Donna Wheeler joins Mechanical Engineering faculty

by Peggy Ely


Donna came here from the University of Florida, where she was an Assistant Professor and Director of Research in the Department of Orthopaedics. She was also a Scientific Advisor: Core Histology Laboratory of University of Florida’s Interdisciplinary Center of Biotechnology Research. Donna also held a joint appointment with the Department of Anatomy and Cell Biology, College of Medicine and Small Animal Sciences at the College of Veterinary Medicine, University of Florida. Prior to the University of Florida, Donna was an Assistant Professor in the Department of Surgery at Oregon Health Science University in Portland, Oregon.

Dr. Wheeler joined the Mechanical Engineering faculty at Colorado State University in October 2000. Donna’s career goals are to apply engineering principles to improve health care, specifically in the musculoskeletal area. Since arriving in Fort Collins, Donna has initiated a campus-wide Musculoskeletal Research Group that meets twice a month to discuss research ideas and review recent journal publications. She and Dr. James intend to establish a “Center for Musculoskeletal Research” in order to centralize research in Biomedical Engineering, Veterinary Clinical Medicine, Natural Sciences, and Biological Sciences. Dr. Wheeler claims, “Success in musculoskeletal research can only be achieved through a strong interdisciplinary collaborative effort. A large number of CSU faculty have strong individual research achievements in the musculoskeletal area. Establishing a ‘Center’ facilitates sharing of equipment, knowledge, experience, and ideas while creating a ‘critical mass’ conducive for significant research and educational contributions to the field, and thereby, success.” Dr. Wheeler is actively involved in research involving biomaterials development, biomechanics, in-vivo assessment, histology and microscopy, cell culture, molecular biology, tissue engineering, and gene therapy. Dr. Wheeler considers undergraduate and graduate student involvement in musculoskeletal research crucial to the success of the program. Both Drs. Wheeler and James with other faculty in Chemistry, Chemical Engineering, and Electrical Engineering are in the process of establishing an Undergraduate Biomedical Engineering Degree-granting program. This proposal is currently under review by the State.

HPV takes top honors

Hayate is a Japanese word that means “very fast wind.” This is the name of the CSU Human Powered Vehicle (HPV) designed and constructed by a team of ME Senior Design Practicum students during the 1999-2000 year. Under the management of Dr. Hiroshi Sakurai, the team participated in the ASME sponsored HPV competition held May 5-7, 2000, at California State University in Chico, California, and took top honors. They won the Overall Championship Trophy and took First Place in Overall Design. They won the award in the single rider category for First Place in the Design Event and took First Place Overall in the single rider category as well. In addition to these top awards, the team took third place in sprint event reaching 38.4 m.p.h. and they took fourth place in the 42-mile endurance race.

This is an outstanding tribute to the fine engineering done by the students and the excellent teamwork they demonstrated in conducting the engineering design and construction of the HPV. It demonstrates the excellent mentorship provided by Dr. Sakurai and it demonstrates the long-standing CSU ME tradition of the hands-on engineering our students learn in our BSME program.

Hayate is a three-wheeled vehicle in which the rider sits in the recumbent position. The HPV has a composite shell for aerodynamic drag reduction and the power is provided by the rider through bicycle pedals that deliver torque to the rear wheel. The frame is a welded tubular...
From the department head

Dr. Steve Abt

The big news from the Department Head's office this year is that Dr. Tim Tong, our Department Head for the last four years, accepted the position of Dean, College of Engineering at George Washington University and left to go there in August, 2000. We were very sorry to see him go, but it was a great opportunity for him there. He stays in touch and we hear that all is going well.

Tim's departure meant that we needed to have an interim Department Head and it was our good fortune that Dr. Steve Abt, Associate Dean for Research and Graduate Studies for the CSU College of Engineering, was willing to do the job. He is an outstanding individual, engineer, researcher, teacher and administrator and we are very pleased that he agreed to take on this job.

Early this academic year, Dean Gallagher formed a Department Head search committee that is being chaired by Dr. Susan P. James of the ME Department. The committee is working hard and there are a number of highly qualified candidates in the group of applicants. We are looking forward to on-campus interviews taking place in the spring and we hope to have a new Department Head in place as soon as possible.

During the Fall semester, the Department and College hosted a dedication event to recognize the naming of the Donna and Byron Winn Mechanical Engineering Conference Room. This room is part of the ME Departmental Office and provides a valuable nerve center for committee meetings, graduate student examinations, meetings of the ME Senior Design Practicum Management Team, student design team oral presentations and many other activities. We owe a special debt of gratitude to Byron and Donna.

Motorsports Engineering is becoming more and more active in the Department under the able leadership of Profs. Don Radford and Patrick Fitzhorn. In the newly remodeled engineering building, Room B-10 has become the headquarters for the Formula SAE Race Car Engineering student design teams and a lot is going on there. The program just took delivery of the 1996 Benetton Grand Prix Formula I Show Car. At present, we have three of the CSU cars running and on display there as well. If you want to review these cars and the exciting activities of our Formula SAE Race Car student teams, you should plan to stop by B-10 when you can.

This year the ME Senior Design Practicum student engineering teams are working on not only the FSAE Race Car, but also on two ASME Human Powered Vehicles (HPV), three SAE Walking Machines and the SAE Clean Snowmobile. All of the student engineering teams are planning to participate in their respective National and International competitions again this spring. You may be aware that the 2000 HPV team, under the able mentorship of Dr. Sakurai, took first place overall in the ASME HPV 2000 competition. The International Walking Machine Challenge was hosted here at CSU last May and our teams won the award for Most Innovative Design and the award for the Best Analytical Approach to Design. The CSU Clean Snowmobile Challenge 2000 entry took third place overall last year.

Prof. Allan T. Kirkpatrick has had a busy and productive year. His book entitled "Internal Combustion Engines" was completed and published early this year and has already sold 500 copies and is in use at six universities. In addition, Allan was awarded the Pennock Service Award this year in recognition of his outstanding service in laboratory development and teaching. This award recognizes his contributions to designing and constructing the Internet Engine, an experiment that can be operated on-line from remote locations. If you want to see the Internet Engine, just type "internal combustion engines" into your web browser and look for Colorado State University.

The visit of an ABET (Accrediting Board for Engineering and Technology) team will take place in the Fall semester, 2001, and we have a lot going on in preparation for that. ABET is the organization that provides accreditation of our undergraduate degree program in Mechanical Engineering. Over all, many things are happening and we look forward to a positive future.

– FW Smith, PE

Tell us what you’re up to

The ME department wants you to stay in touch. Use the form below to let us know what you’re doing, where you’re living, and so on.

Name ___________________________ Address ___________________________

City ___________________________ State ________ Zip ________ Home Phone ________ Graduation ________ Degree ________

Employer ___________________________ E-mail address ___________________________

Information ___________________________

(attach another page, if needed)

Return to: Fred W. Smith, P.E., Mechanical Engineering, Colorado State University, Fort Collins, CO 80523, E-mail: fred@engr.colostate.edu
Class Notes – What happened to the graduates of 2000

Spring 2000

Employment

Anheuser-Busch – Sean Reed
Aquaticus, N. Quincy, MA – Eric Strauss
Bently Nevada, Minden, NV – Jennifer Erickson
CBW Automation, Fort Collins, CO – Kim Crisp, Kurt Pascavis, John Taggart
Cessna Aircraft, Wichita, KS – Troy Byerly, Thomas Furman, Chad Franke, Ali D’Ambrosio, Tim McMahan
Chief Industries, Grand Island, NE – Corey Tompkins
Chrysler, Detroit, MI – Patrick Bojan, Brett Grefer, Joshua Vedder
Copper Tubing, Wynne, AR – Loren Snyder
Cytonomation, Fort Collins, CO – Chris Lofstrom, Jeff Rau
Enginuity International, Fort Collins, CO – Joe Schmidt
General Motors Truck Group, Pontiac, MI – Amy Lyons
Integware, Fort Collins, CO – Scott Thurston
John Deere, Waterloo, IA – Jeremy Stulp
Scaled Technology Works, Montrose, CO – Brett Poor
Transperformance, Fort Collins, CO – Mike Madetzke
Woodward Governor, Fort Collins CO – B.J. Lopez

Graduate School

Ohio State – Abdul Al-Ansari
Univ. of IL at Urbana/Champaign – David Bullen
Penn State University – Melissa Davis
ME, Colorado State University – Brandon Lloyd
ME, Colorado State University – Arlen McMurray
University of Wyoming – Jon Watt

Service

US Airforce – Christopher Buechler, Andy Burroughs, James Jeou, Rod Koch
US Peace Corp – Scott Gallagher

Fall 2000

Employment

Accenture (Anderson Consulting), Denver, CO – Kevan Lamm
Bently Nevada, Minden, NV – Eamon Sullivan
Cessna Aircraft, Wichita, KS – Joel Watson
MKK, Littleton, CO – Randy Bailey
Peter Kiewit & Sons, Golden, CO – Louie Fantorno III
Robinson Mechanical, Boulder, CO – Michael Brown
Stone Webster Engineering, Denver, CO – Mathew Cole

Class notes

Ron Saum, B.S. ’68, is living in Mesa, Arizona, and works for General Motors at the Desert Proving Ground as a Senior Staff Engineer.

Dr. Terry Hinnerichs, M.S., ’73, is working at Sandia National Laboratory in Albuquerque, New Mexico.

Tre Prater, B.S. ’87, is living in Denver and works for Motion Systems, parent company of Machine Design Service Inc. He was recently promoted to Vice President of the Denver Newspaper Systems Division.

Carl Carson, B.S. ’95, is in Bakersfield, California. He works as an Operation Engineer in the Halliburton Co. Zonal Isolation Product Service line providing technical support to the oil, gas, and geothermal fields of California.

Kyle B. Carnahan, M.S. ’99, is in Houston, Texas, with Exxon-Mobile working as a Senior Project Engineer.

Ray Dodd, B.S. ’89, is in Boulder, Colorado, working with Robinson Mechanical, a design/build mechanical facilities contractor. He works as the Manager of the Engineering group.

P. McCoy Smith, B.S. ’84, is the senior attorney, Intellectual Property at Intel Corporation’s Enterprise Server Group in Beaverton, Oregon. He joined Intel in September of 1999, after eight years in private practice as a patent attorney in New York City.

Tara Ruttley, M.S. ’00, a CSU McNair Scholar, is currently living in Houston, Texas, and working at NASA.

Bree Sharratt, B.S. ’01, has been accepted for graduate study at Carnegie Mellon University and at MIT.

Jim Masters, B.S. ’01, has been accepted for graduate study at Georgia Tech.

Maile Ceridon, B.S. (expected ’02) is an intern at NASA Johnson in Houston, Texas.
ME scholarship recipients

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<th>Scholarship Name</th>
<th>Recipients</th>
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<td>Colorado Scholars Awards</td>
<td>Justin B. Bult</td>
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<td>Christopher Pomering</td>
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<td>Robert Cooper</td>
<td>Bryan T. Geisick</td>
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<td>Douglas D. Drehar Memorial</td>
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<td>Engineering Scholars</td>
<td>Nicholas E. Vondrak</td>
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<td>Ival V. Goslin Engineering</td>
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<td>Kirkpatrick Family</td>
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<td>Kodak</td>
<td>Josh R. Porter</td>
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<td>Myron Brown Ludlow</td>
<td>Michael P. Weinheimer</td>
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<td>Micro Motion Engineering</td>
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<td>Robert Mock Memorial</td>
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<td>Allen Porter Mowry Memorial</td>
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<td>Delano F. Scott</td>
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<td>Walter Scott, Jr.</td>
<td>Karen E. Mohr</td>
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<td>Jordan E. Simpson</td>
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<td>Mr. &amp; Mrs. Roy W. Vonhees</td>
<td>Adam S. Montoya</td>
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<td>Richard F. Walker</td>
<td>Alison K. Smith</td>
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<td>Robert L. and Bonnie J. Walker</td>
<td>Jennifer L. Cannell</td>
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<td>C. Byron and Donna T. Winn</td>
<td>Nicholas R. Fernandez</td>
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<td>Claude W. Wood</td>
<td>Maile L. Ceridon</td>
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<td>Scott R. Adams</td>
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<td>Nicole M. Brush</td>
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<td>Casey C. Farnell</td>
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<td>Nathan M. Fox</td>
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<td>Casey J. Hodges</td>
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<td>Seth A. Jansen</td>
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<td>Dan B. Maseberg</td>
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<td>Christopher R. Roberts</td>
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Calendar of events

Spring 2001

- Engineering Career Day: February 17, 2001
- Field Trip Day: February 23, 2001
- E-Days and ME Senior Design Practicum Project Demonstration: April 20, 2001
- MEAP Board Meeting – CSU: April 21, 2001
- SAE Walking Machine Competition – Mexico: May 3-5, 2001
- ASME Roast & Toast: May 4, 2001
- Formula SAE Race Car Competition – Pomiac, MI: May 17-18, 2001
- Graduate School Commencement – 3:00 p.m., Moby: May 11, 2001
- Undergrad. Commencement – 1:00 p.m., Equine Center: May 12, 2001

Awards and Announcements

Dr. W. Sampath received the College of Engineering ME Faculty Service Award.
Dr. Allan Kirkpatrick received the Abel Teaching Award and the Pennock Award for Outstanding Service.
Carolyn Skurla and Raoul Reise each received the College of Engineering Outstanding GTA Award.
Vicki Jensen received the College of Engineering Staff Award of Excellence.
Dr. R.I. Lochke has taken full retirement after 30 years of excellent service.