



The Department of

CIVIL

ENGINEERING



Newsletter

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Civil Engineering Welcomes Department Head, Sandra Woods

Dr. Sandra Woods has a reputation for knowing how to get things done.

During her 16-year career on the civil engineering faculty at Oregon State University, the administration called upon her time and time again to complete special projects, lead controversial committees, or collaborate on high-profile initiatives.

Now Colorado State University has called upon this talented administrator to lead the Department of Civil Engineering. Sandra Woods joined us as head of the department in January 2001.

While at Oregon State, Woods developed a program for underrepresented engineering students, led the development of an environmental engineering degree program, established a residence hall program for

women engineering students, and helped establish an EPA Hazardous Substance Research Center.

She also built a distance education program that in a year and a half grew from one undergraduate program at one location to five undergraduate and 12 graduate programs with students throughout the United States and several nations.

This is all in addition to a full load of award-winning teaching and bioremediation research.

"I've had a nontraditional career," Woods admits. "I enjoy university administration, and I like to build programs. I came to Colorado State because this is a productive and fine group of faculty, and I want to help them further their work."

Woods says the biggest lesson she brings with her from Oregon State

to Colorado State is that you can build high-quality programs without a lot of start-up funding.

"All the programs I developed and the initiatives I helped create were started without much funding," says Woods. "This turned out to be to our advantage. Without a lot of resources, you can't buy people's time and tell them what to do. I learned how to work with people to create win-win situations. Much of what I did was a result of relationship building."

In fact, Woods is discovering the value of the relationships she's already developing at Colorado State. She is in the unique position of leading a department that includes four former Civil Engineering department heads – John Nelson, Neil Grigg, Larry Roesner, and Jim Loftis – and



two associate deans, Johannes Gessler and Steve Abt.

"Everyone has been very helpful," Woods says. "It's important to talk with those who have been here. People have been great about giving information and advice and filling me in on the history of the department."

Star Student Melanie Schnier

The December 2000 issue of *CE News* began "Spotlight on Star Students 2001" to feature students who excelled academically but who also were considered well-rounded leaders with an understanding and appreciation of issues in the profession. Lastly, the magazine also looked for something that set these students apart from their peers. Melanie Schnier of Colorado State University was chosen as one of these students.



Melanie Schnier is from Aurora, Colorado. She is president of Chi Epsilon, her GPA is 3.774, and she is ranked 7th in her class of 121. After gaining some experience with a consulting firm, Melanie's long-term plan is to earn a Ph.D in engineering and become a college professor. Congratulations, Melanie, for your accomplishments at Colorado State.

2001 Best Teacher Award Recipient

Johannes Gessler, associate dean for Undergraduate Studies, received the 2001 Best Teacher Award.

This award is sponsored by Colorado State's Alumni Association and the Student Alumni Connection. Professors are nominated for the award by both current students and alumni.

Gessler was one of seven winners chosen out of 115 nominated. Corporate leaders, teachers, students and co-workers praised Gessler for his talent, dedication and professionalism. In 1991, Gessler became associate dean for Undergraduate Studies. He also served as interim dean of the College of Engineering from 1997-99. Gessler came to Colorado State in 1966.



Colorado State
University

Knowledge to Go Places

From the Department Head

Let me begin by telling you how happy I am to be a part of the faculty of the Department of Civil Engineering at Colorado State University. This is an extraordinary department with excellent students, faculty, and staff. I look forward to working with our dean, members of the department, our Advisory Board, and our alumni to continue to improve research, teaching, and outreach programs over the next several years.

Some very important changes occurred during 2000. One important change was the merger of the faculties of Civil Engineering and Biore-source and Agricultural Engineering

(BAE). Our graduate and undergraduate BAE programs are among the top 20 in the nation. Additionally, the BAE faculty bring with them expertise that will strengthen programs in water resources. This merger brings the number of faculty in the Department of Civil Engineering with expertise in water resources to almost 30. Clearly, few other civil engineering departments have such depth and breadth of expertise in this area. One priority will be to capitalize on these strengths by enhancing our academic, research, and outreach programs and by making our combined strengths known such as by improving our Web

site and departmental publications.

I arrived on campus in February 2001. I'm extremely pleased to report many excellent developments within the department over the past several months. For example, the number of students who have confirmed that they will join our freshman class in 2001 is 11 percent greater than this time last year. I believe that recruiting efforts by our faculty, staff, and students during the spring semester have helped lead to this increase. Although we must continue to focus on student recruiting (and on recruiting the brightest students), this is an excellent trend.

Funded research helps our department in many ways. It allows the department to support additional faculty, provides funding to recruit excellent graduate students, creates opportunities for undergraduates to work on research projects, and is an important component in providing students with up-to-date and innovative academic programs. Both research grant proposal production and research awards

are higher than this time last year. Proposal production and the value of research awards (both measured in dollars) have increased 20 percent and 33 percent, respectively. Not only have we been more effective in generating research funding, the kinds of grants that we are soliciting include more large, multidisciplinary projects, as well. These large projects are especially important in providing multi-year funding that allows us to compete in recruiting the best students.

Although I have been at Colorado State for only three months, I know that it was a very good decision to join this faculty. I am especially grateful to those of you who have supported the department through contributions of time or resources. I look forward to continuing to meet alumni and friends of the department and hope that you will visit whenever you are in Fort Collins.

Sandra Woods
Sandra Woods

CE Alumnus Racking Up the Frequent-Flyer Miles in Space



Kent Rominger, B.S. '78 (Photo courtesy of NASA)

If the National Aeronautics and Space Administration gave frequent-flyer miles, Kent Rominger would probably be the first human to take a free ride to Pluto.

Rominger, a 1978 graduate of Colorado State University with a bachelor's degree in civil engineering, is commander of the current Endeavour shuttle mission that has linked up with the International Space Station (ISS).

With 876 Earth orbits under his belt in four previous missions, Rominger is used to space and well-suited to lead the effort to attach a huge robotic arm to the space station. The arm, built by the Canadian

Space Agency, is required to finish construction on the space station.

As mission commander, Rominger is responsible for operating and monitoring the shuttle and station systems, landing Endeavour and, according to a NASA handout, "keeping the crew in line (his major task)." He performed the first shuttle docking with the International Space Station in 1999, bringing the shuttle Discovery and tons of supplies to the fledgling station.

In 1997, Rominger earned Colorado State's Distinguished Service Award from the College of Engineering. He has received numerous aviation honors, including the Distinguished Flying Cross.

Fifth Annual Water Symposium November 7-9, 2001

The Student Water Symposium 2001 will address the theme of "planning for the inevitable," recognizing that water-related disasters often are anthropogenic and reflect a short-term view of the world and nature.

The annual event, held at the Lory Student Center, promotes interdisciplinary and interdepartmental cooperation and serves as a showcase for the diversity of student water-related work conducted at Colorado State at both graduate and undergraduate levels. The 2001 symposium will feature a keynote address by Dr. Peter Gleick, the president of the Pacific Institute for Studies in Development, Environment, and Security in Oakland, California.

For additional information visit <http://watersym.colostate.edu>

Recruiting New Students

The Civil Engineering Reception on March 24, 2001, for new students was a success! We had a turnout of 21 students and their families. The function was held in the North Ballroom and was very well received. The overall favorite function of the group was the lab tours and student presentations. Coming in a close second was mingling with professors and current students. We had an overwhelming turnout of faculty and student helpers that helped run the event successfully.

The program included student design presentations, a student/alumni panel, lunch, and lab tours. The lab tours included the steel bridge demonstration; Agriculture and Bioresource video of their quarter-scale tractor competition in Moline, Illinois; the concrete toboggan; the pop can demonstration; and the 2 x 4 explosion. There will be changes for next year, but our first attempt was a great success.

2000-2001 Scholarships

Nyal L. Adams Sharon C. Howell	Peter C. Rees Gavin C. Riches Charles L. Schuler Kevin J. Warner
ARCS Foundation Brittany N. Albrandt	Herb and Ellen Schweizer Carrie R. Fitzgerald
Ayers Associates Columbine Memorial Laurie M. Kline	Walter Scott, Jr. Benjamin A. Morse
Burns and McDonnell Jamie K. Ellis	Harold H. Short Chance J. Bitner Alejandro N. Flores Emily A. Magnuson Mark A. McWilliams Curtis T. Templeman Nikki R. Trzcinski
Colorado Contractors Association Mark A. Henderson	Chester C. Smith Susan M. Tabb
Engineering Scholars Trevor D. Taylor	Alfred Triefus, Jr. Carol L. Hawk
John R. Fraser Memorial Anna M. Smith	M. Daniel Vanderbilt L. Clinton Brown
Fred B. Hamilton Memorial Joshua R. Duncan	Richard F. Walker Jesa R. Lunger
Harold and Katharine Kidder Travis D. Brinkman Kyle M. Kagimoto Justin M. Perry Stephen C. Sanborn	Robert D. Wilson Memorial Andrew P. Amend John J. Kienholz
Edwin C. and Kay S. McDonnell Brian D. Herbolzheimer Barry L. Snyder	Claude W. Wood Coy W. Egbert Rebecca A. Oline Gwendolyn A. Owens Tanner O. Randall Katie M. Swanson Bruce J. Uhernik Jason B. Watson Scott W. Wilkinson
Northern Chapter of Professional Engineers of Colorado Kevin R. Kerber	
Ralph Parshall Sara K. Flick	
Carl Rohwer Charles D. Beck Sally D. Cook	

2000-2001 Graduate Scholarships

Jack Cermak Wind Engineering Scholarship Cheng-hsin Chang Chiu Jen Ku	Daryl B. Simons Fellowship David Raff
CH2M Hill Cindy Titus Dean Gregory	Tipton & Kalmbach Fellowship Margaret Matter
H. W. Shen Water Resources Claudia Leon	Jen Song Wang Memorial Daniel Buhman
	Watson Family Graduate Scholarship Fund Christopher Johnson

2000-2001 Student Awards

Outstanding Civil Engineer Christopher R. Drake	Student Leadership Award Melanie D. Schnier
Civil Engineer of the 21st Century Chance J. Bitner Sara K. Flick	Colorado Engineering Council Silver Medal Award Christopher R. Drake
Ralph Parshall Award Seth M. Nehrke	

University Honors Program

The following students will be graduating from the University Honors Program. The list includes University Honors Scholars and University Honors Participants. Some students have achieved both.

The Scholars have completed the Honors Program "core" course requirements and a thesis or approved alternative and have at least a 3.5 GPA. The Participants have completed at least 24 credits of true honors course work with at least a 3.5 GPA.

Sara Kathlyn Flick, Participant
Daniel Justin Gillham, Participant
Melanie Denis Schnier, Participant
Bruce Joseph Uhernik, Participant

ASCE Regional Conference



Colorado State's 2000-2001 concrete canoe team "Cutthroat" took third place in the concrete canoe competition at the ASCE Rocky Mountain Regional Conference held April 6-7 at the U.S. Air Force Academy in Colorado Springs. Colorado State's ASCE team took fifth place overall in the competition.

Data Collection Process



BAE student Sarah Legoza conducts underwater videomapping research at Horsetooth Reservoir and Biscayne National Park.

Faculty and Staff News

Dr. Daniel K. Sunada (right) has been selected as the winner of the 2000-2001 Chi Epsilon Excellence in Teaching Award for the Rocky Mountain District. The nomination and award recognize Sunada's dedication to teaching with enthusiasm and high standards.



Dr. Tom Sanders, associate professor, Civil Engineering, was the invited by the Egyptian Drainage Research Institute, Monitoring and Analysis of Drainage Water Quality Workshop, to give the keynote address, "Monitoring Water Quality in Egypt: Progress and Development," in Alexandria, Egypt, last November. Sanders was the only American in attendance and His Excellency Dr. Abu Zeid, Minister of Irrigation attended.

Dr. Neil Grigg, professor, Civil Engineering: Grigg's book, *Water Resources Management: Principles, Regulations, and Cases* (McGraw-Hill, New York, March 1996), was published by the Gido-do Publishing Company in Japanese.

Dr. Robert Ward, director, Colorado State University Water Center and the Colorado Water Resources Research Institute, and professor, Bioresource and Agricultural Engineering: In April 2000, Ward received the Colorado State University Provost's Award for Interdisciplinary Environmental Achievement.

Dr. Boguz Bienkiewicz, professor, Civil Engineering, recently published an article describing a recent study conducted at the Wind Engineering and Fluids Laboratory (www.windlab.colostate.edu) in the November 2000 issue of the *Newsletter of the American Association for Wind Engineering* (www.aawe.org). The article is not copyrighted. Bienkiewicz is editor of the AAW newsletter and vice president of AAW.

Chuck Shackelford, professor, Civil Engineering, was the invited keynote speaker on "Geoenvironmental Engineering for In Situ Remediation" presented at the International Conference on Geotechnical and Geological Engineering in Melbourne, Australia, in November 2000.

2000-2001 Faculty Awards

Abell Faculty Teaching Award

Paul Heylinger

Abell Faculty Service Award

Steve Abt

Engineering Faculty Award

Marvin Criswell

Engineering Staff Award

Laurie Howard

In Memoriam

Dr. Ruh Ming Li passed away on March 13, 2001, in Orange County, California. Li immigrated to the United States in 1968 to earn his doctoral and master's degrees from Colorado State University. In 1979, Li co-founded Simons Li and Associates with Daryl Simons. In 1986, Li moved to California, and later in 1991, SLA was acquired by Tetra Tech Inc. Li continued to serve as president and chairman of the board. Li was a recognized leader in the field of water resources, river mechanics and sediment transport. He was honored many times including the prestigious Walter L. Huber Award from the American Society of Civil Engineers for outstanding research.

William F. Rudolph, B.S. CE '47

Dr. George Smith, 84, passed away on April 25, 2001, in Fort Collins. Smith received his bachelor's degree from the University of New Mexico and a master's degree from Colorado State University. He was an associate professor of civil engineering at Colorado State for 28 years, retiring in 1982.

Alumni News

Abdulmohsen Abdulrahman Alshaikh (Ph.D. '92) visited on March 20. Since graduation, Dr. Alshaikh worked in the Saudi Arabia Ministry of Planning and is now a faculty member at King Saud University, where he specializes in water resources planning. Tim Gates was his adviser at Colorado State, and Neil Grigg was a co-adviser.

Unke John Guo has been appointed to the civil engineering faculty of National Singapore University.

Howard Perko recently was sighted at Webber Junior High School in Fort Collins giving a presentation on Mars and space dust. Perko shared his research on dust adhesion at a Colorado State seminar Tuesday and with the class of NASA hopefuls at Webber. He is currently working on dust mitigation strategies with the Mars 2007 Rover and Comet Nucleus Sample Return mission teams.

Jose Raymanl has been appointed head of the civil engineering department, Universidad de Las Americas, Puebla, Mexico.

Frank Rihisberman (Ph.D.) has been appointed as director of International Water Management Institute, Sri Lanka.

2001 Distinguished Alumni Awards

2001 Distinguished Alumni Awards include two engineering alumni. **Dr. Vijay P. Singh**, Ph.D. CE '74, is the 2001 College of Engineering Honor Alumni Award recipient. Dr. Singh holds the Arthur K. Barton Endowed Professorship in Civil and Environmental Engineering at Louisiana State University. **Megan Donovan**, B.S. ECE '00, is the 2001 Distinguished Student Service Award recipient. Award presentations were made at the 2001 Distinguished Alumni Award Dinner on April 20, 2001, at the Fort Collins Marriott.

Chi Epsilon

Our numbers continue to grow, with a total of 20 new members initiated this year. Officers for the 2000-2001 school year – Melanie Schnier (President), Kevin Kerber (Vice President), Sara Flick (Secretary), Bruce Uhernik (Treasurer), Laura Travis (Marshall) and Susan Tagg (Editor) – have worked hard to keep the chapter active by keeping up old traditions and starting new ones.

In the fall, we once again co hosted the ASCE/Chi Epsilon social at CB&Potts. We were happy to welcome ASAE members at the event as well, and hope they continue to join in the fun. We also hosted for the first time a post-FE party on the evening of the exam. After some serious thought, Chi Epsilon members decided to stop offering weekly tutoring sessions for Statics, Dynamics, and Solid Mechanics due to low turnout in the past. We are instead starting a one-on-one tutoring and mentoring program, aimed primarily at freshman and sophomore students. We hope this program will have success in the future.

This spring, we plan to host another social, attend a Rockies game, and hold the second annual gradu-

ation breakfast, honoring graduating members of Chi Epsilon. Non-graduating members will once again cook breakfast on graduation day for the seniors and their families, as well as faculty members. We are also starting two new fundraisers this year: we're selling conversion factor booklets that were put together by the University of Wisconsin-Platteville chapter, and we will also buy ACI code books from students for resale in the fall.

New officers for the 2001-2002 school year have been elected; they are: Becki Oline (President), Brittany Albrandt (Vice President), Trina McLellan (Secretary), Brian Valentine (Treasurer), Sean McAtee (Marshall), and Steve Sanborn (Editor). We wish these students luck in keeping the chapter strong.

Finally, we are happy to announce that member Steve Sanborn won the regional scholarship, and faculty member Dr. Dan Sunada won the regional teaching award. Both are now in the running for the national awards. We congratulate the two for their achievements, and wish them luck in the national competition!

Fort Collins Children's Water Festival

We are celebrating our 10th anniversary in May! Since 1991, Fort Collins Utilities and the Northern Colorado Water Conservancy District (NCWCD) have sponsored a Children's Water Festival each spring.

The festival takes place at the Lory Student Center and Engineering Building on the Colorado State University campus. Between 1,600 and 2,000 third grade students from Poudre R-1 elementary schools, private schools, and home-school associations attend the annual festival. The purpose of the event is to provide students with a variety of educational and fun workshops and exhibits on water-related topics.

Students and their teachers attend either the morning or afternoon three-hour session and participate in class-

room and exhibit hall activities. Emphasis is placed on hands-on activities, and topics cover wetlands and rivers, water resources and supply, water safety, agriculture, water chemistry, and water and wastewater treatment. Titles include *The Mad Scientist*; *Aquatic Bug Walk*; *Floods – Are You Ready Freddy?*; *Soil + Water = Food*; and *Your Body – The Incredible Water Machine*. A giant inflatable globe of the world from the Children's Museum in Denver provides a classroom for geography.

Presenters come from around the Front Range to teach at the Festival. Local water districts, Fort Collins Utilities, Larimer County, Colorado State University, U.S. Fish and Wildlife Service, Colorado Division of Wildlife, U.S. Bureau of Reclama-



Nearly 2,000 local third-grade students attended the 10th annual Fort Collins Children's Water Festival.

tion, USDA, American Red Cross, USGS Biological Resources Division, as well as several private businesses, are all enthusiastic presenters at the festival.

Questions fly fast and furious at the Water Wizards Trivia Contest, providing friendly competition between schools. Student artists submit

their posters, sticker designs, or bookmarks and win prizes for their efforts. Children's Water Festival T-shirts are provided for volunteers and are available for purchase in the exhibit hall.

Funding for the event is provided by Fort Collins Utilities and NCWCD, in addition to a grant from the U.S. Bureau of Reclamation.

HYDROLOGY DAYS 2001

The 21st edition of Hydrology Days took place April 2-5, 2001, at Colorado State University. This annual multidisciplinary conference, organized under the leadership of Dr. Jorge A. Ramírez, associate professor of Civil Engineering, focuses on engineering and scientific issues related to water resources, hydrologic, and environmental sciences and engineering.

Hydrology Days is a unique celebration of multidisciplinary hydrologic science and its closely related disciplines. The Hydrology Days' vision is to provide an annual forum for outstanding scientists, professionals, and students involved in basic and applied research on all aspects of water to share ideas, problems, analyses, and solutions. The focus includes the water cycle and its interactions with land surface, atmospheric, ecosystem, economic, and political processes and all aspects of water resources engineering, management, and policy. This year's event attracted more than 80 contributed and invited papers by engineers and scientists from throughout the United States and from many

different countries around the world, including Albania, Australia, Brazil, Colombia, Greece, Iran, Italy, Morocco, Taiwan, Uzbekistan, and Venezuela.

In addition, Hydrology Days 2001 was dedicated to Professor Stan Schumm, University Distinguished Emeritus Professor, in recognition of his excellence as an educator and researcher and of his outstanding contributions to fluvial geomorphology, fluvial hydraulics, and geology. Dr. Schumm presented a keynote paper on the variability of large alluvial rivers during a special session in his honor.

Next year's event will be held at Colorado State University April 1-4, 2002. For information on registration, guidelines for paper submittal, and conference format, please visit the Hydrology Days Web site at: <http://HydrologyDays.colostate.edu/> or contact Professor Jorge A. Ramírez by e-mail at: ramirez@enr.colostate.edu.

We Want To Hear Your News

Fill us in on your recent promotions, honors, etc., so we can keep your classmates informed about important changes in your life. We will publish notes in the order in which they are received and as space allows.

Thanks for keeping in touch.

Name _____ Graduation Year _____

Major and Degree Earned _____ Adviser _____

E-mail Address _____

Mailing Address _____

City _____ State _____ Zip _____ Country _____

Here's my news: _____

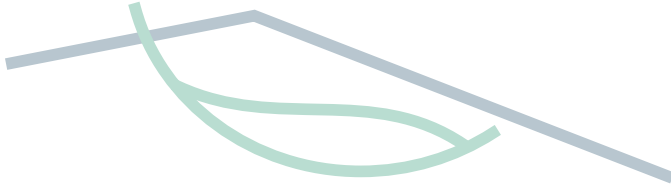
I am interested in Estate Planning information.

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E-mail: civil@enr.colostate.edu Telephone: (970) 491-5048 Fax: (970) 491-7727

TAILINGS AND MINE WASTE '02

January 27-30, 2002



Tailings and Mine Waste '02 is the next of a series of symposia on mill tailings management started at Colorado State University in 1978. The mill tailings management symposia were held from 1978 through 1986. The Tailings and Mine Waste conferences began again in 1994.

The primary purpose of the conference is to provide a forum for members of the mining community, engineers and scientists serving the mining industry, regulatory groups, and other interest groups concerned with environmental issues related to tailings and mine waste management. Issues of mining, milling, environmental geotechnics, mining engineering, tailings management, geohydrology, geochemistry, and other related topics will be covered in focused sessions.

Tailings and Mine Waste '02 will be the ninth international tailings conference held at Colorado State University. Previous conferences have been successful in providing opportunities for formal and informal discussion, exhibits by equipment and instrumentation companies, technical exhibits, and general social interaction.

Department of Civil Engineering's Slide Rule



Events

March 20-21, 2001 – Grand Oasis Study Tour by faculty members from the Tashkent Institute for Irrigation and Agricultural Mechanization Engineers

March 20, 2001 – Lecture and reception for Dr. Johannes Gessler, recipient of the Best Teacher of the Year award for 2000

March 24, 2001 – New Student Social

April 2-5, 2001 – 21st Annual AGU Hydrology Days

April 20, 2001 – Engineering Days

June 4-5, 2001 – ASCE Department Head Annual Meeting hosted by Dr. Sandra Woods and Dr. Marvin Criswell

June 20-23, 2001 – NASA Conference on Planetary Protection being organized by Dr. Marvin Criswell

www.engr.colostate.edu/ce

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