Welcome Students and Alumni

The mechanical engineering department would like to extend a heartfelt welcome to the new and returning students as well as our alumni. We hope you’re looking forward to an interesting new year.

Chairman’s Update

Your Mechanical Engineering Department at the University of Kansas has again had an exciting year. We have purchased an autoclave with the funds supplied by the Barton and Forrest Hoglund Laboratory endowment. This new facility will greatly increase our capabilities in the area of composite materials. The autoclave allows our undergraduate students to fabricate and build light weight and strong components for their design projects. The autoclave also allows us to expand our research efforts in composite materials by allowing experimental confirmation of analytical predictions. Endowed funds such as this are critical in maintaining the quality of our students educational experience.

Students have been very active in the SAE competitions. They entered a Formula I vehicle in this years competition and finished ahead of all the other schools in the Big Eight conference. Our senior design students continued the tradition of supporting the Capper Foundation sheltered workshop and physically challenged children with several of their design projects. The student section of ASME again sponsored the annual Rube Goldberg competition at Engineering Exposition. The various devices entered were extremely creative and provided a great deal of excitement and positive publicity for Mechanical Engineering. The students in ASME this year decided to have separate competitions for grade school, high school and university students. The introduction of the fun and interesting things that can be done in engineering to grade school and high school students should be very positive for our department in the future.

New faculty that have joined the department include, Robin Hibbard, Wilthea Hibbard and Robb Sorem. Robin’s interests include vehicle dynamics, dynamics and control of manufacturing systems, vibrations and he is working with Don Gyorog in supporting our SAE student competitions. Wilthea’s interests include mechanical design, computer aided manufacturing, telerobotics and dynamics. Wilthea is also active in the student chapter of Society of Women Engineers. Rob’s interests include the development of new finite element analysis (FEA) techniques and the application of FEA to real problems including the application of composite material analysis.

Faculty

The mechanical engineering department currently consists of 15 faculty members who have a variety of interest, knowledge and
expertise. The mechanical engineering faculty members are:

**Louis C. Burmeister**, Professor (Ph.D., Purdue); Solar Energy, Heat Transfer, Fluid Mechanics

**Hector McL. Clark**, Associate Professor (Ph.D., London); Materials, Erosion, Wear

**Terry N. Faddis**, Chairman and Professor (D.E., Kansas); Mechanical Design, Computer-Integrated Manufacturing

**R. Bryan Greenway**, Assistant Professor (Ph.D., Kansas); Flexible Manufacturing, Machine Design

**Donald A. Gyorog**, Professor (Ph.D., Wisconsin); Thermodynamics, Control Theory, Internal Combustion Engines

**Robin Hibbard**, Assistant Professor (Ph.D., University of California-Davis); System Dynamics and Controls, Vibrations, and Vehicle Dynamics, Mechanical Design

**Wiltonia Hibbard**, Assistant Professor (Ph.D., University of California-Davis); Mechanical Design, Dynamics, Vibration, and Computer-Aided Manufacturing

**Charles D. Reese**, Professor (Ph.D., Oklahoma); Mechanical Design, Applied Mechanics, Computer-Aided Design

**Robert M. Sorem**, Assistant Professor (Ph.D., Kansas); Mechanical Design, Computational Mechanics, Finite Element Formulation and Application, Mechanics of Materials, and Composite Material Mechanics

**Karan S. Surana**, Deane E. Ackers Distinguished Professor (Ph.D., Wisconsin); Solid Mechanics, Finite Element Methods and Software, Computational Mechanics and Computational Fluid Dynamics

**Jerry D. Swearingen**, Assistant Professor (Ph.D., Southern California); Fluid Mechanics and Signal Processing, Measurement Methods for Fluid Mechanics

**Peter W. TenPas**, Associate Professor (Ph.D., Iowa State); Computational Fluid Dynamics, Computer-Aided Thermal Design

**Robert C. Umboltz**, Associate Professor (M.S., Kansas) Kinematics, Dynamics of Machinery, Computer-Aided Design

**Bedru Yimer**, Professor (Ph.D., Dayton); Heat Transfer, Fluid Mechanics, Thermodynamics, Thermal Dynamics

---

**New Faculty**

**Robin L. Hibbard**

Robin L. Hibbard joined the M.E. department in the spring of 1995 as an assistant professor. He received his B.S. in mechanical engineering from California Polytechnic State University, San Luis Obispo, and his M.S. and Ph.D. degrees in mechanical engineering from the University of California-Davis. Prof. Hibbard has two years industrial experience in structural vibrations with Pacific Gas and Electric Company. He was also a founding partner in a technology-based business incubator and served as the development engineer and as chief financial officer. Hibbard's general expertise is in mechanical design. His particular interests are in modeling, simulation, and control dynamic systems, structural vibrations, vehicle dynamics, manufacturing systems, and mechanical design.

**Wiltonia J. Hibbard**

Wiltonia J. Hibbard joined the mechanical engineering department as an assistant professor in the Fall semester of 1993. She received her B.S. degree in mechanical engineering from California Polytechnic State University, and her M.S. and Ph.D. degrees in mechanical engineering from the University of California-
Davis. Prof. Hibbard has worked as a mechanical engineer at Loredan Biomedical, a firm specializing in rehabilitation and strength training machines and at Pacific Gas Electric’s Structural Vibrations group. She also taught courses in computer and graphics, worked as a research assistant on design projects at UCD. Her particular interests are dynamics, vibrations and mechanical design, specializing in computer aided manufacturing and telerobotics.

Robert M. Sorem

Robert M. Sorem joined the mechanical engineering department in the Fall of 1994 as an assistant professor. He received his B.S., M.S. and Ph.D. degrees from the University of Kansas. For the past three years Sorem worked from Dowell Schlumberger, Inc. as a development and senior development engineer in the Coiled Tubing Engineering Department. He was involved in the research and development of new downhole tools for acid stimulation and real-time measurement of downhole conditions. This work produced one issued patent, three granted patents and eight pending patents. Sorem’s areas of interest are development of new finite element analysis (FEA) techniques, the application of FEA to real problems and the application/development of composite material analyses.

Memorials

We are saddened by the loss of one of our mechanical engineering alumni, Mr. Wesley G. Cramer and his wife, Jessie.

Wesley G. Cramer B.S. ’28 and generous supporter of the School of Engineering, died in March, 1994 and his wife, Jessie, died shortly afterward in September 1994. Mr. & Mrs. Cramer established the Wesley G. Cramer Scholarship Award Fund for deserving students in mechanical engineering in 1985 and the Wesley G. Cramer Mechanical Faculty Fund for meritorious teaching and research in 1990.

Mr. Cramer was a charter member of the Chancellors Club at KU. Mr. and Mrs. Cramer enjoyed numerous trips outside the U.S., often traveling with the Flying Jayhawks.

Mr. Cramer was born in St. Joseph, MO. He attended Missouri Junior College in St. Joseph and Missouri Wesleyan College in Comeran, MO, before attending KU.

Mr. Cramer married Jessie Marie Senor in 1930. She graduated from KU in 1927 with a B.A. in Spanish and was a member of Alpha Omicron Pi sorority. The couple has one daughter, Jessie Ann Cramer Root, who received KU degrees in French in 1960 and 1962. She lives in Bellingham, WA.

We are also saddened by the loss of one of our emeriti professors, Kenneth E. Rose.

Ken Rose passed away October 2, 1994. Ken Rose taught engineering for 37 years, retiring as a professor of mechanical engineering at KU in 1984. He was past chairman of the department of mining and metallurgical engineering and the department of mechanical engineering as well as serving as an associate dean of the school of engineering. He formerly taught engineering courses at Cornell University, Ithaca, NY, and was chief administrative assistant for their engineering programs for Naval Officers during World War II.

He was a member of the KU Retirees’ Club and received the Chancellors Club Career Teaching Award and the Gould Award for undergraduate teaching from the university. He graduated from Colorado School of Mines, Golden, CO, and received a Master’s degree in engineering from Cornell University. He was a registered professional engineer and served on the Kansas Board of Engineering Examiners. He was a fellow of the American Society for Metals and an honorary life member of the American Institute of Mining and Metallurgical Engineers.
Even though Ken had retired he maintained strong ties with the mechanical engineering department. This included teaching, technical and financial support for our ongoing programs. He will be missed by all in the department.

---

Annual Awards Banquet

Student scholars, faculty and staff reaped the rewards of their hard work recently at the departmental Awards Banquet on April 27 at the Eldridge Hotel.

The award winners are listed as follows:

**1995 Robert M. Carey Scholar:**
Dennis Shen

**1995 Robert M. Carey Graduate Fellowship:**
William J. Bluethmann
Stanley Gene Unruh

**Phillips Award:**
Brian J. Nab

**Harry Lindquist Award:**
Brian VanDyke
Patrick J. Nadvornik

**Wesley G. Cramer Award:**
D. Tyler Herron
Bartosz Rygalik

**Huxtable Award:**
Mark Anthony Johnson

**Outstanding Senior Award:**
Patrick J. Nadvornik

**Henry Notberg, Jr. Scholarship:**
Adam Laudie

**Hoglund Graduate Fellowship:**
Iain Sadawo Shigeoka

**Wilbur E. & Mina Wyatt Memorial Scholarship:**
Jared Scott Klein

---

Wesley G. Cramer Mechanical Engineering Faculty Award:
R. Bryan Greenway

ASME Outstanding Faculty Award:
R. Bryan Greenway
Peter W. TenPas

ASME Outstanding Faculty Adviser:
Charles D. Reese

ASME Outstanding Secretary Award:
Melany Miller

---

Student Organizations

THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME)

**Faculty Adviser:** R. Bryan Greenway

Some of the 1994 ASME activities have been:

- Fall back-to-school “get acquainted” picnic
- ASME Student Leadership Conference
- Sponsorship of a Rube Goldberg Contest for the 1994 Engineering Expo
- Arranging study groups for use in a nursing home
- Increase freshman and sophomore membership
- More plant tours

The current elected officers are:

**Chairman:** Kerri Graunke
**Vice-Chairman:** Ryan Hartwich
**Secretary:** B.J. Nab
**Treasurer:** Brian Davis
**ESC Representative:** Ron Hampton
**Steve Pond**
Last year's elected officers are:

Chairman: Mark Grunewald
Vice-Chairman: Bob Colasuonno
Secretary: Trey Meyer
Treasurer: Libby Tempero
ESC Representative: Ray Janssen

**PI TAU SIGMA**

Faculty Adviser: Jerry D. Swearingen

Pi Tau Sigma is the national honorary mechanical engineering fraternity. Membership is one of the ways our students, both men and women, can be recognized for their scholastic achievement. Members are selected from the junior and senior classes on the basis of sound engineering ability, scholarship, and personal character. A student must rank in the top 35 percent of his/her class scholastically to be eligible.

During the last year student membership in the Kansas PSI Chapter of Pi Tau Sigma has increased significantly. This has been accompanied by renewed enthusiasm for the organization and for the departmental activities it supports. This growth is the result of the diligence of the past officers:

Chairman: Chad Harris
Vice-Chairman: Michael Timmcke
Membership Chair: Libby Tempero
ESC Representative: Ray Janssen

The current 1995 officers are:

Chairman: Jennifer Hadley
Vice-Chairman: Kerri Graunke
Treasurer: Dennis Shen
ESC Representative: B.J. Nab

**THE SOCIETY OF AUTOMOTIVE ENGINEERS (SAE)**

Faculty Adviser: Dr. Donald A. Gyorog

The Formula SAE competition provides engineering student the opportunity to conceive, design, fabricate, and compete a small formula-style racing car. The restrictions on the car frame and engine are limited so that the knowledge, creativity, and imagination of the students are challenged. The cars are built with the team effort over a period of about one year. The Spring 1995 competition was held at Pontiac, MI. Students compete with approximately 100 other schools from across the nation. The end result is a great experience for young engineers working together in a dedicated team effort in a meaningful engineering project.

The current 1995-96 elected officers are:

Chairman: Kris Mixell
Vice-Chairman: Ron Hampton
Secretary: John Colbert
Treasurer: Dennis Shen
ESC Representative: Mark Johnson

---

**Student Activities**

**FORMULA SAE CAR RACE**

After countless hours of labor and effort, the 1995 Formula SAE competition for the University of Kansas finished first among the Big Eight student entries.

The KU Chapter of the Society of Automotive Engineers (SAE), specifically the formula team, competes annually in the showpiece collegiate design competition hosted by SAE, and other teams sponsored by Ford, GM, and Chrysler, known as Formula SAE. In a nutshell, the competition is to design, build and compete against up to 100 other universities from the U.S. and around the world in an event to see who can build the best formula-style race car while keeping cost, aesthetics, and most importantly performance in mind. Preparation for the annual event began midway through the
fall semester of 1994 and concluded with the formula competition in mid-May 1995.

The competition was fierce in this year’s event. Despite the relative inexperience of Team Jayhawk, there were many bright spots and promise was shown. The most positive aspect of the competition was our first place showing out of all the Big Eight conference schools in attendance.

The five Big Eight schools were Iowa State, Colorado, Oklahoma, Missouri and KU. We had a strong showing overall until breakdowns on the last day kept us from finishing the endurance event, which counts for 35 percent of the total points. Had we finished this event, we would have made the Top 25.

Despite this disappointment, we are anxiously awaiting next year’s competition. We have the advantage of the return of three team members, Faculty Adviser Dr. Gyorog, Team Technician Charles Gabel, and the additional of supporting faculty members Dr. Robin Hibbard, Dr. Robb Sorem, and many new team members. We have a great mix of solid foundation, experience and fresh ideas that should be formidable. Our goal for next year is to learn from the mistakes and build on the success of this year’s effort.

ME STUDENTS WIN THE SILVER IN ENGINEERING OLYMPICS

Students from the Department of Mechanical engineering placed second in the school’s Engineering Olympics. The competition was won by students from the Department of Electrical Engineering and Computer Science.

Participants in the games from ME included:

- Brian Davis
- Mike Greene
- Don Mayfield
- Mike Reynolds
- Heather Switzer
- Kerri Graunke
- Ryan Hartwich
- Brian J. Nab
- Mike Stitsworth

Alumni Update

Dr. Frank E. Gordon

A native of Hutchinson, KS, Dr. Gordon received his B.S. degree in mechanical engineering from the University of Kansas in 1967. He received a D.E. degree from the University of Kansas in 1971 with the support of a fellowship from the National Aeronautics and Space Administration. He was a member of Pi Tau Sigma.

In May 1992 Dr. Gordon became executive director of the Naval Command, Control and Ocean Surveillance Center, ISE West Coast Division, NISE West, Headquarters in San Diego with other activities in Vallejo, CA, Pearl Harbor, HI, Guam, and Japan. NISE West is responsible for in-service engineering and support of many of the Navy’s command, control, and communications systems.

Dr. Gordon and his wife, Lyn, formerly from Kansas City, MO, have two children, Jennifer and Matthew.

LaRoux K. Gillespie

Beginning this year, the Society of Mechanical engineering’s prestigious young manufacturing engineer award will be officially named the SME LaRoux K. Gillespie Outstanding Young Manufacturing Engineer Award.

The award is presented to twelve exceptional engineers each year from the U.S., Japan, Singapore and Germany.
Gillespie, a senior project engineer in mechanical engineering for AlliedSignal, and KU graduate, was recently appointed in Korea to coordinate standards and standard nomenclature for burrs and edge quality among the leading industrialized nations. As chairman of the World-Wide Burr Technology Committee, he represents agencies from the U.S., Japan, Korea, China, Taiwan, Germany and Russia. His work will build on his own reports on burr standards and definitions as well as those from Germany and Japan. LaRoux recently returned from a deburring and edge finishing conference in Korea where he presented a paper on characterizing burrs and deburring. This trip, funded by both Japan and Korea’s burr technology associations, focused attention on new research and industry needs in burr technology. Since its inception, LaRoux has been an active member of the SME Education Foundation serving on various working committees that recommend grants to the institutions and individuals.

Robert J. Eaton

Robert J. Eaton, chairman and CEO of Chrysler Corp., visited the KU campus March 29 to meet with students and faculty and to present the 1995 Vickers Lecture.

Eaton, raised in Arkansas City, graduated from KU with a mechanical engineering degree in 1963 and joined General Motors Corporation. He held a number of engineering and executive positions before becoming president of GM Europe in 1988. In 1992, he joined Chrysler as vice chairman and COO, and in 1993, succeeded Lee Iacocca as chairman and CEO.

Kansas University Endowment Association. A non-profit corporation, the Endowment Association was founded in 1891 to manage and encourage private gifts for KU.

Donors may support the Department of Mechanical engineering by designating that their contribution is for the department. Contributions can be cash, marketable appreciated securities and real estate. Donors also may wish to make a planned or deferred gift. Planned gifts, which may provide both lifetime income and immediate tax benefits, can be tailored to donors’ needs and objectives.

Options include: 1) Bequests by will, which are simple to complete and enable donors to retain their assets during their lifetime; 2) Charitable remainder trusts, which provide important income and estate tax deductions along with the flexibility to address specific income needs of the donors and their beneficiaries; 3) Remainder interests in farms and residences, which offer tax benefits while allowing donors to enjoy their property during their lifetime; and 4) Gifts of life insurance, which can magnify support for KU at a lower cost to the donor.

For details on these and other ways of giving, please write to: Lorie Walker, Development Director, School of Engineering, The Kansas University Endowment Association, P.O. Box 928, Lawrence, KS 66044-0928 or call 913-832-7400.

Financial Support

All gifts in support of teaching and scholarships at the University of Kansas may be sent to the
**ALUMNI UPDATE**

In order for us to know what you are doing and inform others in future newsletters, drop us a note or fill in this form and return it to: Mechanical Engineering Newsletter, The University of Kansas, Department of Mechanical Engineering, 3013 Learned Hall, Lawrence, KS 66045.

<table>
<thead>
<tr>
<th>Name</th>
<th>Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address</td>
<td></td>
</tr>
<tr>
<td>Company</td>
<td></td>
</tr>
<tr>
<td>Title</td>
<td></td>
</tr>
</tbody>
</table>

News about yourself, your family, your job:

---

**THE UNIVERSITY OF KANSAS**  
Department of Mechanical Engineering  
3013 Learned Hall  
Lawrence, KS 66045