worked at Fisher-Rosemount, part of Emerson Electric, primarily focussed on developing and implementing a global, multi-divisional Internet strategy for managing customer relationships.

Mark recently (Feb 2001) had an addition to his family - a baby girl named Gwyneth Daly. He continues to be active in the community working with the Boy Scouts and the Trinity United Methodist Church Youth Group. He also coaches a community volleyball team and paddles rivers as much as possible. Just recently, he spent two weeks paddling dories down the Grand Canyon with several friends -- a grand experience.
Daniel G. Hrachovy, BSME ‘90, received a Doctor of Jurisprudence degree from South Texas College of Law, has been admitted to the Texas Bar, and has recently been named Manager of Business Development for ExxonMobil Pipeline Company.

Trent Thompson, BSME ‘90, is the Wireless Packaging Engineering Manager at Motorola Semiconductor Products Sector in Austin, Texas. Outside of work he enjoys racquetball, running and hiking. His e-mail address is Trent.Thompson@motorola.com.

1991

Paul DeCiutiis, BSME ‘91, earned his PE license in 2000. Paul currently lives in Austin with his lovely wife and four children, and is employed with KANE Environmental Engineering, Inc. as an environmental consultant.

Shad Rahman, BSME ‘91 and MSME ‘93 (both from UT), and MBA ‘99. Shad has been working for Mobil Oil Corporation and ExxonMobil Corporation since 1993 in a variety of positions and locations. He is currently a refinery lead mechanical engineer for crude oil and coke processing in New Orleans. Shad’s e-mail address is shad.rahman@hotmail.com

“I read the write-up for the m.e. faculty, staff, students, and alumni who ran the Austin Marathon last year and have been motivated to get back into running. My target time for the 2001 Austin Marathon is about 2hr 50 min. I hope to see some of them out there on Feb 16.”

1992

Scot Gallaher, BSME ‘92, MSSTC ‘96, graduated in June from Harvard University’s John F. Kennedy School of Government with an MPA in International Development as part of the first class of the new graduate program. Scot spent last summer in Estonia working with technology companies as an Investment Associate in a venture capital fund. Most likely, he will be relocating to the bay area to join an economic development consulting firm and explore start-up companies.

Joseph “Frank” Garlett, BSME ‘92, accepted a position at Applied Materials in Austin.

Bill Ludlow, P.E., BSME ‘92, is a manufacturing engineer at Air-X-Changers in Tulsa, OK. Check out http://www.airx.com/CompInfo.htm

Air-X-Changers has the leading market share in large air cooled heat exchangers (up to 14 foot diameter fans) for the oil & gas industry. Bill is currently designing a 2.5 Million Dollar space for heavy metal fabrication. Bill says his UT education has helped him to engineer mechanical air and gas piping systems - Fluid Mechanics, to specify overhead cranes for material handling --

-- just wait! Bill remembers Dr. Phil Schmidt: “I’ve talked to so many other mechanical engineering students who hated Thermodynamics. Thanks to Dr. Schmidt, I enjoyed it. I’ll never forget the day he walked in the classroom in character, was that Carnot? Anyone remember? Does he still do that? Thanks Dr. Schmidt!”

Bill hopes to come back and visit Austin soon.

Karen Thole, Ph.D. ‘92, After doing a Post-Doc in Karlsruhe Germany for two years, she began as an Assistant Professor at the University of Wisconsin-Madison. After moving to Virginia Tech in January 1999, she was recently granted tenure there.

1993

Kian Hwa Le, BSME ‘93, is running a student placement agency in Indonesia. Kian helps Indonesian students who want to study abroad. Kian also has a telephone cellular business.

Kelly J. Kubasta, BSME ‘93, is an attorney with the Dallas office of Sidley Austin Brown & Wood, specializing in patents, trademarks, and all other aspects of intellectual property. Kelly graduated from the University of Texas School of Law in 1997. He can be reached at 214-981-3391.

Phillip Seawright, BSME ‘93, is living in Denver, Colorado where he founded Quarterback Map LLC. The Quarterback Map is a weatherproof ski map that allows skiers to completely manipulate the ski map without removing gloves or mittens. Phillip recently received his MBA from Wharton in May 2000.
Bill Schneider, BSME ’93, obtained his MSME from Georgia Tech in 1995 and has been working in Palmdale, California for Lockheed Martin Aeronautics Co., a.k.a. "The SkunkWorks", on a variety of classified government programs. Bill recently discovered that "The truth is out there."

1994

Edgar Figueroa, BSME ’94, received his masters in business from UT in 1998. After several years at 3M in different engineering and business functions, he now works for Ridge-way Systems in Austin, as a Director of Worldwide Product Support. He is always eager to catch up with old friends.

Heidi K. (Weber) Jennings - BSME ’94, is the Senior Shuttle Robotics Instructor responsible for training astronauts and flight controllers the operation and technical systems of the Shuttle Remote Manipulator System (the Shuttle’s Robot Arm). Recently completed the RMS training for the STS-100 mission launched in late April 2001. Astronauts on this mission utilized the Shuttle Robot Arm to install the new Canadian Space Station Remote Manipulator System and an Italian logistics module onto the International Space Station. The Shuttle Robot Arm was also used to support two spacewalks.

1995

Tanuj Deora, BSME ’95, married Amy Michele Carter on May 19th, 2001 in San Antonio, Texas. Tanuj works in New Business Development for Dow Chemical’s Industrial Chemicals business group in Freeport, Texas. He and Amy plan to live in Houston until the end of the year before they ship off to Africa for two years with the Peace Corps.

Jerri Paul, BSME ’95, MSME & MBA ’97, is still with Ford Motor Company and now is working as a business analyst in ConsumerConnect -- (Ford’s e-business). Jerri’s role includes vetting potential business collaborations with an automotive aspect and working on special projects. Jerri is also a member of the UT Mechanical Engineering Visiting Committee.

Bolie Williams IV, BSME ’95, since graduating has gotten married, had a daughter, worked as an email administrator, and as an engineer designing deepwater drilling and production control systems. Bolie is now working for CSO/Aker Engineering. He is responsible for the subsea production controls for deepwater developments, currently in the Gulf of Mexico. http://www.io.com/~bolie/

1996

Paul Marlow, BSME ’96, is the proud father of a son (Kaston Jace Marlow) who was born September 18, 2000. Paul graduated from UT Austin with MS in Science and Technology Commercialization in May 2001.

Bruce Siebold, BSME ’96, has been employed in the railcar industry for almost 4 years and is currently Senior Project Engineer for Trinity Industries, Inc / Parts Division. Trinity Industries is one of the largest railcar manufacturers in the country with Corporate Headquarters is in Dallas, Texas.

1997

Tab Syeda Ali, BSME ’97, is currently working for Schlumberger Conveyance and Delivery, Coiled Tubing Division in Sugar Land, TX on the CoilFRAC Project. Rapidly learning about the oilfield environment and designing tools in Pro-Engineer. Graduated Bachelor of Science Mechanical Engineering, August 1997. Moved to Houston, TX after graduation. Email: taba@hotmail.com.

John Bracchini, BSME ’97, started working on his MBA at Duke University’s Fuqua School of Business last year. John recently began a summer internship with GlaxoSmithKline in their Global eBusiness division. His first two years out of school, John worked with Phillips Petroleum in Houston - first as a Process Engineer at a polyethylene manufacturing facility and later as a Natural Gas Marketing Representative in a commodities trading group. Before returning to school, John also worked for over a year with Applied Materials as a CES (Customer Engineering Specials) Design Engineer in Austin. John would be happy to answer any questions other alumni might have regarding the pursuit of the MBA or the application process.

Reagan Evans, BSME ’97, recently purchased a home in Austin and is working as a technical account manager for Motive Communications, Inc. This switch to a software focused career followed a three-year stint at Andersen Consulting (now known as Accenture) as a technology consultant where he was deployed to enterprise software projects in Boston, MA and Paris, France.
**1999**

**Jason Long, BSME ’99,** says “Hello fellow Longhorns!” Jason is currently working as a Process Engineer for Harman/Becker Automotive Systems located in Martinsville, Indiana, located approximately 25 miles south of Indianapolis. Harman manufactures speakers for Chrysler, Toyota, Mitsubishi, Hyundai, and BMW. On a personal note, Jason and Rachel are the proud parents of a 1 year old named Grace. “We sure miss the Texas weather. Hook’em Horns!”

**1998**

**Eric Almaraz, BSME ’98,** is working as an application engineer for Metso Automation which manufactures control valves. Eric started his job in April 2000 after leaving Halliburton (working as an application engineer for Dresser Valve division). His job entails designing and building control and automated on/off valves assemblies for the process and hydrocarbon industry. This includes material selection, valve sizing, and instrumentation configuration. The job is very challenging and also includes global travel.

**Joe W. Gensler, BSME ’98,** and his wife, Jane, have a new baby boy as of May 17, 2001. The baby’s name is William Harrison Gensler, (7 lbs 5.6 ounces, 21 IN long) Mother and son are doing well!

**David Marburger, BSME ’98,** has been working for FMC in Houston for the last three years which designs, manufactures, and installs offshore oilfield equipment. David's job consists of flying out to offshore oil rigs, and installing subsea wellheads and trees.

**Amy Moon, BSME ’98,** and **Jason Williams, BSME ’97,** were married in October. They are living in San Diego, California. Jason is designing commercial refrigeration systems for Killion Industries and Amy is designing cellular phones for Qualcomm.

**Javier Saucedas, BSME ’98,** and his wife, Selina, moved to Houston and is working for Stewart & Stevenson in the petroleum equipment division. On April 17th, they welcomed their first child, Daniel Tomas -- a Longhorn in the making.

**1999**

**Roger Lee, BSME ’97,** works with Hughes Christensen, A Baker Hughes Company, in the Woodlands. Roger designs drilling tools for the energy industry. This May, he received his MBA from Sam Houston State University.

**Jason Williams, BSME ’97,** and **Amy Moon, BSME ’98,** were married in October. They are living in San Diego, California. Jason is preparing for graduate school this fall. He is enjoying life and doing well!

**2000**

**Thomas J. Connolly, Ph.D., 2000,** joined the faculty of Penn State University at Erie as an Assistant Professor of Mechanical Engineering in January 2001. He is teaching courses in Machine Dynamics and Measurements & Instrumentation, as well as continuing his research in the synthesis and control of active elements for mechanical systems. He misses UT very much, and has a lot of Texas memorabilia in his office to remind him of his “roots”!

**Marissa Forney, BSME 2000,** and **Christopher Rylander, BSME 2000,** were married on June 23, 2001 at the University Christian Church in Austin. Marissa and Chris are currently pursuing their Ph.Ds in biomedical engineering at UT. Chris is specializing in optics and Marissa is performing research in bio-heat transfer. **Professor Ken Diller** of the UT Mechanical Engineering Department performed the ceremony.

**Congratulations to the Happy Couple!**
Deaths

Kim Anderson, BSME ‘52, of Austin, Texas passed away on October 12, 2000.

Elmer C. Beach, BSME ‘49, of Dallas, Texas passed away on August 3, 2000.

Barry Boecker, BSME ‘67, of Fort Worth, Texas passed away on September 1, 2000.


James Campbell, BSME ‘51, of Austin, Texas passed away on March 29, 2001.

Jack Conly, BSME ‘56, passed away on December 9, 2000.


Jay Downes, BSME ‘62, of Alice, Texas passed away July 1, 2000.


Tom L. Fleming, BSME ‘28, of Beechgrove, TN passed away on May 12, 2000.


Bill Lubbock, BSME ‘40, of Brenham, Texas passed away on April 4, 2001. Mr. Lubbock was a major benefactor to the UT Department of Mechanical Engineering. Many students for years to come will benefit from his generosity.

Chilton Earl Miles, BSME ‘47, of Texas City, Texas passed away on February 21, 2001.


Tom L. Fleming, BSME ‘28, of Beechgrove, TN passed away on May 12, 2000.


Bill Lubbock, BSME ‘40, of Brenham, Texas passed away on April 4, 2001. Mr. Lubbock was a major benefactor to the UT Department of Mechanical Engineering. Many students for years to come will benefit from his generosity.

Joseph I. Mills, BSME ‘41, passed away on September 5, 2000 in Phoenix, Arizona. In his last correspondence with this office, Mr. Mills reported that he and his wife, Faye, had been married “58 + years” and had traveled all over the world. He said he had had a Civil Engineering class under Dean Taylor. He was saddened to learn of classmate Kenneth McRee’s death in 11/97. Before his passing, Mr. Mills had made two requests of this Office. He had wanted to contact fellow classmate, Tommy (Norris) Black and he had requested that a listing of his fellow classmates’ names be published in this edition of ME ALUM. Mr. Mills worked as a Senior Development Engineer for Goodyear for over 40 years. Per Mr. Mills’ request, please see page 35 for a listing of the surviving members of the Class of 1941.


Tom L. Fleming, BSME ‘28, of Beechgrove, TN passed away on May 12, 2000.


Bill Lubbock, BSME ‘40, of Brenham, Texas passed away on April 4, 2001. Mr. Lubbock was a major benefactor to the UT Department of Mechanical Engineering. Many students for years to come will benefit from his generosity.

Chilton Earl Miles, BSME ‘47, of Texas City, Texas passed away on February 21, 2001.
Duane Lee Moody, BSME '92, passed away on August 8, 2000 surrounded by family and friends following a hard fought, two year battle with Rhabdomyosarcoma. Duane will always be remembered by all who knew him for his kindness, compassion, humor and enthusiasm for life. After his graduation from the University of Texas, Duane began a successful career at Applied Materials. He was especially appreciative by thoughtfulness and support provided by his co-workers throughout his illness. Duane is survived by his beloved wife of six years, Sherry Rode Moody, two daughters, Alyssa Lee and Mary Lee, his brothers and their wives, his mother and father and many other cherished relatives. The mass of Christian burial was held at St Louis Catholic Church in Austin, Texas. In memory of Duane, his family has set up the Duane Lee Moody Endowed Presidential Scholarship. Checks should be made payable to the University of Texas at Austin and sent to Eric Moody, 4301 Greystone Dr., Austin, Texas 78731. This endowed fund created by his family with Duane’s enthusiastic approval, will generate an annual, undergraduate engineering scholarship with the aim of encouraging student to pursuing careers in the semiconductor industry with the ultimate goal of developing new tools and technologies for diagnosing and curing cancer and other diseases. Alternatively, donations could be made to a college education fund being established for Alysa and Megan. All donations are greatly appreciated.

Andrew Nagy, BSME '66, of San Antonio, Texas passed away on April 27, 2001.


William Patterson, BSME '60, of Garland, Texas passed away on May 26, 2001.


Ralph Elwood Powers, BSME '38, MSME '40, passed away on November 3, 2000.

Ed Samfield, BSME '43, of The Woodlands, Texas passed away on June 1, 2001.


George Cooper Morris, BSME '39, of Dallas, Texas passed away on August 8, 2000.

Rue Carlton Terry, BSME '47, of Oklahoma City, OK, passed away in August 2000.

Carol Thurston, wife of Dr. George B. Thurston, Professor Emeritus - M.E., passed away in July 2001. A token of condolence was sent to the Thurston family on behalf of the Department.

James Turner, BSME '72, passed away on August 6, 2001. He will be missed.

James Winfrey, BSME '29, of Houston, Texas passed away on August 30, 2000.

George Yelderman, BSME '42, of El Paso, Texas passed away on August 6, 2000.

George Strouhal, MSME '54, of Friendswood, Texas passed away on July 12, 2000.
Class of 41

<table>
<thead>
<tr>
<th>Billy Amstead</th>
<th>Robert W. Laakso</th>
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<tr>
<td>Jack W. Arlitt</td>
<td>Austin Leach, Jr.</td>
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