



MESSAGE FROM THE CHAIR



UNM Civil, Construction and Environmental Engineering (CCEE) continues its growth and progress. Thanks to the generous donation of \$1.5M from the late Dana C. Wood's family, we just opened the state-of-the-art Dana C. Wood Materials and Structures Laboratory with top notch 3D printing technology for concrete and composites. The new lab allows UNM students in civil engineering to observe and use forefront technology in 3D printing and allows our faculty and researchers to be national leaders in this exciting research area. Construction of our new computer lab, as the first active learning space for CCEE students, will start this summer with plans to open the new lab in August. Our efforts are being recognized nationally with Professor José Cerrato's work selected as Best Paper by Environmental Science and Technology (ES&T), myself receiving the American Concrete Institute (ACI) Delmar L. Bloem Distinguished Service Award, and our Master of Construction Management (MCM) online program selected as one of the top 30 online programs nationwide. Our CCEE students are heading to Germany and The Netherlands this summer to study infrastructure resilience. We are expanding the annual UNM Resilience

Colloquium for international participation from Mexico thanks to a new grant by 100,000 Strong in the Americas Innovation Fund by the U.S. Department of State. I end this message by urging CCEE alums and friends to continue their support to our 12 in 12 fundraising campaign to place UNM CCEE within the top 20 programs nationwide.

Mahmoud Taha, Distinguished Professor and Chair



Dana C. Wood Materials and Structures Laboratory—3D Concrete Printer

JOSÉ CERRATO, Ph.D. WINS BEST PAPER AWARD



José Cerrato, an associate professor in the CCEE Department, his doctoral student Sumant Avsarala, and Abdulmehdi Ali, a senior research scientist in the UNM Department of Earth and Planetary Sciences, were co-authors on the Best Paper of 2018 in the Environmental Technology category for Environmental Science &



Technology. The journal, a peer-reviewed scientific journal published since 1967 by the American Chemical Society, is the most prestigious publication in the areas of environmental science and environmental technology. You may view the announcement here: <https://pubs.acs.org/doi/full/10.1021/acs.est.9b01539>.

FUNDRAISING CAMPAIGN

The CCEE Department is launching a major fundraising campaign to upgrade its facilities and shape its roadmap toward 2030. We need your leadership gift for UNM CCEE. For details, please contact:

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RESILIENCE COLLOQUIUM

The 4th annual UNM Resilience Colloquium takes place in August on the UNM campus with international participation from Mexico.

TIMOTHY ROSS and WALTER GERSTLE RETIRE



Timothy Ross, Ph.D.
Structures

The department congratulates two long-time faculty on their retirement. Timothy Ross holds a doctorate in civil engineering, Stanford University, 1983. Ross is a registered professional engineer (Washington State) with experience in the fields of computational mechanics, hazard survivability, structural dynamics, structural safety, stochastic processes, risk assessment, and fuzzy systems. He has been a civil engineering structures faculty member for the past 32 years, advising over 40 M.S. and 12 Ph.D. students. His research interests include uncertainty quantification, fuzzy set theory, risk assessment, and the use of Bamboo in structural applications. Walter Gerstle holds a doctorate in civil engineering, Cornell University, 1986. Professor Gerstle is a registered professional engineer in New Mexico and Colorado. As a professor in structural engineering and structural mechanics for the past 33 years, he advised 46 M.S. and 4 Ph.D. students. He has worked as a structural consultant for NASA, Sandia National Labs and Lawrence Livermore Labs. Following his retirement, he will spend the summer continuing his research at Oak Ridge National Laboratories engaged in computational solid modeling research. UNM CCEE thanks you for your combined years of excellence in teaching, advising, research and support to the department, the university and New Mexico community! After retirement, both professors plan to continue their research as a professor emeritus in UNM CCEE.



Walter Gerstle, Ph.D.
Structures



The University of New Mexico's online master of construction management degree has recently been named one of the top programs in the country by OnlineMasters.com. The criteria for selection for the 2019 list included curriculum quality, program flexibility, affordability, and graduate outcomes. Also, data from alumni interviews and surveys from current students and alumni were considered. UNM's master of construction management (MCM) online degree is geared toward those currently working in the construction industry, looking to advance their careers. The degree consists of 10 courses, which students can complete in as little as 12 months. The MCM degree is designed to provide graduates with knowledge in key areas of project management, including project controls, construction methods and equipment, construction law,

construction documents, LEED standards and safety law. It combines business management skills specifically focused on the construction industry, and no background in engineering is necessary. Find out more about UNM's MCM program at <https://online.unm.edu/online-programs/construction-management-m.c.m.html>

STUDENTS VISIT TRANSPORTATION TECHNOLOGY CENTER



Fernando Moreu, assistant professor in CCEE, and seven UNM research assistants visited the Transportation Technology Center, Inc. (TTCI) in Pueblo, Colorado in March for the 24th annual research review of the Association of American Railroads (AAR). Discussions focused on new technologies such as artificial intelligence, positive train control (PTC), bridge monitoring, and mechanical rolling stock safety and maintenance. Meetings included interactions with the federal railway

administration director, AAR bridge senior researchers, and TTCI's PTC senior engineer, a UNM ECE 2012 alum.

SUSTAINABLE WATER MANAGEMENT PROPOSAL SELECTED AS UNM GRAND CHALLENGE

The University of New Mexico launched the UNM Grand Challenges Initiative to bring our campus and state together through multiple perspectives and a common purpose. One of three Grand Challenges is Sustainable Water Resources. Lead convener Professor Kerry Howe heads a team that includes professors Ricardo González-Pinzón, José Cerrato, Mark Stone, and Andrew Schuler. Faculty from Economics, Earth & Planetary Sciences, the Water Resources Program, Chemical & Biological Engineering, Biology, the Law School, Landscape Architecture, Community & Regional Planning, and Geography round out the group. They will



lead a campus and state-wide effort to improve water resources in New Mexico so that by 2030, the Rio Grande Watershed will serve as an international example of a vibrant and resilient watershed that supports healthy landscapes and aquatic ecosystems, and communities that celebrate the region's unique culture and heritage.

STUDENTS PARTICIPATE IN ASCE REGIONAL COMPETITION



On April 4, twenty-seven UNM civil, construction and environmental engineering students plus their faculty advisor traveled to Boulder, Colorado, to take part in the American Society of Civil Engineers (ASCE) Rocky Mountain Regional Competition. UNM students competed in the concrete canoe, surveying, pre-design, mystery design, technical paper, and non-technical paper competitions. The UNM ASCE Student Chapter took three awards. The surveying team placed 2nd, Sabrina Moore's technical paper took 3rd place, and Daniel Acosta's non-technical paper was awarded 2nd place. Faculty advisor and senior lecturer, Ken Cooper, accompanied the students to this event.

Brittany Antonczak MSCE Candidate



Brittany Antonczak, from Kenilworth, New Jersey, is a M.S. in civil engineering candidate. She is a

graduate research assistant under Assistant Professor Gregory Rowangould, working on a project to evaluate the impact of the design of residential streets on a wide range of urban challenges. Her research focuses on the effects of pavement on urban heat. She received the Dwight D. Eisenhower Transportation Fellowship from the U.S. DOT and is CCEE Outstanding Graduate Student for 2018-2019.

Laurena McGarrigle B.S. Candidate



Laurena McGarrigle, from Tucson, Arizona, is in her fourth year working toward her B.S. in civil engineering.

After playing on the softball team for two and a half years, she received many awards from the NCAA for her academic standing. She is in the Shared Credit Degree Program and will continue at UNM next year to obtain her M.S. in civil engineering. She plans to focus on construction and transportation in her final year. Laurena currently works for T.Y. Lin International and enjoys gaining experience in the private engineering industry.

CCEE Facts at a Glance

Undergraduate (246)

BS Civil Eng	180
BS Construction Eng	11
BS Construction Mgt	55

Graduate (100)

MSCE	29
MENG/MCM	28
PhD	43