Environmental Engineering • Bioresource and Agricultural Engineering Civil Engineering

Civil Engineering Department to Change Name

At a January 2006 meeting, the Board of Governors of the Colorado State University System approved a name change from the Department of Civil Engineering to the Department of Civil and Environmental Engineering. This name change will be official July 1, 2006.

CSU to Host Student Conference

CSU has been selected to host the 3rd annual Water Environment Federation / American Water Works Association Student Conference. The event will be held in the Cherokee Park Room of Lory Student Center on Friday. May 19, 2006, Students from Colorado State, University of Colorado, Colorado School of Mines, and the University of Wyoming will attend the event. The conference will feature student presentations showcasing their research with prizes to be awarded for best oral and poster presentations. Various local and regional environmental consulting firms will also attend.

CSU Launches Business E-Letter

The Competitive Edge is a bi-monthly business e-letter that provides insights and information on key Colorado industries, economic development and business excellence, and prominently features Engineering. To subscribe, go to http: //edge.colostate.edu.

Scholarships Impacting Civil Engineering Students

In the last four years, 14 civil engineering scholarships have been newly established - three annual scholarships, six named endowments, and five pending endowments.

In addition, the department has used Opportunity Fund dollars, contibuted by alumni and friends, to create graduate scholarship opportunities in geotechnical and environmental engineering where the department currently has very few scholarship opportunities.

With rising tuition and expenses, these funds are helping the next generation of engineers, while helping the department attract the brightest students to CSU and to engineering.

Annual scholarships are funded through a gift of approximately \$5,000 that is awarded in its entirety when received. New annual scholarships include:

- Bill and Jean Fead Scholarship, awarded to incoming freshman, established by the Fead family.
- Riverside Technologies Scholarship for junior or senior students with an interest in water resources.
- WesTest Scholarship, awarded to junior or senior civil engineering students, established by alumni Eric and Dawn West.

A contribution of \$25,000 can complete a named scholarship with a portion of annual income awarded in scholarships and a portion returned to the principal to insure growth. New *endowed scholarships* include:

- Morton W. Bittinger Scholarship, created by the Bittinger family for graduate students in water resources and environmental engineering.
- Whitney Borland Scholarships, from the estate of Whitney Borland, funds graduate students in hydrology and hydraulics.
- Robert Longenbaugh Scholarship, established by Bob to benefit undergraduates with an interest in water resources.
- E.V. and Billie K. Richardson Scholarship honoring E.V. and Billie and benefiting undergraduates interested in water resources.
- Bob and Joan Meroney Scholarship, creaed by Bob and Joan to benefit students interested in fluid mechanics and wind engineering.
- Yevjevich Civil Engineering Graduate and Faculty Award, created by Dr. Y to benefit graduate students and new faculty in the water areas. Scholarships pending completion in order to be awarded include:
- Anthony P. Chrest Memorial Graduate Scholarship, created to honor the 1964 alum and senior vice president of Walker Parking Consultants.
- Maury Albertson Scholarship, originated to benefit graduate students with an interest in international projects and honor Dr. Albertson.
- Daryl B. Simons Graduate Fellowship, initiated by family and friends to honor Daryl's incredible contributions to CSU and engineering,
- Alumni Graduate Scholarship, established by alumni gifts.
- Alumni Undergraduate Scholarship, also initiated by alumni gifts. This academic year, over 100 scholarships were awarded to civil engineering students, impacting 20% of the department's students. "We hope to expand our scholarship program. We want to acknowledge the accom-

plishments of our students, while providing them high quality programs that will serve them well," said Luis Garcia, acting department head.

Jairam Scholarhip recipient C.J. Riley

looks up at Raju Jairam, M.S. 1971 Civil Engineering, as he is recognized at the 2006 Scholarship Luncheon.

"This scholarship makes it possible for me to pursue [summer] internships and not worry about finding a job that would not further my education."

> Kendra Gabbert, senior 2005-2006 scholarship recipient

"When I was choosing a graduate school, I called a head of another program I was interested in and told him I was also considering CSU. He immediately stopped lauding his program and said if I had an offer from CSU to study water resources, I should take it... . I have never had cause to regret taking that advice."

> Michael Hobbins, M.S. 2000, Ph.D. 2004 former scholarship recipient



Knowledge to Go Places

Alumni News

Rollie Moore, B.S. 1955 Civil Engineering, is the new president of the Family Service Association of Redlands, California. Moore has been a volunteer for the organization for eight years. The Family Service

Association's mission is to alleviate poverty, encourage self-sufficiency, and promote the dignity of all people. For 30 years, Moore served in the U.S. Air Force as a fighter pilot, the wing commander for the 35th Tactical Fighter Wing, and then



Larry A. Rundquist

chief of flight safety at Norton Air Force Base in San Bernardino. He retired in 1986.

Archie Lind, B.S. 1964 Civil Engineering, is the vice president of aviation in URS Corporation's Denver Tech Center office.

Nani Bhowmik, M.S. 1965, Ph.D. 1968 Civil Engineering, has been recognized as a Diplomat of the American Academy of Water Resources Engineers of the ASCE for his lifelong contributions in water resources, river mechanics, sediment transport, and other related fields. He was awarded this recognition at the annual meeting of the Environmental and Water Resources Institute of ASCE in Anchorage, Alaska, held in May 2005. Dr. Bhowmik presently holds the position of principal scientist emeritus at the Illinois State Water Survey at the University of Illinois in Urbana-Champaign.

Tom Taylor, B.S. 1965 Civil Engineering, is vice president of Lunar Transportation Systems, Inc. (LTS) in Las Cruces, New Mexico.

R. D. (Bob) von Bernuth, B.S. 1968 Agricultural Engineering, is the director of the School of Planning, Design, and Construction at Michigan State University.

John R. Eckhardt, B.S. 1970, M.S. 1976, Ph.D. 1991 Civil Engineering, is the executive program manager at IID/SDCWA Transfer, the largest ag to urban water transfer in the United States.

Alan Lindskog, B.S. 1971 Civil Engineering, is a principal with Civil Engineering Consultants in San Antonio, Texas. The company specializes in public works, development, surveying and transportation.

Larry A. Rundquist,
M.S. 1971 Ph.D. 1975 Civil
Engineering, development
and operations hydrologist
at NOAA's Alaska-Pacific
River Forecast Center, was the
2005 recipient of the Max A.
Kohler Award. This award is
presented annually to recognize individuals for sustained
superior performance and dis-

tinguished accomplishments in support of NOAA's National Weather Service hydrology program.

Jean Rousselle, Ph.D. 1972 Civil Engineering, published a new text book: *Hydrologie*, with co-authors François Anctil and Nicolas Lauzon.

Dennis Petrie, B.S. 1974 Civil Engineering, is in planning and analysis with ExxonMobil Upstream Research Company in Texas.

Professor Marvin Stone, B.S. 1973 Agricultural Engineering, M.S. 1977 Agricultural and Chemical Engineering, was recognized as the recipient of the 2005 Oklahoma State University Eminent Faculty Award. the highest distinction given to a faculty member by the University. BAE professor and head at OSU, Ron Elliot, Ph.D. 1981 Agricultural Engineering, made remarks, saving, "Dr. Stone excels in all the academic areas he works in – teaching, research. and service....Marvin Stone is a superb researcher who has demonstrated a consistent and exemplary record of creative accomplishments during his 20-plus career at OSU."

Steve Gerber, B.S. 1975 Civil Engineering, is a senior project manager at HKM Engineering, Inc., in Lander, Wyoming.

Thomas Trout, M.S. 1975, Ph.D. 1979 Agricultural Engineering, is the research leader of the USDA-ARS Water Management Research Unit in Fort Collins. He replaced **Dale Heerman**, M.S. 1964, Ph.D. 1968

Agricultural Engineering, who retired after 38 years with USDA-ARS. Dr. Trout was previously a research leader at Fresno/Parlier, California, where a key program of that group was to find alternatives to soil fumigation with methyl bromide, which was being phased out under international treaty. As a result, a soil fumigant application through drip irrigation systems is currently the primary alternative being used by California's strawberry industry. This effort won several national awards including the White House Closing the Circle award, the USDA Secretary's Honor Award, the EPA Stratospheric Ozone Protection Award, and the ARS Technology Transfer Award.

Sheng-Yen Hsieh, M.S. 1976 Civil Engineering, is the director of the Water Resources Planning and Research Institute in Taiwan. He visited Colorado State in November with a Taiwan delegation to continue collaborative opportunity discussions.

Ed Goodman, B.S. 1977 Civil Engineering, is the director of marketing and strategic planning at TST, Inc. Consulting Engineers in Fort Collins.

Larry Warner, B.S. 1977 Civil Engineering, retired from his state engineering job to work for Parsons

Brinckerhoff Quade & Douglas. Warner, was the head of the T-Rex project since 1999 and was with the Colorado Department of Transportation for 28 years. Parsons Brinckerhoff Quade & Douglas is part of the consulting team working on the FasTracks rapid transit program.

Martin Farber, M.S. 1978 Civil Engineering, is a senior engineer with the Department of Utilities in Sacramento, California.

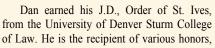
Tissa Illangasekare, Ph.D. 1978 Civil Engineering, is the AMAX Distinguished Chair at the Colorado School of Mines. He made a presentation at Hydrology Days 2006, "From Laboratory to the Field: Intermediate Scale Testing, a Necessary Step."

Greg Peters, M.S. 1978 Civil Engineering, is a reservoir engineering manager with ExxonMobil Development Company. Greg has a son currently studying mechanical engineering at Colorado State.

Tom Anzia, B.S. 1981 Civil Engineering, is the project manager for the North I-25 Environmental Impact Statement being completed for the Colorado Department of Transportation. The project is evaluating transit and highway improvements for the I-25 corridor from Denver to

Stiles Named Commencement Speaker

Daniel Stiles, B.S. 2000 Civil Engineering, will give the commencement address to engineering undergraduates on May 12 at Moby Arena. Dan is an attorney and member of the Public Law and Policy Group, Corporate and Tax Group, and Litigation Group of the law firm Isaacson Rosenbaum P.C.





Dan served as President of the Student Body (ASCSU) and of Chi Epsilon Civil Engineering Honor Society at CSU. While a student at CSU, the American Society of Civil Engineers selected Dan to spend a summer in Washington, D.C. researching high-speed ground transportation. Dan returned to Washington, D.C. the following summer to serve as a special assistant to United States Secretary of Transportation, Rodney Slater.

Dan is a former ski racer and has traveled all over the globe. Closer to home, Dan served as National Traveling Press Coordinator for Vice President Al Gore's presidential campaign at its Tennessee headquarters and as co-county counsel for Ken Salazar's U.S. Senate campaign. Dan continues to be active in the community, including serving as a member of the Education Task Force for the Colorado Lawyers Committee, which focuses on ensuring adequate funding for public education in Colorado.

Alumni: Send us your news!

Email civil@engr.colostate.edu with your recent promotions, honors, publications, research, speaking engagements, and photos, so we can keep your classmates informed.

If you have questions or comments about this newsletter, please contact the editor, Kathleen Seligmann, at 970-491-1452.

Fort Collins. Tom recently visited the department's Civil Engineering Principles I class to discuss his work. Tom is a principal with Felsburg Holt & Ullevig, a transportation engineering firm in Denver. The CDOT project manager for the North I-25 project is **Dave Martinez**, a fellow 1981 civil engineering graduate.

Alan Leak, B.S. 1981 Civil Engineering is the president of WRC Engineering Inc., in Denver.

Kurt Rollin, B.S. 1982 Civil Engineering, is a project manager and associate at Tetra Tech RMC in Longmont, Colorado.

Deborah Brink, B.S. 1982, M.S. 1984 Civil Engineering, is the deputy executive director for Water for People in Denver.

Rick Dorris, B.S. 1982 Civil Engineering, is a development engineer for the City of Grand Junction, Colorado.

Dr. Riad Elhaj, M.S. 1983, Ph.D. 1985 Civil Engineering, is the assistant vice president of training for Consolidated Contractors Company, one of the largest international construction and engineering companies

The company's project types include office buildings, petrochemical plants, waste water treatment facilities, and road and highway projects.

Metin Arslan, M.S. 1984, Ph.D. 1993 Civil Engineering, is a board member of Türk Telecom, where he is advising on the forthcoming privatization of telecommunications in Turkey.

William Bellamy, Ph.D. 1984 Civil Engineering, was inducted into the University of Wyoming College of Engineering Hall of Fame in fall 2005. His career in environmental engineering includes working with Texaco and CH2M HILL where he is currently a senior vice president, directing global water technologies.

Leighton Cochran, M.S. 1986 Ph.D. 1992 Civil Engineering, is senior associate with CPP Inc., wind engineering and airflow consultants, in Fort Collins.

Margaret Matter, M.S. 1986 Agricultural Engineering, made a Hydrology Days 2006 presentation in the Climate and Hydrology session with **Drs. Luis Garcia** and **Darrell Fontane**.

Peter G. McCornick, MS 1986,

Ph.D. 1989 Agricultural Engineering, was recently appointed as the director of the Asia region for the International Water Management Institute (IWMI). He, his wife Miriam (Social Work, 1999) and daughter, Mak'da, relocated to New Delhi, India in August. Their son, Sean, is studying at the University of South Carolina. Prior to this relocation, Peter was based in Washington D.C. as a seconder from IWMI to the United States Agency for International Development (USAID).

Fred Ogden, B.S. 1987, M.S. 1989, Ph.D. 1992 Civil Engineering, made a presentation at Hydrology Days "Simple-Scaling of Flood Quantiles in a Small Hortonian Research Watershed: Higher Order Moments and the Effect of Record Length."

Dan Gessler, B.S. 1988, M.S. 1993, Ph.D. 1995 Civil Engineering, co-wrote the November 2005 cover story for *Desktop Engineering Magazine*. The article, "Before the Flood," discussed the numerical modeling of the spillways at Smith Mountain Dam. Dan is the director of numerical modeling at Alden Research Laboratory.

Doug Koskie, B.S. 1988 Civil

Engineering, is the general manager of the North American crude oil supply for Tesoro Refining and Marketing Company in San Antonio, Texas.

Óli Grétar Blöndal Sveinsson, M.S. 1998, Ph.D. 2002 Civil Engineering, made several presentations at Hydrology Days 2006 during the Stochastic Approaches sessions. Dr. Sveinsson is with the National Power Company, Reykjavík, Iceland. (See page 9 for more Hydrology Days information.)

Ronald Yoder, Ph.D. 1988 Agricultural Engineering, is the head of the Department of Biological Systems Engineering at University of Nebraska at Lincoln.

After graduation, Michael Morse, B.S. 1989 Civil Engineering, worked as a project manager with RBF Engineering for 10 years. He earned an MBA from California State University, Fullerton, and then went on to complete his masters degree in Real Estate Development at USC. He is currently vice president of construction engineering for The Irvine Company, a large real estate development company in Orange County, California, that develops master planned communities. Michael and his wife are expecting their second son in March 2006.

John Withers, B.S. 1989 Civil Engineering, is president of Geotechnical Engineering Group, Inc., in Grand Junction, Colorado.

Michael Harmer, B.S. 1990 Civil Engineering, is a senior engineer at PBS&J in Denver.

Forsgren Associates in Boise, Idaho, has named Stephen J. Waldinger, B.S. 1990 Civil Engineering, as its director of transportation. Waldinger will be responsible for company wide transportation activities. During his past seven years with the company, he has played key roles on the I-84/Garrity interchange in Nampa, pavement rehabilitation projects in Boise, McCall, and northern Idaho, as well as bridge replacement projects. He was lead roadway engineer for replacement of the \$8.5 million, 1006-foot-long Clark Fork River Bridge in Clark Fork.

John McLain, B.S. 1991 Civil Engineering, is director of Baseline Engineering Corp. in Golden, Colorado. Baseline specializes in land use and civil engineering services and the design of residential, retail, office, transportation, industrial and public works projects.

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Career and Internship Fair Fills Ballroom

The Engineering Career & Internship Fair, held on January 31, 2006, attracted more than 60 companies and nearly 400 students. Forty of the participating companies were there to recruit civil and environmental engineering students.

Above left: Graduate student Rose Rotter talks with Kevin Rein, B.S. 1981 Civil Engineering, and Dick Wolfe, B.S. 1983, M.S. 1986 Agricultural Engineering, from the Colorado Division of Water Resources.

Below left: Doug Jobe, B.S. 1982 Civil Engi-

neering, of Terracon, speaks with students Carrie Life and Alex Stone.

Below: Student Mathew Bruno talks with **Erica Spencer**, B.S. 2004 Civil Engineering and Mathematics, of Huitt-Zollars, Inc.





Alumni News

Taha B.M.J. Ouarda, Ph.D. 1991 Civil Engineering, is a professor and chair of the Department of Statistical Hydrology at the National Institute for Scientific Research: Water, Land, and Environment, University of Ouebec.

David Ferryman, B.S. 1992 Civil Engineering, was appointed vice president of systems engineering of the Canadian National Railroad. He is located in Edmonton, Canada.

Su Mishra, M.S. 1992, Ph.D. 1998 Civil Engineering, is a water resources engineer with Ayres Associates in Sacramento, California.

Dr. Robertus Triweko, Ph.D. 1992 Civil Engineering, is a water management specialist and dean of the faculty of civil engineering at the Universitas Katolik Parahyangan (UNPAR). His teaching and research has focused on river basin management, infrastructure financing, stormwater management, and solid waste management. He has worked and supervised a number of graduate students. He is also a member of the Technical Committee of the Partnership for Water Education and Research (PoWER), an academic network of 18 universities and research institutions working on water education and research in developing countries.

Peter Foster, M.S. 1994 Civil Engineering, is a project engineer with Wright Water Engineers, Inc. in Durango Colorado.

David T. Williams, Ph.D. 1995 Civil Engineering, is with PBS&J in San Diego, California as national tech-

nical director for water resources. In his new role, Williams will provide technical guidance to PBS&J's clients, assist in client relations, develop innovative tools



and solutions to a *David T. Williams* wide variety of complex engineering

problems, and coordinate firm-wide

water resources activities.

Amy Johnson, B.S. 1996 Agricultural Engineering, received a national merit award from the American Society of Irrigation Consultants. The award, was based on the quality of project planning and design in functionalism, environmental responsibility and relevance of her work at Aqua Engineering, Inc., in Fort Collins. The four principals at Aqua Engineering are all CSU engineering

alumni: Robert W. Beccard, M.S. 1981 Agricultural Engineering, president; Stephen W. Smith, M.S. 1975 Agricultural Engineering, chairman and vice president; Richard Aust, B.S. 1978 Agricultural Engineering, vice president; and Darren Salvador, B.S. 1991 Agricultural Engineering.

Peter Molnar, M.S. 1996, Ph.D. 2001 Civil Engineering, is with the Institute of Environmental Engineering at ETH Zurich, Switzerland. He made a presentation at Hydrology Days 2006.

Jeremy Franz, B.S. 1997 Civil Engineering with an Environmental Engineering minor, M.S. 2002 Civil Engineering, is a water resources engineer at Ayres Associates in Fort Collins. He is a hydraulic and hydrologic modeling expert who performs numerical modeling of rivers and tidal waterways throughout the nation to support highway design and flood control projects. He was recognized as one of the 2005 New Faces in Engineering as part of National Engineers Week. The New Faces of Engineering program recognizes 109 nominees out of 1.8 million engineers in the United States, highlighting the interesting and unique work of young engineers and the resulting impact on society. He was nominated by the American Consulting Engineers Council.

Steve Nguyen, B.S. 1997 Civil Engineering, is the president of Clear Water Rights, Inc. in Broomfield, Colorado. The company provides water resources planning and management services to both public and private water clients.

Paul Perri, B.S. 1997 Agricultural Engineering, is a project engineer at W. W. Wheeler and Associates, Inc. in Englewood, Colorado.

Hyun-Suk Shin, Ph.D. 1997 Civil Engineering, is working in the Department of Civil Engineering at Pusan National University in South Korea. He attended Hydrology Days at Colorado State, making two presentations, "A River Flood Warning System Using a Neural Probabilistic Forecasting Model" and "Developing a Modified GCUH Based on the Geomorphic Characteristics of Korean Mountain Regions."

Eric Tuin, B.S. 1997 Civil Engineering, is the vice president of engineering at High Country Engineering, Inc., in Englewood, Colorado.

John England, M.S. 1998 Civil Engineering, is with the Bureau of Reclamation in Denver. He presented "Distributed Modeling of Extreme

Jønch-Clausen Receives Water Prize

Danish researcher Torkil Jønch-Clausen, Ph.D. 1978 Civil Engineering, received the Hassan II Great World Water Prize at the Fourth World Water Forum in Mexico City in March 2006. The award honored Dr. Jønch-Clausen of DHI Water and Environment, for his outstanding



contributions to advancing integrated water resources management at the global scale. Dr. Jønch-Clausen's advisor at Colorado State was Professor Hubert Morel-Seytoux.

In his acceptance remarks, Jønch-Clausen stressed that his award is a result of cooperation between the Danish Government, DHI-Water and Environment, and the Global Water Partnership. He announced that the Prize money would be used to fund women from developing countries to study water issues.

This is the second time the prize has been awarded. In its inaugural edition, it was given to Jerson Kelman, Ph.D. 1977 Civil Engineering.

Floods on a Large Watershed" at Hydrology Days 2006.

Brian Varrella, B.S. 1998 Civil Engineering, is the supervisor of a new stormwater department at Weld County Public Works in Greeley, Colorado.

Chris Boespflug, B.S. 1999 Civil Engineering, is an engineer with the Colorado Department of Transportation

Michael T. Hobbins, M.S. 2000 Ph.D. 2004 Civil Engineering, is a postdoctoral fellow at Australian National University in the Research School of Biological Sciences.

Jason Laible, B.S. 2000 Civil Engineering, is working at a firm in Las Vegas on private land development projects. He just received his Nevada P.E. license and stamp.

Chiaki "Jackie" Noguchi, M.S. 2001 Civil Engineering, has been working for the Corps of Engineers and is planning to pursue a Ph.D. in the near future.

Michael B. Gossenauer, B.S. 2002 Agricultural Engineering, M.S. 2004 Civil Engineering, is a civil engineer with the US Army Corps of Engineers' Hydrology and Hydraulics Section in Kansas City, Missouri.

Miranda Larsen, B.S. 2002 Environmental Engineering, is working at Bishop-Brogden Associates, Inc., in Englewood, Colorado.

Audrey Mendelsberg, B.S. 2002, M.S. 2003 Civil Engineering, is working at TST, Inc. Consulting Engineers in Fort Collins

Matt Janousek, B.S. 2003 Civil Engineering, completed his master's in Geotechnical Engineering from UCLA, and is now a staff engineer at a Geotech firm, Kleinfelder, in Diamond Bar, California. They handle investigations and consulting for large

industrial jobs and some smaller residential slope stability jobs.

John TeBockhorst, B.S. 2003 Civil Engineering, is with the Civil/ Structural Design Group at Utility Engineering Corporation in Denver.

Sriram Ananthanarayan, M.S. 2004 Civil Engineering, is working at Telesto Solutions in Fort Collins.

Durmus Cesur, Ph.D. 2004 Civil Engineering, M.S. 2002 Business, is with the San Antonio River Authority. He presented "Modeling of Anaerobic Digestion for Agricultural Waste" at Hydrology Days 2006.

Brady McDaniel, B.S. 2004 Civil Engineering, is completing his Masters in Environmental Hydraulics at the University of Iowa, IIHR Hydroscience and Engineering. He will begin working at NHC (Northwest Hydraulic Consultants) in Sacramento, California, in 2006.

Matt Simpson, B.S. 2004 Civil Engineering, is working for a Land Development company in Fort Collins, Nolte Associates.

Dustin Aleman, B.S. 2005 Civil Engineering, is an assistant superintendent with Adolfson & Peterson Construction.

David Beiswenger, B.S. 2005 Civil Engineering, is a design engineer of arctic water systems at CE2 Engineers in Anchorage, Alaska. He has been training for a climb of Mt. McKinley and working on hours for his private pilot's license.

Michael Curtis, B.S. 2005 Civil Engineering, is a project engineer with Aqua Engineering, Fort Collins.

Dan DeLaughter, M.S. 2005 Civil Engineering, is working for the City of Fort Collins Development Review Group in their Engineering Department.

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Faculty News

Colorado State University is partnering with the American Council of Engineering Companies (ACEC) to offer a two-day seminar, "Engineering for Safety and Security" in October at the CSU Denver Center. The instructors include Drs. Bogusz Bienkiewicz, Wayne Charlie, Marvin Criswell, Darrell Fontane, Neil Grigg, and John van de Lindt. The first day of the seminar will focus on earthquakes, including seismic risk, soil dynamics, near fault forces, blast loadings, and structural design. Katrina flood experiences, flood hazard, and recent research on this topic will also be covered. The second day of the seminar will begin with an overview of wind hazards. Code emergence, human-induced threats, and safety and vulnerability assessments complete the curriculum.



Antonio Carraro



Marvin Criswell





Jeff Niemann

Antonio Carraro received an ASCE ExCEEd Fellowship in summer 2005. This fellowship allowed him to attend the ExCEEd Teaching Workshop held at the University of Arkansas and to become one of the newest ASCE ExCEEd Fellows. In Fall 2005. Dr. Carraro offered a new course. Engineering Properties of Soils.

Dr. Marvin Criswell, has been elected a Fellow of the American Concrete Institute (ACI). A formal announcement was made during the ACI Convention in Charlotte North Carolina in March

Neil Grigg has been active with the American Water Works Association Research Foundation studying the condition of buried water pipes around the country. He

was interviewed a lot due to Hurricane Katrina and various infrastructure problems around the country. Interviews included the *Houston Chronicle*, Christian Science Monitor, Indianapolis Star, Voice of America, Water and Wastes Digest, and Wired News.

Jeffrey D. Niemann co-convened and co-chaired a session on "Impacts of Hydrology on Long-Term Landscape Evolution" at the American Geophysical Union Fall Meeting in San Francisco.



Jorge Ramírez



Charles Shackelford

Jorge Ramírez has been successful in securing another NSF REU grant. The REU program will host 15 select undergraduate students who will undertake an individual research project in water research under the supervision of a Colorado State University faculty member. The research will be performed at Colorado State University during 8 weeks this summer (June and July).

Chuck Shackelford is a member of the "Committee to Assess the Performance of Engineered Barriers" for the National Academies, Washington, D.C. The committee, which consists of about a dozen members recognized for their expertise in a variety of areas, as well as several staff members from the National Research Council, met for the first time in October 2005, in Washington, D.C., and then again in February at the National Academies Beckman Center in Irvine, California. Although the details of the committee's work are confidential, the committee is charged with assessing the long-term performance of engineered barriers used for waste containment applications. The committee will gener-

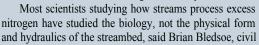
ate a peer reviewed report that will document its findings and make recommendations that are confidential until the report is released by the National Academies in 2007.

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Bledsoe Receives CAREER Award

by Emily Narvaes Wilmsen

The shape of riverbeds may affect how streams combat excess nitrogen that depletes oxygen levels and chokes aquatic life, hurting water bodies, drinking water supplies and potentially tourism around the world, said a Colorado State University professor who recently received a National Science Foundation grant to study the issue.





Brian Bledsoe

engineering assistant professor in Colorado State's College of Engineering. He argues that channel form could be just as important in determining stream

In fact, knowing how the forms of small streams help manage pollutants could help increase the cost effectiveness of stream and watershed restoration, he said.

"Excess nitrogen is a serious problem around the world because it degrades water quality in a lot of important aquatic systems," said Bledsoe. "We want to learn what it is about some streams that makes them more effective at storing or removing nitrogen. What are some characteristics that we can build into restoration strategies that are likely to enhance nutrient uptake and water quality further downstream?"

Bledsoe received a \$450,000 NSF CAREER Award for the project over the next five years.

"This research will be extremely beneficial in improving our understanding of how to restore ecological functions in impaired rivers," said Greg Jennings, professor of biological and agricultural engineering at North Carolina State University who has worked with Bledsoe for more than a decade on river assessment and restoration.

Bledsoe's research will include creating new outdoor laboratories for graduate and undergraduate students in and around Fort Collins to study Spring Creek, Sheep Creek, the Little Snake River and the North St. Vrain River. Bledsoe and his team will inject tiny amounts of nitrogen isotopes into the streams and track them to monitor how the profiles of the riverbeds and flow conditions affect nutrient retention.

He plans to conduct his research in streams in a variety of geographic areas. The tiny tributaries that fan out from headwaters, for example, are the most critical in filtering out pollutants before they get further downstream.

"Rivers are dynamic, not static," Bledsoe said. "As opposed to just building habitat, we want to learn how to restore the physical processes that give streams the capacity to perform ecological functions."

Many coastal areas in the United States including the Gulf of Mexico have seasonal dead zones that are virtually devoid of life because oxygen levels are so low.

'We're breathing air that's about 78 percent nitrogen gas. Streams and wetlands receive nitrogen as nitrate, a form that stimulates plant growth. Microbes in streams can turn nitrate into the gaseous form of nitrogen we're breathing. As a result, the nitrate has less impact on water quality."

Plants and algae can help filter some pollutants in streams to a point, but excess nitrogen – caused by many factors including fertilizers – can result in excess algal growth. Dying and decomposing algae remove oxygen from the

"Then fish kills may occur and that can have severe economic consequences for commercial fishing, recreation, and tourism," Bledsoe said. The excess nitrogen can also make drinking water more difficult to treat. "This is a big issue all over the world. In the Mississippi River basin, we put the same amount of nitrogen into the watershed that Mother Nature does on her own."

Bledsoe also plans to work with the city of Fort Collins to create opportunities for students to study the city's stormwater ponds. The city is a national leader in K-12 education about stormwater.

Dr. Amy Pruden also received a NSF Career Award. Find out more about her research on page 6.

Faculty Focus: Amy Pruden Antibiotic Resistance Genes (ARG) as Emerging Pollutants in Our Water

Amy Pruden has recently become a recipient of the prestigious National Science Foundation (NSF) CAREER Award, which will provide \$400,000 to support her efforts of the study of antibiotic resistance genes (ARG) as emerging water pollutants. This award will also help to support educational efforts by Dr. Pruden that integrate Biotechnology and Environmental Engineering, including new laboratory courses and undergraduate research projects.

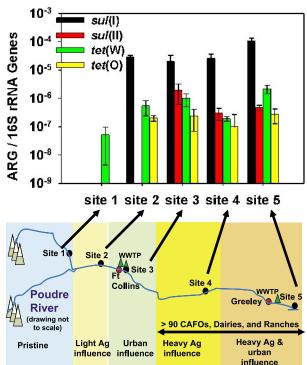
ARG are the agents responsible for conferring resistance to antibiotics in microorganisms. The spread of ARG is a concern because antibiotics will no longer be effective for fighting infections in humans

if the pathogens carry ARG. In this new study, the fate and transport of ARG in the environment will be characterized in much the same way other contaminants have been, except considering that ARG have the capability to spread and to amplify. It is suspected that the spread of ARG in the environment is closely linked with antibiotic inputs from humans and agriculture. In a baseline survey of the Cache La Poudre River in northern Colorado, it was found that concentrations of all four ARG measured (two tetracycline ARG and two sulfonamide ARG) were highest at sites most directly impacted by human and agricultural activity in Fort Collins and Greeley, and were lowest at a pristine site in Rocky Mountain National Park. These results indicate that further research is warranted to better understand how ARG are spread in the environment and what their ultimate impacts are.



Amy Pruden





Figure, above: Cache La Poudre River in Northern Colorado with corresponding zones of pristine, urban, and agricultural influence. At left: Dr. Pruden and a student sampling the Poudre River.

Hurricane Katrina Case Studies, Hurricane Load Simulator, and Related Wind Engineering Laboratory Upgrades

Case studies of woodframe damage during hurricane Katrina are now available on a project website at: www.engr.colostate.edu/~jwv/CaseStudies.htm (see sample page at right). Maximum wind speeds in the Mississippi gulf coast reached 115 to 125mph, yet there was a disproportionate amount of wind damage, which in turn resulted in high dollar losses due to water damage.

In another wind-related project: as result of a \$590,000 Major Research Instrumentation (MRI) Grant awarded to Professor **Bogusz Bienkiewicz** and Associate Professor **John W. van de Lindt**, CSU will be one step

closer to improving civil engineers' understanding of structural failure due to wind loads. Currently, structural engineers utilize design codes that rely on first failure models. However, as the integrity of the building envelope is breached, e.g. as a result of loss of structural sheathing and other localized damage, the net wind loading may dramatically increase due to built-up of internal wind-induced pressure. Mechanistic models for such a sequence of events do not exist. The new testing facility will allow investiga-





John van de Lindt



Bienkiewicz

tions of these and other issues related to wind resistance of woodframe houses and other structures. The new spatio-temporal load simulator will be linked in real time to a CSU boundary-layer wind tunnel enabling the researchers the ability to study what happens after first failure. In parallel to the development of the simulator, the MRI grant provides funds for significant upgrade in instrumentation to be utilized in the real-time wind-tunnel testing coupled with the simulator and other wind hazards mitigation research carried

out at the Wind Engineering and Fluids Laboratory (www.windlab.colostate.edu). It is hoped that the development of new and upgrades of the existing laboratory facilities will enable advancement of a paradigm that is already beginning to be applied in earthquake engineering: Performance-Based Engineering (PBE). Critical to such a philosophy is an understanding of economic loss as a function of structural performance under various loading conditions.

Dr. Yevjevich Creates New Graduate and Faculty Award

Dr. Vujica Yevjevich established the Yevjevich Civil Engineering Graduate and Faculty Award in December 2005. The award will provide graduate fellowships to students interested in hydrology and water resources. Faculty awards also will be made periodically to encourage new faculty members.

Sandra Woods shared, "Dr. Y has left Colorado State an incredible legacy, through his work, the work of his students, and now the recipients of the award he has created. We are grateful for his far-reaching contributions to engineering."

To honor Dr. Yevjevich by contributing to the Yevjevich Award, please call 970-491-7028 or email supportengineering@colostate.edu.

In Memoriam: Dr. Vujica Yevjevich

We sadly report the passing of Emeritus Professor Vujica Yevjevich, known by many as Dr. Y. He passed away March 26, 2006 after a long battle with Parkinson's Disease. He was 92 years old.



Professor Yevjevich was one of the founders of stochastic hydrology, a field in water resources and environmental engineering. In 1960, Dr. Yevjevich came to Colorado State as a professor of civil engineering, in charge of the hydrology program, developing an internationally renowned program. He advised over 130 graduate students, published 23 books, wrote more than 200 articles and founded Water Resources Publications, a company that publishes and distributes texts on water resources.

Dr. Yevjevich graduated from the University of Belgrade in 1936 and continued his studies at the School of Hydraulic Engineering in Grenoble, graduating in 1939. He started his professional career in the former Yugoslavia. From 1941 to 1945, he was a prisoner of war in Germany and Italy, spending his time in captivity learning languages and water resources engineering. Near the end of the war, he escaped

and became active in the resistance in Italy. In 1955, he received his doctorate from the Serbian Academy of Sciences

Emeritus Faculty News

In September, **Maury Albertson** gave an invited paper on "Anaerobic Digestion of Biomass Waste for Optimal Production of Renewable Energy and Solids for Compost" in Zurich, Switzerland. **Dr. Amy Pruden** was a co-author. The paper was well received and there were many questions and much discussion afterwards. The paper is being published in the International Congress Series of Elsevier Press.

Editor's Note: Maury Albertson also received the E-chievement Award from etown, a weekly radio broadcast on NPR. The award honors remarkable individuals who are working hard to make a positive difference in their communities and beyond. The show was broadcast on the evening of March 11th on KUNC-FM.

A. R. Chamberlain, Ph.D. 1955 Civil Engineering, has been elected to the National Academy of Engineering (NAE), as one of a class of 76 new members across the nation. He is honored for his accomplishments and innovations in the mobility, aesthetic, safety, and environmental aspects of transportation systems. Election to the National Academy of Engineering is among the highest professional distinctions accorded to an engineer in the United States. Academy membership honors those who have made outstanding contributions to "engineering research, practice, or education, including, where appropriate, significant contributions to the engineering literature," and to the "pioneering of new and developing fields of technology, making major advancements in traditional fields of engineering, or developing/implementing innovative approaches to engineering education." Other CSU civil engineering professors who have received this prestigious honor are Jack Cermak, University distinguished professor emeritus, and Larry Roesner, Harold H. Short endowed chair. Ray and his wife Melanie just completed a trip to

Norman A. Evans, Ph.D. 1963 Civil Engineering, writes, "The past 10 years of my retirement have been fully occupied in the work of the Poudre Landmarks Foundation in the preservation of historic properties of the Fort Collins area. Most of my current attention is directed to preservation of the first Fort Collins Waterworks built in 1882-83 and located near the town of Laporte. One of the interesting challenges has been the rehabilitation of a massive concrete drop structure in the supply canal still in use after more than 100 years with a capacity of 150 cfs and a drop of 20 feet.

Chile, Argentina, Falkland Islands, and Uruguay, taking about three

weeks by ship.

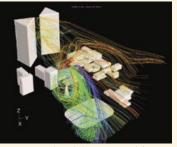
In December 2005 Dr. Robert Meronev was invited to provide a set of lectures on "Air Pollution Aerodynamics" for the Croucher Advanced Study Institute held at HKUST (Hong Kong University of Science and Technology). Dr. Meroney and his wife, Joan also participated in a preconference tour visiting Beijing, Xian, the Yangtze River, Cheng Du, Lahasa (Tibet), and Hong Kong. The international computational fluid dynamics firm FLUENT, Inc. featured an article by Dr. Meroney titled "Cooling Tower Drift" in their Fall 2005 publication issue of Fluent News: Applied Computational Fluid Dynamics.



Robert Ward receives the award from David Robbins, chair of the board of directors for the Colorado Water Congress.



Dr. and Mrs. Meroney overlooking Yangtze River, China.



Air parcel path lines emitted from mechanical draft cooling tower.

During Spring 2006 Dr. Meroney will provide presentations for the CSU Air Force ROTC Cadets on "The B-17: Mighty Flying Fortress," and to the Loveland Rotary Club and the Fort Collins Golden Kiwanis Club on "Fluids That Whirl: Tornadoes, Dust Devils, Water Spouts, Whirl Pools, Hurricanes and Galaxies."

Robert Ward was granted Honorary Life Membership from the Colorado Water Congress on January 27, 2006, during its 48th annual convention in acknowledgement of his distinguished contribution to the Protection, Conservation and Development of Water Resources in the State of Colorado. Dr. Ward will also be recognized with the 2006 Warren A. Hall Medal at the 2006 Universities Council on Water Resources Banquet in July 2006, honoring his extraordinary accomplishments in the water resources field.

Student News

Seniors Rachel Garcia, Justin Meihaus, and Eric Tracy traveled in February to the Gulf Coast to witness the devastation incurred by Hurricane Katrina. The students are completing their senior design project on the rebuilding effort which ensued after Hurricane Katrina, and specifically the implementation of alternative building solutions. The trip was made possible by funds



awarded to **Dr. John van de Lindt** for a similar study. They
spoke with a contractor for the
Federal Emergency Management
Agency (FEMA), a navigator stationed at Keesler AFB,
and a civil engineering officer
from Keesler AFB. The onsite
research performed will allow
the students to better understand
the issues being faced by those
living in the areas hit and those
working to rebuild.

Damage in Gulfport, Mississippi. Spray painted in red on the side of the house, it says,

"Note: If it can be saved, call!" The team (from left to right): Justin Meihaus, Eric Tracy, and Rachel Garcia.

Senior environmental engineering student **Brandon Lehman** was awarded a scholarship from the Achievement Rewards for College Scientists (ARCS) Foundation. The ARCS Foundation distributes scholarships each year to Colorado students aspiring in fields including natural science, medicine, and engineering. Recipients must have high scholastic records with proven abilities in a scientific field as well as a recommendation by their dean or department head.

Senior **Justin Meihaus** has been accepted to the Air Force pilot training program. He has been in Air Force ROTC for four years.



The **Environmental Engineering Society** will be competing this year at the 8th Annual ASCE Water Treatment from Your Kitchen and Beyond Competition April 8th 2006. This year students must design a sustainable and low-cost water collection and treatment system for a small village in South America. A team of fifteen students (most of whom are pictured above) will be participate in the competition, and eight students will attend the event at the University of the Pacific in Stockton, California. Good Luck!



Fall 2005 Commencement

Front row (left to right): Jeff Burnham (ENV), Brandon Aleman (CE), Kathryn Sednek (CE), Che-Yun Chan (CE), Gabriel Miller (CE), Jeremy Bell (CE), Jennifer Marich (CE), Greg Snow (CE). Second row (left to right): Laurie Howard, Mark Taylor (CE), Zach Forster (CE), Jason Krall (CE), Seth Samsell (CE), Alexander Glass (CE), Michael Curtis (CE), Micah Richey (CE), Justin Kuhn (CE). Third row (left to right): Dr. Larry Roesner, Jack Goble (CE), Dr. Tom Sanders, Dr. Marvin Criswell, Dr. Darrell Fontane, Dr. Luis Garcia, Dr. Neil Grigg, Dr. Sandra Woods.



Active Student Chapter Competes and Serves

The American Society of Civil Engineers (ASCE) student chapter at Colorado State University is one of the largest and most active ASCE student chapters in the region. Not only do they compete in the annual Steel Bridge and Concrete Canoe competitions (where they fair well), but they host a number of other events, including an annual Golf Tournament, monthly meetings for members with speakers from the Civil Engineering profession, AutoCAD training classes, and much more. CSU's student chapter of ASCE also participates in a number of community service projects, including certifying Boy Scouts for their Drafting Merit Badge, working with the Forest Service in the Adopt-A-Trail program, among other activities. This year, the teams will both be competing in the 2006 Rocky Mountain Regional Conference April 6-8, at South Dakota School of Mines & Technology.

Please feel free to email CSU's student chapter of ASCE at csuasce@yahoo.com or visit the chapter website at http://www.engr.colostate.edu/asce.

26th AGU Hydrology Days 2006 Packed With Research Presentations

The 26th Annual American Geophysical Union Hydrology Days was held March 20-23 at Colorado State. The Hydrology Days Award Lecturer, Dr. Rafael L. Bras, Massachusetts Institute of Technology gave the Hydrology Days award lecture, "Frontiers in Hydrologic Science: Complexity and Organization in Hydrology." Other special presentations inluded the Borland Lecture in Hydrology, "Hydromorphology: Hydrology in an Evolving World," by Dr Upmanu Lall, Columbia University, and the Borland Lecture in Hydraulics, "Impulse Waves, Shore Instabilities and Tsunamis," by Dr Willi H. Hager, ETH, Zurich.

Proceedings and abstracts are available at http://hydrologydays.col ostate.edu/. Many current engineering students made presentations:

Ph.D. students **Brett Jordan** and **William Annable**, "A River Evolution Comparison of Adjacent Stable and Unstable Urban Watersheds in San Jose, California," with **Dr. Chester Watson**.

Ph.D. student **Dan Baker**, "Effects of Diversion Dams on Physical Characteristics of Streams," with **Dr. Brian Bledsoe**.

Ph.D. student **Alexandre Baltar**, presented "A Generalized Multiobjective Particle Swarm Optimization Solver for Spreadsheet Models: Application to Water Quality," with **Dr. Darrell Fontane**.

Ph.D. student **Zeyad Tarawneh**, "Estimating the Return Period of Extreme Hydrological Droughts," with **Dr. Jose Salas**.

Ph.D. student **Taesam Lee**, "Disaggregating Daily Rainfall into Hourly Quantities," with **Dr. Jose Salas**.

Ph.D. student **Seema Shah**, "Variability in Total Sediment Load Using BORAMEP on the Rio Grande Low Flow Conveyance Channel."

Ph.D. student **Un Ji**, "Sedimentation Problems at the Nakdong River Estuary Barrage and Retrofitting Design for the Gupo Bridge Piers on the Lower Nakdong River," with **Dr. Pierre Julien**.

Master's student Matthew Peterson, "Installation of an Electrolytic Reactive Barrier for Treatment of Energetic Compounds in Groundwater," with Drs. David Gilbert and Tom Sale. Mr. Peterson also presented "Modeling Contaminant

Mass Transport and Degradation in a Gas-evolving Electrolytic Permeable Reactive Barrier," with Drs. **Tom Sale** and Chemical and Biological Engineers Kenneth Reardon

Master's student **David Castelbaum**, "Physical Characterization of Soils Mixed with Slurries of Clay and Zero-valent-iron," with **Dr. Charles Shackelford**.

Master's student Lee Ann Rutherford, "Benefits of Upgradient Flux Reduction," with Dr. Tom Sale and Chemical and Biological Engineer's David Dandy.

Master's student Gabriel Iltis, "An Evaluation of Three Methods for Estimating Free-product LNAPL Flow Rates through Contaminated Porous Media," with **Dr. Tom Sale**.

Master's student Mark Perry, "Catchment-Scale Variability of Soil Moisture: Controlling Factors and a Method for Estimation," with Dr. Jeffrey Niemann.

Master's student Alfonso Mejía, "Classification of Channel Network Planforms Based on Deviations from Self-Similarity," with Dr. Jeffrey Niemann.

Master's student Heather Storteboom and Ph.D. student Sung-Chul Kim, "Antibiotic Resistance Genes (ARG) in the Environment: Effect of Composting," with Drs. Kenneth Carlson and Amy Pruden.

Ph.D. student Luciana Pereyra, "Microbiological Comparison of Two Field-Scale Sulfate-Reducing Permeable Reactive Zones Treating Mine Drainage," with Chemical and Biological Engineering student Sage Hiibel, **Dr. Amy Pruden** and CBE's Kenneth Reardon.

Master's student Rachel Hanson, "Using Molecular Tools to Monitor a Microbial Consortium Degrading a 12-Chemical Mixture," with Dr. Amy Pruden, Chemical and Biological Engineers Kenneth Reardon and M. Hoelscher, and C. Sans of the University of Barcelona.

Ph.D. student Maria Raynal, "Treatment of MTBE and BTEX at a Local Refinery: Bench and Field Studies," with Drs. Amy Pruden and Tom Sale.

Ph.D. students **Ruoting Pei** and **Sung-Chul Kim**, "Antibiotic Resistance Genes (ARG) Studies in



Rafael L. Bras, Massachusetts Institute of Technology, was honored with the Hydrology Days Award by Dr. Jorge Ramírez.

the Poudre River and Northern Colorado," with **Drs. Amy Pruden** and **Kenneth Carlson**.

Ph.D. student Christine Rohrer, "Protocols for Evaluating the Effects of Land-use Patterns and Runoff Management on Urban Streams," with **Dr. Larry Roesner**. Ms. Rohrer also presented "Flow Trend Analysis in the Rouge River Watershed and the Effect of Temporal Resolution on Trend Direction," with C.L. Hughes.

Ph.D. student **Daeryong Park**, "Multipurpose Detention Pond Design for Improved Watershed Management in New Korean Developments," with Sukhwan Jang of Daejin University and **Dr. Larry Roesner**.

Master's student John Edgerly and Ph.D. students Christine Rohrer and Jorge Gironás, "Quantifying Urban-induced Flow Regime Alteration and Evaluating Mitigation Alternatives Using Mathematical Models and Hydrologic Metrics," with Dr. Larry Roesner.

Master's student **Jennifer Davis** and Ph.D. student **Christine Rohrer**, "Effects of Four Catchment Modifications on Urban Runoff," with **Dr. Larry Roesner**.

Ph.D. student **Jorge Gironás**, "Experimental Analysis and Different Modeling Approaches for a Stormwater Perlite Filter," with José Adriasola and Bonifacio Fernández of Pontificia Universidad Católica de Chile.

Ph.D. student **Ivan Rivas**, "Watershed Discretization in Urban Watersheds for Rainfall-Runoff Modeling," with **Dr. Larry Roesner**.

Master's student Elizabeth Kidner, "Guidance for Improving Monitoring Methods for Stormwater-Borne Solids," with Drs. Larry Roesner and Amy Pruden. Master's student Alexander Herting, "Assessing and Modeling Irrigation-Induced Selenium in the Stream-Aquifer System of the Lower Arkansas River Valley, Colorado," with Dr. Timothy Gates.

Master's student **Rose Rotter**, "Improving Drainage of
Agricultural Lands for Salinity
Problem in the Lower Arkansas
Valley," with **Dr. Ramchand Oad**.

Ph.D. student **Ayman Elhaddad**, "Using LANDSAT
Imagery for Detecting Soil
Salinity in Corn Fields: Calibration and Validation," with **Dr.**

Luis Garcia.

Ph.D. students **Eric Morway** and **Enrique Triana**, "Improving Evapotranspiration Estimates in the Lower Arkansas Valley Using ArcGIS Spatial Analyst," with **Dr. Timothy Gates**.

Master's student Andres
Jaramillo, "Preliminary Results
of Detailed Field Measurements of
On-Farm Water Management in
the Lower Arkansas River Basin in
Colorado," with Drs. Luis Garcia
and Timothy Gates.

Master's student Jennifer Mueller, "Uncertainty in Mass-Balance Calculations of Non-Point Source Loads to the Arkansas River," with Dr. Timothy Gates.

Ph.D. student Enrique Triana, "GEODSS: Spatial Basin-Scale Water Quality and Quality Modeling in the Lower Arkansas River Valley," with Drs. John Labadie and Timothy Gates.

Master's student Ahmed Eldeiry, "Potential Contribution of Residuals for Better Prediction of Soil Salinity from Remote Sensing Data," with **Dr. Luis Garcia**.

Master's student Julia Keedy, "Hydrologic Analysis and Simulation of the Colorado River System," with Drs. Jose Salas and Darrell Fontane.

Ph.D. student **Ernesto Trujillo**, "Spatial Scaling Characteristics of Snow Depth," and "Comparison of the Spatial Organization of Snow Depth Between a Forested Environment and an Alpine Environment," with Kelly Elder of the USDA Forest Service and **Dr. Jorge Ramírez**.

Poster sessions were also featured at the three-day conference.

Departmental Donors

The Department of Civil Engineering is fortunate to have many generous alumni and friends whose contributions of time, expertise and financial support have made a significant impact on our department. We thank and recognize the 589 donors who contributed funds in 2005 which allowed us to establish new scholarships for graduate and undergraduate students, support research and our student organizations, and provide discretionary funds to allow our department to develop new initiatives. We are deeply grateful for your continued support of our students, our faculty and our programs.

One of our goals for 2006 is to continue to develop new undergraduate and graduate scholarships to offset rising expenses for our students. If you would like to make a contribution to a scholarship, please go to https: //advancing.colostate.edu/ENG/GIVE, under Gift Information choose "Select a Different Fund," then choose "Other," and enter a description of a Civil Engineering scholarship (i.e., Alumni Undergraduate Scholarship, Albertson Scholarship, Alumni Graduate Scholarship, etc.) Thank to all who have supported the department with their time and dollars.

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Lynn G. Swanson Donald B. and Patricia S. Swenson Joan C. Talvitie Renice Taranto Erik G. and Sidney Thompson Drew J. and S. K. Thwaites Eric L. Tracy Chris Turnbull-Grimes Amy Turney Calla M. Tyner Irena K. Urbonas Donna M. Vanderbilt Margaret Vanderholm Amy Walton Shu-Hua Wang Robert C. and Brenda L. Ward William N. and Elke B. Welborn Georgia H. Wiley Mildred M. Wilkinson Sandra Woods David A. and Kathryn B. Woolhiser Kenneth R. Wright Gideon Yachin Vujica and Mirjana Yevievich Norma F. Zasadzinski Alice K. Zenisek

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Details will be mailed

to alumni.

Stantec Consulting Inc. Terracon Terry Shores Homeowners Assn. Tipton & Kalmbach, Inc. Trust VIA LLC Water Supply & Drainage, LLC Gifts On Behalf **Baseline Engineering** CH2M Hill Foundation

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Alumni Participation Makes a Difference

We've had many successes in the last year. The College of Engineering's alumni participation rate (percentage of alumni who provide financial contributions, large or small, during a given year) is the highest of any college at Colorado State, with Civil Engineering's alumni participation rate leading the way. This data makes a difference in the U.S. News & World Report rankings, and is the only indicator of alumni satisfaction used in their calculations. The participation rate is also a measure often used by foundations and corporations when they review major gift proposals.

Thanks to all alumni, friends, faculty, staff, and students who have made donations to the Department of Civil Engineering and thus make it possible for us to provide a world-class education.

Mark Your Calendars 50+ Engineering Homecoming Reunion October 5-7, 2006 Engineering alumni who graduated 50+ Sat years ago are invited to a special Homecoming weekend.

Alumni News continued from page 4

Tracey Farrow, B.S. 2005 Civil Engineering, is an engineer in training at Davis Engineering Service in Pagosa Springs, Colorado. She was married in February 2006.

Ryan Fleming, B.S. 2005 Civil Engineering, is in the Environmental Water Resources Systems program at Cornell University.

Jonathan Herman, B.S. 2005 Environmental Engineering, is a 49 Fighter Wing, Civil Engineering Squadron, Environmental Flight with the U.S. Air Force.

John Kochendorfer, Ph.D. 2005 Civil Engineering, is with the Environmental Institute at the University of Massachusetts. He presented "Water Balance Controls on Vegetation Productivity Across the Climatic Gradients of the Central United States" at Hydrology Days 2006.

Craig Kopasz, B.S. 2005 Civil Engineering, is an engineer in training with PMPC Civil Engineers in Saratoga, Wyoming.

Ben Litsey, B.S. 2005 Bioresource and Agricultural Engineering, is a civil engineer with Knight Piesold in Elko, Nevada.

James B. McKelvie, B.S. 2005 Civil Engineering, is a naval officer in the Civil Engineering Corps in the United States Navy.

Karol Miodonski, B.S. 2005 Civil Engineering, is an engineer at PBS&J, Denver. He started in the transportation planning group, working on several large projects, and moved to the civil engineering site/ land development group. He reports that he was married in May 2005.

Luke Myers, B.S. 2005 Civil Engineering, is a project engineer with J.F. Sato & Associates in Littleton, California.

Aaron Ogorzlek, M.S. 2005 Civil Engineering, is a staff engineer at Vector Engineering in Grass Valley, California, working on landfill liner and cover design.

Mitchell Olson, M.S. 2005 Civil Engineering, presented "Soil Remediation Case Study: ZVI-Clay for Treatment of Tetrachloroethylene Source Zone," with **Dr. Tom Sale** at CSU's Hydrology Days 2006.

Heath Prow, B.S. 2005 Civil Engineering, is a design engineer at Interwest Consulting Group in Windsor, Colorado.

Micah Richey, B.S. 2005 Civil Engineering, is an engineer I with RJH Consultant, Inc., in Denver. His first project for the company is assisting an engineer with the design for



In a recent email,

we asked alumni to share their CSU memories of favorite professors and most vivid recollections. All of the memories received across the college have been posted at www.engr.colostate.edu/memories/. We hope you will explore the many CSU civil engineering memories. If you have memories to share, please send your submission to civil@engr.colostate.edu.

the enlargement of the Rueter-Hess dam, a large embankment dam under construction for Parker Water and Sanitation District.

Seth Samsell, B.S. 2005 Civil Engineering, is a project engineer at Aqua Engineering in Fort Collins.

Greg Snow, B.S. 2005 Civil Engineering, is a design engineer with KL&A Structural Engineering in Loveland, Colorado. He is considering graduate school in the near future.

Zach Thode, B.S. 2005 Bioresource and Agricultural Engineering, is a foreman for Hydro Construction Company Inc., in Fort Collins.

Gavin Woo, B.S. 2005 Environmental Engineering and Animal Sciences, is a water resources design engineer at V3 Companies, Ltd., in Woodridge, Illinois. His position focuses on providing hydrology and hydraulics services for clients, though much of his work is linked with the wetlands group and restoring, when possible, native ecology.

Faculty News continued from page 5

Dr. Shackelford also assumed the duties as the chair of ASCE Geo-



John van de Lindt



Chester Watson



Ted Yang

Institute's Awards Committee. This committee consists of six other G-I members from both private practice and academia. The committee's main responsibility is to solicit and evaluate nominations for ASCE's and G-I's numerous paper and personal awards, and to make recommendations to the board of directors for the Geo-Institute.

Dr. John van de Lindt will be part of a session at the structures congress, May 19, entitled "Natural Hazards-Induced Damage to Woodframe Structures" with presentations focusing on earthquake and wind effects. In January, van de Lindt gave a presentation at a meeting of ASCE's Northern Colorado Branch on the "Aftermath of Katrina."

Chester Watson is a member of the National Technical Review Committee working on long-term marsh restoration plans for the Louisiana coast. The severity of damage from Hurricanes Katrina and Rita in 2005 intensified the committee's three-year study. The independent group, which received logistical support from the National Research Council and the U.S. Army Corps of Engineers, issued its first report for use by government officials and others. Their conclusion? That reducing the rate of destruction of coastal ecosystems and repairing them would help lessen the impact of hurricane damage along Louisiana's coast. Over the years, human activity such as building levees and oil and gas exploration has decreased fresh water and sediment flow in marsh areas, reducing plant life and allowing sediment to wash away.

Chih Ted Yang and Francisco J. M. Simões of the U.S. Geological Survey presented "Applications of GSTARS Computer Models" at Hydrology Days 2006.

Engineering Career Liaison in Place

John Haines has joined the College of Engineering in the new position of career counselor and career center liaison. His responsibilities are to provide individualized guidance on all aspects of the career planning process, including career exploration, job search strategies, interview preparation, and resume writing. He also works closely with employers to expand internship and permanent employment opportunities.

"Our engineering students are incredibly talented," Haines shared, "I take great pride in helping them find the right career path." Haines is passionate about working with students. Prior to joining the College, Haines was a residence hall coordinator for the Academic Affairs Office at Colorado State. He earned both a Bachelor of Science in electrical engineering and a Master of Education from Lehigh University.



Contact John at 970-491-0716 or jhaines@engr.colostate.edu with internship or job opportunities, or to discuss our programs or future recruitment opportunities.

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