COE Receives $5 Million Gilhousen Gift

As the world moves further into the information age, the Department of Electrical and Computer Engineering (ECE) at Montana State University's College of Engineering is poised to be on its cutting edge, thanks to a $5 million gift from wireless pioneer Klein Gilhousen and his wife Karen.

Recruitment is underway for a prominent specialist to fill the new Gilhousen Chair in Telecommunications. This individual will help develop a nationally recognized telecommunications program at MSU.

The Gilhousen funds will bring about a visibility for the program with a major research activity, graduate student funding, prominent visitors and the creation of industry partnerships” said Jim Peterson, department head.

Also funded by the Gilhousen gift is the Gilhousen Undergraduate Scholars Program. The first seven scholarships of $3,500 each have been awarded for fall. Peterson expects that scholarship number to grow to 12 within the next one to two years.

Robert J. Marley Named COE Dean

Robert J. Marley, an industrial engineer and specialist in ergonomics who has been at MSU’s College of Engineering for more than a decade, has been appointed dean of the college. Marley served as interim dean since the retirement of David Gibson. He was selected at the conclusion of a national search, and his three-year appointment began July 1, 2001.

Marley is a graduate of Wichita State University, where he earned a bachelor's degree in general science and subsequently worked as a rehabilitation engineer for a nationally prominent disability research group. He returned to WSU and received a master's and Ph.D. in industrial engineering specializing in ergonomics. Marley came to MSU in 1990 as an assistant professor in the Industrial & Management Engineering Department. In 1994 he received the Dow Outstanding New Faculty Award by the American Society for Engineering Education. He held the position of associate dean for the college from 1995-2000. Marley maintains teaching and research interests in the areas of upper-extremity and low back injuries and recently co-authored a textbook, Applied Occupational Ergonomics.
Letter from the Dean

Dear Friends of the COE,

I am pleased to update you on several ongoing college initiatives. We are piloting efforts to identify struggling students early in their plan of study and provide targeted resources to improve their performance and opportunity to succeed. We have also overhauled our scholarship award process to offer larger, multi-year awards to outstanding freshmen.

The Montana Board of Regents recently approved changes to our doctoral program. We requested approval to utilize “discipline” based titles that are more versatile since some research specialties tend to come and go over time. We added new options under our Ph.D. in Engineering rubric: applied mechanics, chemical engineering, civil engineering, electrical engineering, computer engineering, and mechanical engineering. Regents will consider a separate Ph.D. program in computer science later this year (currently, CS students are admitted under the ECE option).

These are examples of efforts toward continuous improvement in the college. This philosophy is certainly familiar to all of you. Our new ABET and CSAB accreditation standards are designed to encourage continuous improvement in higher education, as well. Our faculty and staff are committed to living up to this philosophy to help the COE deliver the highest quality education.

I cannot improve upon the absolute loyalty and pride our alumni show for this college and university during my travels it’s a true thrill to visit. We added new options under our Ph.D. in Engineering rubric: applied mechanics, chemical engineering, civil engineering, electrical engineering, computer engineering, and mechanical engineering. Regents will consider a separate Ph.D. program in computer science later this year (currently, CS students are admitted under the ECE option).

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I cannot improve upon the absolute loyalty and pride our alumni show for this college and university during my travels it’s a true thrill to visit with you and hear your fond memories and the sincere respect you have for your COE education. Many of you are outspoken in sharing your loyalty with others. Your pride, hard work and technical abilities are certainly not lost on your employers.

I recently attended a large banquet with engineering educators and industry representatives. At my table was a senior VP for a major corporation (who recruits at many of the top universities). He caught a glimpse of my name tag, stopped and said, “Ah, Montana State! Now there’s a university where the students have attitude!” At first I was a bit shocked, then remembered hearing him earlier.

Technical ability, hard work, commitment, loyalty, pride and “attitude”... I certainly wish I could capture the formula for such attributes in students. But it’s a testament to our faculty and staff and, of course, our alumni that our college holds its current reputation for excellence. I vow to do all we can to uphold this tradition. In future issues, I will share ideas with you as to how the COE will play an even larger role in the economic development of the state and region. This edition features our COE “Honors Roll of Donors.” As always, thanks to you who have chosen to provide such meaningful support to the college. Your continued generosity is greatly appreciated.

Robert Marley
Dean of the College of Engineering.

Sherick Joins COE Staff

Heidi Sherick, ’91 BioSci, has been appointed as assistant to the dean for Undergraduate Programs and Diversity. Sherick replaces Paul Kraft, who held a similar position in the college last year. Heidi graduated from MSU in 1991 with a double major in biology and broad field science teaching. After graduating, she taught science and coached in the Idaho Falls public school system for six years. She returned to MSU in 1997 as the assistant director of the Alumni Association, managing alumni programs and events for the past four years.

While a student at MSU, Sherick was active in many organizations. She has a passion for working with students in all capacities. She is a Butte native, and her core family (as well as many cousins) all attended Montana State. Sherick is pursuing her master’s degree in higher education administration and will complete those studies in December 2001.
We would like to thank all those alumni, friends and corporations who generously donated to the College of Engineering during this fiscal year (July 2000:June 30, 2001). Your support is vital to our students and enables us to provide our students with the very best skills to ensure their success. Your generosity has enabled us to provide scholarships, state-of-the-art equipment and excellent facilities for our students. Donors listed in italics contributed $500 or more to the Honor Roll of Donors.

Honor Roll of Donors

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Gayle & Jerry 69 Cloos

Class of 1970
Gayle & Jerry 70 Cloos

Class of 1971
Gayle & Jerry 71 Cloos
**HONOR ROLL OF DONORS 2001**

**Memorial Gifts**

The following individuals have been honored through memorial gifts made to the College of Engineering. We are grateful to those who have chosen to give tribute to their friends and loved ones in this meaningful way.

William E. Parkins Engineering-Physics Award

Lindsey Nussbaum (right) for receiving the William E. Parkins Engineering-Physics Award for 2001-2002. Lindsey is a senior in electrical engineering, working on minors in both math and music. He previously received a Goldwater Scholarship for his experience in optic research and was selected to attend the NASA Academy, serving as a research assistant under Philip Luers of the Goddard Space Flight Center.

**Legacy Circle**

We wish to include you in the Legacy Circle and provide good stewardship of your planned gift. For more information about the Legacy Circle or about gift and estate planning, please contact Alberta Rivera at (406) 994-2053 or by email at arivera@montana.edu.

The following list of individuals includes those who have designated estate gifts to benefit the College of Engineering. The * denotes individuals who are deceased.

**On-Line Community for MSU Alumni**

Engineering alumni are invited to visit Montana State University Alumni Association's On-Line Community to access a new set of electronic tools provided by the MSU Alumni Association.

- **On-Line Directory** - Find yourself, find your friends, find other MSU alumni in your area.
- **Career Center Services** - Network on-line and with other MSU alumni. Add a job posting, search the postings for opportunities, add a resume or search for resumes. Become a career mentor, or find one. This section of the community is dependent on users - the more who use it, the more useful it will be.
- **Other features** - Permanent e-mail; message boards and chat rooms; alumni surveys; white and yellow pages.

Contact alumni@montana.edu or call the MSU Alumni Association at 800-457-1696 for access information.
Montana State University engineering students are partnering with the Montana Space Grant Consortium and NASA in researching new designs for aerodynamic shapes for space vehicles. The research group consists of graduate and undergraduate students in mechanical engineering, mechanical engineering technology, and chemical engineering, and is led by M&IE Professor Doug Cairns. They are building prototype structures for the SHARP (Slender Hypervelocity Aerothermodynamic Research Probes) S1 re-entry vehicle. These shapes require new advanced ceramic thermal protection systems, which NASA is researching in tandem. Current design for the vehicle utilizes carbon/epoxy and machined aluminum. All design and manufacturing work is the responsibility of M SU students.

MSU’s S1 vehicle is scheduled to be launched this fall near Casper, Wyoming. The goal of the flight will be to test flight systems and evaluate the basic aerodynamic properties of the SHARP body during re-entry. The project continues with new designs and testing phases running through the SHARP S4 launch in fall 2003.

For project information, visit the MSU’s SHARP S1 Web site at http://www.coe.montana.edu/me/faculty/cairns/sharp or the NASA Ames Research Center page at http://asm.arc.nasa.gov/projects/sharp/sharp.shtml.

Faculty Updates

Don Rabern, current CE department head, leaves this fall to become dean of engineering at Embry-Riddle Aeronautical University in Prescott, Arizona. Embry-Riddle is a small private university specializing in aviation science and aerospace engineering. Joel Cahoon will serve as interim department head in CE through July 2002. Joel served as a professor at M SU and conducts research in the area of water resources engineering. Robert Mokwa also joins the CE faculty this fall teaching soils classes. He has a strong academic background in geotechnical and structural engineering.

LTC Charles Kibben arrived at M SU in June to replace LTC D uane Carlton as the professor of military science for the Army ROTC program. Kibben is a career soldier and Ordnance Officer who has served in North Carolina, Washington, Kansas, Honduras, Germany and the UK.

Baldev Thapar, Harley Leach and Hobart M cWi lliams recently retired from EE. James Smith, ECE, has returned to the private sector. James Becker joins the faculty to teach communications. His background is high frequency properties of materials, wave guides, and applications using M EM S (micro-electro-mechanical systems) fabrication techniques. Todd Kaiser will teach electro-magnetics. His background is in M EM S with applications to optic switching, electromagnetic theory and applications. Joseph Shaw joins us to teach electro-optics. His work is in optical sciences and remote sensing, imaging, and atmosphere effects on transmissions.

Frank Albini and Joel Troxler recently retired from M &IE. Gary Chen joins the faculty to teach mechanical and management engineering classes. His background is in concurrent engineering, CAD/CAM/CIM.

ChemE welcomes Joe Seymour who will teach transport analysis and general engineering. His interests and research are in nuclear magnetic resonance imaging.

CS said goodbye to Brenda Sonderegger who retired last spring after serving 10 years as an adjunct instructor.

Montana Manufacturing Extension Center (M MEC) has three new consulting field engineers: Paddy Fleming, ’90 M E (Kalispell); Alan D eibert, ’88 I & M E, ’90 M S I & M E (Bozeman); and Dale D etrick, (Billings).

The Sky’s No Limit

This past year, Tektronix sponsored an interdisciplinary design project for seniors from I & M E, M E, and EE. Bringing students together from several engineering disciplines made this a special project for all involved, increasing the complexity of the project across-the-board. In addition to supporting design projects, Tektronix provides COE students with valuable internship opportunities and regularly recruits and hires M SU students. The company also supports faculty research and donates state-of-the-art equipment to the COE. M SU is one of eight key schools for the firm and both the company and the COE benefit from this affiliation. (Tektronix designs and manufactures test and measurement equipment to serve manufacturers around the globe.) Special thanks to Mac Lavier ’96 I & M E and Bill Law ’73 EE, ’74 M S EE for their support of student design teams.

Tektronix Interdisciplinary Design Team

Front row L - R: Sara Mines(I & M E), Robert Stefani (EE), Jason Walker (M E) Back row L - R: Joe Wright (I & M E), Brian Taylor (M E), Bill Law (Tektronix), Anthony Vedes (EE), Corey Kopp (EE).
Dr. and Mrs. C. Lester Hogan Honored

A love of young people and teaching highlight a lifetime of giving for one of MSU’s most distinguished engineering alumni, C. Lester Hogan. “His whole goal in life has been to teach others what he knew,” explains Audrey Hogan, his wife of 55 years. “He always has had a constant drive for education and he instilled the desire to learn in others. He’s a helper, a mentor, and at heart—a professor.”

Lester Hogan is a 1942 chemical engineering alumnus of MSU. While at MSU, Les Hogan caught the eye of Dean Cobleigh who recognized the student’s brilliance. “He came to MSU during the depression era and the school gave him his first opportunity to be educated,” Mrs. Hogan said.

After receiving his master’s and doctorate in physics from Lehigh University, Les’ notable career in the electronics field includes pioneer work at Bell Labs, where he invented the microwave gyrator. He became a professor at Harvard at the age of 33. For 10 years he was a senior vice president and general manager at Motorola, during which time it became the largest manufacturer of semiconductors in the world. He also served as president and later as vice chairman of the Fairchild Corporation in the Silicon Valley.

In 1980, Electronics Magazine named Hogan “One of the Ten Greatest Innovators in the Past 50 Years.” Dr. Hogan has received honorary doctorates in engineering from MSU in 1967 and Lehigh in 1971, and an honorary doctorate in science from Worcester Polytechnic University in 1969. He received a Berkeley Citation in 1981.

Les and Audrey met and were married while Les was a graduate student at Lehigh and they have been lifelong partners in all major career decisions.

Dr. Hogan continues to feel a fondness for and a connection to MSU. He served on both the Department of Chemical Engineering and the College of Engineering Advisory Councils and held a leadership role in the planning and fund raising for the Engineering/Physical Sciences Building.

Currently Les and Audrey are retired and live in Northern California. Dr. and Mrs. Hogans’ generosity to Montana State includes chairing the fund-raising committee for the new Engineering Physical Sciences Building through 1997, and contributing the lead gift for the building. The beautiful atrium in the new building is named in their honor. They have also supported some of MSU’s most outstanding engineering and science students through endowed scholarships. The college’s annual fund has also benefited from the Hogans’ generous support. Their gifts have been key to the college being able to obtain the latest computer and laboratory equipment.

This spring, Dr. and Mrs. Hogan were honored for their long-time support to the college when they were awarded MSU’s prestigious Excellence in Philanthropy Award.

The College extends it congratulations and heartfelt thanks to Dr. C. Lester and Mrs. Audrey Hogan.