Greetings from Mt. Oread!

We are proud to present you with this summer of 2011 Newsletter, which has been edited by Jessica Fell. As you’ve come to expect, we’ve some great news for you about the wide variety of alumni, student, staff and faculty activities.

Inside, our 2011 Distinguished ME Alumnus, Gerald Frielings, is highlighted. Jerry’s career is briefly summarized — in the materials, electronics, communications and petroleum industries — demonstrating that KU-MEs are successful anywhere/any area that they choose to be. In addition, I’m sure that you’ll be interested in a glimpse into the 1954 Engineering Expo, which Ron Hill, 2009 Distinguished ME Alumnus, has provided for us.

You’ll read about outstanding faculty members, Chris Depcik, Sarah Kieweg, and Sara Wilson, who are acknowledged for their enthusiastic dedication to the students and Department.

In addition, staff member Ron Schorr is recognized for his 36 years of service-oriented accomplishments. Best wishes to Ron for his retirement!

And most importantly, our students are featured — recognized for their leadership abilities, engineering accomplishments, determination to succeed, and willingness to serve the Department, KU and our society — improving the quality of life for everyone across the world. Check out www.me.engr.ku.edu for more details.

As always, we’d love to hear from you. Please “drop us a line”.

We’ll be sure to ‘talk’ again this fall.

Have a great rest of your summer!
After graduating from KU as the outstanding mechanical engineering student in his class in 1951, Gerald Frieling worked for Westinghouse Electric in Pittsburgh, PA. He was there until 1953, serving next as a lieutenant in the U.S. Navy Civil Engineering Corps.

In 1956, he was appointed manufacturing manager of a tool company in Moberly, Missouri. After four years in Moberly, he was appointed general manager of the Wire, Tubing and Precious Metals Division and then director of marketing of the Metallurgical and Chemical Divisions for Texas Instruments (1960-69).

Frieling was vice president of Air Products and Chemical Co. in Allentown, Pennsylvania for 10 years before joining National Standard. He was Chairman of the Board, President, and Chief Executive Officer for National-Standard Company, a manufacturer of specialty wire, metal products and machinery from 1980 to 1989. At the time of his promotion National Standard was one of the leading wire products manufacturers in the US with 22 domestic operations and four foreign concerns and sales of $331,000,000 of a huge variety of products. Their foreign affiliates included sites in Britain, India, South Africa and Australia.

He has served as Chairman of the Board of Directors, Chief Executive Officer and Vice Chairman of the Board of Directors of Tokheim Corporation, a manufacturer of electronic and mechanical petroleum marketing systems. He also has been a director of Superior Metal Products and Mossberg & Company. He has been a Director of CTS Communications Components Inc. in Bloomington, Indiana since 1982. CTS is a manufacturer of home audio/video equipment. Mr. Frieling has been an Adjunct Instructor of Business at Notre Dame’s Mendoza College of Business since 2005, teaching entrepreneurship. He was honored with the KU Distinguished Engineering Service Award in 1986 for his development of materials and technical leadership in the metals industry and he served on the KU Engineering Dean’s Advisory Board for several years. He is the author of three patents: manufacture of clad wire; bonding austenitic steel; and corrosion-resistant wire; and is the inventor of a two-valve water faucet.

Among the many community and industrial organizations in which he has served are the YMCA, the Salvation Army, the Boy Scouts of America and the American Society of Metallurgical Engineers. He was a consultant to the Secretary of the U.S. Army (1974), president of the board of Kutztown College in Pennsylvania (1974-78) and an instructor in business management at Brown University (1965-68).

Through innovative research and leadership, Gerald H. Frieling promoted growth and progress in the development of materials and has led several companies to success. He is clearly a distinguished alumnus of KU Mechanical Engineering.
The Transportation Research Institute Electric Mass Transit Vehicle (TRI-eMTV) test platform in Figure 1 is an AVIS 22 passenger pure electric bus built in the mid 1990s. It is powered by a 37 kW AC motor drawing power from a 324 V lead–acid battery pack.

The aim of this project is to develop a pure electric bus and supporting technologies that will be able to replace the diesel buses currently in use. To meet this objective, the Intelligent Systems and Automation Laboratory (ISAL), directed by Dr. Terry Faddis, will be updating the battery technology, drive system components, and developing a smart energy/motor management systems. ISAL is also studying how best to utilize new technologies like ultra-capacitors and induction charging to improve performance.

Currently, ISAL is finishing the installation of a data collection system in the rear of the bus as shown in Figure 2. The system will collect power consumption data for major components. It will also collect vehicle speed, inclination and temperature. The data will be used to evaluate and improve the performance of the vehicle and its individual components. Please see to the ISAL website for further information at www.isal.engr.ku.edu.
STUDENT ORGANIZATIONS

EcoHawks

The EcoHawks are a student group at the University of Kansas facing the challenges of a sustainable approach to automobiles and energy infrastructure. This is accomplished by approaching the situation from five vectors of success: education, energy, environment, economics and ethics. Each of these concepts individually addresses specific aspects of sustainability, shaped by the confluence of the ideals of people, planet and prosperity. It is through this multi-leveled application that the students will develop the means to face the challenges of a sustainable approach to automobiles and the energy infrastructure. Eventually, the students will design and build a full-sized vehicle from scratch; however, a phased approach was taken in order to properly build the fundamentals into the program while allowing for students to remain cognizant of their other responsibilities. For any upcoming information regarding the EcoHawks, please refer to their website at www.ecohawks.org.

BMES

Biomedical Engineering Society was created to build and support the biomedical engineering community, which consists of professionals dedicated to developing and using engineering and technology to advance human well-being. BMES hopes to integrate academic, medical, governmental, and business sectors locally, nationally, and internationally. The local chapter at KU hopes to create an environment where students are able to share ideas and experiences, learn from those in the field, and connect with local industry. This is accomplished by monthly meetings, group activities, campus tours and presentations, and presentations by professors. The chapter is highly involved in the School of Engineering activities, such as Expo and E-Week. Currently, Ally Parfet, president of BMES, is working with KansasBio, a non-profit organization that works to educate, connect, and advance biotechnology. KansasBio generally work with organizations ranging from universities to small companies in order to establish corporations to the government. For information regarding KansasBio, please refer to their website at kansasbio.org or the BMES website at www.bmes.org.

FSAE

The Society of Automotive Engineers’ (SAE) is an engineering society that has well-over 60,000 members who dedicate their time to advancing automotive mobility. The local chapter here at KU participates in several SAE collegiate design projects including the Formula SAE competition. Originally starting in 1994, Jayhawk Motorsports participates every year in the SAE collegiate racecar design competition against over 200 other programs from around the world. In 2009, the team made the switch to E85 ethanol in a quest to make a greener vehicle in order to pursue an environmentally friendly innovation. As of this spring, Jayhawk Motorsports participated in two competitions, where they unveiled the Formula Hybrid car for the first time in the May 1-4 competition in Loudon, New Hampshire finishing in 9th place. At the May 11-14 Formula competition held in Brooklyn, Michigan., the team finished ninth out of 121 registered teams and fifth among qualifiers from the United States. The team’s performance was highlighted by a first-place finish in the autocross portion of the competition– a 60-second race around an obstacle reaching speeds around 70 miles per hour. The Jayhawk Motorsports team finished 15 seconds faster than last years 2010 competition. The team ranked fourth in presentation and eighth in endurance. Please refer to their website at www.jayhawkmotorsports.com for more information.

DID YOU KNOW?

The Engineering School is expanding! More information coming in the fall ME VIBRATIONS newsletter.

Ron Schorr retired from the ME Department on June 13, 2011, after 36 years as the IT Specialist. He started as a staff member in May of 1975. Since that time, students have become ME alumni, and he’s had a positive impact on each one of them. Ron never treated the job as an eight to five effort, but was always available and service oriented.

Ron is a teacher in his own right. No, not in the classroom, but by his behavior, he shows students and all with whom he interacts with how to treat others fairly and genuinely, and how to successfully approach tough problems. Everyone—students, faculty, and staff—knows that they can count on him.

We will greatly miss his cheerful/positive attitude and results; and, at the same time, we wish him the absolute best for the future and know that he’s still influencing the people around him, whether that is as a Friend of the Library, Community Center volunteer, LINK volunteer, or in some other capacity. He tells us that he’s having a ball; and we know that he’s busy, continuing to help people through a variety of avenues.

Ron Schorr

Now: Ron Hill is a 1958 graduate of Mechanical Engineering who is owner of HEMCO Corporation (Hill Engineering Manufacturing Company) in Independence, MO. He is a 2009 Distinguished ME Alumnus, and is a great supporter of KU and KU Libraries.

Then: As a young man in high school, Ron Hill and a friend read an article in a popular science magazine about converting a surplus air force self-contained breathing apparatus (SCBA) into a self-contained underwater breathing apparatus (SCUBA). Hill, a freshman in engineering at the time, decided with his team to demonstrate underwater welding at the 1954 spring Engineering Expo. With a 500 gallon tank donated by a local farmer, Hill and his team painted the tank white on the inside and blue on the outside with a raised walkway for visitors to look into the water filled tank in order to see the welding demonstration.

Expo: Underwater Welding: Ronald Hill, freshman, putting on the aqua lung he constructed for use when welding metal for the 1954 spring Engineering Expo. Team members (from left to right) are: Paul Williams, junior; Russell Helflinger, sophomore; Karl Blackladerburg, sophomore.

Ron Schorr accepting Outstanding Faculty Award

RON SCHORR
ME VIBRATIONS

2011 GRADUATES

SCHOLARSHIPS

Robert M. Carey Scholarship
Michael and Karen Hallowed
John Frederickson
Richard Zielar
Evan Racso
Patrick Myhew
Jill Langley
Howard Giong
Kolin Stempel
DIane Bergstrom
Bryan Hill
Yosuke Minoda
Sarah Good
Stuart Bernard
Eric Tobaben
Anna Peterson
George W. Forman
John Calvin Sells Scholarship
Thomas Ballough
Collin Davidson
Bryan Strecker
Bernard Levine Family Fund
Mariam Vanderhyde
Anand Srinavasan
Madison Chiappelli
Madion Vanderhyde
Scholarship
Robert M. Carey
Sara Rolfes, Outstanding Senior Award
Nathaniel R. Mayhew
Jon Mattson
Melanie Luthi
Kelly Lohmeyer
Brian Larkin
Jonathan Kalinowski
Aaron Joy
Kyle R. Jesse
Chris Jaggers
Dennis Hugo
Tommy T. Host
Dennis Hugo
Chris Jaggers
Kyle R. Jesse
Kevin Jones
Kyle J. Jones
Aaron Joy
Jonathan Kalinowski
Brian Larkin
Kacy Lohrey
Melanie Luthi
Jon Mattson
Joshua A. Sanders
Aly Siddhu
Angela Smith
Tyler Stice
Michael Stinch
Derek Taylor

SUMMER 2011

Above: Lindquist Family Memorial Award
Marie M. McConkey
Sakaiu Miki
Kevi Meser
Andy Momo
Timothy Marson
Matt Mullett
La Nacole
David A. Norton N. Nadinger
Samantha Perla
Josh Petty
Derek Proctor
Alex Porter
Abby Rine
Drew Robinson
Sara E. Rikesh
Travis Rowe
Kathryn A. Sanders
A. Siddhu
Angela Smith
Tyler Stice
Michael Steinh
Derek Taylor

SUMMER 2011

FACULTY AWARDS

Dr. Chris Depcik, assistant professor of Mechanical engineering, was selected by ME faculty and staff, for the Wesley G. Cramer Award for her excellence in teaching and research. Faculty and staff would agree that Kieweg’s dedication to her research and teaching is beneficial to her students as well as the University of Kansas. She teaches both undergraduate and graduate classes in the area of fluid mechanics. Her research focuses on the mechanics of gels used in preventing transmission of HIV.

Dr. Sarah Kieweg accepting the Wesley G. Cramer Award

Dr. Sarah Wilson, assistant professor of Mechanical engineering was awarded the Harold L. Kipp award for her outstanding achievements in teaching. Dr. Wilson has developed new courses and brought innovation into the classroom at all levels. She is becoming recognized as a national expert in engineering ethics education.

Dr. Safa Wilson accepting the Harold L. Kipp Award

Above: Pi Tau Sigma Awards
Left: Sara Rolfes, Outstanding Senior Award