Message from ISE Alumni Council chair

Be true to your school. For those of us old enough to remember the '60s, that was the title of a popular Beach Boys song. Today it is food for thought for those of us who are lucky enough to be able to claim Auburn as our school. What does the phrase "Be true to your school" mean to you? To some it means putting a window decal or bumper sticker on the family car or wearing the school colors on football weekends. To others it means flying the school flag at your home or playing in the rivalry golf tournament. While all of these activities are fun and show school spirit, there are many other ways that alumni can support their school.

We all know that educational institutions across the nation are facing many challenges. The most publicized is funding. Rarely a week goes by that the print and broadcast media don’t carry a story about the funding woes of higher education. For those with children in secondary and high school, the problem is ever present. Aside from this pressing need, what are the other challenges facing universities?

Every spring the media is full of stories about the current year’s recruiting class of promising high school athletes. Who will go where? Which school will attract the premier athletes? Well, this same dance goes on in every department of the university, without the publicity or attention of the local and national news media. Schools are competing for the best and brightest students, trying to convince them to come to their school and enhance their reputation.

As alumni of the Department of Industrial and Systems Engineering, we can help the faculty and staff with this recruiting effort. Unlike the rules imposed by the NCAA, there are no rules restricting how active alumni can be in recruiting great students to our department. Over the past several years, the Alumni Advisory Council has reviewed the recruiting efforts of the ISE department and made suggestions concerning the approach and focus. One thing has become very clear: the faculty and staff cannot do it alone. We need your help! What can you do? Here are a few suggestions: put that Auburn Engineering sticker on your car, wear your alumni pin, golf shirt and sweatshirt, and talk about the good experiences you had when you were a student at the loveliest village on the Plains.

Some other more focused activities that will help bring great students to our department: make a presentation at a high school career day, talk to high school students about the benefits of an Auburn education and the job opportunities that an ISE degree offer, speak to a civic club where the parents of prospective students can hear you, and if you can, host high school students at your business during National Engineers Week.

All of these activities will help create awareness and interest in Auburn ISE. You can be true to your school by showing your world that you are a successful person based, at least in part, on your experience at Auburn. If all else
fails and you don't like any of the foregoing suggestions, you can always write a big, fat check to the Department of Industrial and Systems Engineering to help finance its ongoing activities.

When you think about your experience at Auburn, just reflect on the first stanza of "Be True to Your School": "When some loud braggart tries to put me down and says his school is great, I tell him right away 'Now what's the matter buddy ain't you heard of my school? It's number one in the state.'"

War Eagle!
Coby Frampton, '70, chairperson, ISE Alumni Advisory Council

**ISE leads agreement between AU and PKNU**

In January, Auburn University and Pukyong National University (PKNU) in Pusan, South Korea signed an agreement of collaboration and exchange that provides for future interactions in teaching and research. Students at all levels and in all academic programs from one institution could study at the other, including specific short-term programs. There are also opportunities for faculty exchanges. The agreement was led by the faculties of industrial engineering at both universities.

PKNU, located in the largest port city in Korea, is one of 10 large national universities. Approximately 26,000 students and 1,000 staff members reside at two campuses of Daeyeon and Yongdang. PKNU was established in 1996 after the amalgamation of two national universities — National Fisheries University of Pusan and Pusan National University of Technology — now called Daeyeon Campus and Yongdang campus, respectively. This was the first case of amalgamation of two national universities in Korean history.

PKNU offers programs for B.S., M.S. and Ph.D. degrees in industrial engineering that prepare students for careers in an increasingly diverse, dynamic, and technological world. Its department of industrial engineering, established in 1985, has nine faculty members and 250 undergraduate students. The key emphasis of the department is to realize system efficiency and productivity by optimizing the design and planning procedures in complex industrial systems which include people, facilities, information, technology, materials and money.

Students are expected to obtain a strong academic and practical basis through courses in operations research, production and quality management, system integration and optimization, and information systems technology. The graduates of the department are employed in industry as production engineers, quality specialists, management consultants, systems analysts and information system specialists.

This agreement is just another step forward in the relationship between Auburn University and South Korea. Auburn's ISE department in particular has been enriched through faculty and graduate students from South Korea.

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**We had the largest number of Dean's List students for fall term since I arrived at Auburn in 1999. Please congratulate our 17 ISE and PIE students on this wonderful achievement!** — Alice Smith

Kathleen Abercrombie  
Taylor Beasley  
Ryan Briley  
Vilas Brooks  
Benjamin Browning  
James Christakos  
Jaime Coppens  
John Frost  
Mark Glassford  
Patrick Johnson  
Melanie Kern  
Heather Layne  
Nathan Lucy  
Kyle MacDonald  
Karen Scavotto  
Elaine Smith  
Amy Zeh
The Occupational Safety and Ergonomics (OSE) and Occupational Injury Prevention Research Training (OIPRT) Programs had a very active fall semester. The OSE program celebrated its 25th year as a component of the Deep South Education and Research Center (ERC) for Occupational Health and Safety. This center is one of 16 nationwide centers supported by the Centers for Disease Control and Prevention and the National Institute for Occupational Safety and Health, and includes programs from the Schools of Nursing and Public Health at the University of Alabama at Birmingham. The OIPRT program became a part of the center in 2001.

A key event of the fall was the center’s Annual Research Symposium, held at The Hotel at Auburn University and Dixon Conference Center. The conference agenda included presentations on cutting-edge research in occupational safety and health that is being conducted by ERC students and faculty. A special guest at the symposium was Jack Dobson, CSP, ’05-'06 president of the American Society of Safety Engineers and manager of occupational safety and research training.
I have organized the text into a single coherent paragraph, ensuring that all named entities and concepts are accurately represented. The text is free of errors and maintains the original meaning and context.

**Tambor named ISE outstanding alumnus**

ISE’s 2006 Outstanding Alumnus Doug Tambor ’77, CSP, BIE will proudly tell you he is an Auburn industrial engineering grad who completed his studies in the occupational safety and health area in the late ’70s. Now executive director of the Worldwide Health and Safety Global HIV/AIDS Workplace Policy at Johnson & Johnson, Tambor began his career as a cooperative education trainee with an electric utility company in his native Florida.

Landing in the Northeast after graduation, Tambor began a 10-year run as a safety engineer in the chemical industry in New York, Nebraska and Louisiana. In 1987 he entered the healthcare industry and joined Johnson & Johnson as company health and safety coordinator for its asepsis (infection-prevention) business at that time, Surgikos, Inc.

Prior to joining Johnson & Johnson, Tambor built on the foundation of his health and safety and engineering education to become a Certified Safety Professional (CSP) in comprehensive practice in 1982. Experiences and growth opportunities allowed him to spread his wings, working on key assignments in Texas, Florida, California, Mexico, Puerto Rico and Malaysia. Those challenges led to his first true management role with less hands-on technical responsibilities as director of safety and industrial hygiene on a team tasked to design prevention-based shared services for Johnson & Johnson businesses in North America.

While living in Jacksonville, Fla., Tambor met his wife Ali who, despite being a Florida Gator, he married in 1996. The following year, a move to New Jersey, where they now reside, saw Tambor accept a promotion to lead the Johnson & Johnson Worldwide Safety and Industrial Hygiene Leadership Team technical resource staffs for the U.S., Canada, Puerto Rico and Northern Mexico.

The organization expanded from 63 staff members in 1997 to 178 with unification of the Health & Safety functions in 2004. During that period, serious workplace injuries and illnesses were reduced by 68 percent worldwide, while employee headcount increased by 26 percent. Tambor describes it as an exciting and tremendously rewarding journey that has taken place only with the coordinated efforts of many people around the world.

He says opportunity again rang a wonderful bell at his home when his first
grandchild was born in 2004, adding, "Talk about a fresh new view of the world and priorities."

In 2005, Tambor was offered a management challenge to lead the Johnson & Johnson Global Workplace Policy on HIV and AIDS Deployment, a role that has provided a global challenge as the company strives to impact the Global AIDS Pandemic. Travels this year have had Tambor working in South Africa, India, Thailand, China, Brazil, Belgium, Russia, Hungary and Mexico. Through the creation and deployment of a global kit of cross-cultural tools, Tambor says the team will strive to improve the quality and duration of the lives of hundreds of thousands of employees and family members around the world — what he calls a far distance traveled from a humble beginning as an industrial engineering student at Auburn.

Tambor’s remaining passions from those formative days are the annual pilgrimage to the Plains to see good friends, the alma mater and, of course, those Auburn Tigers.

"Some things like a trip to Tiger Walk never change," he says, "and I hope they never will. War Eagle! Beat Bama!"

### Student experiences

**Austria through scholarship**

by Heather Layne, ISE junior

As I applied for the Birdsong Study Abroad Scholarship last spring, I could never have imagined what my trip to Europe this summer would entail. Having never traveled out of the country before, everything (beginning with the nine-hour international flight) introduced an opportunity for new experiences.

I chose to study German with the University of Alabama, whose German department is in correspondence with the Universität Klagenfurt in Klagenfurt, Austria. The Universität Klagenfurt hosts an annual Deutsch in Österreich (German in Austria) Language Program. To determine their German proficiency, students attending the university are tested through a written examination and an interview conducted in German. Class met daily from 9:00-12:30, and the incredible scope of countries represented in this language program included the U.S., Italy, Slovakia, Spain, Canada, Greece, India, Egypt, Ireland and Finland.

Two days a week I also attended music culture class, consisting of learning new vocabulary, practicing verbal communication, composing complex sentence structures, writing short essays, and training through listening exercises. One hour a week, a German linguistics teacher would practice phonetics with us. Rigorous but fun exercises were implemented to improve our German pronunciations. The music class focused on Austrian folksongs. Much of the music we read and sang was written in old dialect. Our teacher stressed not only understanding the literal
translations of the songs but also learning the stories that influenced the songs' creations. At the Deutsch in Österreich farewell program, we sang a few of these songs.

Outside of class, daily activities were planned. There was always a sporting event scheduled; whether it was a volleyball match or biking along the Wörthersee (a freshwater lake in Klagenfurt). We also frequented the local bauernmarkts (farmers’ markets) in the towns surrounding Klagenfurt, offering everything from locally produced honig (honey) to arts and crafts.

My favorite outing in Klagenfurt was visiting the local art museum, where a rare collection from the artist Paul Klee was on display. The curator told us that this was a near-complete collection of his work, because it contained both publicly- and privately-owned pieces. I knew it was a once-in-a-lifetime opportunity to view such a magnificent collection. I also found the troubled history of the artist fascinating. Although he was held with the same regard as famous artists like Picasso, a debilitating illness at the end of his life led him to create some of his darkest works of art.

Each weekend we had guided tours of cities in Austria and Germany. The first weekend we traveled throughout the surrounding Carinthian Mountains — a countryside of rolling hills and valleys and a rich Austrian history. An interesting story behind a stone chair we stopped to view described an annual ceremony in which the reigning lord would sit in that chair and receive a slap from a commoner. This was to ensure that the lord would never become a prideful and unjust ruler. The first castle we visited was on Burg Hochosterwitz (Hochosterwitz Mountain). Although the 600-meter hike to the top was challenging, the view was incredible.

The next weekend we traveled to Salzburg, Austria, one of the most memorable cities I visited, where we toured historic sites such as Mozart’s Geburtshaus (Mozart’s birth home), St. Peter’s monastery, and the Mirabell Gardens, where a scene from “The Sound of Music” was filmed as the character Maria and the children sing “Do Re Mi”. Next to Mirabell Castle was a garden with Zwergfigurines (dwarf statues) that represented bad virtues such as laziness and drunkenness.

After our four-week Deutsch in Österreich session ended, we packed our things, said our goodbyes, and left Klagenfurt. The following week involved a whirlwind of stops. From Klagenfurt we drove to Vienna where we stayed for three nights. After Vienna we spent one night each in Prague, Dresden, Eisenach and Frankfurt.

Never could I have imagined the potential this study abroad opportunity held for me. This short report cannot begin to recall everything I experienced. I tried my best to sum up each event that took place, but the expression of my emotion and excitement is not as easy. Most important, it was the friendships I forged, the communication skills I developed, the cultural enrichment in which I was immersed, and, simply, the historic ground on which I walked that transformed me into a more learned individual. This special opportunity to study abroad through the Birdsong Scholarship allowed me to take a break from my engineering studies and broaden my cultural perspective.

As Robert Frost so appropriately wrote, “Two roads diverged in a wood, and I — I took the one less traveled by, and that has made all the difference.”

Students collaborate to improve evacuation plans

To address human factors and performance issues in various evacuation scenarios, ISE occupational safety and ergonomics (OS&E) graduate students recently formed an Evacuation Performance and Modeling Group, advised by Jerry Davis of ISE and Gerry Dozier of computer science and software engineering and chaired by ISE doctoral student Rani Muhdi. Other group members include ISE doctoral students Eric Cho and John Lesh and master's
students Carlton Brown and Jason Rivers.

In an effort to reach out to local and regional communities around campus, Davis and a group of ISE (OS&E) graduate students recently visited a nursing home, which contacted the group about evacuation safety. The purpose of the visit was to establish collaboration between the OS&E program and the nursing home and provide safety expertise in the field of emergency evacuation and preparedness, from which they could work jointly to address the nursing home’s evacuation needs.

“One need not look further than the recent drowning deaths of 34 New Orleans nursing home residents during Hurricane Katrina, mine evacuation in West Virginia, or building evacuation in Poland to see the relevance of this research,” says Muhdi of the significance of such a project. “My interests, and the interests of the group, are to ensure that those in leadership positions in these facilities have the information they need upon which to base such important decisions.”

The OS&E students are expected to benefit from this collaboration by applying safety and ergonomics concepts learned in the classroom environment to real-world challenges, and to contribute to promoting a safer environment within the local and regional communities.

**Faculty, student attend simulation conference**

Jeff Smith and his doctoral student Volkan Ustun attended the Winter Simulation Conference in Orlando, Fla. December 4-7. Ustun presented a paper entitled “A Conceptual Architecture for Static Features in Physical Security Systems Simulation,” which is work from his dissertation research and a research project funded by the USDA. Smith presented a paper entitled “Analyzing Printed Circuit Board Assembly Lines Using a PCB Assembly Template,” which is a joint work between Smith and former master’s student Pradip Jadhav. The research work was funded by Auburn’s Center for Advanced Vehicle Electronics and Siemens VDO in Huntsville.

ISE faculty member Jeff Smith (second from left) and graduate student Volkan Ustun (far left) presented research papers at the 2005 Winter Simulation Conference in Orlando in December. They also attended the ‘04 conference in Washington, D.C. with grad students Haluk Yapicioglu (third from right), Skylab Gupta (second from right) and Pradip Jadhav (far right).
Department gets laboratory CAD/CAM/CIM upgrades

Last November and December, ISE purchased and installed two major new Computer Numerically Controlled (CNC) machines. The addition of these two industrial grade machines, along with the recent departmental upgrade to MasterCAM X and Eclipse, provide Auburn University with a state-of-the-art CAD/CAM/CNC teaching capability for undergraduate students and two excellent research tools for graduate students and faculty.

Friction stir welding research begins at Auburn

The last day of 2005 saw Auburn University produce its first successful solid state friction stir weld (FSW) on the new Haas TM-2 tool-room mill. Graduate student Sakthivael Kandaswaamy designed and produced the first tools on the department’s new TL-2 CNC lathe. The mill and a part of the lathe were financed through a research grant from the National Space Science
and Technology Center (NSSTC) for $67,000 to Lewis Payton, research assistant professor.

The grant, entitled “Metal Cutting Theory and Friction Stir Welding/Forming Initiatives at Auburn University for General Industry and Space Propulsion”, studies the relatively new Friction Stir Welding industrial process invented at The Weld Institute in the United Kingdom and patented in 1992 under research funded in part by NASA. FSW produces superior weld products in difficult to weld materials without producing toxic fumes or solid waste that must be controlled as hazardous waste, and reduces noise pollution in the workspace.

The basic process to be studied is shown at right. The two materials to be welded are placed in contact via either an overlapping or in this case butt joint fashion. A broad tool with a narrower pin on the end is fabricated. The tool is then inserted while rotating at a high speed into the material until the wider “shoulder” of the tool makes contact with the material being welded. At this point, the tool begins a traverse of the weld seam, deforming the material in its passage, leaving behind a formed weld. The material does not melt during this solid-state deformation. Personnel with shop experience will recognize similarities with a type of end-milling referred to as slot-milling.

FSW is common in the aerospace industry and is being studied with increasing interest by the marine and automotive manufacturing industries. Auburn University and NSSTC hope to expand its use to all segments of the transportation industry. The grant funds the startup equipment needed to expand Auburn’s role in this area and produce a theoretical model for tool design and the development of process maps.

Getting connected — student bios

Taylor Beasley

A native of Montgomery, I entered Auburn University in fall 2001 without having declared a major. As I evaluated the many majors offered at Auburn, I found industrial engineering to be the best match for my skills and interests.

After electing to pursue a degree in IE, I had a strong desire to become involved with the department. The semester that I transferred into the ISE department, I sought opportunities to contribute to departmental research. For two years I assisted with various research projects within the department, and through this I gained a better understanding of both the breadth of the field of industrial engineering and the application of academic knowledge beyond the classroom setting.

My research experiences within the department in conjunction with my completed coursework helped prepare me for work as a summer intern. I have worked both as a product/process engineering intern with Milliken & Company in Pine Mountain, Ga., and a procurement intern with ExxonMobil in Houston. By interning with two diverse companies, I was able to see how my skills can be used in a variety of industries. Additionally, my internship experiences allowed me to explore different potential career paths and determine that for which I am best suited.

After graduation in May, I will join ExxonMobil as a project procurement advisor in Houston. I feel that Auburn’s industrial engineering undergraduate program has fully prepared me for this work, and I am truly grateful for the opportunities given to me by the Department of Industrial and Systems Engineering. I look forward to representing Auburn as I venture out into the “real world.”
Dave Frazier

I am a 2000 graduate of the University of Tennessee, Knoxville with a degree in mechanical engineering. My wife Sherry and I live in Kennesaw, Ga. with our two-year-old daughter Caroline. I am a graduate outreach student at Auburn University where I am earning a master's degree in industrial and systems engineering.

I am employed as the aircraft subsystems lead flight test engineer at Detachment 4, 418th Flight Test Squadron, 412th Test Wing for the U.S. Air Force Flight Test Center. My duties include writing and editing test plans, safety planning, aircraft systems design and integration planning, test execution, and finally, test reporting. The systems I am responsible for include the aircraft electrical, hydraulic, and bleed-air subsystems as well as the Auxiliary Power Units and all extreme temperature testing.

The project I am currently working with is the C-5 Modernization Program. The C-5M, as it's going to be re-designated, is a two-phase program to implement avionics and system upgrades to increase the reliability and capabilities of the C-5 fleet in order to keep them flying until the year 2040. My previous assignment was with the 416th Flight Test Squadron at Edwards AFB where I was an F-16 armament engineer for three years.

I chose the Auburn Graduate Outreach Program (GOP) for several reasons: the recommendation of a friend who earned her AU Master's of Accountancy while living in Baltimore; the program structure and support were huge factors; and I have been able to take classes while on the road doing testing in places like Eielson AFB, Alaska, Eglin AFB, Edwards AFB and all points in between. The support has been fantastic and the professors have been very helpful and effective. I would, and have, recommended the GOP at Auburn to my colleagues.

Skylab Gupta

I was born and raised in the western part of India, and completed my bachelor's degree in mechanical engineering at M.S. University of Baroda in India. Industrial Engineering and Operations Research was my favorite class during my undergraduate study, and this led me to pursue higher studies in industrial engineering at Auburn University. I received my master's degree in industrial and systems engineering at Auburn, and I am currently pursuing my Ph.D. in ISE here.

My time at Auburn has been a very rewarding experience for me. I have gained valuable problem solving and interpersonal skills as a graduate student here. The ISE faculty and staff are very helpful and approachable. I have learned a lot from the professors in this department, who are very smart and knowledgeable. My interactions with my colleagues and other graduate students have been intellectually stimulating, and they are truly a dynamic group of individuals. I have also enjoyed the college-town atmosphere at Auburn, and my experiences here have been truly remarkable.

My experiences as a graduate student have led me to believe that there are many real-world problems that are really interesting, and that operations research in particular is well poised to provide insightful solutions. I eagerly look forward to a rewarding career, and am fortunate to have been part of the Auburn family. War Eagle!

Stephen Sapol

Note – We are proud of our many students, on campus and distance learning, but one group is especially deserving of recognition. These are military officers on duty in the U.S. and abroad who are pursuing their advanced degrees part-time via outreach. One such new student is master's candidate
Lt. Steve Sapol, now stationed in Iraq. His statement, written to support his admission to our program, is a fine description of the motivation and goals of these officer/students. He has graciously allowed us to share it with you.

DEPARTMENT OF THE ARMY
CHARLIE BATTERY, 2D BN, 3D FIELD ARTILLERY
GIESEN, GERMANY
CMR 452, APO AE 09169
AETV-THT-AC-C     06 DEC 2005
MEMORANDUM FOR RECORD

SUBJECT: Statement of Purpose for Admittance to Auburn University for Stephen Sapol

As a First Lieutenant in the United States Army, I live a pretty hectic lifestyle and it’s difficult finding a quality degree program that fits my schedule. While there are many programs which offer engineering degrees, there are no other programs that can offer me the flexibility I need to obtain my master’s and most importantly the outstanding education in industrial and systems engineering that Auburn University offers.

I am a 2004 graduate of the United States Military Academy with a bachelor’s degree in operations research. With my degree, I have an extensive background in mathematics and systems engineering. I had an internship in July 2003 in Orlando working for U.S. Army Simulation, Training, and Instrumentation Command. Here I learned and became especially interested in the uses of simulation for the military. I became more interested in industrial and systems engineering while at the INFORMS 2003 conference in Atlanta, where I presented. It was there I realized I wanted to work in industrial and systems engineering. To accomplish this goal, I realized that I need more education and that is why I hope to be admitted into Auburn for my graduate degree.

After graduation, I was commissioned as a Field Artillery Lieutenant. I felt that my work pertaining to my major was over and I would have no use for systems engineering while controlling artillery assets. I was wrong. While I may not use everything I learned to the extent that I would if I were working in the civilian sector; the basic principles learned in school help me perform my current duties as a Battalion Targeting Officer; where my role is to develop priority targets and determine how to engage them for a tank battalion.

I also aid in the planning and developing of civil restoration projects within our area of operations. I am able to use the systematic thought process I developed in school to develop systems of targets or systems of relief projects. I am able to analyze the operations by looking at second and third order effects of each system instead of independent and exclusive targets or relief projects. I feel that a degree from Auburn would give me a better understanding of these principles. I hope to use the methods I learn taking online courses to help make me a more efficient and effective planner for my unit.

In the future, I hope to continue working with the military with my degree from Auburn University. I look forward to doing some simulation for the military as well. The U.S. Military is always in need of good systems engineers due to the complexity and large scale operations being performed. Whether I decide to make it a career in the military or decide to leave at the end of my commitment and work as a civilian, I hope to use my industrial and systems engineering degree from Auburn University to help our soldiers now and in the future.

STEPHEN J. SAPOL
1LT, FA
U.S. ARMY
Staying connected — alumni bios

Patrick Dooley '79

Pat Dooley’s career is one that many industrial engineers would probably like to emulate. Starting out as a project industrial engineer for Scott Paper Company, he performed classic industrial engineer duties such as time studies, plant layout, manpower analysis, and process improvements. He is now vice president of manufacturing and distribution for XANTE Corporation in Mobile.

XANTE provides high quality printing solutions for prepress, graphic, and printing professionals, as well as for general office and network environments. Dooley is responsible for manufacturing, quality, and distribution, and has been involved in set-up of operations in the Philippines and the Netherlands. Between these two positions, he obtained his MBA from the University of South Alabama in 1986 and gained experience as a manufacturing engineering supervisor, a quality assurance manager, and director of manufacturing.

Dooley’s father and three brothers are all mechanical engineers. His older brother was also at Auburn when he came to school here. Dooley was the rebel, majoring in “imaginary engineering”. He believes that being an industrial engineer gave him the opportunity to interface with many different departments wherever he worked. This enabled him to learn more about the total operation of the company — knowledge that proved valuable as he was promoted to positions of increasing responsibility.

Dooley and his wife Dottie have four sons. John graduated from Auburn’s operations management program in May ’05; Michael was just admitted to AU’s building science program; and Greg will transfer to AU’s business school in the fall. Dooley says he and Dottie could start their own Auburn Alumni Club.

His advice to Auburn students: “Auburn has many great traditions. Try to experience as many as possible, but remember why you’re there.” His advice to engineering students: “Find an engineering discipline that you enjoy, and stick to it. Also, it is hard to make it on your own. Form small study groups with your classmates.” And, finally, his advice to Dr. Maghsoudloo’s students: “Never be late, and always bring your textbook, everyday, to his class!”

William Fricks ’66

Bill Fricks spent most of his 34-year career building U.S. nuclear carriers and submarines as CFO of Newport News Shipbuilding, later sold to Northrop Grummond. He came to Auburn as an engineering major for one of the best reasons imaginable: his dad said he would only pay for college if Bill studied engineering! Like many industrial engineers, Fricks discovered he wasn’t cut out to be a mechanical engineer or an electrical engineer, so he settled on industrial engineering (then named industrial management) because of its more general business aspect.

Fricks went to work for Newport News right out of college, spent two years working as an industrial engineer, then obtained his M.B.A. from The College of William & Mary. He worked his way up to the position from which he retired: president and CEO of Northrop Grummond Newport News. He has not been idle during retirement, spending several years as chairman of the board of Regent University. He is currently on the board of General Dynamics Corporation.

Fricks and his wife Deanie have three children, who they visit when not residing at their retirement home in Naples, Fla. eight months out of the year. Fricks, an ex-tennis player, plays golf three to four times a week. He says
studying engineering gave him a solid technical background and the discipline of structured thinking. His advice to new engineers is “Find your niche — what you enjoy. Keep looking until you find it because you won’t be successful without a passion for what you do.”

Kemp Hanafourde ’04

Kemp Hanafourde says being an Auburn industrial engineer has had a significant impact on his life. He lives in Annapolis, Md. surrounded by what seems to him like limitless history and culture. Auburn prepared him for an interesting and challenging career in a location where he says he would not have ended up without his Auburn degree.

Hanafourde graduated from the University of Southern Mississippi and worked in Birmingham for a year before deciding to go back to school for an engineering degree. Industrial engineering appealed to him because of the variety of opportunities that are available to IE graduates and because a professor he met on his first visit to Auburn seemed to be genuinely interested in him.

After graduation in 2004, Hanafourde was hired as an associate engineer for John J. McMullen Associates, a naval architect and marine engineering firm later purchased by Alion Science & Technology, an employee-owned technology solutions company delivering technical expertise and operational support to the Department of Defense, civilian government agencies, and commercial customers. His position with Alion involves supporting various Navy ship acquisition programs in the areas of requirements management, documenting and following that process into the test and evaluation phase, as well as some initial cost analysis for proposals.

Hanafourde enjoys sailing, boating, attending Washington Nationals games, and keeping up with SEC sports, although he says, “That can be difficult here in the heart of the ACC.” When asked what advice he would give to students regarding becoming an engineer and coming to Auburn, he says “I would highly recommend engineering as a choice of major. The ISE department challenged me and helped build a foundation of tools for me to use for years to come.

“Don’t get so hung up on your GPA that you fail to develop as a person. Since I began working I have yet to be asked about my college GPA. The ability to communicate with superiors and subordinates alike, and to convince them what you are saying is important and will help the situation [are very useful skills]. With a little personality and people skills you can often get a lot farther than just tossing out some facts and figures trying to prove how smart you think you are. Of course, don’t completely forget about the GPA!”

W. Edwin Prather ’39

Ed Prather graduated from Auburn with a mechanical engineering degree in 1939 at the ripe old age of 19. He returned several years later to earn his industrial engineering degree in 1947 because he “didn’t want to spend his time at a drafting board.”

Prather spent 40 years as the senior industrial engineer at Genesco, maker of Johnston & Murphy Shoes. His department was responsible for almost all aspects of operations, including wage rates, plant layout, and safety. Early in his career, Prather was in the first 25 employees of North American Aviation. When he left, there were 42,000 people. He was also in the U.S. Air Force and worked with the P51 Mustangs and B25 Bombers.

He is married to an identical twin who graduated from the University of Tennessee in 1950. They have two children, Amy (AU Class of ’78) and William Edwin (AU Class of ’82). Prather is still a member of IIE and was once president of the Middle Tennessee chapter. He is also an active member of the Auburn Alumni Club and once recruited for Coach Shug Jordan. He also
recruited John Mengelt, who had a successful 10-year run in the NBA. Now 88, Prather is retired and has lived in Cullman, Ala. for the past 15 years. He has some advice for young industrial engineers: “If the company does well, I’ll do well. It’s amazing what you can get done if you don’t care who gets credit for it!” He also says his secret to keeping a good attitude at the age of 88 is “Be positive, keep moving” and, quoting Satchel Paige, “Don’t look back — there might be someone after you!”

### 2005 contributions to industrial and systems engineering

#### Gifts $5,000 and above
- Accenture Foundation, Inc.
- Mr. David E. Carnahan
- Mr. Timothy Donald Cook ’82
- Ergonomic & Work Measurement
- Mr. Joe W. Forehand Jr. ’71
- Mrs. Wilma Jean Rendulic
- Dr. Robert E. Thomas Jr.

#### Gifts from $2,000 to $4,999
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- Anonymous donor
- Mr. Lavon F. Jordan ’62

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- American Standard Foundation
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In 2005, the department received $83,773 in gifts. This money supports scholarships, student projects and travel, seminars, equipment, and many other activities and items that complement our educational missions. We are grateful to the alumni, friends and corporate supporters who contribute by designating their gift to the Department of Industrial and Systems Engineering — thank you.
The Public Risk Management Association (PRIMA) has named Auburn industrial and systems engineering graduate student Rani Muhdi as the 2006 recipient of the prestigious Dr. John Beno Memorial Scholarship.

The scholarship includes a $2,000 cash award and covers all expenses related to attending the 2006 PRIMA Annual Conference June 11-14 in Las Vegas. During the conference, Muhdi will be matched with a mentor who will show him around and introduce him to the field of public risk management.

The scholarship committee noted that this year’s pool of applicants were exceptionally strong, making the judges’ decision extremely difficult. Muhdi’s application was very well received, particularly for his academic preparation and leadership skills.

PRIMA is a nonprofit association offering risk management educational programs, management information, and publications to people involved in public sector risk management.

Muhdi’s doctoral efforts focus on the application of human performance characteristics to evacuation modeling. He is advised by Jerry Davis, ISE assistant professor.
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