# UNIX Civil Engineering Newsletter

Issue 5

Fall 2015

## Message from the Chair



Fall 2015, two new faculty members, Dr. Fernando Moreau and Mr. Michael Gonzalez, joined the department. Our research profile continues to grow with

anticipated annual expenditures to exceed \$6.0M by July 2016. Our environmental and water group received a new NSF grant to investigate wastewater and agriculture along with an EPA

Award to serve as the finance center in the southwest. Dr. Mark Stone and I were awarded an NSF workshop on resilient infrastructure for December 2015 in Egypt. Our 2nd annual BIM summit in September was a great success with 150 attendees. Finally, UNM'S Design Build team from CE and Architecture and Planning won the First Place National Award of the Design-Build Institute of America Competition in November in Denver with 31 universities.

Mahmoud Taha, Professor & Chair mrtaha@unm.edu

#### New Grants Awarded from EPA and NSF

The Center for Water and the Environment (CWE), a UNM research center

focused in Civil Engineering, received two significant new grants. In August 2015, the EPA awarded a 6-year grant with a potential value of \$4.8M to the Southwest Environmental Finance Center (EFC), which is part of the CWE, to serve as the sole EFC for the EPA Region 6 states of New Mexico, Texas, Arkansas,

Louisiana, and Oklahoma. The Southwest EFC will use this funding to assist municipal and tribal drinking water utilities throughout the U.S. with the devel-



opment of managerial, financial, and technical capabili-

ties to help them maintain compliance with Safe Drinking Water Act regulations. Professors Gonzalez-Pinzon and Schuler also received new funding of almost \$300K from the National Science Foundation as a supplement to the CWE's

existing grant from the NSF CREST program. The research will explore how

### **School of Engineering Honors CE Distinguished Alumni**

Two of our graduates, Dr. J. Charles Jennett and Antonio E. Jaramillo, were honored at the School of Engineering **Distinguished Alumni** Award event on October 15th. Dr. Jennett received his PhD in CE in 1969 and was most re-

cently Interim Dean of Virginia Commonwealth University. Mr. Jaramillo received his BS in CE in 2000 and was honored with the Young Alumni Award. He is NMDOT Program Management Division Director overseeing a \$300M budget.



to expand the supply of water to agriculture through

wastewater recycling and improve management decisions between utilities operating wastewater treatment plants and water conservancy districts in arid regions.



#### Upcoming Events:

- NSF US-Egypt Workshop "Toward Resilient and Sustainable Infrastructure Development at the New Suez Canal Region December 19–20, 2015 Cairo, Egypt
- 53rd Annual Paving & Transportation Conference January 4–5, 2016 Albuquerque, NM
- ASCE Rocky Mountain Student Conference March 31–April 2, 2016 Denver, CO





A civil engineering design should strive to be resilient; what does that mean? CE graduate students will try to answer that question through a special course, Building Resilient Communities, coinstructed by Drs. Stone, Taha, and Russell. Fospecific elements of the center including water and sanitation systems, structural systems, and sustainable energy. The students aim to travel to Nepal to build the community center in the summer of 2016.

cusing on a rural village in Nepal nearly destroyed in the

April 2015 earthquake, the students are applying princi-

ples and practices of resilience

to the design of a community center. The graduate students

are mentoring 70 undergradu-

ates in the introductory course

who are working on design

website: civil.unm.edu

## UNM BIM Smart Summit 2015



The Department of Civil Engineering co-hosted the 2<sup>nd</sup> annual UNM-bimSMART foundation Summit on Friday September 18, 2015. The event had five new sponsors and a 45% increase in participation from last year's inaugural event with over 150 attendees from industry, government, academia, civil engineering, architecture, local community colleges, technical schools, local BIM 505 user's group, and high school students from the ACE Leadership Program. Dr. Joseph L. Cecchi, Dean of the School of Engineering, and Dr. Mahmoud Taha, Chair of Civil Engineering, conveyed the importance of inspiring science, engineering, and underrepresented students toward innovative technology research such as Building In-

formation Modeling (BIM), Bridge Information Modeling (BrIM), 3-D Scanning, and other emerging technologies.

#### School of Engineering Open House October 2015

The UNM School of Engineering held its annual Open House on Saturday, October 3, for prospective students and their parents. About 25 displays or demos were featured and tours were offered of the labs and facilities. Academic advisors, professors and Engineering Student Services were on hand to answer questions about degree programs and scholarships. Civil Engineering demonstrated a drone that can help engineers survey bridges and roads for damage after a disaster



and featured tours of the hydraulics lab, the construction lab, the structures lab, a traffic simulation model, and the Center for Water and the Environment.

## **National Distinguished Lecture Series**

In order to foster academic and research inter-



actions, the department sponsors a National **Distinguished Lecture** Series. September 8-9, Todd, Professor of 2015, the department hosted Dr. Jose Antonio Lozano-Galant, Assistant Professor at Univer- He presented a semisity of Castilla-La Man-

cha, Spain, He presented the seminar, "Structural System Identification by Observability Techniques," and had the opportunity to visit Ultrasonic Interrogation."

our facilities and meet with faculty and stu-

dents. On September 23rd, the department welcomed Dr. Michael Structural Engineering at the University of California at San Diego. nar titled, "A Bayesian



Health Monitoring With Specific Applications to

#### Want to learn how to best support the CE Department?

Your support is the key in our quest to attract and retain the best and brightest students and faculty. Call Betty Karlsson, Sr. Director of Development, 505-277-0230 or email Betty.Karlsson@unmfund.org. To donate online, https://www.unmfund.org/fund/civil-engineering/

#### **Department & Student News**

Featured Graduate Student

UNM CE alumna Lauren Jaramillo has returned to pursue a Ph.D. in Hydraulics and Water Resources Engineering. As a member of the CREST Center for Water and the Environment, her research focuses on impacts of forest fires on hydrologic services. She has embarked on sev-



eral projects in the Jemez Mountains and participated in a U.S. Forest Service Rockv Mountain Research Station project on the Rim Fire in the

Stanislaus National Forest in California this past summer.

#### ASCE and APA Collaborate on **First Joint Conference**

The NM American Society of Civil Engineers (ASCE) and the NM American Planning Association (APA) collaborated to deliver a conference entitled, "Building Alliances for a Livable New Mexico," on September 23–25, 2015 at the Las Cruces Convention Center. About 250 civil engineers and planners attended the conference, including UNM students and faculty.

Dr. Taha is ACI Ambassador Dr. Taha presented a keynote address to the 15<sup>th</sup> International Congress on Polymers in Concrete (ICPIC 2015) that was held in Singapore October 19-21, 2015



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CE Facts at a Glance	
Number of Faculty	20
Undergraduate Enrollment	
BS Civil	80
BS Construction Eng	6
BS Construction Mgt	33
Graduate Enrollment	
MSCE	61
MENG/MCM	8
PhD	49