

P.2 CEE RESEARCHER NAMED
BUILDING SCIENCE
PROGRAM DIRECTOR

P.5 DOCTORAL STUDENT CREATES
NOVEL NANOFIBER MEMBRANES
AND MENTORS YOUTH

P.6 CEE STUDENTS TAKE ON
ACTIVE ROLE IN USC SOCIETY
OF WOMEN ENGINEERS

Faculty Profile: Mihailo Trifunac, Earthquake Expert

Since 1976, **Mihailo Trifunac** has been the USC Viterbi School of Engineering's resident earthquake engineering expert, studying both theoretical and experimental topics. His research explores earthquake source mechanisms, empirical scaling of strong ground motion, strong motion arrays deployment, seismic wave propagation and site effects on strong ground motion, seismic hazard assessment, structural dynamics and soil-structure interaction, full-scale testing of structures, seismic instrumentation and data processing, statistics of earthquake response and tsunami research.

In recognition of his seismological discoveries, Trifunac received the Lockheed Martin Senior Research Award for seminal contributions in earthquake engineering and seismology in 2000 from USC and the P.L. Kapitsa Gold Medal from the Russian Academy of Natural Sciences (RANS) in 2002. He is a member of the Academy of Engineering Sciences of Serbia, RANS and the Indian National Academy of Engineering, and he is an honorary member of the Indian Society of Earthquake Technology.

Before joining USC, Trifunac served on the faculty at the California Institute of Technology (Caltech) and Columbia University. His other appointments include Japan Society for the Promotion of Science (JSPS) Professor at Kyoto University and consultant to the United States Nuclear Regulatory Commission's Advisory Committee on Reactor Safeguards. He is also an honorary professor at Tianjin University in China since 2015.

In 2012, Trifunac was globally ranked first in "seismology" and "reliability and risk," 12th in "civil engineering," 48th in "mechanical engineering" and 97th in "all fields of engineering combined" in Microsoft Academic Search. ■



Mihailo Trifunac, professor of civil and environmental engineering, conducts theoretical and experimental earthquake engineering research.

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Please join us for the **2018 Civil and Environmental Engineering Commencement Reception**, on Friday, May 11, in front of the USC Davidson Conference Center (DCC) from 12:00 p.m. – 2:00 p.m.

DEPARTMENT NEWS



Environmental Engineering 25th Anniversary Celebration

Celebrating 25 Years of Undergraduate Environmental Engineering

Students, faculty, alumni and leaders in the environmental engineering field gathered at Town & Gown on January 26th to commemorate the 25th anniversary of undergraduate environmental engineering within the Sonny Astani Department of Civil and Environmental Engineering. Guests learned about current students' work through posters displayed in the lobby and listened to departmental highlights from Amy Childress, professor and director of the Astani CEE Department of environmental engineering program; Yannis Yortsos, Dean of the USC Viterbi School of Engineering; Lucio Soibelman, department chair, Dean's Professor of Civil and Environmental Engineering and professor of civil and environmental engineering; and environmental engineering alumni and faculty. Presentations of new environmental engineering facilities and student research wrapped up the night for the 140-plus attendees. ■



David Gerber

Architectural Design and Computation Researcher Named Building Science Program Director

David Gerber – whose research focuses on architectural design and computation and the development of innovative systems, tools, methods and theories at that intersection – has been appointed the Sonny Astani Department of Civil and Environmental Engineering's new associate professor of practice and director of the Building Science Program. Gerber previously served as an assistant professor in the USC School of Architecture and Urban Design, with a joint appointment to the Astani Department of CEE. Since earning his doctoral degree in design from Harvard University in 2007, Gerber has taught and lectured at highly respected schools like Stanford University and the University of California, Los Angeles. He has also worked for prestigious architecture practices, including Zaha Hadid Architects in London and Gehry Technologies, Inc. in Los Angeles. ■

FACULTY NEWS



George Ban-Weiss

Ban-Weiss Receives NSF Faculty Early Career Development Program Award

In recognition of his potential to serve as an academic role model in research and education and lead advances in his department, the National Science Foundation (NSF) awarded **George Ban-Weiss** the NSF Faculty Early Career Development Program (CAREER) Award. Ban-Weiss, an assistant professor of civil and environmental engineering and spatial sciences, has also been appointed the Pasquale and Adelina Arpea Early Career Chair by Michael Quick, USC Provost. ■



Burcin Becerik-Gerber

CII Recognizes Becerik-Gerber's Outstanding Early Career Research

Burcin Becerik-Gerber, Stephen Schrank Early Career Chair in Civil and Environmental Engineering and associate professor of civil and environmental engineering, recently received the Celebration of Engineering & Technology Innovation (CETI) Award from the Construction Industry Institute (CII). This award recognizes significant achievements in technology research, development and implementation in the capital projects industry. Becerik-Gerber will be honored at the 2018 CII Technology Conference CETI Awards Gala for superior work as an Outstanding Early Career Researcher. ■

FACULTY NEWS



Qiming Wang

Qiming Wang Receives Young Investigator Award from U.S. Air Force

For his research, “Self-healable Lightweight Cellular Structures: Additive Manufacturing and Multifunctionality,” **Qiming Wang**, assistant professor of civil and environmental engineering, has been awarded a grant through the Air Force Office of Scientific Research (AFOSR) Young Investigator Research Program. His was just one of 43 projects selected for such a grant. The grant program is designed to foster creative basic research in science and engineering, enhance early career development of outstanding young investigators and increase opportunities for young investigators to recognize the Air Force mission and related challenges in science and engineering. ■



Daniel McCurry

McCurry is the OCEC’s 2018 Outstanding Young Engineer

The Orange County Engineering Council (OCEC) has awarded **Daniel McCurry**, assistant professor of civil and environmental engineering, the 2018 Outstanding Young Engineer Award. McCurry received the award at the February 17 OCEC National Engineers Week Awards Banquet in Santa Ana. This event recognizes the best of the best among Southern California engineers, with awards in a broad range of categories acknowledging outstanding individual and project achievements. ■



GRADUATE NEWS

Environmental Engineering Doctoral Student Creates Novel Nanofiber Membranes and Mentors Youth



Stephanie Gee

Second-year environmental engineering doctoral student **Stephanie Gee** seeks to improve the efficiency of traditional membrane materials and fouling control strategies used in membrane bioreactors by fabricating novel membranes for fouling mitigation in anaerobic membrane bioreactors. Under the advisement of Adam Smith, assistant professor of civil and environmental engineering, Gee uses a special technique called electrospinning to fabricate nanofiber membranes with piezoelectric properties that enable them to mechanically deform or vibrate when an electrical field is applied. She has presented her work at the Association of Environmental Engineering & Science Professors Research and Education Conference and recently submitted her first manuscript for publication. She is currently evaluating performance of the novel membranes in a bench-scale anaerobic membrane bioreactor.

At the USC Water and Environmental Technologies Lab, Gee has mentored several female high school students who are aspiring engineers, teaching them fundamental lab skills and water quality testing. Outside the lab, she serves as a mentor for a local after-school program for underserved minorities in South Central Los Angeles. She is also part of the Teen Leadership Program, which prepares high school students to apply for college or careers by helping them create professional resumes, personal statements and cover letters and develop interview skills. ■



USC Lunar New Year Celebration

USC GRADUATE STUDENTS HOLD JOINT LUNAR NEW YEAR CELEBRATION

Students in the civil engineering master's program from the USC Sonny Astani Department of Civil and Environmental Engineering and students in the international public policy and management master's program at the Sol Price School of Public Policy held a joint Lunar New Year dinner celebration on February 15th. The event, held at the Plum Tree Inn in Chinatown, Los Angeles, drew students, faculty and alumni. ■



Viterbi Graduate Students' Coral Falls Trail Hike

USC VITERBI SCHOOL OF ENGINEERING GRAD STUDENTS COME TOGETHER FOR CROSS-DEPARTMENT EVENTS

USC Sonny Astani Department of Civil and Environmental Engineering graduate students have been participating in more fellowship activities, thanks to **Siddesh Maniyar**, the new CEE senator for the Viterbi Graduate Student Association. On February 17th, 50 students from both the CEE and electrical engineering departments hiked Coral Falls Trail. Then, on March 9th, 40 students from both CEE and USC Aerospace and Mechanical Engineering watched the new film *Red Sparrow* together at Regal L.A. LIVE. Maniyar is developing additional opportunities for the graduate students to bond and create new friendships. ■

University of Southern California

UNDERGRADUATE NEWS



Viterbi Alumni & Industry Spotlight Panel

CEE ALUMS OFFER ADVICE AT VITERBI ALUMNI & INDUSTRY SPOTLIGHT PANEL

The Viterbi Alumni & Industry Spotlight Panel on March 6 featured five USC Sonny Astani Department of Civil and Environmental Engineering alumni from various industries speaking to undergraduate students about potential career options and tips for transitioning to post-college life. The panel featured:

- **Matt Bower** (BS CE, '13) – Senior Associate, KPMG
- **Sarah Ferguson** (BS ENE, '05) – Project Consultant (Engineer), WSP | Parsons Brinckerhoff
- **Berkeley Johnson** (BS CE, '15; MS CE, '17) – Building Technology Engineer, Simpson Gumpertz & Heger
- **Laura Pochowski** (BS CE, '14; MS Financial Engineering, '14) – Associate, BlackRock (Real Estate Private Equity group)
- **Elise Takebayashi** (BS ENE, '14; MS CE, '14) – Environmental Engineer, CDM Smith



USC Society of Women Engineers

CEE Students Take on Active Role in USC Society of Women Engineers

Female undergraduates in the USC Sonny Astani Department of Civil and Environmental Engineering have taken a more active role in the USC Viterbi School of Engineering's largest student organization, the USC Society of Women Engineers (SWE). Serving as both support group and resource for women in science, technology, engineering and mathematics (STEM), SWE's mission is to "stimulate women to achieve full potential in careers as engineers and leaders, expand the image of the engineering profession as a positive force in improving the quality of life and demonstrate the value of diversity."

Salma Syed, a civil engineering (structural) undergraduate, serves as USC SWE's executive vice president, environmental engineering student **Bria Jamison** is vice president of operations and civil engineering student **Jennifer Villacis** works on the community committee. CEE freshmen **Adrienne Lett** and **Elizabeth DeLong** have also made a difference in the organization as ambassadors. ■

ALUMNI NEWS



CEE Alumni Awards

SONNY ASTANI DEPARTMENT OF CIVIL AND ENVIRONMENTAL ENGINEERING HOLDS ANNUAL ALUMNI AWARDS

The Sonny Astani Department of Civil and Environmental Engineering's annual Alumni Awards on November 29 honored 2017 Lifetime Achievement Award winner Stephen Schrank (CE, '69); 2017 Distinguished Alumni Award winners John Cruikshank (BS Building Science, '88; Engineering Management, '94) and Doug Thiessen (CE '83); 2017 Junior Alumni Award winner

Kyle Burnham (BS, CE '10; MS CE, '11); and 2017 Service Award winner Janelle Lau (CE, '94). More than 70 people attended the awards at the Jonathan Club in Los Angeles. Lucio Soibelman, department chair and Dean's Professor of Civil and Environmental Engineering, handed out awards to the esteemed alumni. ■



USC AEC Construction Alumni Group

USC AEC Construction Alumni Group Highlights Industry Leaders

The USC Architecture, Engineering & Construction (AEC) Construction Alumni Group hosted its first two Distinguished Industry Leader Events on January 17 and March 8 at USC. The events featured leaders from architecture, engineering and construction industries, including Bob Card of The Core Group (TCG) and Lou Cornell of Jacobs Engineering Group. The events, made possible with the help of Philip Stassi, recently retired president of Jacobs Global Buildings and Infrastructure, featured networking opportunities, Q&A sessions and dinner. ■



*Lucio Soibelman, PhD, chair of the
Sonny Astani Department of Civil and
Environmental Engineering*

Chair's Message

Greetings!

We kicked off the new year with a large event celebrating the 25th anniversary of the undergraduate environmental engineering program, and it was a bigger success than I could have ever imagined. Alumni from all over attended this event, showing their pride for this department. The alumni associations do not end there, for they have also assisted with the Viterbi Alumni & Industry Spotlight Panel and Distinguished Industry Leader Events. Knowing how important our alumni are, we conducted our annual Alumni Awards last November, honoring those who have gone above and beyond, contributing to either our department or the engineering field. I not only wish to praise our esteemed alumni, for our faculty also continue to impress as they receive many awards, including George Ban-Weiss, who received an NSF CAREER award. I take great pride in this department, for we continue to rise above expectations. ■