

# CEE | N FOCUS

SPRING 2018 • VOLUME 17



## FROM THE DEPARTMENT CHAIR A letter from George Z. Voyiadjis

As another academic year comes to a close, it is with great pleasure that we bring to you the latest news from the department. The department of civil and environmental engineering remains on a path of educational

excellence while maintaining focus on continuous improvement of all of our programs. As always, our goals in the department remain ambitious as we continue our efforts to become internationally and nationally prominent, to maintain our excellence in education, and to continue on our track of developing and expanding research and scholarly activities.

We have successfully completed our ABET review in both civil and environmental engineering without any concerns or weaknesses. We also completed our SACS (Southern Association of Colleges and Schools) review with flying colors in the undergraduate program, both CE & EVEG, as well as the master's and PhD programs.

Our faculty have excelled in teaching, research and service; and in the spirit of global engineering have signed international agreements with China and France. Several of our faculty have visiting professorial positions in China. We set a new record high for research expenditures last year of \$6.786 million compared to \$6.31 million of the year before, for a 7.5% increase. A number of our faculty currently have more than \$1 million each in grant funding, leading all departments in the college.

With the recent release of the 2018 edition of *U.S. News & World Report's* "America's Best Graduate Schools," our civil engineering graduate program improved from 62 (2.6 score) in the 2017 report to 55 (2.7 score) in the 2018 report.

Several faculty were honored with national awards and/or hosted national conferences. Our graduates are actively recruited by companies and major universities across the nation.

At our annual CEE Hall of Distinction Banquet, we proudly welcomed two new members: Mr. Michael Riley Pittman and Mr. Jay Hardman. Mr. Pittman earned his BS in civil engineering at LSU in 1983. He is the founder and chair of M.R. Pittman Construction LLC. Mr. Hardman received his BS in civil engineering from LSU in 1983. He is the executive director of the Port of Baton Rouge.

In closing, I would like to congratulate our undergraduate students for their superb participation in recent ASCE and WERC International design Competitions.

Sincerely,

**Dr. George Z. Voyiadjis**, Boyd Professor, Chair  
Bingham C. Stewart Distinguished Professor

# DEPARTMENT HIGHLIGHTS

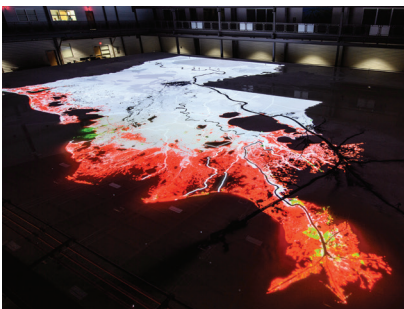


## CENTER FOR RIVER STUDIES

Governor John Bel Edwards joined officials from the City of Baton Rouge, LSU, the Coastal Protection and Restoration Authority (CPRA) and the Baton Rouge Area Foundation to unveil the new Center for River Studies on January 29, 2018. The main attraction of the center is the Lower Mississippi River Model. Educational exhibits are also featured in the facility.

The model, which spans 10,800 square feet, showcases 179 miles of the Mississippi River and will assist researchers in testing and studying the impact of sediment diversions—structures built along the banks of the river that create channels through man-made levees. If successful, the diversions will replenish the state's wetlands. Using the model, scientists can change the location of miniature sediment diversions, as well as the flow rate of the river, and then test to see what happens. The lightweight plastic sand used in the model moves much faster than real sand, so they can simulate one year's worth of time in one hour.

LSU Civil and Environmental Engineering Professor Clint Willson, who serves as the center's director, plans to do



experiments by creating a particular scenario to see what the impact would look like. An example is what might happen if the CPRA doesn't build sediment diversions. The model

is run for 50 years in the future to see what the impact is. Scientists can then add a diversion and see how it changes the river and wetlands 50 years later.

"We can look at future projects and how that would impact the river, the movement, flow rates, stages, and ultimately, how that might impact river sediment diversions," Willson explained.

The physical model will work faster than a computer because of the complexity of the simulation involved, and comparing the computer's results to the physical model's results might help them



build better models overall. The model helps researchers understand how an area will be impacted by environmental factors, such as climate change, as well as man-made factors such as levees. Local wetlands are receding and the state has lost 1,900 square miles of land since the levees were built in the 1930s. If nothing is done, Louisiana's coast could lose 4,120 square miles over the next 50 years. Since Louisiana is home to some of the first climate change refugees, the research conducted at the new model will prove to be very important.

**Visit the LSU ASCE website at [lsu.edu/eng/CEE](http://lsu.edu/eng/CEE)**



# DEPARTMENT HIGHLIGHTS



## THE DRIVING SIMULATOR

The LSU Driving Simulator is settling into its new home in Patrick F. Taylor Hall. The simulator is a full-body Ford Fusion (minus wheels) combined with a series of cameras, projectors, and screens to provide a virtual environment that offers a high degree of driving realism. It provides 180-degree, multi-channel audio/visual display plus real-time, one-degree-of-freedom motion simulation to make a driver experience similar driving efforts as in an instrumented vehicle. Its open architecture software tools allow for data collection during simulation experiments, the creation of new networks, and virtually, an infinite number of simulation scenarios. It has a library of residential, urban, rural, commercial, industrial, highway and intersection, and traffic signal control sections. Vehicle simulation makes it possible for inexpensive alternatives and sometimes impossible (unethical or safety implications) field tests to be undertaken in the lab.

Research conducted in the lab enables studying the impact of human factors on driving tasks (influence of alcohol, drugs, fatigue, etc.); the driving performance of different groups, such as the elderly; and different environmental conditions (fog, rain, snow, etc.). The lab is also capable of examining the effects of different levels of task complexity on visual fixation strategies and visual stimulus recognition; determining the effect of road signage, road type, and other factors on driver performance;

testing driver reactions and performance with new in-vehicle technology devices; and determining effects of fatigue and other distraction levels on driving performance. The simulator also enables researchers to assess new in-vehicle gadgets, as well as potential improvements in highway geometric design standards. Such experimentations advance the state-of-the-art in driving simulation and result in valuable findings that may save lives.



# DEPARTMENT HIGHLIGHTS



## PATRICK F. TAYLOR HALL

Patrick F. Taylor Hall (PFT) held its official grand opening ceremony on April 20. After three years, the last phase of the \$114-million renovation was completed in December 2017. Today, the facility is the largest academic building in the state and one of the largest freestanding engineering school buildings in the nation. The expanded, renovated complex houses the majority of the engineering departments, as well as the college's administration.

Designed by Perkins+Will and Coleman Partners and built by The Lemoine Company, PFT is 410,000 square feet and includes a 110,000-square-foot chemical engineering addition. There are 41,202 square feet of student collaboration space; 134,989 square feet of teaching and laboratory space; 1,576 classroom seats; and 272 faculty and staff offices. Within all of this space are state-of-the-art labs and gathering spaces, the William Brookshire Student Services Suite, and the 250-seat RoyOMartin Auditorium.

As part of the Breaking New Ground campaign, \$114 million was raised—\$57 million from private contributions and a matching \$57 million from the state. It is one of the largest public-private partnerships in Louisiana and the most successful fundraising effort by LSU to date. The building is named in honor of the late Patrick F. Taylor, a 1959 petroleum engineering alumnus. His wife, Phyllis, made a \$15 million donation to the facility.





# HALL OF DISTINCTION

On May 7, CEE inducted Michael Pittman and John “Jay” Hardman into the Hall of Distinction. Pittman received his BS in civil engineering from LSU and later pursued graduate work in advanced structural and geotechnical design at the University of New Orleans, where he earned his MBA. He founded MR Pittman Group LLC in 2003, where he served as president. Pittman is presently acting in the capacity as a technical and business consultant to both MR Pittman Group LLC, and Kiewit/Boh, a joint-venture related to construction pursuits in the greater south Louisiana area.

Hardman also received his BS in civil engineering from LSU. He joined the Greater Baton Rouge Port in 1999 as the director of engineering and environmental services and the managing director. In 2006, he was appointed executive director by the Greater Baton Rouge Port Commission.

Along with inducting new members into the Hall of Distinction, CEE also recognized students, staff, and faculty. Two graduating seniors from civil engineering and two graduating seniors from environmental engineering were chosen to receive the academic and leadership awards. Jared Bigler (EVEG) and Victoria Veasey (CE) were the academic awardees, and Morgan Barranco (EVEG) and Claire Like (CE) were the leadership awardees. CEE staff member Dwain D’Souza was awarded the Departmental Service Award. CEE Professor Aly-Mousaad Aly was awarded the Research Achievement Award, and Professor Mostafa Elseifi was awarded the Educational Achievement Award.



## CEE HALL OF DISTINCTION

### 2001 Charter Members

Ara Arman  
Elvin Dantin, PhD\*  
L. Lane Grisgby  
Chester P. Siess, PhD\*  
Bingham C. Stewart\*

### 2002

Verdi Adam  
Dipak Roy, PhD\*  
Wm. Clifford Smith

### 2003

James M. Coleman, PhD  
Ann Forte Trappey

### 2004

George Munfakh, PhD  
Kam K. Movassaghi, PhD

### 2005

Dr. Kenneth L. McManis  
Larry A. McKee

### 2006

John “Jack” Donahue Jr.  
Ronald “Ron” Rodi

### 2007

J. Tinsley Oden, PhD  
Recep Yilmaz

### 2008

Robert A. “Bob” Deason  
Frank J. Germano\*

### 2009

John A. Graves  
Mehmet T. Tümay, PhD

### 2010

Shahram Sarkani, PhD  
Sherri Hammond LeBas

### 2011

Song-Kai Yan, PhD\*  
Rodolfo J. Aguilar, PhD

### 2012

Lloyd Guillory  
Taehyo Park, PhD

### 2013

Paul Fossier Jr.  
Anand Puppala, PhD

### 2014

William E. Rushing Jr.  
Dr. Pradeep Kurup

### 2015

Ronnie Hebert  
Michael Songy

### 2016

Akram N. Alshawabkeh, PhD  
Janice P. Williams

### 2017

David P. Sauls  
Miles B. Williams

\*Deceased



## John “Jay” Hardman, P.E.

**Executive Director, Port of Greater Baton Rouge**

John Hardman, a 1985 LSU graduate with a BS in civil engineering, has more than 25 years of experience in civil and environmental engineering and has served as the executive director of the Port of Greater Baton Rouge since November 2006.

In his role as executive director, Hardman is responsible for the day-to-day management of the port. Along with the port commission and other port stakeholders, Hardman is dedicated to building on the port’s mission of supporting international and domestic commerce and facilitating economic development. In recent years, the port has made significant improvements to its marine assets to meet the growing demands of transportation and trade in local industry. Hardman has been responsible for the design and implementation of more than \$45 million in infrastructure improvements to the port’s general cargo docks, road, and rail.

Hardman has also been involved in enhancing port security measures and designing and developing new economic development projects, such as the wood pellet plant; bulk sugar storage and distribution complex; container-on-barge facility; Maritime Security Operations Center; and other improvements and rehabilitation projects at the port’s Inland Rivers Marine Terminal, as well as other upgrades to the port’s public maritime infrastructure.

Hardman joined the management staff at the Port of Greater Baton Rouge in May 1999, after serving as a civil and environmental engineering consultant for many years. Before being appointed executive director, Hardman held a number of key staff positions with the port, including director of engineering and environmental services, and managing director.

Hardman previously worked for Rust Environment and Infrastructure Inc., and Dames & Moore Inc. He is a member of the American Association of Port Authorities and is a graduate of the Leadership Baton Rouge Class of 2001. He is also a member of the Technical Advisory Committee of the Capital Regional Planning Committee, Baton Rouge Loop Project Stakeholders Committee, and West Baton Rouge Parish Transportation Authority Board.

In 2016, Louisiana Governor John Bel Edwards reappointed Hardman to the Louisiana Board of International Commerce (LaBIC), which serves as the authority on behalf of the state to advance the international commerce sector by attracting foreign and domestic investment; developing manufacturing, warehousing and distribution activity; and building Louisiana’s trade-based economy.

Hardman and his wife, Kim, reside in Baton Rouge with their daughter, Margaret.





## Michael Pittman, P.E.

### MR Pittman Group LLC General Contractors

Michael R. Pittman, a 1983 LSU graduate with a BS in civil engineering, has more than 35 years of experience in construction management. He is the past president of MR Pittman Group LLC General Contractors and remains a technical and business consultant to that company, as well as Kiewit/Boh—a joint-venture related to construction pursuits in south Louisiana.

Pittman held various roles at Pittman Construction Company while he pursued graduate work in advanced structural and geotechnical design at the University of New Orleans, where he earned his MBA. From 1991 to 2003, Pittman teamed up with his father, Charles, to form CR Pittman Construction Company, where he rose to the position of vice president and overall operations manager. After nearly 13 years, Pittman left to start his own company, MR Pittman Group LLC in 2003. He opened the doors with only one employee and a minor site improvement project. Over the years, he has partnered with Raymond McCabe and three others in building MR Pittman Group LLC into one of the largest heavy municipal construction companies in Louisiana with annual average revenues of more than \$100 million.

Throughout his extensive career in both the public works commercial field and the heavy construction field, Pittman's roles have included project superintendent, surveyor, project engineer, design engineer/manager, project manager, estimator, contract administration and negotiations, and overall operations manager on a variety of large municipal water, sewer, transportation,

drainage, and hurricane protection projects in south Louisiana. He has overseen approximately \$1.5 billion of commercial and heavy construction projects in south Louisiana.

Since Hurricane Katrina in 2005, the majority of the work that has been done under Pittman's supervision has been heavy infrastructure projects in and around the Greater New Orleans Region and south Louisiana that are related to storm and drainage improvements for the various municipalities and the U.S. Army Corp of Engineers.

Pittman has given generously to the LSU Civil and Environmental Engineering Department towards the refurbishing of the LSU Hydraulics Laboratory, which has been named Environmental Technical Sales (ETEC) Hydraulics Laboratory. In addition, he has helped fund various other causes for the betterment of the university.

Pittman has been active in the Phase III Capital Campaign at Brother Martin High School in New Orleans, his alma mater. He has supported many charities within the community, including Boys Town, Multiple Sclerosis Society, Muscularly Dystrophy Association, YMCA, Louisiana Sheriff's Association, and St. Catherine of Siena School, in addition to various others.

Pittman resides in New Orleans with his wife, Bonnie, and son, Casey, who is presently a sophomore at Brother Martin.

# ASCE AT LSU UPDATE



ASCE at LSU participated in the 2018 Deep South Conference at the University of Louisiana at Lafayette this past March. Our Steel Bridge and Concrete Canoe teams both competed, working diligently to complete the respective designs. With the goal of getting more of our ASCE members involved, Steel Bridge captains Josh Olivier and Sydney Sziber, as well as Concrete Canoe Team Captain Denzel Flores, made a great effort to guarantee that each participant played an active role in the design and construction processes. For many of our members, it was the first time being involved on either team. As expected, the competition turned out to be a wonderful team-building and learning experience. Our very own Joseph Cotton earned first place for his presentation of his Mead Paper. We are all very proud of our Tigers for both their effort and the outcomes of this year's Deep South Conference.

With the start of the new academic year, ASCE will be recruiting members to join the Steel Bridge, Concrete Canoe, and Surveying teams to compete at the 2019 Deep South Conference that will take place at Louisiana Tech University in Ruston in the spring. We will also be looking for a competitive student to complete the Mead Paper. No experience is required to participate in any of the teams, but you must be a member of ASCE. Joining a team (and ASCE) is a great way to make friends and have fun while getting a more "hands-on" experience with civil engineering applications.

Over the course of the summer, the LSU ASCE chapter has been preparing to host its first annual Bayou Region Career

Fair on October 18, 2018. Many of our officers have been working diligently to assemble information packets that will be sent to more than 600 engineering firms across the United States. They are being sent to everyone, from small companies to mega engineering firms. Our goal is to have 50 or more companies attend our event. Our chapter is personally inviting students from other ASCE chapters, including McNeese State University, University of New Orleans, Southern University, and ULL. We are currently spreading the word through our social media platforms to ensure that each and every civil or environmental engineering student hears about the opportunity that is being presented to them. Our chapter believes that everyone deserves to find a job before graduation.

For more information on ASCE meetings and location, along with sign-up and updates for the Career Fair, follow our Facebook pages ASCE at LSU and LSU ASCE Career Fair.





# STUDENT HIGHLIGHTS

## GRADUATE STUDENT RESEARCH CONFERENCE

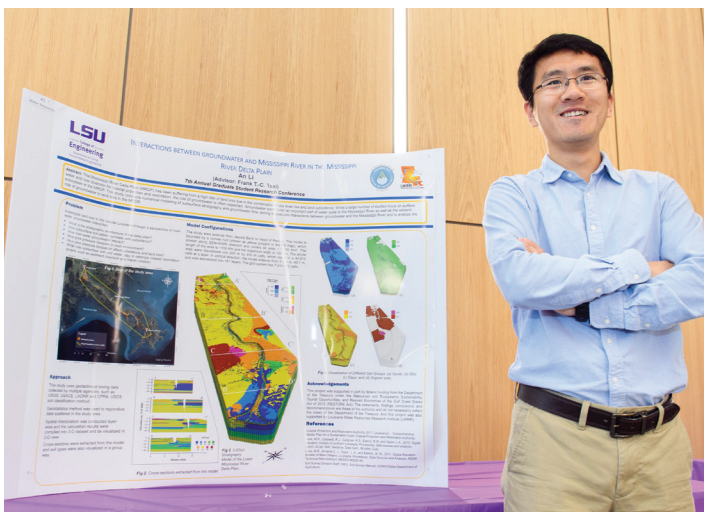
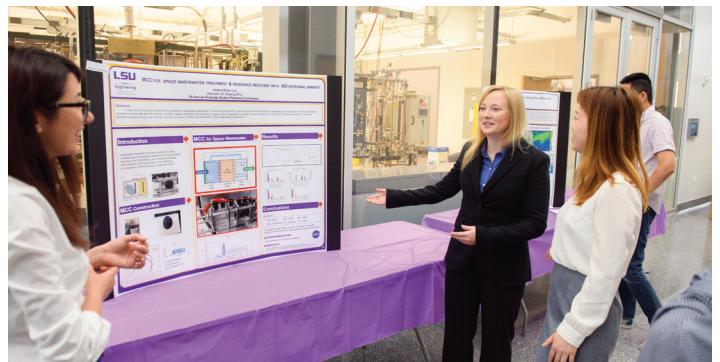
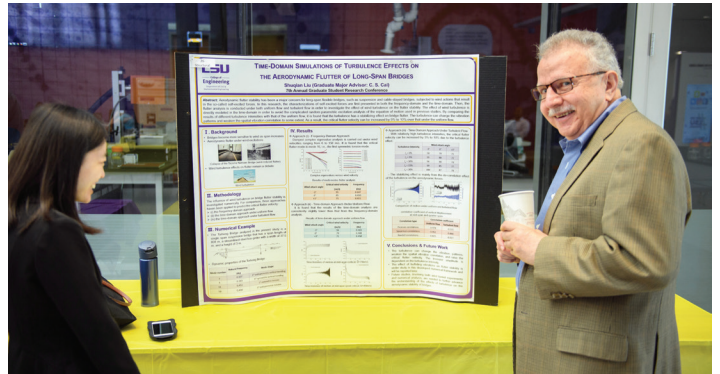
CEE held its 7th Annual Graduate Student Research Conference on April 6 in the Patrick F. Taylor Hall Cambre Atrium. It was the largest participation yet with 51 abstracts submitted and 48 actually presenting posters. We couldn't have done it without the help of 22 volunteer judges. Throughout the morning, students lined the atrium and presented their work to fellow students, faculty, staff, visitors and, of course, the judges. Dean Wornat accompanied Dr. George Z. Voyiadjis and Dr. Ayman Okeil in presenting the awards. The top three posters were awarded a cash prize, with honorable mentions recognized in each area:

1st place—Henok Demissie (Advisor: Dr. Zhi-Qiang Deng)  
A Novel Sizing Function for Automatic Generation of 2D Unstructured Mesh

2nd place—Vahid Jahangiri (Advisor: Dr. Chao Sun) Integrated Vibration Control and Energy Harvesting of Offshore Wind Turbines Subjected to Wind and Wave Loading

3rd place—Kristina Sebastian (Advisor: Dr. John Pardue)  
Visualizing the Distribution of Petrogenic PAHs in Black Mangrove Tissues from Barataria Basin, Louisiana

Honorable Mention—Mohammad Zobair Ibne Bashar (Transportation); Kathleen Eubanks (Water/Coastal); Mostafa Maghsoodi (Environmental); Mohammad Jafari (Geotech); Yooseob Song & Marco Canales (Structures/Mechanics)





## STUDENT HIGHLIGHTS



### WERC Environmental Design Competition

In early April, LSU Environmental Engineers traveled to Las Cruces, New Mexico, to compete in the 28th Annual WERC Environmental Design Competition. Students from across the country must use their years of engineering studies to solve real-world problems facing industry or government, mainly how to clean up, prevent, or measure various kinds of contamination. LSU has competed in 23 of the 28 competitions. This year, LSU brought a record 38 students organized into six teams.

LSU students won three awards—a Judges Award in the Open Task for the project titled “Analyzing the Flooding Vulnerability of an At-Risk Neighborhood in New Orleans, Louisiana Using Community-Sourced Data”; a Peer Award for the project titled “Direct Water Reuse;” and a second Peer Award for the project titled “Removal of Carbamazepine from Wastewater.” The Flooding Vulnerability project was part of a new initiative with the New Orleans Office of Resilience and Sustainability in the Mayor’s Office.

Projects were developed with input from the mayor’s staff to target problems of importance to New Orleans and its residents. The flooding vulnerability project goal was to

develop a community-based reporting system that would target clogged catch basins that contribute to stormwater flooding in the Gentilly neighborhood. The team, which consisted of Harris Bienn, Noel Phillely, Stephen Cook, Rachel Heuisler, Brooke Weyenberg, Emily Franklin and Kyle Dugas, designed a QR code system that would be stamped on the 65,000 catch basins in New Orleans. Residents who observe a clogged basin could scan the QR code with their phone, which would immediately take them to an online reporting system that would notify city officials about the problem.

The team developed a working website and database reporting system and also pursued and obtained a grant for the storm water modeling software PCSWMM, which allowed them to develop simulations to better understand the impacts of clogged basins. The judges specifically were impressed by the application of the information to understanding the impact of social vulnerability on the incidence of flooding in Gentilly. In addition to LSU, teams that competed at WERC this year included University of Arkansas, University of Idaho, Cal Poly-San Luis Obispo, Cal State-Fullerton, Cal-Riverside, University of New Hampshire, Montana Tech, University of Connecticut, Bridgeport University, New Mexico State University and Ohio University.



## CE 4460 Design of Bridges Field Trip



A group of senior students enrolled in capstone project class CE4460 Design of Bridges visited Boykin Brothers Inc., a precast concrete production plant in Baton Rouge on March 14. The visit was arranged by CEE Professor Ayman Okeil and Louisiana State Bridge Engineer Paul Fossier, who also guest lectures the course. Dustin Gaspard from Boykin Brothers Inc., toured the plant with the students showing them the various steps for producing precast prestressed concrete structural elements. This is the first group of students that sees the actual new Louisiana prestressed concrete girders (LG). These girders were fabricated on the new production line that last year's students saw under construction (featured in the Spring 2017 CEE Newsletter). Students are fortunate to have access to visiting such a facility and learning details beyond what a classroom can offer. Thanks to Michael Boykin, Sam Greenwood, and Dustin Gaspard for supporting LSU's students by providing them with the opportunity to prepare for the real world. Feedback from the students revealed that they value such experiences that help make some of the things they learn in the classroom closer to their minds.



## Environmental Engineering Student “Live” Paints Patrick F. Taylor Hall



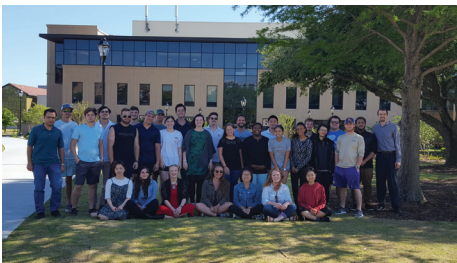
Senior environmental engineering student Morgan Barranco “live” painted the newly renovated Patrick F. Taylor Hall during the grand opening ceremony on April 20. She worked for eight hours the day before and then throughout the day of the grand opening. Upon completion, Barranco presented it to Mrs. Phyllis Taylor, wife of the late Patrick F. Taylor.

---

## EVEG 4156 Water and Wastewater

The students in EVEG 4156 “Water and Wastewater Treatment in Developing Countries” tackled a challenging question in the spring of 2018. Early in the semester, Professor Samuel Snow heard from his contacts at Amigos for Christ, a nonprofit organization in Nicaragua, who were looking for a way to better estimate the required dimensions of septic systems for communities in rural Nicaragua. In the U.S., there are many well-established standard procedures for estimating septic tank and field sizes based on house sizes. In Nicaragua, all the key variables—from hygiene practices to average water usages—differ significantly from those in the U.S. The LSU environmental engineering students had to work together in teams to research and revise design calculations for all aspects of septic systems.

At the end of the semester, a committee of students acted as editors to compile the information into an instructional pamphlet to guide the development efforts in Nicaragua based on the number of people in a given residence. The document was sent in electronic and physical copies to the Amigos for Christ. Many students said they were highly motivated by the potential impact of their work. Moving forward, Professor Snow plans to organize a field trip to Nicaragua to provide students with hands-on experience working in rural, resource-scarce settings.



## STUDENT AWARDS

### Discover Scholar Award



On March 6, the LSU Discover Undergraduate Research Program honored its 2018 Discover Scholar awardees. Among them was Matthew Thomas, a civil engineering undergraduate student. The awards are given to students who exemplify the potential for undergraduate research and creative endeavors at LSU.

### 2018 Louisiana Transportation Conference



*Professor Okeil and Lucy Farrar | Student Senior Design Award—Chef Menteur Bridge Replacement project that was developed by a student senior team in the LSU Conceptual Design class and the Bridge Design class.*



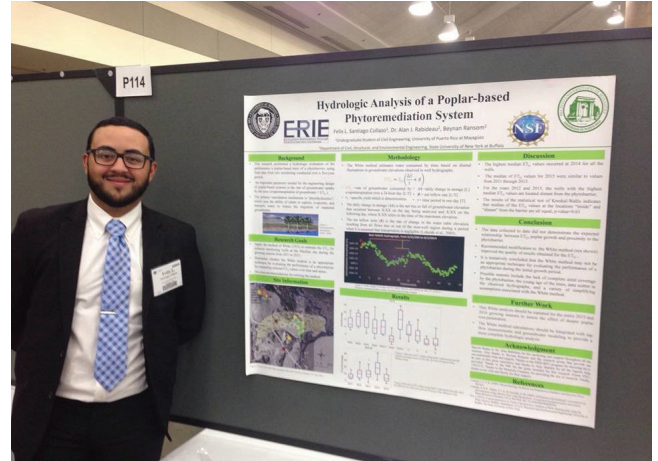
*LA DOTD Bridge Design Engineers | From right are Paul Fossier, Walid Alaywan, LTRC Structures Research Engineer, and Professor Okeil | Bridge Design Development Award: For design and research for the new Ouachita River Bridge at Harrisonburg.*

The Louisiana Transportation Conference (LTC) is a biannual opportunity for the engineering community to gather and exchange information on a broad array of topics of interest to the Louisiana Department of Transportation and Development, consultant and contractor employees.



## NSF Graduate Research Fellowship Program

In early April, the National Science Foundation's (NSF) Graduate Research Fellowship Program (GRFP) announced the offer of 2,000 fellowship awards following a national competition. CEE's very own Felix Santiago-Collazo, a PhD student studying water resources engineering, was selected as the Outstanding Fellow of 2018 due to the high impact his research has in coastal communities. He also won the NSF Fellowship in 2017. Santiago-Collazo joined the program at LSU this spring under the advisement of Professor Scott Hagen. After he graduates, Santiago-Collazo plans to return to Puerto Rico as a professor of engineering. His computational models will be used in flood prevention and forecasting tools, benefitting those who live in hurricane regions.



The GRFP recruits high-potential, early-career scientists and engineers and supports their graduate research training in science, technology, engineering, and mathematics (STEM) fields. Launched in 1952, GRFP represents the nation's oldest continuous investment in the U.S. STEM workforce. The new awardees are diverse and were selected from more than 12,000 applicants and come from all 50 U.S. states and territories.

## Dissertation Year Fellowship Awardees



Peter Bakhit, a PhD student studying transportation engineering, and Shuqian Liu, a PhD student studying structural engineering, have been awarded the Dissertation Year Fellowship for the 2018-2019 academic year. To be eligible for this award, applicants must have a minimum GPA of 3.5, have already passed a milestone exam, and finished all required courses and be writing their dissertation. Their nominations were selected from a highly gifted, highly competitive pool of applicants. This is a strong endorsement of their project's scholarly potential.

## Students Named 2018 Lifesavers Traffic Safety Scholars

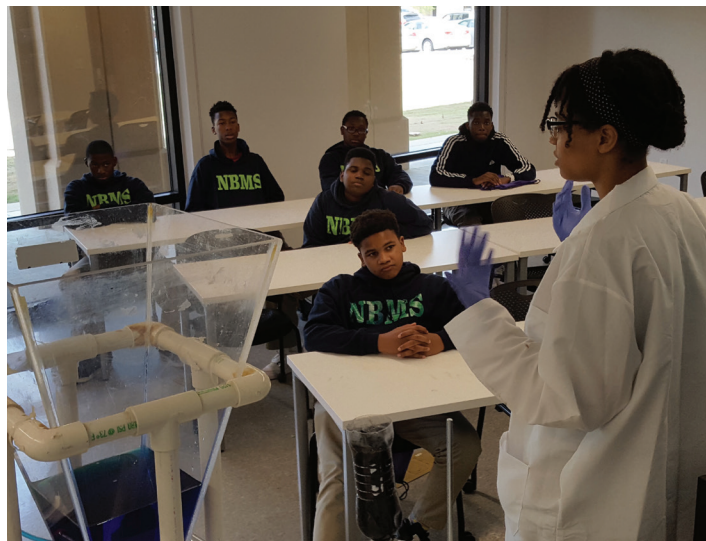
Sogand Karbalaieali and Saleh Mousa, both studying transportation engineering, have been named 2018 Traffic Safety Scholars (TSS) and awarded \$1,000 scholarships to attend the 37th Annual National Lifesavers Conference on Highway Safety Priorities, held April 22-24 in San Antonio. They are two of 50 U.S. and international college students selected through a competitive application process. The Lifesavers Conference showcases the latest research, evidence-based strategies, proven countermeasures, and promising new approaches for addressing the nation's most pressing traffic safety problems. The goal of the TSS program is to showcase the diversity of opportunities in traffic safety and encourage students, regardless of discipline, to pursue a career in a dynamic field that draws from a variety of disciplines.



# FACULTY HIGHLIGHTS

## Professor Samuel Snow

Professor Samuel Snow presented at the 255th American Chemical Society held in New Orleans on March 19. The work presented was a product of a collaboration with researchers in East Lansing, Michigan, and Montpellier, France. He presented the progress they have made towards applying photocatalytic technology for wastewater treatment and reuse. Snow also participated in the 2nd Annual LSU ENGage event, where he and Bilquis Williams, an environmental engineering undergraduate student in the Society of Peer Mentors, demonstrated water treatment technology for middle school students.



## Dr. George Voyiadjis

Dr. Voyiadjis presented a plenary talk as part of the Third International Conference on Damage Mechanics on "New Concepts in Continuum Damage Mechanics." The conference was held in Tongji University, Shanghai, China on July 4-6, 2018.

The Directors of the Board of the International Conference on Damage Mechanics accepted that Dr. Voyiadjis hosts the Fourth International Conference on Damage Mechanics in Louisiana State University in Baton Rouge, Louisiana in May of 2020.





## FACULTY AWARDS

### Dr. Louay Mohammad Appointed to TRB



Dr. Louay Mohammad, professor of engineering, was appointed for a three-year term to the National Academies of Science, Engineering, and Medicine Transportation Research Board (TRB) AFK 50 Standing Committee on Structural Requirements of Asphalt Mixtures.

### Professor Ayman Okeil Selected as ASCE 2017 Outstanding Reviewer



Professor Ayman Okeil received the ASCE 2017 Outstanding Reviewer Award from the Journal of Composites for Construction.

### Professor Clint Willson Receives Tiger Athletic Foundation Undergraduate Teaching Award



Professor Clint Willson received a 2018 Tiger Athletic Foundation Undergraduate Teaching Award for his teaching and work with the LSU Roger Hadfield Ogden Honors College. In addition to co-teaching classes for the Honors College, Willson serves as the faculty-in-residence in Laville Hall, is a member of the Honors Board, and has directed and served on several Honors College thesis committees.

### Professor Karim El Kholy

Professor Karim El Kholy received the LSU College of Engineering Award for Instructor Excellence.

### Professor Murad Abu-Farsakh Elected Fellow With ASCE



Professor Murad Abu-Farsakh has been elected to be a fellow member with ASCE. To be elected, one must demonstrate important work in engineering for at least 10 years. Demonstration of professional attainment is based upon the candidate's contribution to the advancement of the civil engineering profession through valuable service to ASCE. The candidate's notable achievements should either benefit society in general, or advance the profession, or both. Abu-Farsakh has been, and continues to be, an exceptional leader and educator in the engineering field.



**Department of Civil &  
Environmental  
Engineering**

3255 Patrick F. Taylor Hall  
Baton Rouge, LA 70803

Non-Profit Org  
U.S. Postage  
PAID  
Permit No. 733  
Baton Rouge,  
LA

ADDRESS SERVICE  
REQUESTED

## ALUMNI REGISTRATION & UPDATES

The Department of Civil & Environmental Engineering is always interested in how our alumni are doing. We hope you will take the time to send your updates to [mlane10@lsu.edu](mailto:mlane10@lsu.edu) or, if you prefer, you can “snail mail” them to:

**Department of Civil and Environmental Engineering  
Louisiana State University  
Attn: Madison Lane  
3255 Patrick F. Taylor Hall  
Baton Rouge, LA 70803-6405**

Please include basic information, such as your full name, year of graduation, degree, mailing address, email address, telephone number, company, and your title/position. For your update, please include information on your recent professional and personal developments, along with a high-resolution photo, if available.

Thanks for staying in touch!

To connect with the LSU College of Engineering, please visit [lsu.edu/eng](http://lsu.edu/eng) and find us on Facebook at [facebook.com/LSUCEE](https://facebook.com/LSUCEE) and Twitter at [twitter.com/LSU\\_CEE](https://twitter.com/LSU_CEE).