

CCEE MONTHLY

The Department of Civil, Construction, & Environmental Engineering



COLLEGE OF ENGINEERING

VOLUME 4 ISSUE 9 SEPTEMBER 2018



Structural

Geotechnical

Water

Transportation

Environmental

Construction

EduLearn 18 Conference in Spain



Dr. Janusz Supernak was the Chair of the session titled: "Quality Assurance and Accreditation in Higher Education" at the 10th

International Conference on Education and New Technologies "EduLEARN 18" at Palma de Mallorca, Spain. He also presented the paper entitled: "Striving for Excellence of Undergraduate Education: Is Meeting Accreditation Criteria Enough?" The conference was attended by delegates from 80+ countries.

Knowledge to Practice (K2P) project



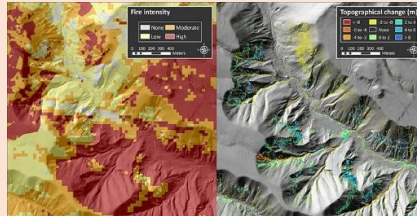
This month, we are providing part two of the Knowledge to Practice project. Dr. Matthew Verbyla is the Environmental Engineering adviser. The photo above shows SDSU student Isaac Musaazi presenting a conceptual model of an evidence-based sanitation safety planning framework to stakeholders from the water and sanitation sector in Uganda during the project kick-off workshop, held in July 2018 in Kampala.

Latin American Hydraulics Congress



Dr. Victor M. Ponce and Civil Engineering graduate student Janaina Da Silva presented three (3) papers and one (1) poster at the XXVII Latin American Hydraulics Congress, held 18-21 September in Buenos Aires, Argentina.

Publication in Vadose Zone Journal



(Figure Caption: Fire intensity and erosion (shown as topographic change) after two storms in Bandelier National Monument following the Las Conchas Fire. Images courtesy of Richard Middleton, Los Alamos National Laboratory.)

Dr. Alicia Kinoshita co-authored a publication entitled "Simulating Surface and Subsurface Water Balance Changes Due to Burn Severity," which was published in Vadose Zone Journal. As mega-fires are becoming prevalent, understanding the hydrologic response across a range of burn severities is increasingly necessary to quantify risks to water resources. The primary objective of this work was to investigate the interplay between overland flow and evapotranspiration for several burn severity scenarios to quantify possible water balance responses at the hillslope scale. We compared pre- and post-fire hillslope-scale hydrologic responses using a coupled surface and subsurface numerical model. The reduction of evapotranspiration often dominated the new water balance compared with the increase in overland flow, resulting in higher soil moisture. This modeling experiment also identified a tipping point where increased overland flow from high burn severity sites overshadows the effect of reduced evapotranspiration on the water balance, causing comparatively drier post-fire soils. Atchley, A.L., A.M. Kinoshita, S. Lopez, L. Trader, and R. Middleton. 2018. Simulating surface and subsurface water balance changes due to burn severity. Vadose Zone J. 17:180099. doi:10.2136/vzj2018.05.0099

Academic Support & Involvement



Student Life & Leadership presented the "Academic Support & Involvement Expo" on August 30 from 10-2 p.m. on the North Library Walkway. This event was for academic support from each college and also an opportunity to meet the academic student organizations available for students to join. Our Department had several people on-site for help with any questions incoming students may have had about their programs including (from left): Nicole Brokaw, James Haughey, Michele Ritchie, and Thais Alves.

Climate Change Research Grant



Awarded by the California Strategic Growth Council, an SDSU team received one of the first grants which was created by the state legislature in 2017 to support research on reducing carbon emissions. Close to \$1.8 million, it was the second largest of the 10 awarded among the 70 proposals submitted. The team includes engineer Alicia Kinoshita, geographer Doug Stow, and Sherry Ryan, director of the School of Public Affairs. The SDSU NewsCenter featured the story here: http://newscenter.sdsu.edu/sdsu_newscenter/news_story.aspx?sid=77376

Quotes of the Month: "As engineers, we were going to be in a position to change the world – not just study it." – Henry Petroski