Realizing the Vision

Impact

Kansas State University College of Engineering Fall 1999



Sunrayce '99

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overall. The race began in Washington, D.C., and ended in Orlando, Fla.

The final day of the event saw an impressive finish for K-State, according to team advisor and electrical engineering professor Norman Dillman.

"We were the first to cross the finish line at Epcot Center," he said, "having gone from 22nd place to first. We also turned in the fastest average speed, for any car any day of the race, on that last day at 36.2 mph."

The team's average speed for the race was 20.23 mph, with total elapsed time for the 1,425-mile route being 70 hours, 23 minutes, and 48 seconds. First place winner, The University of Missouri-Rolla, averaged 25.30 mph and had an overall winning time of 56 hours, 16 minutes, and 44 seconds.

K-State's entry this year was a completely new car from its inaugural foray into Sunrayce two years ago and their efforts paid off.

"Jumping from a 24th-place finish last time to ninth this year is a dramatic improvement," said Terry King, KSU Dean of Engineering. "These students worked hard, learned a tremendous amount, and performed well. Their efforts are not only a credit to themselves, but have put engineering at Kansas State University on the map."

The K-State car received a good amount of tourist exposure when Sunrayce officials selected it to be one of 15 entrants to be exhibited for two days at the Epcot Center.

Along with formulating a winning design this year, the team procured the assistance of a sponsor, Transportation and Design Manufacturing Company (TDM), who helped them build a state-of-the-art body with reduced drag.

Jason Northup, team project manager and senior in mechanical engineering, listed better suspension and telemetry as improvements in this year's car as well.

Credit also the electronics group with developing an innovative way to encapsulate the solar cells in the arrays.

"Most schools spent $40,000 to send their panels off to have them encapsulated," Dillman commented. "But two of our guys, Mike Wilson and Damian Brandenburg, spent hundreds of hours talking to companies and trying various things to develop their own ways to encapsulate our solar panels."



Dillman said the team had improved two-way communication between the driver of the solar car and the support crew in the chase vehicle to the point they could talk with barely any interference. For some teams, among other things, electrical impulses generated by their own motors made communications a challenge.

Another confidence-builder was early completion of the car. "We got the car done early enough," Dillman said, "that we could drive it several times and make changes based on those trials."

The team had also developed an overall race strategy, but it hadn't included a collision with another vehicle, day three of the race in North Carolina. A woman on her way to a veterinary clinic basically made a right-hand turn from the left-hand lane right in front of K-State's Apollo.

Northup, who was driving at the time, swerved to miss her but caught the right front corner of the solar car's body on the left end of her rear bumper. There was no structural damage and the team was able to reattach a torn-loose front faring, patch a dent with body putty, and replace one 18-cell module in the solar array. The real cost was in time lost–nearly an hour total–time the team felt could have moved them up even further in their final placing.

Yet Dillman saw a positive side of the mishap. "Our guys focused on reliability when they built this car. The accident was a great test of the design," he said.

Solar Car Team

Sherri Auld (ME)
Alex Berestov (EE)
John Blessing (EE)
Damian Brandenburg (ME
Dallas Burnum (ME)
Brett Eller (EE)
Chris Farmer (EE)
Scott Hammack (ME)
Scott Hammerschmidt (CMPEN)
Steve Hayslett (ME)
Chris Hopkins (ME)
Richard Kelderhouse (CMPEN)
Gerindiy Kobzev (EE)
Matthew Molz (ME)
Robert Nguru (ME)
Jason Northup (ME)
Brett Randall (ME)
Eric Shumaker (EE)
Daniel Soldan (Manhattan H.S.)
Mike Wilson (EE)

KSU design team wins national competition

Twenty-five colleges of engineering from across the U.S. and two from Canada traveled to Moline, Ill., in May to compete in the American Society of Agricultural Engineers (ASAE) 1999 National 1/4-scale Tractor Student Design Competition. The team from Kansas State pulled away from the pack and brought home first-place honors.

Students competed in four categories: written report, team presentation, design, and performance. The K-State team, composed of 25 students in biological and agricultural engineering and agricultural technology management, dominated in two of the four categories, garnering 1,458 of the 1,600 points possible, to put themselves well ahead of the second-place team from the University of Wisconsin.

Each student team designs and builds a tractor and prepares it for the performance phase of the competition where the tractor must pull a weighted sled, going head-to-head against the other schools.

The teams pull in two weight classes, 800 and 1,050 pounds, with two pulls in each. K-State's entry won one of the 800-pound pulls, and both of the 1,050-pound pulls, giving them 793.3 points out of a possible 800 points in that category.

"Probably half of the teams experienced mechanical failure at some point during the pulls," Mark Schrock, biological and agricultural engineering professor and co-advisor of the team, said. "But K-State students had taken their tractor to a track in Abilene and practiced more than 50 pulls before leaving for Moline.

"We had a practically flawless run," he continued, "with no mechanical failures. Other than a few adjustments, we didn't lay a wrench on the tractor during the competition."

The competition lasts for three days. Team presentation of the tractor is the day before the actual pull, and tractors are judged at that time on manufacturing ability and safety.

Schrock pointed out that participation in this event can have long-term benefits for team members as the corporations who sponsor the competition–among those Briggs and Stratton, Case, and John Deere–attend and are looking over the students.

"I overheard a couple of representatives saying they had what they'd come for–," he said, "the names of students they thought would be good prospects for recruiting."

1/4-scale Tractor Team

Justin Atwood (ATM)
Howard Cunningham (BAE)
Amy Ebert (ATM)
Casee Eisele (BAE)
Jonathan Epler (ATM)
Brian Figge (ATM)
Daniel Frohberg (BAE)
Lucas Gillen (BAE)
Andrew Grollmes (BAE)
Jonathan Higerd (ATM)
John Kattenberg (BAE)
Shane Lickteig (BAE)
William Long (BAE)
Russell Moore (ATM)
Jeffery Morgan (ATM)
Eric Ney (BAE)
Brian Olander (BAE)
Travis Robinson (ATM)
John Scherman (ATM)
Justin Stahlman (ATM)
Matthew Steele (BAE)
Jason Stegman (ATM)
Joshua Stucky (ATM)
Matthew Symns (ATM)
Eric Thompson (ATM)

Engineering students win top scholarships



Pauzauskie

The College of Engineering takes pride in attracting top students to its programs, and three of those scholars have distinguished themselves by receiving prestigious national scholarships.

Goldwater winner

Peter Pauzauskie, KSU junior in chemical engineering from Topeka, Kan., has been awarded the Barry M. Goldwater Scholarship for the 1999-2000 academic year. He was selected, based on academic merit, from a field of 1,181 mathematics,

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Two faculty members named advisor of the year

Eddie Fowler, professor emeritus of electrical engineering at Kansas State, received the 1999 National Outstanding Advisor of the Year Award from Tau Beta Pi at the organization's convention in Madison, Wis., in October.


Fowler

"This is indeed an honor because Eddie Fowler is only the sixth person to receive this award," said Terry King, dean of engineering at K-State. "This award is appropriate recognition of the many years of service he has given to the students and the College of Engineering here at K-State."

The college will receive $1,000 in Fowler's name, and he will receive a nominal cash award himself.

In nominating Fowler for the award, the Gamma Chapter at Kansas State and Tau Beta Pi's District 9 said Fowler "excelled in the role of chapter chief advisor and district advisor" because he "provided an outstanding role model, pushed for excellence in chapter projects and conduct, was an enthusiastic participant in chapter activities, provided a great source of knowledge of Tau Beta Pi, and served as a dedicated spokesman to administration."

"I think such commendations are particularly noteworthy when they come from students," King said. "Eddie Fowler has set a standard that all of us in the teaching profession can strive to reach."

Fowler, a full professor, earned his bachelor's and master's degrees from K-State in 1957 and 1965, respectively, and his doctorate from Oklahoma State University in 1969. He worked for Convair, served in the U.S. Air Force, worked in the federal civil service for both the Air Force and Army and taught at the University of Missouri-Rolla before returning to teach at K-State in 1982.

In 1994 he accepted a one-year appointment at the U.S. Military Academy at West Point, N.Y., as a visiting professor. While there he became one of the faculty advisors to the academy's solar car team that competed in Sunrayce '95. When he returned to K-State, he became one of the faculty advisors to K-State's first team to enter a Sunrayce in 1997.


Walawender

Walter P. Walawender, professor of chemical engineering at Kansas State, has been named the Outstanding Student Chapter Advisor for the 1998-1999 school year by the American Institute of Chemical Engineers (AIChE). He was recognized at the organization's annual meeting in Dallas, Texas, during award ceremonies in October.

"This is certainly an honor for both Dr. Walawender and for our student chapter here at Kansas State," said Steve Gehrke, head of the department of chemical engineering. "I'm proud of his achievement and appreciate not only this honor that he brings to the college and our department, but also all that he has done for the students of our department over the years."

The K-State student chapter of AIChE has won the national outstanding chapter award (basically top 10 percent ranking) five years in a row, Gehrke said.

"This was a strong basis for Dr. Waladender's winning of this award," Gehrke said. "He encourages membership and participation of our undergraduates in the student chapter starting in the freshman year. The chapter's annual report clearly documents the high level of participation and outstanding quality of activities undertaken at K-State with his leadership."

Gehrke said the students credit Walawender's leadership as a major factor behind their success and initiated his nomination for the award.

"His enthusiasm for the organization is evident," said Christina Elliot, senior in chemical engineering and president of the chapter. "He is always promoting the organization, works closely with the officers to improve the chapter, and helps us to get involved in community activities."

Walawender joined the K-State faculty as an assistant professor in 1969. He has been the advisor to the K-State chapter of AIChE since 1978.

He received his bachelor's degree from Utica College of Syracuse University in 1963; and his master's and doctoral degrees from Syracuse University in 1967 and 1969, respectively.

Message from the Dean

The practical effect of a belief is the real test of its soundness.–James A. Froude

I like the message of the above quote as it reminds us there's a challenge involved when adopting a direction for an institution such as the college, and putting that direction out for all to see in the form of a vision statement.

"The College of Engineering at Kansas State University will be the best comprehensive college of engineering in the United States."

In working together toward 'realizing the vision,' the theme of this fall 1999 issue of Impact, what is and will be the 'practical effect' of our 'belief'? We've seen three such results already.

Support and enthusiasm generated for our goal. An interesting controversy arose at the college leadership's retreat earlier this year concerning our wording of the proposed vision statement. And it was not over the word "best," but rather, whether we should go with "best . . . in the world" or "best . . . in the United States." (We eventually agreed on the latter due to the question of how to compare our success in the world when the U.S. already has the best engineering in that arena.) But semantics aside, that's enthusiasm! We've seen that same support from our students who are eager to be a part of such an achievement, and from alumni whose basic response has been, "Way to go!"

Concrete results. Tangible evidence that we can indeed realize this vision can be seen in the successes of our students, faculty, and alumni. As you look through this edition of Impact, take note of our students whom are competing at the top levels nationally, winning prestigious scholarships, and filling key leadership roles on campus. Two of our faculty are national Advisor of the Year winners. And when our alumni go out and reap the benefits of their engineering education from Kansas State, many, as the story on Charlie Stryker demonstrates, turn around and re-invest in our programs. They've caught the vision, too.

Continued growth and improvement. We have a long and distinguished tradition of excellence at the college, and we are building on that foundation as we move into the 21st century. While it's true we're seeing actual physical growth–the ongoing construction of Fiedler Hall and enrollment numbers up 4.2% from last fall–we are also growing in our educational efforts and offerings. Once again, return to the pages of Impact and pay extra attention to the stories on the creation of WESP–Women in Engineering and Science Programs; see how our faculty are on the cutting edge of teaching and research through participation in programs like Engineering LEA/RN, and receipt of educational grants from the Society of Manufacturing Engineers and research dollars from industries like the Ford Motor Company. And we are looking to and receiving from our alumni and friends continued financial support for these efforts. The inaugural banquet of the Seaton Society in October was the first of what will be an annual recognition of those who provide significant gifts to the college, and those whose professional and public service accomplishments bring their alma mater great honor.



"The practical effect . . . the real test . . . ." This is how we'll measure our success at 'realizing the vision.'


Terry S. King, Dean

Engineering senior elected student body president


Heinrich

Most engineering students at Kansas State are worried about tests, upcoming assignments, and that internship they want to get next summer. However, Jason Heinrich isn't your typical engineering student. He's also the student body president at K-State.

The students of K-State elected Heinrich president in March 1999. Heinrich is also a senior in industrial engineering. As different as the worlds of government and engineering sound, Heinrich say the two areas overlap in his life.

"The skills I learned in engineering help in my daily duties as president. And the things I learn being president, I can take back and use in the classroom," said Heinrich.

Heinrich praises the College of Engineering for preparing him to serve as president.

"Engineering polished my time-management skills. With all the challenges, I had to learn how to concentrate and maximize my time," said Heinrich.

Heinrich says the College of Engineering also prepared him by challenging him and encouraging him to stretch his limits to do his personal best.

"I was challenged on a daily basis by my classes and that really prepared me for the demands I face now as president," said Heinrich.

Heinrich decided to run for president because he enjoyed serving and improving K-State, and saw the position as an opportunity to do so even more.

"I meet a lot of people who enjoy serving K-State and who want to improve K-State," said Heinrich. "It's great to deal with those who want to improve and better the same things you do."

Student government was not Heinrich's first foray into public service. He previously held the positions of K-State student ambassador, president of Blue Key Senior Honorary, vice president of the Interfraternity Council, and member of the Student Alumni Board. As one can tell, busy days are nothing new to the student body president.

"The hardest part is just concentrating. When I'm sitting in class, it's hard not to think about the meeting I have after class. I really have to focus," said Heinrich.

A typical day begins at 8:30 a.m. when he arrives at his student government office and checks and returns his messages. He then attends meetings. The middle of the day is filled with class and then it's more meetings to finish off the afternoon. Most evenings are filled with meetings, too.

Heinrich's stint as president will end in April 2000. After graduating in May, he plans to study economics overseas on a Rotary scholarship. Heinrich isn't sure what his future will entail, but he looks forward to the challenges it will bring.

"I know it sounds naive, but I really want to make a difference. It's more challenging to make a difference and I look forward to pushing myself," said Heinrich.

By combining the skills he's learned from being president and the skills he's learned from the College of Engineering, making a difference shouldn't be too hard for this young man.

–by Beth Caskey

Recruiting, retaining women, goal of WESP director

"I came here to be a role model, a cheerleader, a counselor, a recruiter, and a retention person." Sounds like a job for Superma-er, uh-Superwoman! And that may be just what the Colleges of Engineering and Arts and Sciences at K-State had in mind when hiring Dr. Suzanne Franks to head a new endeavor called WESP–Women in Engineering and Science Program. After all, the nameplate on her desk in Ward Hall does say, "Woman of Steel" . . . .

A task force put together by Dean of Engineering Terry King had found a high attrition rate among women at K-State who majored in engineering and science fields. "We were bringing in these academically talented and gifted people and losing them–and losing them at a higher rate than men," King explained. "The college said 'we can do better–we want to do better'."

Enter Franks. "What women have to offer in the fields of engineering and science must not be ignored," she said, "but welcomed and brought to fruition. My goal in accepting this position as director of WESP is that when a young woman in our recruiting area is thinking about a career in science or engineering, she will say, 'I'm going to Kansas State University because that's where women thrive!' "

But this was not the atmosphere Franks herself found in her own educational experience, which includes a B.S. in engineering science from Penn State University, an M.S. in nuclear engineering from MIT, a Ph.D. in biomedical engineering and Women's Studies Graduate Certificate from Duke University, and a master's degree in secondary education (mathematics) from Beaver College.

"In 11 years of undergraduate and graduate study, I had only one woman professor in all of my engineering classes, and very few women professors in my other classes as well. I encountered sexual harassment, lack of support, and put-downs at both the undergraduate and graduate levels. The general environment for myself and my fellow women students was one of isolation," she explained.

Adversity was not a stranger to Franks who had grown up in a family of six children in a small southwestern Pennsylvania coal-mining town. Her grandfathers had entered the coal mines at age 12 and her father had not completed high school. She was the first in her family to complete college.

Remarkably, her less-than-satisfactory experiences in college did not dampen her enthusiasm for the profession. "My engineering education opened doors for me such as post-graduate research abroad and high-paying jobs in the pharmaceutical industry here that I otherwise would never have known. But when I heard about the position at Kansas State, I saw a chance to influence young women toward this field and have a hand in making their educational experience as positive as possible," Franks explained.

Nationwide 18-19% of undergraduate engineering degrees go to women. At K-State that number is 14%. One of the College of Engineering's educational goals is for 25% of its baccalaureate degrees to be awarded to women in the next five years.

To help meet that goal, Franks plans to implement three key focuses in this first year of WESP: 1) a solid outreach program to 11- to 13-year-old girls within the recruiting area, 2) establishment of a peer-mentoring program, and 3) an extensive assessment of what women in science and engineering programs on this campus need.

"It's too late to recruit women to these majors in high school," Franks explained. "We need to reach them in 7th and 8th grades and get them excited about career possibilities in these fields so they'll take the necessary math and science courses in preparation for college."

Franks envisions a peer-mentoring program where upperclasswomen in science and engineering will serve as role models and support partners for their freshman and sophomore women counterparts. "I even see upperclassmen, who are interested, getting involved in this aspect," she said. "Men need exposed to a broader array of experiences as well. After all, they will likely work for and with women once they graduate, and peer mentoring will help them develop skills that are valued in industry."



Dr. Suzanne Franks, director of WESP–Women in Engineering and Science Program, stresses a point during a recent program development session.

As for meeting the needs of women students in these fields at K-State, Franks has set in motion focus groups and surveys to communicate with women both currently enrolled and those who have left these programs, to learn about what would make the engineering and science educational process more satisfactory for them.

"Suzanne Franks brings a prestigious list of credentials to this position," said Dean King. "We have every confidence in her ability to be successful."

Recruitment, academic enhancement, and retention of women in engineering and science–a job for Superwoman? A job for Suzanne Franks.

Learning-based techniques introduced

Turn To Your Partner, Jigsaw, Muddiest Point–the latest square-dancing calls? Not quite. Try the latest teaching techniques faculty members of the College of Engineering are learning to incorporate into their classes and you're much closer to correct.

It's all a part of Engineering LEA/RN–Learning Enhancement Action Resource Network, Kansas State's version of Project LEA/RN, initiated in order to move from traditional instructor-centered teaching methods, to learning-based techniques in the classroom.

The program was begun here in the fall of 1998 and is coordinated by Dr. Richard Gallagher, associate dean of engineering. Prompted by new criteria for ABET accreditation and in accordance with one of the college's fundamental principles of education for the 21st century, that its education programs be "learning based," Gallagher explained it was a natural progression for the college to follow Dean Terry King's lead in this area and implement the program.

"We in engineering," Gallagher said, "are being asked to educate and empower our students to be learners, to be capable of operating in teams, to be confident in honing their life-long learning skills, to be ethical problem solvers and designers–and the list goes on.

"Reputable researchers claim that traditional instructor-centered methods can no longer meet the entire demands placed on our educational system," he added. "For example, we know that with the traditional lecture format in the classroom, we 'lose' a significant percentage of the students after 10-12 minutes. We want the students to stay on task in the classroom and then, when they leave the classroom, not just to have facts, but to be able to apply what they've learned, in other courses and eventually in the engineering workplace."



Lisa Wipplinger, ARE/CNS, Jerome Lavelle, IMSE, and Shing Chang, IMSE, left to right, discuss aspects of LE/ARN.

Two facilitators, Justin Benna and Jan Wiersema, from the College of Education at Iowa State University, came to K-State at the beginning of the 1998-1999 academic year and began meeting two days a month with nearly 40 volunteer members of the engineering faculty across all disciplines. Each faculty member participating had a "learning partner" and two sets of learning partners formed a base group. Each of these smaller groups committed to meet monthly, discussed the new techniques they were trying, and in the spring semester, learning partners also visited one another's classrooms for personal observation and feedback.

At the end of the 1999 spring semester, 22 faculty members had completed the yearlong program with 20 of them committing to the second year of Engineering LEA/RN at the beginning of the 1999 fall semester. Fourteen additional faculty members also began a new first-year class at that time.



Justin Benna, at board, and Jan Wiersema, seated, facilitators from ISU, instruct KSU engineering faculty members in new teaching techniques.

"The college is positioning itself to become a leader at the university in this area," Gallagher explained. Joining the new engineering faculty class this fall was also a select group from arts and sciences and business who had been invited to participate.

With overwhelmingly positive feedback from faculty and students, and an invitation for faculty to deliver a paper on the program's results at the Frontiers in Engineering Education Conference in November in Puerto Rico, Gallagher said, "This is a program we've felt positive about from the start and feel that way even more so now."

And the bottom line–students are leaving the classroom more educated. As one faculty member described in a written evaluation, "It's not how much you teach; it's how much they learn."

Gala evening marks college's trac

Seaton Society Inaugural Banquet

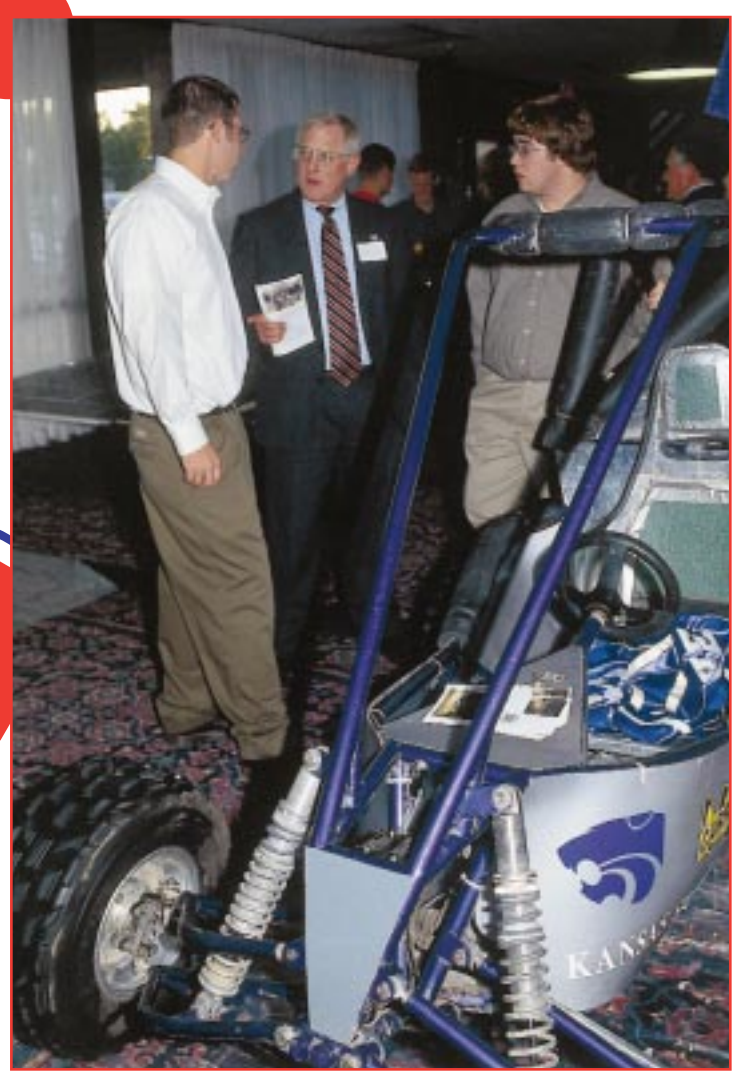
More than 120 alumni, friends, and guests of the College of Engineering gathered for the inaugural banquet of the Seaton Society, Friday, Oct. 1. According to Dean Terry King, the Seaton Society was established this year "in order to recognize donors who provide significant annual gifts to support the college, and to recognize outstanding alumni whose accomplishments bring honor to their alma mater through professional practice and public service."

Named in honor of the spirit and legacy of Roy Andrew Seaton, longest serving dean in the history of K-State engineering, formation of the society, King said, "launches development of an inner circle of alumni and friends who will join with us as we become the best comprehensive college of engineering in the country."

Membership is open to those contributing $500 or more annually to any area within the college. There are six membership levels based on different gift amounts, with Founder Level members ($100,000+), at the dean's invitation, receiving lifetime membership status for their outstanding support. Thirty-eight such memberships were recognized this year.



Mardie Belter, left, and Sarah Atherton, right, daughters of the late Roy A. Seaton, are joined by John Atherton, at the inaugural banquet of the Seaton Society, named in honor of their father.





Above: Alice Fiedler, left, a Founding Member of the Seaton Society, and Dean of Engineering, Terry King, right, exchange greetings during the social hour prior to the banquet and program.
Left: Advisory Council member, Alan Kessler, center, discusses the Baja car with student team members, one of several student projects on display prior to the banquet.

Stryker establishes academic excellence fund

There comes a time when individuals must step forward and make a commitment, and Charles Stryker of CAS Construction, Inc., Topeka, Kan., has done just that in establishing the Stryker Architectural Engineering and Construction Science and Civil Engineering Academic Excellence Funds for the Kansas State University College of Engineering.

Stryker holds a B.S. in civil engineering from Kansas State, and an M.S. in that discipline from Texas A&M. He started CAS Construction, Inc., in 1985, a company that constructs and designs, in cooperation with engineering firms, water and wastewater treatment facilities, and heavy engineering projects for public and industrial clients. Though primarily operating in the Midwest, the firm has worked on projects from Utah to Maine. Stryker is a licensed Professional Engineer in Kansas, Missouri, Colorado, and New Mexico, as well as a licensed contractor in 24 states.



Stryker

"Our company," according to Stryker, president and founder of CAS Construction, "has recognized the importance of supporting engineering departments at Kansas State in order to encourage having the best faculty available to teach the engineers of the future. We believe that having the best students attend K-State is really a function of having top faculty and the resources to support their endeavors."

Thus the birth of the Stryker Academic Excellence Funds for the ARE/CNS and CE departments, where $5,000 will be provided annually to each department, beginning in September 1999 and pledged each year thereafter through 2002, for a total gift of $40,000. The funds will be used at the discretion of each of the department heads to promote excellence in academic programs through financial support of faculty and student enrichment and leadership opportunities.

"The method we have chosen to support KSU allows these resources to be used today, rather than waiting for an endowment to be funded," Stryker explained. "This method commits our company and me financially to a fixed-time period, and gives the department heads flexibility to use the funds as needs arise and plan for future uses without concern for annual budget restraints.

"Our intent," he added, "is to renew our commitment every year to assure a four-year financial horizon for the departments of CE and ARE/CNS."

And the recipients of this gift could not be more appreciative of its impact on their respective departments. According to Dave Fritchen, head of ARE/CNS, "Charlie's support of our faculty and students will have a positive and lasting impact on future leaders in the engineering and construction industry."

Stu Swartz, head of CE, concurred, stating, "This generous gift will foster academic excellence in our department in a number of ways. Its support of student activities will help with our attendance at bi-annual ASCE regional meetings where we take part in the concrete canoe race and steel bridge competitions.

"This gift will help support faculty attendance at professional meetings to enhance their technical development and teaching skills," he continued. "Financial support of this type is very important in helping us to attract and keep high-quality students and maintain a strong program."

Fritchen also commented, "The plain fact is that private contributions are an increasingly important part of our success. Charlie has made an investment in our future and has a share in our success. It's wonderful when people who have benefited from an education at K-State give something back to help those who follow."

Stryker wants his company's gift to be just such an impetus. "I hope it encourages others like us," he said, "to step forward and engage in the important task of supporting engineering education, particularly at KSU."

dition, goals, and achievements

"When I graduated, I was ready to go to work.... My [KSU] engineering foundation, and my family's support and encouragement, have been the essential elements for my climb up that ladder of success."

Ivor "Ike" Evans
EE '65



Class of 1999 Hall of Fame inductees, left to right, Ivor "Ike" Evans, Frank Tillman, and David Dean Kays.

Hall of Fame

An annual part of the Seaton Society banquet will also be the induction of each year's College of Engineering Hall of Fame members. This event recognizes successful alumni who have reached the highest levels of achievement in their professional endeavors and who are committed to maintaining the highest standards of their profession.

Members of the Hall of Fame Class of 1999 included David Kays (AGE '51), vice-president and corporate consultant with the Ralph M. Parsons Company; Ivor "Ike" Evans (EE '65), president and chief operating officer of the Union Pacific Railroad; Kuo-Ming Wang (IE, M.S. '72, Ph.D. '75), president of Yuan Ze University, Taiwan; and Frank A. Tillman, retired after 34 years of teaching and research in IE at KSU, culminating in 21 years as department head, 1966–1987.



Advisory Council members, left to right, Larry Strecker, Laree Mugler, Nadalie Bosse, and Tim Taylor, share dinner conversation during the course of the evening.

Advisory Council

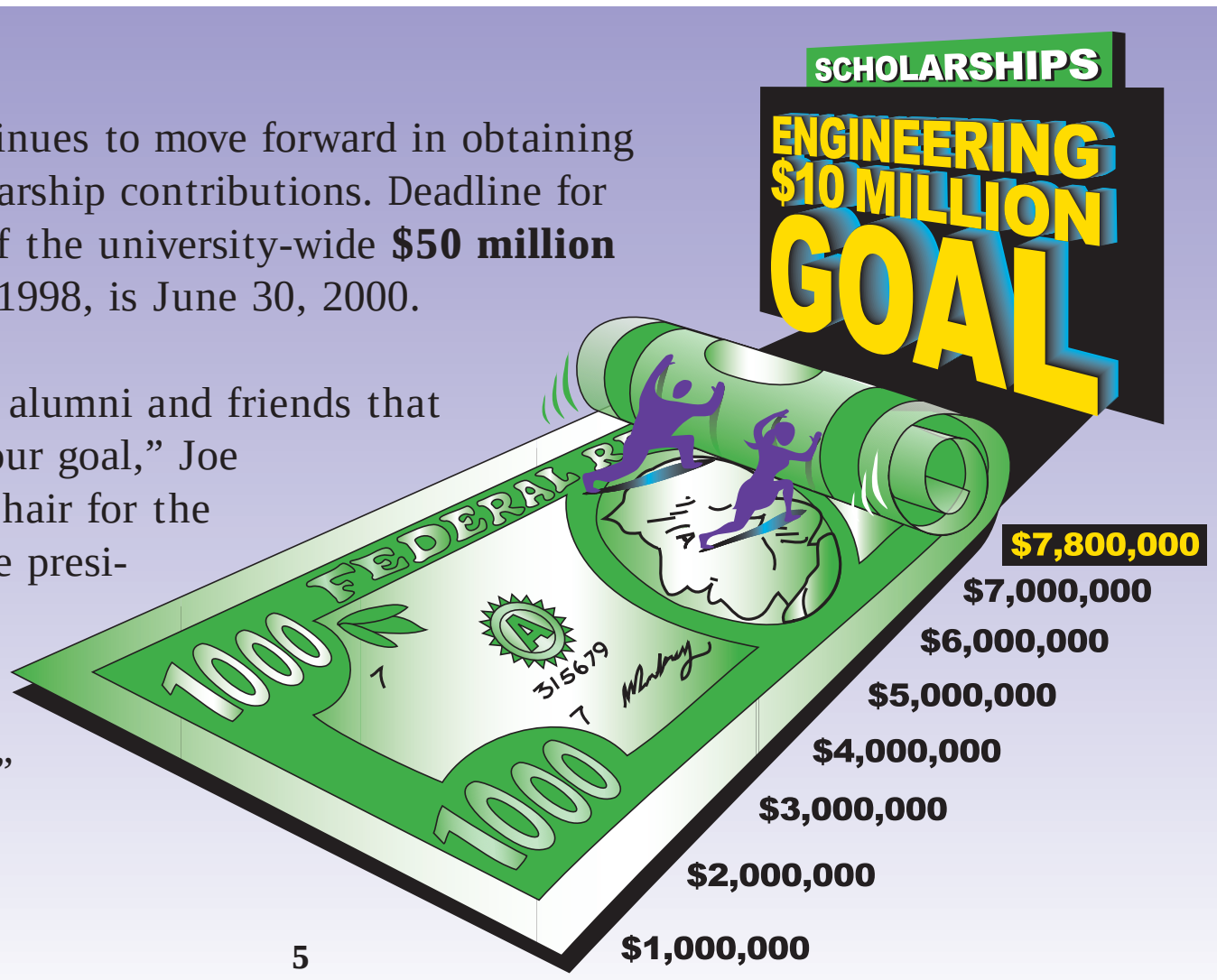
While Oct. 1 activities culminated in the evening's inaugural Seaton Society banquet and Hall of Fame induction ceremonies, certain guests had been involved with college business for much of the day as members of the College of Engineering Advisory Council.

A key change in COEAC membership has been the conversion to three-year term appointments, in order to, according to Dean Terry King, "avoid 'burn out' of our hard-working volunteers and allow for the addition of 'new blood' to the council." In addition, those members who had served three years and beyond, at their stated desire, could obtain emeritus status and continue to serve in that capacity. Nineteen of the 26 COEAC members attended this fall's meeting, along with three of the four emeriti members.

Of the six new members on the council, Dean King commented, "One of the tasks COEAC had assigned to me last year was to recruit new members, paying special attention to having our council reflect the diversity of graduates and companies that our college represents." The following list of new advisors, King said, "characterizes our extra efforts to bring in more women, increase our political clout in the state, and include people who can help us create an environment in which our students will consider entrepreneurial endeavors": Larry Strecker (IE '80), vice president, Payless ShoeSource; Kent Glasscock (A&S '74), Republican Majority Leader, Kansas House of Representatives; Mike Manley (EE '73), software entrepreneur; Susan Buchanan (CIS '73, '75), software entrepreneur; Nadalie Bosse (IE '80), vice president, Ameritech; and Alan Kessler (BAE '69), vice president, Amana Appliances.

The College of Engineering continues to move forward in obtaining its goal of **$10 million** in scholarship contributions. Deadline for the fund-raising effort, a part of the university-wide **$50 million** scholarship campaign begun in 1998, is June 30, 2000.

"It is a remarkable effort of our alumni and friends that we have come this far towards our goal," Joe Downey, scholarship campaign chair for the college, and recently retired vice president of the corporate board for Dow Chemical, commented. "I feel confident we'll complete our task in the coming months."



Alumni News

1926

Philip M. Noble (CE, MS '30) and his wife, Ruth (HE) celebrated their 72nd wedding anniversary on Aug. 20. 3708 Fuchsia Lane, Modesto, CA 95356

1949

James G. Dieter (ChE) is legal counsel for Catalytic Distillation Technologies, a Houston firm which develops and licenses refining and petrochemical processes based on catalytic distillation for the international market.

1950

Ray L. Thompson (EE) has been recruiting and coordinating a group of 60 engineers in Austin, Texas, who evaluate student mechanical designs in the Science Academy Magnet School at Lyndon B. Johnson High School.

1951

Paul Davies (CE) is living in Canton, Ill. He retired in 1976 after working in the supervision of the construction of earth-fill and rock-fill dams. He worked for various employers throughout Nebraska, Kansas, New York, California, Michigan, and Illinois.

1952

Vernon Deines (ARE) retired in May 1997 after teaching 40 years at K-State in architecture, planning, and engineering. He is now working part time on a technical assistance project with the KSU Center for Hazardous Materials Research.

1954

Gerald Ireland (AgE) is retired. He worked for Caterpillar Inc. for 37 years and recruited many engineers from K-State. He and his wife enjoy great health and are active in the community. 29150 Pinion Circle Drive, Buena Vista, CO 81211

1962

George W. Schneider (ME) and his wife went to Reno, Nev., for the wedding of George's niece on July 4. The day after they flew to Anchorage, Alaska. Alaska was the 50th state the couple has visited. 211 Roper Mt. Rd. Ext., Greenville, SC 29615-4826.

1963

W.M. (Mike) Lackey (CE, MS '75) retired in June after 36 years with the Kansas Department of Transportation. He is now doing private consulting. 3713 SW 30th Terr., Topeka, KS 66614

James W. Neal (ME) retired in December 1998 after 33 years with Wilcox Electric. He and his wife, Bonnie Foulds ('63 HE), have three children and seven grandchildren. padad60@aol.com

1964

Ronald Emory Adams (AgE) has accepted a position as director of IS&S Produce Product in the Electro-Motive Division of General Motors.

1971

Charles Stryker (CE) is concluding his 12th and final year (the maximum allowed by statute) as a member of the Kansas State Board of Technical Professions, having served three years as chairman of the board. He has been a member of the National Society of Professional Engineers since 1974 and is currently secretary and treasurer of the Kansas SPE.

1975

Tim Heiman (ARE) recently became a principal shareholder of KPFF Consulting Engineers. KPFF has seven offices on the West Coast and provides civil and structural engineering services to architects, contractors, and owners. He is the structural engineering manager of the San Francisco, Calif., office.

Steve Richards (MSEE) is the coordinator of special gifts for United Methodist Youthville. Youthville is an agency that provides reunification services to children and their families in south central and western Kansas.

1983

Amy Fitzgerald (IE, MS '85) and her husband, Mike Woodhull, are proud to announce the birth of their son, Ethan, on Oct. 12, 1998. Amy is a physician assistant in family practice in Lindsborg, Kan. afitz@miduse.net

1984

Lori (Holvorson) Gill (IE) married Dennis Gill on May 1. She is employed as a project manager with Hallmark Cards, Inc. in Kansas City, Mo.

1985

Robert Shuey (EE) was promoted to a manager of Warner Robins Engineering Operations for Modern Technologies Corporation. MTC is a defense aerospace engineering company and his office primarily works with Robins Air Force Base. bshuey@mtc-wr.com

1988

Beth (Rulifson) Biernacki (ChE) recently graduated from the University of Oklahoma College of Medicine with a doctor of medicine degree. She will do her intern year at the University of Missouri-Kansas City, followed by a radiology residency at the University of Kansas-Wichita.

1989

Scott Bergkamp (EE) has joined Bergkamp Inc. in Salina as vice president of sales. Bergkamp Inc. is a family business that manufactures road maintenance equipment.

Michael Smith (CE) has accepted a position as senior engineer with Tulsa Dynaspan in Broken Arrow, Okla. 11204 E. 67th St., Tulsa, OK 74133

1990

Allan Gilson (ME) and his wife are proud to announce the birth of their second daughter, Laura-Nell Victoria Gilson on May 12. She was welcomed home by her sister Elizabeth, age 5. He is currently employed as controls engineer at Black & Veatch in Kansas City, Kan.

1991

Greg Clum (CNS) and his wife, Darcie (EDU '90) were married in August 1991. They now have three boys and are living near Steamboat Springs, Colo.

Julie (Bostater) Cox had her first child, Jamie Joann, on April 30. Jamie weighed seven pounds and nine ounces.

Mary (Samarzija) Hoppe (ARE) and her husband are proud to announce the birth of their first child. Henry James Hoppe was born on April 7.

1992

John Bish (MSEE) was promoted to staff engineer with General Electric Industrial Systems Solutions Division in Houston, Texas.

Douglas A. Cobb (CNS) and several business associates have formed Meridian Management Inc. in Anchorage, Alaska. Meridian is a project management and environmental planning firm. Doug is a project planner for the Indian Health Service in Anchorage.

1993

Daniel Dold (ME) and his wife, Joan, are proud to announce the birth of a son, Jeremy Leonard, on April 27. The couple also has a daughter, Katelyn, who is two and a half. Dan has worked as a product support engineer for Didde Web Press in Emporia, Kan., since June 1995.

Elfriede Dustin (CNS) is currently a software test manager at Computer Sciences Corporation. His book, Automated Software Testing, addresses the introduction, management, and performance of automated testing. It was published by Addison Wesley and is now available.

Andrea (Starr) Longston (NE) and her husband, Bill, are proud to announce the birth of their third child. Rachel Erin Longston was born on Feb. 12. She joined brothers Chris, 8, and Zach, 3. Andrea is a probabilistic risk assessment engineer at Cooper Nuclear Station in Brownville, Neb. allongs@nppd.com

1995

Michael P. Auer (EE) got married on April 23 and is working at Micro-Comm. It is a small company in Overland Park, Kan., that manufactures and installs digital control systems for water distribution plants throughout the U.S.

T.J. Lobberecht (ARE) and Laura Manchester (ARE '94) were married on Oct. 3, 1998. Both are structural engineers at McNealy Bumberry Engineers in St. Louis, Mo.

Amy Yelkin (IE) married Jeffrey Martens on May 21. She is a management engineer with Blue Cross-Blue Shield of Kansas and is currently working on a master's degree in engineering management through K-State's distance learning program. amy.martens@bcbsks.com

1996

Reece Laurie (CIS) is working as an advanced support engineer for Informix Software Inc. in Lenexa, Kan. His wife, Erin (DT, '97) is a registered dietician for Cass Medical Center. rlaurie@informix.com

1997

Frank N. Rinaldi (ARE) is working as a structural engineer for L.J. Lindauer Inc. in Grand Junction, Colo. His wife, Karah, gave birth to their first child, Alexis Evan Rinaldi, on June 6.

Deaths

1931

Lloyd Harold Compton (EE) died Jan. 15 in Escondido, Calif., at the age of 89 following complications from hip surgery. He was a widower and is survived by four children, 11 grandchildren, and four great-grandchildren.

1932

Clarence J. Allen (CE) died on Aug. 27, 1997. He retired in 1973 from Cities Service Gas Co. after 40 years of service.

1935

William C. Lacy (EE) died on Jan. 16. He was a lieutenant colonel in the Army and served in two wars. He retired in 1954 from the Army. He also worked as an engineer at Aerojet General before retiring in 1970.

1940

Herman Peter Madsen (ME) died on Dec. 31, 1997. He had retired from the E. I. duPont film department in 1976.

1951

James A. Davis (AgE) died June 21 in El Cajon, Calif. He is survived by his wife, Betty Jean. He is also survived by four children: Diane Dunaway, Dana Kaland, Jeffrey Lee, and Jon Todd.

1953

Louis J. Pizzanelli (ME) died on June 21 in Tucson, Ariz. He retired in 1986 from FMC Corporation as a patent attorney. He is survived by his wife Mary Lou and his daughter Amy.

1961

Fred L. Paulie (EE) died on Feb. 9. He retired in 1990 from Guide Lamp Division of General Motors after 30 years of employment. He is survived by his wife, Marva, and nine children.

1965

Lorrin E. Lowe (ME) died on May 21. He worked for Ramona Bottling Co., Applied Membranes, and Famous Ramona Water. He was a manufacturing engineer. He is survived by his wife, Ina Lowe, and two sons, Jerry Lowe and Mike Lowe.

1967

Wayne Pritz (ME) of Lancaster, Calif., died on May 22, 1998.

Grevas joins development team



Grevas

William M. "Bill" Grevas has joined the KSU Foundation staff as a development officer for the College of Engineering. His duties include major gift solicitation, and presenting and marketing the goals, objectives, and needs of the college.

Grevas is a graduate of Wayne State College, Wayne, Neb., with a bachelor's degree in human services counseling with minors in sociology and psychology. Prior to accepting this position, he had been the business and development director for Sacred Heart Junior/Senior High Schools in Salina, Kan. He is a past president of the Kansas State Association of Big Brothers/Big Sisters and is currently on the board of directors of the Salina Family YMCA.

"We're pleased to have a person of Bill's qualifications working on behalf of the college," said Terry King, dean of engineering. "I believe we have the best development team at Kansas State University and we all expect our success to grow."

Top scholars

continued from page one

science, and engineering students nationwide who had been nominated by the faculties of their colleges and universities.

Pauzauskie is also a recipient of a KSU Dean of Engineering Scholarship and a KSU Foundation Scholarship. He has been a member of Phi Eta Sigma freshman national honor society and Silver Key sophomore honorary. Future plans include earning a Ph.D., with an emphasis in materials science and biotechnology.

Kansas State continues to lead the nation's 500 state universities in Goldwater Scholarships, with its students winning 36 since the program began in 1989.

Udall winners

Four Kansas State University students have been chosen as 1999 recipients of the Udall Scholarship and two of them are enrolled in the College of Engineering–Jennifer Wright and Steven Alley.



Wright

Wright, junior in biological and agricultural engineering with an emphasis in environmental engineering, is from Lakin, Kan. A member of the engineering honors program, she has also received a KSU Dean of Engineering Scholarship, a KSU Foundation Scholarship, and the Rector Scholarship for engineering students. She is a National Merit Scholar, a Hutton Leadership Scholar, a winner of the Phi Kappa Phi Sophomore Scholastic Award, a Tau Beta Pi honorary, and a member of the American Society of Agricultural Engineers.

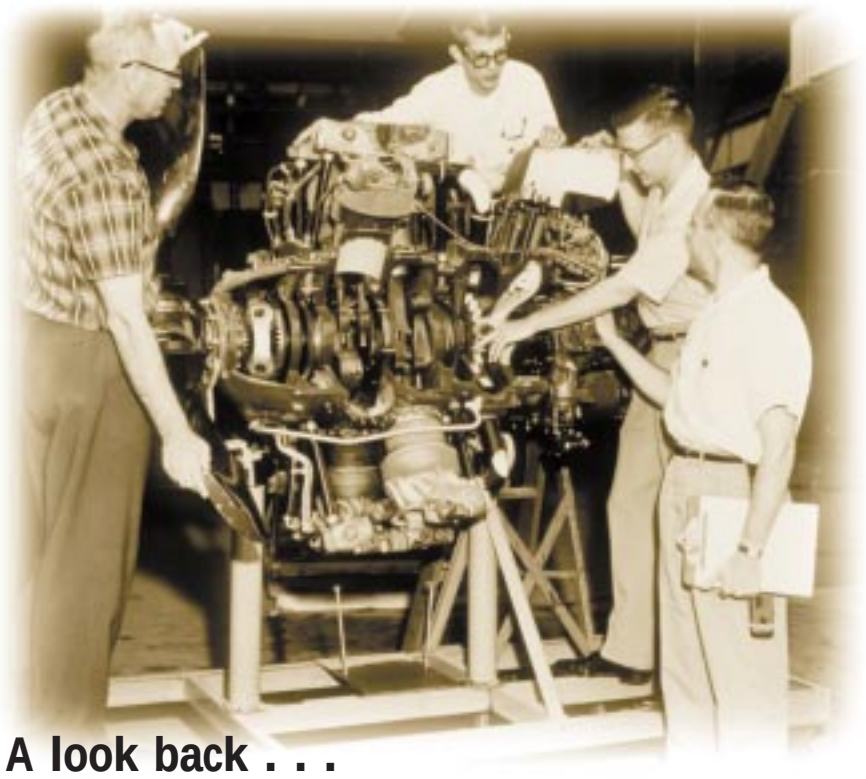


Alley

Alley, from Overland Park, Kan., is a junior in chemical engineering with an environmental emphasis. He has been awarded a KSU Dean of Engineering Scholarship, a chemical engineering department scholarship, the Walter Bucheim Memorial Scholarship, and the Lahr Scholarship. His memberships and activities include engineering ambassadors, chemical engineering undergraduate advisory council board, Omega Chi Epsilon, Engineering Open House chairman, new student orientation seminar mentor, and American Institute of Chemical Engineers.

Udall Scholarship competition is open to college sophomores or juniors preparing for careers related to the environment, Native American health care, or tribal public policy, all causes championed by Sen. Morris Udall.

Kansas State University had more winners this year than any other university.



A look back . . .

Mechanical engineering students check out a Pratt and Whitney radial-type aircraft engine, vintage WWII, while Prof. Wilson Tripp, left (1936-1977), supervises. According to retired ME professor, Hugh Walker, the scene was photographed in the former boiler room in the east wing of Seaton Hall. Walker estimates the time period to be late 1940s to early 1950s, a juncture when the college used this space for large construction lab needs, such as working with military surplus items like this double-bank engine.



Research partnership with Ford/Visteon

In conjunction with Visteon Automotive Systems, a subsidiary of the Ford Motor Co., KSU students at the College of Engineering's Institute for Environmental Research are developing a car for the next generation. The 1998 Ford Taurus was remolded with new insulation technology inside the car door panels and fitted with special windows designed to augment the insulation, in order to minimize the effects outdoor temperatures have on car air conditioners and heaters. The goal of the insulation is to reduce the heat load during the summer, allowing for smaller air-conditioning components, thus reducing the weight of the car and improving gas mileage. The college has been working with Visteon since 1993 in other phases of the project and has received $1.2 million for research during that time.

AMI receives education foundation grant

The Advanced Manufacturing Institute (AMI) of Kansas State University is one of five institutions nationwide to receive a grant from the Education Foundation of the Society of Manufacturing Engineers (SME) for innovation in manufacturing education and research.

This $336,000 grant will allow AMI to establish a production facility at which engineering students, under the supervision of experienced engineering staff and faculty, will be charged with the responsibility of the design, development, and manufacture of new products.

"The partnership we have created among the university, state economic development agencies, federal government, and manufacturing companies is working to everyone's benefit," said Farhad Azadivar, AMI director and principal investigator for this project. "By adding SME, a leading engineering professional society, to our partners, we will reach even greater milestones."

Azadivar said the industrial community benefits from the services provided by the program and the opportunity to hire newly graduated engineers who are joining the workforce with advanced skills. The new grant will supplement the Manufacturing Learning Center's existing operations, funded by the National Science Foundation (NSF), in an expansion of design and product development and its capabilities for production.

AMI, an economic development arm of Kansas Technology Enterprise Corporation, will utilize this innovative operation not only to enhance engineering education, but to allow manufacturing companies who need this type of research and development to benefit from results of these activities. In addition, NSF and SME look to this program to develop into a national model for engineering education and university-industry cooperation, Azadivar said.

Impact

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What's new with you?

We'd like to know–and so would your former classmates. Take a few minutes to jot down job changes, births, deaths, professional or other activities, your retirement, or remembrances you'd like to share. Send your news to *Impact* at one of the addresses below.

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In search of KSU College of Engineering alumni



Have you ever tried to get in touch with an old classmate only to find that the last directory is eight years old? Soon an impressive directory of our alumni will be available to help you locate all your friends.

The Kansas State University College of Engineering Alumni Directory, scheduled for release in spring 2000, will be the most up-to-date and complete reference of over 18,612 KSU College of Engineering alumni ever compiled! This comprehensive volume will include current name,address and phone number, academic data,plus business information (if applicable), bound into a classic, library-quality edition.

The Alumni Office/Association has contracted the prestigious Bernard C. Harris Publishing Company, Inc. to produce our directory. Harris will soon begin researching and compiling the information to be printed in the directory by mailing a questionnaire to each alumnus. (If you prefer not to be listed in the directory, please contact the Alumni Office/Association in writing as soon as possible.)

The new Kansas State University College of Engineering Alumni Directory will soon make finding an alumnus as easy as opening a book. Look for more details on the project in future issues.













'99 Career Fair and Recognition Banquet

On the evening of Sept. 20, more than 480 students, faculty members, and industry personnel gathered at the Manhattan Holidome for the 16th annual College of Engineering Career Fair and Recognition Banquet. Forty-seven firms purchased "tables" at the event that allowed them to host six to eight students and faculty members, who then dined with two company representatives.

"This provided an opportunity for students to meet with potential employers in a setting other than career fairs or interviews," Barbara Finnegan, coordinator of the banquet for the college, said. "We also showed off our student successes in the college," she continued, "by recognizing more than 65 individual, team, and chapter and honorary society winners from the 1998-99 school year."

The following day many of those same engineering students joined over 5,000 of their fellow K-State students for the sixth annual All-University Career Fair, held in Bramlage Coliseum. More than 300 companies, staffed by more than 800 representatives, spent a busy day discussing job openings, career opportunities, and internship positions with future graduates. Forty-five of those companies stayed over for next-day interviews, involving 380 selected students.

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Realizing the Vision

Impact

In realizing its vision "to be the best comprehensive college of engineering in the United States," Kansas State engineering can look proudly to the accomplishments of its students. "One of the college's performance objectives," said Dean Terry King, "is to have all students participate in teams or competitions. We believe such activities offer tremendous experience in team building, communication, and meeting deadlines and budgets."

Events of this past spring and summer brought national recognition to the college in the form of Sunrayce '99, the ASAE National 1/4-scale Tractor Student Design Competition, and prestigious scholarship awards.



Top-ten finish for K-State's Apollo

Meeting their goal of a top-ten finish was a proud accomplishment of the K-State engineering team and their solar-powered car Apollo, entrants in Sunrayce '99, June 20-29.

Finishing ahead of such schools as Michigan, Stanford, Berkeley, and Yale, who had substantially outspent K-State in building their cars, Apollo came in first on two days of the race and second on another, with a ninth-place finish

continued inside



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