



The Department of

CIVIL

ENGINEERING



Newsletter

Fall 2004, Volume 10, No. 2

Civil Engineering • Environmental Engineering • Bioresource and Agricultural Engineering

Message from the Department Head

Colleagues, Friends and Alumni,
In the last few weeks, we welcomed our newest students to Colorado State University.



Once again, our entering freshman class, transfer students, and graduate students have excellent backgrounds and a wide range of interests and

experience. This year, however, we have the pleasure of welcoming the largest new freshman class in civil and environmental engineering in more than a decade.

We also were pleased to welcome two new faculty members in August. You can find more information about John van de Lindt and Antonio Carraro on page 4.

Our alumni, faculty and friends have been extremely generous to the Department of Civil Engineering this year. Their gifts have allowed us to add several new scholarships, complete the development of our new environmental engineering teaching laboratory, and begin the construction of a geotechnical engineering laboratory. Thanks again to all of you who have supported our department through financial gifts, gifts of time and expertise, and through the contributions that you have made to the civil engineering, environmental and agricultural engineering professions.

Sandra Woody

New Course Builds on International Development Focus

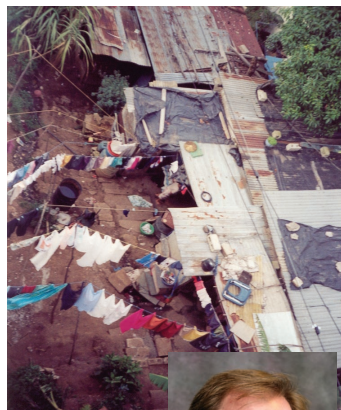
Given the Department of Civil Engineering's long history of involvement in international projects, Professor Jeff Niemann's new course – Water Engineering for International Development – is a perfect fit. The idea behind this course is to prepare civil engineering undergraduate and graduate students to design and build small-scale drinking water, irrigation, and sanitation systems that are appropriate for developing countries. The course will train students not only in the technical aspects of these systems but also in the community-based development process and cross-cultural communication.

CSU has a long history of involvement in international development including Maury Albertson's major role in the creation of the Peace Corps. Many faculty members in the civil engineering department have ongoing or recent projects overseas. This course will build on that expertise.

Niemann has organized a departmental committee to help develop the course, including Professors Tim Gates, Ramchand Oad, Terry Podmore, Brian Bledsoe, Amy Pruden, and Pepe Salas. These faculty members have diverse backgrounds in hydrology, hydraulics, and environmental engineering. For example, Tim Gates has done extensive work on irrigation projects in Egypt, and Brian Bledsoe is involved in Engineers Without Borders. The class is also supporting a teaching assistant, Peter Rogers, who is helping to develop course materials. Peter is a former Peace Corps volunteer and USAID employee in Honduras.

This fall the department will offer the in-class portion of the course for the first time. Next spring, the department hopes to offer the first field-trip experience (perhaps in the States in the first year). Ultimately the goal is that students would visit a developing country and design a basic water-supply, irrigation, or wastewater system for a community.

Niemann says of the course's possible impact on students, "We hope to encourage students to use their engineering skills in service-oriented applications. Already



Jeff Niemann

"Not only would this course give students practical experience interacting with clients and doing engineering in the field, but it would also provide them with face-to-face encounters with people who live without access to clean drinking water or safe disposal of wastewater."

– Jeff Niemann, Faoro Professor of Water Resources

many Colorado State students join organizations like the Peace Corps, but many other students feel unprepared for this type of engineering. Most civil engineering programs train students for methods that are used in the United States and Europe. This course focuses on methods that are appropriate for projects with heavy economic constraints and relatively little supporting infrastructure. We also hope to provide students with more confidence in their existing skills by using them in a coherent development-oriented framework."

Niemann adds, "Our goal is to develop partnerships with agencies that have long-term commitments to various groups of people. For example, the students might design a drinking water system for an orphanage that is operated by a non-governmental organization. Not only would this course give students practical experience interacting with clients and doing engineering in the field, but it would also provide them with face-to-face encounters with people who live without access to clean drinking water or safe disposal of wastewater."

Niemann and the course committee members are developing partnerships with local companies that have expertise in related topics. The Department is also looking for people who are interested in supporting this course financially. Most students can only participate if the cost is reduced by the University. To help support this endeavor financially, please make a gift online at <https://advancing.colostate.edu/ENG/GIVE>. Choose a gift designation of "Other" and indicate "Civil Engineering International Development Course." To offer suggestions or other assistance for the course, please contact Dr. Niemann at jniemann@engr.colostate.edu.

Colorado State University

Knowledge to Go Places

Alumni News

Oliver E. Norris, B.S. 1951 Civil Engineering, is retired and living in Houston, Texas.

At the Annual Meeting of the American Council of Engineering of Colorado, several CSU alumni were recognized. **David Frazier**, B.S. 1972 Civil Engineering, received the Committee Chair of the Year Award. Frazier is Vice President at Merrick & Company in Denver. **Eric Wilkinson**, B.S. 1973 Civil Engineering, received the 2004 General Palmer Award, given to outstanding engineers in industry. Wilkinson is the general manager of the Northern Colorado Water Conservancy District.

William O. King, B.S. 1973 Civil Engineering, is the lead mechanical engineer at S&B Engineers & Constructors, Ltd., in Houston. King has been living in Houston since 1976 and has three children and three grandchildren.

Mike Applegate, B.S. 1974 Civil Engineering, has a consulting firm, Applegate Group, Inc. The company has Denver and Loveland offices, and works in all aspects of civil engineering. Mike and his wife Chris have two daughters.

Rich Asahi, B.S. 1974 Civil Engineering, is currently on assignment as Program Manager for Washington Group International (formerly Morrison Knudsen). This five-year project is with the Department of the Navy at Pearl Harbor, Hawaii, and is a Job Order Contract for facility renovation, repair, utilities, and new construction for all naval installations in Hawaii.

Steve Bagley, B.S. 1974 Civil Engineering, is the Deputy City Engineer for the City of Greeley. He has worked in the Public Works Department since 1984. Steve is the NSPE National Vice President for the Professional Engineers in Government (PEG) Practice Division.

Rich Brenner, B.S. 1974 Civil Engineering, has been working for U.S. Sublimation which sells a ink dying process. The company recently sold, and he is looking for his next opportunity. Rich and Kathy have two children, a daughter and a son.

Robert Cardenas, B.S. 1974, M.S. 1979 Civil Engineering, is living in Framingham, Massachusetts, and works for Foster-Miller, Inc.. Foster

Miller's core business is Research and Development for the Department of Defense.

Clement Dang, B.S. 1974, M.S. 1976 Civil Engineering, works for the Department of Navy at Pearl Harbor. He moved from taking care of waste water treatment to blowing up bombs on the largest UXO clearance project in the world at the Hawaiian island of Kaho'olawe.

Janet Ingles Tsuchiya, B.S. 1974 Civil Engineering, lives in the California Bay area. Janet has two daughters and has been learning to teach English as a second language.

Ed Jones, B.S. 1974 Civil Engineering, is Executive Vice President of a natural gas exploration, development and production company in Texas, Aurora Gas, LLC. The company is focused on development in the Cook Inlet Basin of Alaska.

Mike Munekiyo, B.S. 1974 Civil Engineering, and a business partner own a 10-person consulting company, Munekiyo & Hiraga, Inc. They do land use feasibility, regulatory permitting and community relations work. Mike, his wife Lori, and their two daughters live in Wailuku, Hawaii.

Steve Nikkel, B.S. 1974 Civil Engineering, is the Plant Manager for Vulcan Chemical in Wichita. Steve and wife Kris have a daughter and son, and a new grandson.

Russ Noblett, B.S. 1974 Civil Engineering, retired from Colorado Interstate Gas and has three daughters. He is currently involved in vintage car racing and has recently acquired a 1959 Austin Healy Bugeye Sprite race car.

Jim Pankonin, B.S. 1974 Civil Engineering, lives in the Denver area and is Engineering Division Manager for Arapahoe County.

Doug Perks, B.S. 1974 Civil Engineering, is chairman of the board and chief executive officer of Eclipse Inc., a worldwide manufacturer of products and systems for industrial heating and drying applications. He is also the director for three not-for-profit associations and owner of Perks Ranch.

Wayne Preskar, B.S. 1974 Civil Engineering, is working for the New Mexico Department of Transportation.

Walt Trimmer, B.S. 1974 and

M.S. 1975 Civil Engineering, Ph.D. 1984 Agricultural Engineering, developed a product called the Weir Tracker (flow volume integrator) and a venturi meter for irrigation pipelines. He still makes the products and also does consulting work on irrigation systems, electronic water monitoring systems, as well as water rights and other civil engineering work.

Jerson Kelman, Ph.D. 1976 Civil Engineering, Director President of National Water Agency of Brazil, was a Monfort Professor-In-Residence in March 2004 at Colorado State. During his visit to the University he also delivered a Borland Lecture on Applied Stochastic Hydrology at the 24th Annual Hydrology Days.

Van E. Komurka, M.S. 1985 Civil Engineering, was recently named treasurer for the Wisconsin section of the American Society of Civil Engineers for 2004. He currently works in Cedarburg, Wisconsin, at Wagner Komurka Geotechnical Group, Inc., of which he is one of the founders.

Luc Janin, Ph.D. 1986 Civil Engineering, can identify with CSU's "Knowledge to Go Places" motto. Janin left Colorado State with a job offer from the Scripps Institute of Oceanography to work on Ocean-Atmosphere interac-

tions, but in early 1987 family health issues took him back to France. He then joined a European management consultancy firm, based in Paris, to work on a future fighter-aircraft project, for what he thought would be a six month assignment before returning to Scripps; against all odds he stayed there to get involved in Strategy



Jerson Kelman with Professor Darrell Fontane and Emeritus Professor Hubert Morel-Seytoux during Hydrology Days in March.

consulting, and become the Director of Innovation and Strategic Marketing. At the end of 1998, he accepted a position in the French office of PDI, a global leader in helping multinationals



Luc Janin

improve their performance and achieve strategic results through people. He took over their Strategic Performance Modeling practice area for Europe. A year later they asked him to take over the French activities as Managing Director; and in 2002, nominated him Vice

CSU's Civil and Environmental Engineering Graduate Programs — Among America's Best

Both Colorado State's Civil and Environmental Engineering programs appeared in the *U.S. News and World Report* America's Best Graduate Schools 2005. The Civil Engineering program consistently ranks among the best in the U.S. and was ranked 28th in the Nation and 17th among public institutions. The Environmental Engineering program was listed as 30th in the nation and first in Colorado. Of all public schools, the program ranked 19th in the nation. Of all Western states, Colorado State's Environmental Engineering program ranked 6th.

Dr. Sandra Woods, environmental engineering professor and head of Civil Engineering stated, "Our rankings reflect the strength of our civil engineering program as well as the growth of a strong environmental program with active research and dedicated, extraordinary faculty."

Alumni: We want to hear your news!

E-mail us at civil@engr.colostate.edu with your recent promotions, honors, publications, research, speaking engagements, and photos, so we can keep your classmates informed about important changes in your life.

President, Deputy Managing Director for Europe, Middle East and Africa (EMEA) thus responsible for co-leading the effort to develop the EMEA market. As a consultant, Janin leads large PDI assignments, helping clients define competencies that support future strategies. When not working abroad, he lives in Paris with his wife Pat, and their two sons.

Cindy Paulson, M.S. 1987 Civil Engineering, is Brown and Caldwell National Practice leader in water resources. Brown and Caldwell is a leading national consulting firm in water and environmental engineering. Congratulations, Cindy, on your fine professional achievements.

Paul Fischer, B.S. 1988 Civil Engineering, Associate Vice President at Burns & McDonnell, received the George Warren Fuller Award, given annually by the American Water Works Association to individuals who have provided outstanding leadership, displayed sound engineering skill and made a significant contribution toward the advancement of the water works practice within the association.

Luiz Gabriel T. de Azevedo, M.S. 1990, Ph.D. 1994 Civil Engineering, has been appointed as a faculty affiliate member in the Department of Civil Engineering at Colorado State University. He will be

working with Dr. Darrell Fontane and other Water Resources Planning and Management faculty. Dr. Azevedo is a Brazil Country Sector Leader in the Environmentally and Socially Sustainable Development Department with the World Bank.

Kathy Fitzpatrick Mercure, B.S. 1991 Civil Engineering, has received a promotion to Commander, Indian Health Service and Deputy Director of the Aberdeen, South Dakota area with direct responsibility for construction and maintenance of all



Alumni Focus: David Parisi, B.S. 1985, Civil Engineering

Since the fall of 2000, David Parisi has seen an unexpected area of growth in his transportation consulting business. It was then he became a volunteer in the Safe Routes to School Program in Marin County, California. Safe Routes brings together parents, schools, city officials, law enforcement officers, and community members in a program that promotes walking and bicycling to school, and addresses safety concerns by encouraging enforcement of traffic laws, and exploring ways to create safer streets. Parisi now spends about a quarter of his time on Safe Routes and the remainder of his time in the core of his transportation business: multi-modal corridor planning, main street design, and traffic calming programs.

Parisi's role as Safe Routes to School consulting engineer is typically as a "broker" between communities and cities. He helps to define the problems and come up with pragmatic solutions to remove barriers that prevent children from walking or bicycling to school. These solutions may be as simple as installing high visibility crosswalks or they may involve more significant investments such as new pathways.

"The most surprising aspect of being involved in the program is how fun and fulfilling it is. This is the project that I talk about at home," says Parisi. The Marin County program, which started as a pilot program funded by the National Highway Traffic Safety Administration (NHTSA) with a couple of schools has grown to 35 schools. They have seen a 64% increase in number of children walking to school, a 114% increase in biking, a 91% increase in carpooling, and a 39% decrease in number of children arriving by car carrying only one student. Lately, Parisi has been helping other communities starting programs – New Orleans, Atlanta, Kansas City, and Tucson to name a few. He is also the president of the 650-member Institute of Transportation Engineers section in the San Francisco Bay Area and is leading the development of a School Safety Guidebook.

To find out how to start a Safe Routes to Schools program in your community, the Safe Routes Toolkit (published by the NHTSA and based on the Marin program) and other useful information can be found at www.saferoutestoschools.org.



Colorado State University, University of Colorado and Colorado School of Mines are proud to present

Dr. Bruce E. Rittmann

2004 AEESP Distinguished Lecturer

"The Role of Molecular Methods in Environmental Biotechnology"

Thursday, October 14

10:00 a.m.

Cherokee Park Room, Lory Student Center
Colorado State University

Dr. Rittmann is the John Evans Professor of Environmental Engineering in the Department of Civil and Environmental Engineering at Northwestern University. He was awarded the first Clarke Prize for Outstanding Achievements in Water Science and Technology from the National Water Research Institute, and he is on the List of Most Highly Cited Researchers of the Institute for Scientific Information (ISI).

This lecture is free and open to the public.

reservation hospitals and professional staff quarters. Kathy resides in Aberdeen with sons Sam and Jordan.

Kaan Sevincli, M.S. 1992 Civil Engineering, has been working on the revamping of the Sulfuric Acid Plant on the South Coast of the Marmara Sea in Turkey (*see photo above left*). Sevincli serves as the construction site manager. The scope of the project consists of the dismantling of some 3,850 tons of equipment, erecting 1,000 tons of equipment, installing 215 tons of air and gas ducts, and completing piping and insulation.

Mark Gemperline, Ph.D. 1994 Civil Engineering, continues to work for the Department of the Interior Bureau of Reclamation in the Technical Service Center of the Geotechni-

cal Services Division, Earth Science and Laboratory Group. He also does private contracting for independent clients and is planning to start a business when he retires in the future.

Dr. David Williams, Ph.D. 1995 Civil Engineering, is the National Director of Hydraulics and Hydrology at HDR in San Diego.

Peter Molnar, M.S. 1996, Ph.D. 2001 Civil Engineering, made a visit to Colorado State in July to start up a project, "Floodplain Vegetation Dynamics Under Water Stress," funded by the Swiss National Science Foundation. Molnar works for the Swiss Federal Institute of Technology at the Institute of Hydromechanics and Water Resources Management.

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Faculty News



Brian Bledsoe

A multi-discipline Colorado State University research team was recently awarded a \$900,000 Environmental Protection Agency grant to develop watershed classifications schemes that will help further science-based guidelines to protect the ecological quality of the nation's waters. Biology associate professor and lead investigator LeRoy Poff, along with assistant professor of civil engineering **Brian Bledsoe**, associate professor of civil engineering **Jorge Ramírez** and professor of geospatial science Denis Dean, are focusing on an investigation of how factors including chemical pollution, local habitat, land use and aquatic life work to determine stream health. The team will also research how reduced streamflows influence sedimentation buildup and the resulting impacts on biological quality.

The 2004 George T. Abell Outstanding Faculty Teaching and Service Award was presented to **Professor Darrell Fontane**. Dr. Fontane is the director of the International School for Water Resources and Associate Department Head. Dr. Fontane's research interests include water resources decision support systems, water resources simulation and optimization models, and internet-based education. As director of the International School, he is responsible for organizing and administering special, non-degree training for international engineers in various aspects of water resources engineering. Dr. Fontane has conducted water resources training in eight countries.

Dr. Timothy K. Gates' research was featured in the February 22, 2004 issue of the *Pueblo Chieftain* as part of a series of articles. The article, "Salty Waters," describes Gates' research at CSU as "at the cutting edge of



Tim Gates

understanding how salinity undermines agriculture in the valley." His research examines ways that better irrigation efficiency, canal lining, subsurface drains, groundwater pumping patterns and change in river flows can reduce salinity.

Professor Pierre Julien has been invited to be the keynote speaker for Rivers '04 – 1st International Conference on Managing Rivers in the 21st Century: Issues and Challenges. The conference will be held in September in Penang, Malaysia.

Colombia is taking a new approach to integrated management of its water resources, with a lead role for its new Ministry of Environment, Housing, and Territorial Development. With World Bank support, Colombia asked CSU to help develop a legal framework for the integrated management of water. A team led by **Neil Grigg** will deliver recommendations to guide the introduction of the new law into Colombia's Congress this fall. **Darrell Fontane**, **Larry Roesner**, and **José Salas** are also participating, along with an attorney and two economists from other Colorado universities.



Neil Grigg

Retired Professor and former director of Colorado State University's Solar Energy Application Laboratory, **George Löf**, was featured in a July 12 *Denver Post* article. The article discusses Löf's work in solar energy at Colorado State and in his own home.

Dr. Jeffrey Niemann's research project, "Scaling Properties & Spatial Interpolation of Soil Moisture," is associated with the Presidential Early Career Award for Scientists and Engineers that he was awarded in



Jeff Niemann

2002. The objective of the project is to understand the statistical properties of soil moisture patterns when viewed at different resolutions. In particular, the

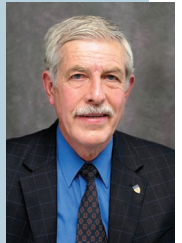
team is working closely with a team of Colombian specialists representing water use, water quality, coastal water management, and environmental sustainability.

Marvin Criswell Elected ASEE Fellow

Marvin Criswell, professor and associate department head, was elected a Fellow of the American Society for Engineering Education (ASEE). The fellow grade of membership is conferred in recognition of outstanding contributions to engineering or engineering technology education upon an active member of ASEE who has been a member for at least 10 years.

Criswell was honored during a Banquet at the ASEE Annual Conference in Salt Lake City, June 23, 2004.

Dr. Criswell has been teaching at Colorado State University since 1970 and has received numerous awards, including the College of Engineering Faculty Award for Excellence, the Jack E. Cermak Advising Award, the Alumni Association Distinguished Faculty Award, and two Abell Faculty Teaching Awards. He is also a Fellow of the American Society of Civil Engineers.



Marvin Criswell

New Faculty Join the Department

The Civil Engineering Department welcomes two new faculty starting Fall 2004 semester.



Dr. John W. van de Lindt has joined the Department of Civil Engineering as an associate professor in our structural engineering program. He earned his B.S. in civil engineering from California State University at Sacramento and both his M.S. and Ph.D., in 1995 and 1999 respectively, in civil engineering from Texas A&M University. His experience includes service as an assistant professor in the Department of Civil and Environmental Engineering at Michigan Technological University. His research interests include nonlinear dynamics, structural reliability, and woodframe structures subjected to seismic and wind loads. He currently chairs the ASCE Committee on the Reliability-Based Design of Wood Structures.



Dr. J. Antonio H. Carraro is a new assistant professor in our geotechnical engineering program. He earned both his B.S. and M.S. in civil engineering from Universidade Federal do Rio Grande do Sul in Brazil in 1994 and 1997, respectively, and his Ph.D. in civil engineering from Purdue University in 2004. Dr. Carraro has served as a consultant for the Department of Public Works in Porto Alegre, Brazil, and has extensive experience on laboratory testing of geo-materials. He is a member of the International Society for Soil Mechanics and Geotechnical Engineering, the American Society of Civil Engineers, and the Earthquake Engineering Research Institute. His research interests include experimental geotechnics, saturated and unsaturated soil behavior, earthquake geotechnical engineering, beneficial use of waste materials, and foundation engineering.

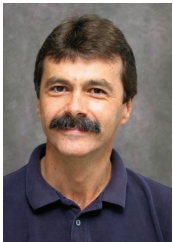
project aims to understand the influence of topography on those patterns. Ultimately, tools will be produced to estimate detailed soil moisture patterns from sparse or low-resolution

measurements of soil moisture and topography. These tools would help the army to assess vehicle and troop mobility in combat and manage training lands in a sustainable manner.

Emeritus Professor Daryl Simons received the 2004 George T. Abell Meritorious Emeritus Faculty Award. Dr. Simons served as a faculty member for the Department of Civil Engineering at Colorado State from 1963 to 1988. He is widely recognized for his research and experience in the fields of hydraulics, hydrology, river mechanics, sediment transport, hydraulic modeling, and hydraulic structure design. While Dr. Simons made extraordinary contributions as a faculty member, the award also reflects his service to the College and the Department since his retirement.



The Environmental and Water Resources Institute Hydraulics and Waterways Council selected **Jorge Ramírez**, alumni **Fritz R. Fiedler**, alumni **Gary W. Frasier**, and advisory board member **Lajpat Ahuja** to receive the ASCE Journal of Hydrologic Engineering Best Paper Award. The award-winning paper, "Hydrologic Response of Grasslands: Effects of Grazing, Interactive Infiltration, and Scale," was published in July/August 2002.



Jorge Ramirez

The award-winning paper, "Hydrologic Response of Grasslands: Effects of Grazing, Interactive Infiltration, and Scale," was published in July/August 2002.



Larry Roesner, Harold H. Short Professor of Civil Infrastructure Systems, was recently awarded two research contracts by the Water Environment Research Foundation.



Larry Roesner

One project will develop Protocols for Studying Wet Weather (Ecologic) Impacts of Urbanization Patterns. This two-year study will develop protocols in the first year, then test them through application to several rivers in the second year. The second project will examine the Long Term Impacts on Landscape Irrigation Using Household Graywater. This study is a joint effort between the Department of Civil Engineering and the Department of Horticulture and Landscape Architecture.

Dr. Tom Sale was featured in the January 30, 2004 issue of *The Coloradoan*. The article reported the annual

gathering of the Colorado Water Congress. Sale presented information about water and geology.

Dr. Chris Thornton, acting director of the Engineering Research Center, and **Michael Robison**, research scholar, have been immortalized in the image at left. Both are enjoying their new jobs as fathers!

Dr. Chih Ted Yang was awarded the Meritorious Service Award of the Department of the Interior for his outstanding contributions in the fields of hydraulics and

sedimentation for Reclamation. Yang served as manager of the Sedimentation and River Hydraulics Group of Reclamation's Technical Service Center from 1994 until his retirement in January 2004. He now serves as Borland Professor of Water Resources and Director of the Hydrosience and Training Center at Colorado State.



Ted Yang

Mark Your Calendars

College of Engineering Dinner & Dance

Saturday, April 16, 2005

Lory Student Center



This event will recognize engineering alumni who have significantly impacted the college, CSU, and our society with special awards. For more information regarding nominations for alumni awards, please visit <http://www.engr.colostate.edu/Development/daap/>.

Julien Receives Hans Albert Einstein Award

Professor Pierre Julien received the Hans Albert Einstein Award. This national award is given annually to an individual who has made significant contributions to the engineering profession in the areas of erosion control, sedimentation and/or waterway development in teaching, research, planning, design, or management. The award was presented at the World Water and Environmental Congress 2004 in Salt Lake City.

Dr. Julien has more than 20 years of experience in the field of sediment transport and river engineering. His areas of expertise include river mechanics, erosion and sedimentation, hydraulics, geosciences, and surface hydrology. He has authored more than 225 scientific publications including two textbooks and at least 50 refereed journal publications. Under his guidance, 25 Ph.D. and 22 M.S. students have completed their graduate degrees in Civil Engineering. He is a member of 12 professional organizations and has done research for more than 20 professional organizations and governmental agencies.

Julien is the fourth Colorado State civil engineering faculty member to receive this annual award since it was first presented in 1990 to Professor Emeritus **Hsieh-Wen Shen**. It was also awarded to Professor Emeritus **Everett V. Richardson** in 1996 and Borland Professor of Water Resources **Chih Ted Yang** in 1999. **Baum K. Lee**, M.S. 1969, Ph.D. 1973 Civil Engineering, also received the Einstein Award in 2002.



In Memoriam: Herman J. Koloseus



We sadly report the passing of Emeritus Professor Herman J. Koloseus, known as "Ike" to most at Colorado State. Dr. Koloseus taught undergraduate and graduate courses in open channel hydraulics and flow measurement from 1962 - 1990.

Emeritus Professor David Hendricks reflected, "I first heard of Professor Koloseus when I was a graduate student at the University of Iowa. Professor Hunter Rouse had mentioned Ike's name with regard to his research while teaching 'Elementary Fluid

Mechanics.' Ike then gave several seminars, coming from off-campus. It was more than a casual matter to be invited by Rouse to give a seminar. Later, after joining the CSU faculty in 1970, I got to know Ike as a dedicated teacher. He was always a gentleman and was always considerate. Ike added to our faculty as one who helped the department function in many essential ways, most of which were probably below the level of receiving accolades. I always viewed him as one who helped to give our Civil Engineering faculty its stature. I'll miss Ike as I'm sure is the feeling among all his colleagues and friends."

Faculty Focus: Bogusz Bienkiewicz

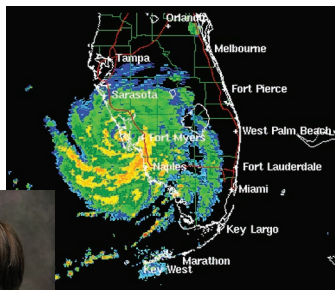
Wind Hazards Reduction: Efforts Towards Establishment of National Program

Landfall of Hurricane Charley (at right) reminded all of us about potential severity of impacts of strong winds on urban and natural environments. Statistics show that wind hazards—hurricanes, tornadoes, thunderstorms and associated phenomena—cause an unacceptable level of property losses and human suffering in the United States. The average annual financial loss due to these hazards is \$6.3 billion. Damage due to Hurricane Charley is expected to significantly exceed this amount. It has been estimated that a single large hurricane could cause losses far in excess of the \$26.5 billion attributed to Hurricane Andrew in 1992.

Professor Bogusz Bienkiewicz has focused some of his research and outreach activities on the above issue and on ways to reduce devastating effects of winds. His research efforts included physical modeling carried



Bogusz Bienkiewicz



out at the Wind Engineering and Fluids Laboratory (www.windlab.colostate.edu), analytical studies, computer simulations, and field investigations of wind damage to buildings and structures.

In addition, Professor Bienkiewicz has been actively involved in national outreach activities, which he has carried out as President of the American Association for Wind Engineering (AAWE, www.aawe.org). As a Chair of the AAWE Research and Outreach Committee, he was instrumental in the development of the report entitled “Wind Engineering and Outreach Plan to Reduce Losses due

to Wind Hazards,” available at www.aawe.org. This report presents an overview of the problem of wind hazards in the U.S. and proposes establishment of and a structure for a federally funded national wind hazards mitigation program. This report was subsequently submitted to Congress during Dr. Bienkiewicz’s testimony before the Science Committee of the U.S. House Representatives, held in February 2004.

In parallel to the above activities, Dr. Bienkiewicz has been actively involved (on behalf of AAWE and Colorado State) in initiatives of the Wind Hazards Reduction Coalition (www.windhazards.org) established by ASCE in support of activities of the Wind Hazards Reduction Caucus, formed in the U.S. House. The Coalition assisted Congressional staff in the development of a Congressional Bill (H.R. 3980) calling for establishment of the federally funded research and outreach program focused on

Annualized Loss due to U.S. Natural Hazards

Hazard	Annualized Loss (\$ Billion)
Hurricanes	5.0
Winter Storms	0.3
Tornadoes	1.0
Total Wind	6.3
Floods	3.0
Hail	0.7
Extreme Heat	0.1
Extreme Cold	0.5
Total All Weather	10.6
Wildfires	2.0
Earthquakes	4.4

mitigation of wind losses. Following Congressional testimonies, held this spring, the Bill was overwhelmingly passed by the House and was sent to the Senate, where it is expected to be acted upon early this Fall. Enactment of this program is expected to have direct impact on wind engineering and related research, as well as support for graduate and undergraduate students, in the Civil Engineering Department and in other units at Colorado State.

Robert Meroney Establishes Civil Engineering Scholarship

During his retirement celebration in April, Dr. Robert Meroney announced his plan to establish a civil engineering scholarship. Since that evening he and his wife Joan have established and endowed the Bob and Joan Meroney Scholarship.

“It gives my wife, Joan, and I great pleasure to give back to future students a token of the joy and satisfaction we received during association with our many fine Civil Engineering graduates from so many different countries. It has been their creativity and commitment that has made mentoring and teaching so satisfying during our years at Colorado State University.”

It is fitting that Dr. Meroney would build a legacy for future Colorado State University civil engineering students. He has completed more than 40 years at Colorado State including time spent as Chairman of the Engineering Science Program, Program Leader in Fluid Mechanics and Wind Engineering, Director of the Hydraulics and Wind Engineering Division, and Director of the Wind Engineering and Fluids Laboratory. His teaching and research

has focused on the disciplines of fluid mechanics and wind engineering.

Dr. Meroney’s achievements in teaching are illustrated by many awards, including the 1984 CSU Abell Research Award for Excellence in Professionalism, Education, Research, and Service to students; the 1988 Dean’s Council Award for Engineering Science for his service to the program as advisor and chairman; and the 1990 Dean’s Council Award for Civil Engineering for his service to the department in laboratory development, education and research. He and his wife, Joan, were also appointed Danforth Associates in 1969 for recognition of good teaching and attempts to personalize the educational process. Four of Dr. Meroney’s students have won regional awards in student paper contests. In 1990 Dr. Meroney’s graduate student, Dr. Ted Yamada, was awarded the CSU Distinguished Service Award for his accomplishments in Wind Engineering, and in 2001, Dr. David Banks, was awarded the Richard Scanlan Award for best Ph.D. dissertation in Wind Engineering written in the last five years.



Dr. Robert Meroney celebrated his retirement with family, friends, and former students in April 2004. Pictured above are (clockwise) Bob, his wife Joan, their son Brett Meroney, brother David Meroney, son-in-law David Catalfamo, daughter Donna Catalfamo with granddaughter Teagan Ashley.

Student News

The McNair Scholars Program included several Civil Engineering students in the summer program. Each student is paired with a faculty mentor with similar research interests. Students engage in research projects for nine weeks, completing a literature review, research proposal, research study, research paper, and a research presentation. Senior **Minh-Chau Le** worked with **Dr. Marvin Criswell**. Her paper, entitled "Bridge Design Aid for Estimating Dead and Live Load Bent Reactions to Determine Initial Soil Parameters for Use in Sizing Foundation Elements," addressed the information gap in the soil-structure interaction process that takes place between bridge engineers and geotechnical engineers at the Colorado Department of Transportation. Junior **Fletcher McKenzie**, mentored by **Dr. Luis Garcia** and Research Associate **David Patterson**, completed his research project, "Improving Irrigation System Efficiency in the Middle Rio Grande Conservancy District." The purpose of his research is to reduce irrigation diversions from the

Rio Grande River in the Middle Rio Grande Conservancy District in New Mexico. **Dr. Richard Gutkowski**

and masters student **Travis Burgers** were mentors for Bowie State University student, Charles Manu. Manu's

research studied "The Effects of High Temperature and Humidity on Rail Road Timber Spans."

Colorado State's ASCE Student Chapter Hosts Conference

The Rocky Mountain Regional American Society of Civil Engineers Student Conference was held April 1-3, 2004 at CSU. Three hundred students from 13 schools in five states attended the conference. Many of the students also entered the American Institute of Steel Construction (AISC) Student Steel Bridge Competition and the Master Builders Concrete Canoe Competition held in conjunction with the conference.

"The competitions are a prime motivator for students to be involved," said Marilee Rowe, coordinator for the conference. This year, approximately 20 CSU engineering students, freshmen to seniors, worked on the bridge design and 30 worked on the canoe.

For the Steel Bridge Competition, bridge design teams must meet strict guidelines. Teams are judged on their design, blueprint and oral presentation, as well as construction speed, lightness, aesthetics, stiffness,



construction economy, structural efficiency, and performance. The overall winner of the steel bridge competition was Utah State University. Colorado State's bridge was unable to carry the required weight and collapsed, ending the team's dream of winning the competition two years in a row.

To compete in the competition, canoe teams made an oral presentation and discussed their design process in a written report. Canoes are also judged on aesthetics, endurance, and buoyancy. The canoes took to the water on a cold, cloudy April day at City Park's Sheldon Lake. Endurance and sprint races were held, with competitions in men's, women's, and co-ed divisions. Boats came in all colors and sizes. Some rode low in the water, others were so high they capsized. Some went straight while others tacked back and forth. The overall winner was New Mexico State University. Colorado State finished third.



Spring 2004 Commencement

Front row (left to right): Melissa Hinman (CE), Alana Knudsen (CE), Sally Cook (CE), Charles Schuler (CE), Joel Dagnillo (CE), Eric Lombardi (CE), Zachary Humbles (CE), Jonathan Tague (CE), Benjamin Morse (CE), Linda Vandamme (CE), Marcus Kim (CE), Andrew Amend (CE), David Varyu (CE), Ryan Banning (CE), Sarah Henderson (BAE), Richard Mulledy (CE). **Middle row:** Todd Lyon (CE), Jennifer Regel (CE), Ryan Espoy (CE), Matthew Simpson (CE), Austin Malotte (CE), Bill Sanders (CE), Hayden Strickland (CE), Ryan Steinbrenner (CE), Michael Peel (BAE), Victor Barchers (CE), Matthew Weisbrod (CE), Joel Borst (CE), Russell Erskine (CE), Chris Lehrman (CE), Lindsay Chalfant (CE), Brady McDaniel (CE), Michelle Wedell (CE), Shane Clark (CE), Erica Spencer (CE), Lindsey Skolness (CE), Lucas Babbitt (CE), Henrik Forsling (CE), Tanner Randall (CE), David Facuse (CE). **Back Row:** Jesse Swann (CE), Nicholas Miller (CE), Kevin Jennings (CE), Dr. Darrell Fontane, Dr. Terry Podmore, Dr. José Salas, Dr. Amy Pruden, Garrett Bales (CE), Dr. Johannes Gessler, Dr. Marvin Criswell, Dr. Tom Sanders, Dr. Ramchand Oad, Clint Green (CE), Adam Boese (CE), Brent Good (CE), Laurie Howard, Brannan Davis (ENV), Rob Jackson (ENV), Dr. Jim Loftis, Dr. Sandra Woods.

James Prelog, B.S. 1998 Civil Engineering, is working for Nolte Associates, Inc., in Fort Collins.

Capt. Rockie K. Wilson, B.S. 1998 Civil Engineering, was recognized as one of 57 "New Faces of Engineering." Wilson is an engineering flight commander for the 374th Civil Engineer Squadron at Yokota Air Base, Japan. Wilson has played an instrumental role in several important projects, including leading a 45-person team on a \$130M annual construction program and a \$647M host-nation funded program, managing a \$260M program to replace four maintenance hangars via host-nation construction funding that helped transform the flight line, and working on a \$66M overlay of the primary runway, ensuring Yokota's operational mission for years to come. He was also named to the 2002 Army Corps of Engineers Project Delivery Team of the Year.

Grant Bennett, B.S. 2000 Civil Engineering, is an engineer working for Matrix Design Group, Inc., in Denver. The company is working on the redevelopment of the former Stapleton International Airport, with client Forest City Enterprises. Matrix's work there includes overlot grading, roadway, water, sewer and storm drainage designs, along with environmental investigation and assessment reports. The site is currently the largest urban infill site in the country, and is a 5000+ acre airport infill in the middle of Denver. The redevelopment plan calls for mixed residential, commercial, and industrial uses. There are currently hundreds of homes already constructed, along

with numerous parks and commercial centers. Grant works on utility designs for sewer and water systems, as well as storm drainage planning.

Stephen Osgood, M.S. 2000 Civil Engineering, is working at MWH's Sacramento office in its water resources planning group. He works on flood control planning for USACE, surface water storage planning for USBR, and groundwater storage planning for a local water agency.

Chance Bitner, B.S. 2001, M.S. 2003 Civil Engineering, is working at the Kansas City District of the U.S. Army Corps of Engineers in the River Engineering and Restoration Unit. He has been building shallow water habitat for the Palid Sturgeon (an endangered species) along the Missouri River. The unit also maintains a navigation channel along the river. Bitner says the river is big and dynamic, so it's interesting work, and he enjoys getting paid to play in the mud.

Kevin Kerber, B.S. 2001 Civil Engineering, is a project manager for Tensar Earth Technologies in Westminster, Colorado. He is in the Mechanically Stabilized Earth Systems Wall department and will provide project management services to projects primarily in Colorado and throughout the western United States.

Michael Singleton, B.S. 2001 Civil Engineering, is a Lieutenant Junior Grade in the Civil Engineer Corps in the US Navy. He recently took over as Staff Civil Engineer at Fleet Industrial Supply Center, Pearl Harbor, Hawaii.

Sean McAtee, B.S. 2002 Civil Engineering, is working for LSA

Associates, Inc. in Fort Collins.

Matt Garcia, M.S. 2003 Civil Engineering, is a Research Associate with the Goddard Earth Science and Technology (GEST) Center, contracted to NASA's Hydrological Sciences Branch at the Goddard Space Flight Center in Greenbelt Maryland. He is working for NASA on global and detailed modeling projects that take into account surface and satellite observations in order to improve weather and climate forecasts. His specialization involves surface hydrology and some aspects of medium-scale weather systems, writing code and verifying results, organizing and creating new data sets, and automating some routine data transfer procedures.

Boosik Kang, Ph.D. 2003 Civil Engineering, is a principal researcher in the Hydro-Systems Engineering Center of KOWACO, Korea Water Resources Corporation.

John TeBockhorst, B.S. 2003 Civil Engineering, is a structural engineer with Merrick and Company in Aurora, Colorado.

Andrew Amend, B.S. 2004 Civil Engineering, is an Engineering Intern at G.C. Wallace, Inc., in Las Vegas.

Joel Borst, B.S. 2004 Civil Engineering, has a civil engineer position with Applied Research Associates, Inc. in South Royalton, Vermont.

Linsey Chalfant, B.S. 2004 Civil Engineering, is a Design Engineer at S. A. Miro, Inc. in Fort Collins.

Russell P. Erskine, B.S. 2004 Civil Engineering, has taken a civil engineering position at Halff Associates, Inc., in Dallas Texas.

Jennie Hudson, B.S. 2004 Civil

Engineering, is pursuing her master's degree in Civil Engineering at CSU.

Jay Jefferies, B.S. 2004, Civil Engineering, is a Water E.I.T. at HDR Alaska, Inc., in Anchorage.

Christopher Lehrman, B.S. 2004 Civil Engineering, is a civil engineer at Schmueser Gordon Meyer, Inc., in Glenwood Springs, Colorado.

Todd Lyon, B.S. 2004 Civil Engineering, is doing drainage analysis of proposed sites and other land development work with Carroll & Lange Inc. in Lakewood, Colorado. He was also married in June.

Brady McDaniel, B.S. 2004 Civil Engineering, is pursuing his master's degree in environmental hydraulics at the University of Iowa. He is a graduate research assistant at IIHR-Hydroscience & Engineering.

Ryan Meisel, B.S. 2004 Civil Engineering, is working for J.F. Sato & Associates as an entry level civil engineer in Littleton, Colorado.

Charles Schuler, B.S. 2004 Civil Engineering, is working for Tricor Engineering in Lenexa, Kansas.

Ryan Kevin Steinbrenner, B.S. 2004 Civil Engineering, is an engineer with the Wyoming Department of Transportation.

Jesse K. Swann, B.S. 2004 Civil Engineering, is working for JR Engineering in Greenwood Village.

Jonathan Tague, B.S. 2004 Civil Engineering, is an Engineering Assistant with the Alaska Department of Transportation.

Alex Vimont, B.S. 2004 Civil Engineering, worked the summer in stucco and plans to start his engineering career in the fall.

Alumni & Friends: visit us on the web at <http://www.engr.colostate.edu/ce/>



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