# LOUISIANA CIVIL ENGINEER

### **Journal of the Louisiana Section**

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### **ACADIANA • BATON ROUGE • NEW ORLEANS • SHREVEPORT**

### **FEATURE:**

USACE Completes 2011 Morganza Tailbay Scour Repair

### **NEWS:**

Louisiana Section Installation & Awards Luncheon

144th Annual ASCE Conference, Panama City, Panama





Pamela A. Gonzales Granger, PE 2014-2015 ASCE LA Section President

> NOVEMBER 2014 VOLUME 23 • NO 1



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The Louisiana Section of the American Society of Civil Engineers was founded in 1914 and has since been in continuous operation. The Section consists of the entire state of Louisiana and is divided into four branches that directly serve over 2000 members. They are the Acadiana Branch centered in Lafayette, the Baton Rouge Branch, the New Orleans Branch, and the Shreveport Branch.

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The Louisiana Section is located in ASCE Region 5 that consists of the Louisiana, Mississippi, Alabama, Georgia, and Florida Sections.

### President's Message By Pamela Gonzales Granger, PE

First of all, I want to thank the 2013-14 Section Board for all of their hard work for this past year. Bob Jacobsen led the Board, or more like herded the troops, for the past year in the 100 year anniversary celebration which included the awesome Gala we had August, the Louisiana ASCE Calendar and the posters. Thanks Bob for all of your hard work, dedication and leadership.

I am very honored to serve as the Louisiana Section ASCE President for 2014-15. I have been an active member and volunteer in ASCE for over 20 years and have held numerous officer/leadership positions within the Acadiana Branch, Louisiana Section and Central Florida Branch. However, becoming the Louisiana Section President has been a 13 year journey for me. I say that because in 2003 when I was the Section President-Elect and just shy of the installation as President I was offered a great career opportunity and moved to Orlando, Florida. The Section Board conducted a special election and Barbara Featherston became the 2003-04 Section Board President. I bring this up because many may not realize that Pamela Gonzales Granger is the former Pamela Miller that served on the Acadiana Branch Board from 1994-98 and the Louisiana Section Board from 1998-2003. That's right Pamela Miller, Pamela Gonzales, and Pamela Gonzales Granger are one in the same. What's important to know is that over the past 20 years of my career as a Civil Engineer, I may have changed my last name, moved and returned but I have never changed my passion and dedication to ASCE, Civil Engineering and the quest to help clients and communities solve their civil engineering problems. So when I returned in 2010 and Pat Landry asked me to return to the Section Board as membership chair I didn't hesitate.

I truly believe that everything happens for a reason and I am glad that I was given a second opportunity to become President of our section. The experience that I have gained over the past 13 years has provided me with skills and resources that will result in my ability to do more for the Section as President.

Over the past 20 years of volunteering and serving on the various ASCE Committees and Boards within Louisiana and Florida, I have witnessed the trends in our business and in our membership's overall participation in this wonderful organization. The observations make it easy for me to identify the goals that I have for the Section. My goals are: 1) to increase membership participation in ASCE activities, 2) to encourage members to get involved in their communities by educating community leaders and citizens on infrastructure issues and solutions, 3) to provide mentoring opportunities for our college students and recent graduates. With these goals in mind, I have 3 challenges for our leadership and membership. My first challenge to our membership is to promote and recruit civil engineers by getting involved with our local schools through career days and other school events. My second challenge

to the membership is to get involved in our communities to help our government leadership with solving their problems. We can use our civil engineering background outside of our day to day business development to help our communities proactively identify the issues in our efforts to "build a better world".



Pamela Gonzales Granger, PE

For the Section and Branch boards, my final challenge and ultimate goal is to work with our Universities on the creation or expansion of mentoring programs for our Civil Engineering Students. With all of the new technology like modeling software and apps now available to our students and recent graduates, I have seen a huge trend in some of our young engineers not getting an opportunity for skill development as problem solvers and instead becoming software technicians in the first 5 years after graduation. Our students and young engineers can learn a lot about problem solving and the day to day working expectations from our seasoned engineers. This experience and one on one interaction is beyond the technical knowledge they learn in a college course. I am fortunate to have two mentors, Dr. Paul Richards, PE and Mr. Dale LeBlanc, PE, who have been there for me throughout my career for both technical and professional guidance. It's because of these two engineers that I am the passionate and driven engineer today. I would like each of our 2015 graduates in LA to be paired with a mentor as they move from student to working engineer. I have already started the talking to several professors in most of our LA Universities regarding mentoring programs, but we will need volunteers to be mentors to the students.

I know our personal and work lives require a lot of us, but with a membership as expansive as ours, a few hours a month from each engineer dedicated to one or all three of the challenges can make a huge difference in the future of our profession and the infrastructure of our communities and state. So I will be calling on many of you to help me get our engineers involved with our communities and active mentoring of our students and younger graduates. I look forward to the upcoming year and leading our membership to "wrapping our arms" around the civil engineering needs in the state.

### ASCE Region 5 Governor's Message By Ali M. Mustapha, PE, F. ASCE

I am very honored and humbled to be elected to serve as the Region 5 Governor representing the Louisiana Section. Special thanks to my colleague and friend E. Ray DesOrmeaux, PE, F.ASCE for his service on the Region 5 Board for the last 5 years. E. Ray is very passionate about serving ASCE, Louisiana Section, the membership, and the Civil Engineering Profession. We appreciate his dedicated continuous service to our National/International Organization and our Section, Branches and the Students Chapters. I attended the Leaders Orientation Weekend at ASCE's Headquarter in Ruston Virginia on September 19-20 and the Presidents and Governors Forum on September 21-22. The ASCE Leader Training Committee (LTC) conducted excellent training and workshop sessions using the Region Best Practices Guide. The purpose of the Guide document is to provide new ideas and activities which can be used by Regions, Sections and Branches to expand their program initiatives and support the mission, vision, and values of the Society. I want to thank and commend both the Baton Rouge and Shreveport Branches for sending delegates (Kirk Lowery, PE and David Smith, PE) to the Forum.

Regency in Miami, Florida. I would like to encourage each Branch and the Section to send a Board officer or a Young member representative to the Workshop. Attending this Workshop will provide the Section and Branches' officers the opportunity to interact and exchange ideas, information and



Ali M. Mustapha, PE, F. ASCE

experience with other Sections' and Branches' leaders. Also the Workshop will help officers sharpen their leadership skills and abilities to effectively conduct meetings and work with the media.

I am looking forward to working with the Section, the Branches and the Student Chapters at our universities in the next three (3) years. I am planning to reach out to the Student Chapters and Branches

Region 5 Board of Governors held a meeting on October 9th in

Panama City, Panama during the ASCE National Meeting. Melissa Wheeler of the Georgia Section has been elected to the Region 5 Director position and will be replacing William Grogan. The 2015 ASCE Regions 1, 2, 4 & 5 Workshop for Section and Branch Leaders (WSBL) will be held Friday and Saturday, January 9-10 at the Hyatt



Ali Mustapha, PE, F.ASCE and Daniel Hartman, PE, F.ASCE, Texas ASCE Governor at ASCE's Headquarters, Reston, VA

### Leader Training Committee (LTC) Talking Points By Nancy E. Berson, Director, Geographic Services

The Leader Training Committee (LTC) has created a series of 12 Talking Points on timely and critical Society issues and topics. ASCE leaders at all levels - Section and Branch leaders, Younger Members, and Students should be aware of these documents. They are posted on our FTP server at ftp://gsd.asce.org/ GeographicServicesResources/Talking%20Points/. You may wish to refer to these Talking Points if you're looking for a particular presentation topic when your Governor visits or for your own use when presenting to other groups within your Section such as Younger Member Groups and Student Chapters.

Three more Talking Points are being developed and should be out by the end of the year. We will keep you posted when they are released.

- 1. Best Practices
- 2. Developing Leaders
- 3. Establishing Institute Chapters
- 4. Ethics
- 5. Government Relations
- 6. Life Member Involvement
- 7. Pre-College Outreach
- 8. Raise the Bar
- 9. Specialty Certification
- **10. State Report Cards**
- 11. Student Member Transition
- 12. Sustainability

the Civil Engineering Profession. Thanks to the membership for selecting me to serve you and I need your help and support to succeed in promoting, advancing and protecting our profession.

and provide any needed

assistance to insure they are

strong and continue to grow

and provide the utmost

service to our members and

### ASCE Global Engineering Conference 2014 - Panama City - October 7-11, 2014 By Pamela Gonzales Granger, PE

As part of my role as Louisiana Section President, I attended the ASCE Global Engineering Conference in Panama City, Panama a few weeks ago. The conference had close to 1,000 participants from all over the world. The theme of the conference was "From Community"

Projects to Giga Projects: Civil Engineers Having a Global Impact". This year's conference was a joint effort with Engineers Without Borders which attracted a large audience of students being offered an opportunity of college credits through participation in additional advanced class time and projects in conjunction with the conference. It was exciting to see so many students attend the conference compared to previous ones and how



many were looking to the seasoned engineers for career advice and project experience stories.

The sessions of the conference offered valuable lessons learned in the analysis, design, construction and procurement phases of the Panama Canal and Boston Central Artery Tunnel Project (aka the Big Dig Project). The presenters emphasized the importance of strong project management and leadership in the successful delivery of projects, in particular the mega and giga projects. As engineers we always consider and address the technical components of a project, identifying our technical team that will deliver the products. However, the trend of seeing more mega and giga projects in our profession we need to make sure we identify and support strong project management and leadership because it is critical. The conference also focused on agency partnerships, stakeholder involvement and sustainability in the design and implementation of small and large projects.

As part of the continued promotion of our profession, ASCE is currently working on an IMAX production of big civil engineering projects titled "Dream Big" and it is scheduled to be released in the Spring of 2015. If interested you can follow the film on Facebook: www.facebook.com/DreamBigFilm.

The conference also offered great non- technical sessions and forums with distinguished leaders including Lt. General Thomas P. Bostick, PE, Chief of Engineers and Commanding General, US Army

Corps of Engineers. Several networking opportunities were available during the conference and I was able to make new friends in the ASCE community and reconnect with ASCE members I have met over the years from all over the US and we shared ideas and lessons

> learned not only regarding projects but ASCE branch and section activities.Our National ASCE Annual Business Meeting is part of the conference and I

was fortunate to witness the induction ceremony of our 2014-15 Board of Directors. This Annual Business Meeting was the last one for our current Executive Director Pat Natale, PE who is retiring after 12 years. He "passed the torch" to Tom Smith our current lead

counsel for ASCE who will become our new Executive Director.

Last but not least, each conference registration included a tour of the ongoing construction of the Third Set of Locks as well as the Miraflores Locks. Both the ongoing construction project and the working Locks were exciting to see. Many of us on the same tour with me only wished the announcement wouldn't have been made for the ASCE group to get on the bus as two large vessels were approaching the locks. We responded similar to kids being told by their parents they were leaving the McDonald's playground after only five minutes. Though I missed the vessels passing through the locks, I consider the tour one of the great events of the conference. I truly appreciate the opportunity to represent the Louisiana Section at this great conference.

Below are a few pictures showing the ongoing construction

project, the large vessels entering the canal as well, as the swearing in of our new national leadership and the passing of the torch from Pat Natale to Tom Smith as new Executive Director for ASCE (above).





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### Engineering Profile: Dale Berner, PhD, PE – Innovator in American Design and Marine Construction By Robert Turner, PE and Michael O'Sullivan, PE, SE, LEED AP

We are all affected by life's experiences. The final design of the New Orleans IHNC Surge Barrier is due in large part to one engineer's life experiences. His education and experience mirrored American marine construction practices during a 30-year period, confirming American design and construction innovation and ingenuity. He had no way of knowing, as his civil engineering career unfolded, that his education and experience would result in his design being named ASCE's "Outstanding Civil Engineering Achievement for 2014." – the coveted award given at the OPAL Gala annually. Just announced, the IHNC Lake Borgne Surge Barrier also won the International Federation of Consulting Engineers (FIDIC) Outstanding Project of the Year of 2014. The project has now received more than 20 engineering awards for engineering excellence.

Growing up in southern California, Dale Berner had little thoughts about the road ahead. Raised by a single parent, uncommon at the time and often impecunious, he worked his way through college at University of California, Berkeley (hereinafter Berkeley). After earning a bachelor's degree in Civil Engineering, Dale continued his studies at Berkeley and became a graduate assistant to Professor Ben C. Gerwick, Jr. in the Construction Engineering Program.

At the time, Berkeley was at the forefront of Civil Engineering. Dale was a young man on the go in the 70s at Berkeley, being mentored by Ben himself, and Ben's peers, Professors Egor Popov, Milos Polivka, David Pirtz, and T.Y. Lin. This level of mentoring was an opportunity few engineers received. Dale continued his studies earning a Master of Engineering degree, followed by a PhD in Civil Engineering with focuses on Construction Management, Structural Materials, and Ocean Engineering, from Berkeley, in 1984.

As luck would have it, Ben Gerwick Jr. had been exposed to marine concrete construction for many years, as his father was a major marine foundation contractor. Ben C. Gerwick, Inc. built major bridge foundations, and numerous concrete wharves, supported on pre-stressed and conventionally reinforced concrete piles. Projects were primarily on the west coast of the United States, with some on the east coast, as well as on the Mississippi river in Baton Rouge, LA. Some projects pioneered the use of large precast concrete shells and tremie placement of concrete. As a professor at Berkeley, Ben Gerwick Jr., became an internationally renowned expert in marine concrete construction and marine heavy construction methods.



Eye level shot of the construction of the IHNC Lake Borgne Surge Barrier

Under his tutelage, Dale initially became an expert in advanced modern concrete materials. At the same time, his association with professor Gerwick exposed Dale to precast concrete pile technology, precast construction methods, and a variety of extremely large record setting construction



Dale Berner, PhD, PE

projects. Most of these projects were built in very challenging soil conditions. These projects advanced the speed and size of construction by borrowing advanced construction approaches used on one type of project, and adapting it for use on another type. It was American ingenuity at its best, building on what the U.S. Navy learned in WWII, and expanding American construction practice to build ever-larger bridge and offshore oil projects, first in the Gulf of Mexico, and then worldwide.

Dale went straight to work for Ben Gerwick after graduate school. As American concrete construction moved offshore into the Arctic, and the North Sea, Dale was exposed to all varieties of major projects in difficult marine environments. Ben once sent Dale to Norway to perform hand calculations to repair concrete shell failures in fjords off the North Sea. Dale's hand calculations competed with and compared with MS DOS computing software at the time. (Dale was not allowed to use the software himself, because Ben could not trust it, but Ben trusted Dale.)

As his career progressed, Dale became sought after for his engineering skills, especially in the areas of locks and dams. From Argentina to Louisiana and San Diego to Pennsylvania, Dale worked tirelessly to continually push the engineering boundaries of lock and dam construction and design. Risk study assessments, conceptual and final designs and construction engineering were some of the varied projects Dale found himself involved. Not to mention, he was also asked to consult on the rewriting of many of the codes that governed the construction of these projects in the United States.

It was the concrete construction expertise in wet environments that led to consulting with the US Army Corps of Engineers (USACE). One of the first examples was the Braddock Dam project in Pittsburgh, PA, between 1996 to 2000. Dale did consulting engineering for the conceptual and final designs for Braddock Dam (Monogahela Locks and Dam 2), built using float-in precast concrete shells in-filled with tremie concrete. The success with that project led to involvement with the Olmsted Locks and Dam Project on the Ohio River, in Ohio, from 1996 to present. Dale was the Construction Engineer / Design Manager for the final design and construction engineering of the Olmsted Dam. The dam includes five 110-footwide tainter gates, a 1,400 foot long wicker gate navigable pass, a fixed weir and two boat abutments to be built using off-site

prefabricated concrete shells, in-filled with tremie concrete. In 1999, Dale was consulting engineer for the development of the USACE's Engineering Circular: EC 1110-2-6052 Structural Design of Precast and Prestressed Concrete for Offsite Prefabricated Construction of Hydraulic Structures. In 2005, as a consulting engineer to the USACE, Dale wrote major portions of ETL, 1110-2-565: Foundation Engineering: In-the-Wet Design and Construction of Civil Works Projects.

Success with many other USACE projects led to Gerwick teaming with Shaw Environmental and INCA Engineers to ultimately being selected as the team to design and build the IHNC surge barrier, the largest civil design-build project in USACE's history.

Dale Berner is the Engineer of Record for the surge barrier structure, as well as the bypass barge and sector gate concrete monolith. It is important to note that Dale's leadership influenced the final location of the barrier, the batter pile braced barrier wall itself, the necessary height, and the judicious use of many precast components that allowed ease of construction and acceleration of schedule. Mirroring Dale's and Ben Gerwick's experience, the decisions to use these various structural components were based on proven construction methods and successful use on other projects. Dale personally calculated the required location of the barrier. The location never changed, even following extensive review by many agencies. Under Dale's leadership 66-inch diameter cylinder piles with a total length of 120ft, assembled using 20-foot segments were utilized. Using the precast piles accelerated the construction and allowed fabrication to begin before the final pile length was confirmed in design.

Aside from having the project receive national recognition, Dale takes great satisfaction in knowing that the surge barrier was tested by hurricane Isaac before final completion, and which prevented \$5 billion dollars in damage and saved countess lives. Hurricane Isaac was a confirmation of American design and construction practice and the design-build approach to accelerate early construction of major projects. Below is a complete listing of all the engineers of record for the IHNC Lake Borgne Surge Barrier project:

Dale E. Berner, PhD, PE of Ben C. Gerwick, Inc. is the Engineer-of-Record for:

- The main barrier, including the flood wall and the MRGO closure
- The GIWW sector gate monolith walls and foundation
- The GIWW bypass concrete barge swing gate
- The GIWW barge gate mechanical operating systems
- Approach walls at the GIWW sector gate
- Scour stone protection for the barrier and gates

James Costello, PE of Tetra Tech INCA is the Engineer-of-Record for:

- The GIWW steel sector gate (with Dan Hartford)
- Approach walls at the Bayou Bienvenue lift gate

Dan Hartford, PE of Tetra Tech INCA is the Engineer-of-Record for the GIWW steel sector gate (with James Costello).

David Lapene, PE of Tetra Tech INCA is the Engineer-of-Record for the Bayou Bienvenue lift gate abutments and foundation.

Dale Miller, PE of Tetra Tech INCA is the Engineer-of-Record for the Bayou Bienvenue steel lift gate towers and bridges.

Mary C. Danka, PE of Shaw Environmental & Infrastructure, Inc. is the Engineer-of-Record for the GIWW swing gate abutments and foundation.

Steve Johns, PE of Waldemar S. Nelson and Company, Inc. is the Engineer-of-Record for the Bayou Bienvenue steel lift gate.

Francis Ducote, PE of Ducote Engineering Assoc., Inc. is the Engineer-of-Record for the Bayou Bienvenue lift gate mechanical engineering.

Anthony F. Goodgion, PE of Linfield, Hunter and Junius, Inc. is the Engineer-of-Record for the T-walls on land, at the north and south ends of the Lake Borgne barrier.

The Southeast Flood Protection Authority – East (SLFPA-E) has openly shared that the coordination between the Federal sponsor, Local sponsor and all the cooperating agencies unsurpassed in the delivery of a project of this size, complexity and duration.

Dale has advocated large scale sediment diversion by rerouting the Mississippi River to rebuild the marsh and barrier islands. Currently, Dale Berner is one of the lead reviewer's for the Mid-Barataria Sediment Diversion project.

During the later stages of the IHNC project, Dale served as president of Ben C. Gerwick, Inc. and now is a Technical Director of the company.



Recent FIDIC award



Dedication of the IHNC with plaque. Left to right: Bob Turner, Dennis Lambert, Colonel Richard L. Hansen, Commander of the New Orleans District, and Stephen Johns

**Michael O'Sullivan, PE, SE, LEED AP** is a Senior Project Manager at Ben C. Gerwick | COWI. He has over 40 years of experience in marine structural engineering and was the Project Manager for Ben C. Gerwick | COWI on the IHNC Lake Borgne Surge Barrier project.

**Robert Turner, PE** is the Regional Director, Southeast Louisiana Flood Protection Authority – East (SLFPA-E). He is responsible for flood protection in the Greater New Orleans area east of the Mississippi River and was the SLFPA-E representative on-site during the construction of the IHNC Lake Borgne Surge Barrier project.

#### EDITOR'S NOTE: CENTENNIAL AWARDS CORRECTION

As the editor of the Louisiana Civil Engineer, I sincerely apologize for the mistake made in August Vol. 22, No. 4 issue of the journal. We inadvertently used the wrong photograph identifying the Cognac Platform. Please see the correction below. As always, we appreciate the hard work and dedication that all of the award winners and nominees have put forth in our great state toward engineering greatness and public safety. Thank you, Nedra Davis

# Award 5: Winner of the Oil & Gas Structures and Facilities Category

SHELL COGNAC PLATFORM



Cognac was the first platform located in the deep water of the Gulf of Mexico. The discovery well was drilled in July of 1975. Afterwards, Shell contracted with McDermott of Morgan City to build and install the fixed steel platform. The 50,000 ton structure was built on land and then floated to the site where it was installed on July 25, 1977 in three separate units – the base, middle and top. Production from the platform began a year later. At the time of its installation, Cognac was the world's deepest offshore water platform and the world's tallest and heaviest steel structure – taller than the Empire State Building. By 1981, 61 wells had been drilled using two drilling rigs, which when placed on the deck, made Cognac 1,265 feet tall. Upon completion and running at full production in 1982, the Cognac

platform produced 72,000 barrels of oil and 100 million cubic feet of gas a day.

"As Supervisor of the Civil Engineering Team for Shell Exploration and Production Company in New Orleans I was most excited to hear that our Cognac Platform (MC 194A) was awarded the winning project for Oil and Gas Structures and Facilities in the LA ASCE Centennial Awards Program. Shell is very proud of its civil engineering achievements in the oil and gas industry, which have spanned many decades. Cognac, along with our Auger Tension Leg Platform and our former Bullwinkle platform, all received the Outstanding Civil Engineering Achievement Awards awarded by ASCE in the past."

- Randall J. Abadie, PE, F. ASCE | Supervisor, Civil Engineering and Diving | Upstream Americas Deepwater



Lower jacket section being loaded out at McDermott's Amelia, LA Facility

# LOUISIANA SECTION LAUNCHES INNOVATIVE GROUP

The Louisiana Section has launched a committee to consider and prepare nominations for national ASCE awards. The committee is being led by E. Raymond Desormeaux, PE, F.ASCE, a former Past-President of the Section and Region 5 Director. The Committee will focus on nominating for Outstanding Projects And Leaders (OPAL) leadership awards. There is no better way to shed the spotlight on accomplishments of Section members than by developing meaningful nominations and there is no better allay than local members. The group will also work to bring to the forefront members qualified for Distinguished Membership, the profession's most prestigious honor, and innovations worthy of the Charles Pankow Award for Innovation that recognizes innovative design, materials or construction-related research and development transferred into practice. If your section has a similar program or wants to know how to launch such a group, please contact <u>awards@asce.org</u>.

# A Letter to the Editor

#### Dear Ms. Davis,

Having just read my issue of Vol. 22, No. 4, and reading and appreciating about the award-winning projects, and runners-up, of the centennial gala, I was reminded of an innovative solution to a problem I encountered in the Sahara Desert some years ago, in 1964-65, as I recall.

I am a retired Civil Engineer, an LSU graduate of 1956, registered in Louisiana, and a Fellow, ASCE. After graduation, I began working internationally as a pipeline construction field engineer.

This led to extensive varied projects all over the world, and in 1963-66, to oil field infrastructure development work in the Libyan Sahara Desert. We were awarded a 30 well gathering system installation contract, in an all-sand area about 100 km. South of Marsa Brega in central Libya. Each well had a 2-5 mile section of 6" buried gathering line leading to a central manifold and separation station, resulting in 30 individual short runs of 6" pipe and ditch, each 2-5 miles long from each individual well to the central manifold. As you know, dry sand has an angle of repose of 45 degrees, making a ditch 4' deep result in an 8' top width.

Most of our digging equipment was occupied on other work, so an innovated solution was required, but what would work, especially getting all that sand out of the ditchline far enough to either side so that it would not run right back into the ditch???

As a young boy, I had helped my Grandfather in his potato field in South Louisiana, digging out his potatoes for harvest. This was before we had any tractors, so the potato rows were opened up using a "middle-buster" plow pulled by 4 horses. This plow cut +/one ft. deep by 2 ft. wide top width, leaving the potatoes exposed for picking up.

Hence, the idea for a BIG middle-buster!!! We had several D-8 tractors, at that time the largest and most-powerful Caterpillar made. We also had a hydraulic Ripper attachment on one of them, used for ripping thru rock up to 6' deep, with a single large tooth extending 6' down. So, we fabricated and welded together a 4' deep by 8' wide at the top Middle Buster around the ripper tooth,

with wings extending far enough to each side to get the sand away from the ditch top, and tried it out. We had to use the Ripper tractor to handle the plow, and tied two more D-8's ahead with 1 1/8" cable to pull. The result was plowing a perfect 4' deep ditch 8'wide at about 3-4 mph. As a result, we could plow and lay in the ditch, one complete flow line in a day, once we were ready.

As the old saying goes, necessity is the mother of invention. We didn't invent anything, just applied what we had to what we needed. The result was a successful conclusion.

Perhaps this story will encourage some of our young up-andcoming Engineers to look at problems with a broader view, outside the box, so they say. This was just one incident that came to mind; in my 83 years and some 30 of them on projects in remote parts of the world; innovation became a necessity to get the job done.

Keep up the good work; I always look forward to reading the Chapter News.

Ben Garber, PE, F.ASCE, Retired Lake Charles, LA

Dear Mr. Garber,

Thank you so much for your interesting story! I hope you don't mind that I shared it with all of our members. It is great to hear stories from our long and esteemed members. Thank you for the compliments on the journal; our hard working ASCE members that serve the Section, Branches, Committees, Institutes, & Student Chapters make our Louisiana Civil Engineer great.

Thank you, Nedra S. Davis, MA Editor

\*If you have a short story you would like to see included in the Louisiana Civil Engineer, write to the Editor, Ms. Nedra Davis, <u>nedrasuedavis@gmail.com</u>. We do not guarantee all submissions will be included.

# 2014-15 ASCE Louisiana Section Awards and Officers Installation Luncheon

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CIVIL

ENGINEERS

**Centennial Anniversary** 

The 2014 Louisiana Section Awards and Officers Installation Luncheon was held on September 12, 2014, at the Petroleum Club in Lafayette, Louisiana and was hosted by the Acadiana Branch. Acadiana Branch President Tyler Roy, called the meeting to order, gave the invocation, and welcomed everyone to the luncheon. Section President Bob Jacobsen made the opening remarks.

President Jacobsen cited the many accomplishments during the past year and thanked the Section Board for their hard work and support.

Afterwards, Section Awards Committee Chairman Luke Hebert opened the awards ceremony. The ASCE Louisiana Section Awards were instituted to recognize the outstanding contributions of Louisiana civil engineers for service to their profession and ASCE. He thanked

the branches for nominating an outstanding slate of candidates for consideration for each award. The quality of the nominees for the various awards made the awards committee's task to determine this year's award recipients very difficult. Chairman Hebert also thanked the awards committee, for their efforts in reviewing the numerous nominations and assisting in selecting this year's recipients.

#### This year's Section Award recipients were:

Jerry Daniel Thompson, PE – Outstanding Young Civil Engineer Jeffrey L. Duplantis, PE – Outstanding Civil Engineer Elba Urbina Hamilton, PE – Outreach Reda M. Bakeer, PhD, PE – Lifetime Achievement Malay Ghose Hajra, PhD, PE – Educator of the Year

This year's award recipients reflected a wide range of work experiences varying from consulting to government to academia were honored during the ceremony. Each of these award recipients shares a common bond – they are all dedicated to their civil engineering profession, ASCE, their communities, and their families.

The highlight of the ceremony was the presentation of the 2014 Wall of Fame inductees. Each branch can select up to one nominee for inclusion to the Wall. It is the highest honor that can be bestowed upon a Louisiana Civil Engineer by the Louisiana Section.

This year's inductees include:

Ara Arman, PE – Baton Rouge Stanton Ennes Huey Jr, PE – Shreveport

After Chairman Hebert presented the Section Awards, Section President Jacobsen announced the final award of the ceremony, the President's Medal, to Stephen Johns.

Norma Jean Mattei was then called upon to install the incoming Section Officers and Board of Directors for the Louisiana Section for the 2014-2015 administrative year.

#### The 2014-2015 Section Officers are:

President – Pamela A. Gonzales Granger, PE President-Elect – Christopher G. Humphreys, PE Vice-President – Matthew D. Redmon, PE Secretary-Treasurer – Jeffrey L. Duplantis, PE Past President – Robert W. Jacobsen, PE

#### The Board of Directors are:

Acadiana Branch President – Beau J. Tate, PE New Orleans Branch President – Lee M. Alexander, PE Baton Rouge Branch President – Kirk Lowery, PE Shreveport Branch President – David B. Smith, PE

#### At-Large Directors

Ronald L. Schumann, Jr, PE Russell J. Coco, PE

#### **Assigned Directors**

Malay Ghose Hajra, PhD, PE Rudolph A. Simoneaux III, PE W. Tyler Roy, EI Patrick K. Furlong, PE

The meeting concluded with outgoing President Jacobsen and incoming President Gonzales Granger exchanging the President's Plaque and Past-President pin. Incoming President Gonzales Granger closed the luncheon and thanked everyone for attending.

# 2013-2014 ASCE Louisiana Section Officers



President



Pamela A. Gonzales Granger, PE Christopher G. Humphreys, PE President-Elect



Matt D. Redmon, PE Vice-President



Jeffrey L. Duplantis, PE Secretary-Treasurer



Robert W. Jacobsen, PE Past President

### 2014-2015 ASCE Louisiana Section Leadership



Left to right front row: Tyler Roy, PE; Beau J. Tate, PE; Christopher Humphries, PE; Pamela Gonzales Granger, PE; Matthew Redmon, PE; Robert Jacobsen, PE; Ronald Schumann, PE, and Malay Ghose Hajara, PhD, PE. Back row: Patrick K. Furlong, PE; Lee M. Alexander, PE; Jeffrey Duplantis, PE; and Rudolph Simoneaux, III, PE (not pictured: Joey Coco, PE; Kirk Lowery, PE; and David Smith, PE)



Pamela Gonzales Granger accepts the Presidential gavel from Bob Jacobsen



Bob Jacobsen accepts the Past President's Pin from Pamela Gonzales Granger

# 2013-2014 ASCE Louisiana Section Board of Directors



Beau J. Tate, PE Branch President Director



Lee M. Alexander, PE Branch President Director



Kirk Lowery, PE Branch President Director



David B. Smith, PE Branch President Director



Ronald L. Schumann, Jr., PE At-Large Director



Russell J. Coco, PE At-Large Director



Malay Ghose Hajra, PE Assigned Director



Rudolph A. Simoneaux III, PE Assigned Director



W. Tyler Roy, El Assigned Director



Patrick K. Furlong, PE Assigned Director

# 2014 Louisiana Section Awards



Stanton E. Huey, Jr, PE Wall of Fame



Ara Arman, PE Wall of Fame



Reda M. Bakeer, PhD, PE Lifetime Achievement

# 2014 Louisiana Section Awards



Jeffrey L. Duplantis, PE Outstanding Civil Engineer



Stephen O. Johns, PE President's Medal



Malay Ghose Hajra, PhD, PE Educator of the Year

### USACE Completes 2011 Morganza Tailbay Scour Repair By T. (Jerry) Shih, Russell A. Beauvais, and Kayla L. Leblanc, U.S. Army Corps of Engineers (New Orleans District)

#### **Background:**

Authorized under the Flood Control Act of 1928, the Morganza Control Structure (MCS) and the Morganza Floodway was designed to pass 600,000 cubic feet per second (cfs) of Mississippi River floodwater at a specific design stage to the Gulf of Mexico via the Morganza Floodway, Atchafalaya Basin Floodway, lower Atchafalaya River and Wax Lake Outlet. The MCS was completed in 1954; it has 125 gate bays and is 3,906 feet long. Each gate bay has a crest weir with a top elevation of 37.5 feet NGVD29, and on top of the crest weir is a two-leaf (upper and lower panel) gate. According to the current MCS water control manual, a gate shall be either fully opened or closed to divert sufficient floodwater from the Mississippi River to avoid unacceptable stress along the main stem of the Mississippi River. At the toe of the weir's downfall, there are two rows of baffle blocks installed on the stilling basin floor to dissipate the energy of the floodwaters passing through the structure. The floor and end-sill wall of the 86 feet long stilling basin is at elevation 29.0 and 32.0 feet NAVD29, respectively. Behind the end-sill wall, there is an 80 feet long extended derrick stone apron installed parallel to the structure as shown in Figure 1.



Figure 1. The Morganza Control Structure (MCS) in 1954

#### Project Flood:

The operation of the MCS is based on a Mississippi River and Tributaries flood damage risk reduction feature called "Project Flood" to prevent riverine flood stages from exceeding the approved flowline, i.e. encroachment on freeboard requirements, limiting flows to design discharge of 1,500,000 cfs between MCS and Bonnet Carre Spillway, and limiting flow below the Bonnet Carre Spillway to the design flow of 1,250,000 cfs.

#### 1973 & 2011 Operations:

To date, the MCS has only been operated twice, 1973 and 2011; however, both operations have caused severe scour damage immediately downstream of the structure. The first operation was held from April 17to June 15, 1973 to relieve pressure from the failing Old River Low Sill Control Structure a few miles upstream. During the 1973 flood fight, 42 out of 125 gates were used and the maximum discharge flow rate was estimated at 194,000 cfs. After

the 1973 operation, a plunge pool (also known as an energy dissipation pond) was installed behind the middle one-third gate bays located immediately downstream of the derrick stone apron as shown in Figure 2. The plunge pool had a Vertical (V)/Horizontal (H) =1/10 concrete paved front slope and a V/H=1/4 back slope. The plunge pool bottom was partially lined with concrete and riprap with a bottom elevation of 19.0 feet NGVD29. The horizontal distances of concrete and riprap varied from 90 feet to 110 feet and 10 feet to 30 feet, respectively. The front and back slopes met with ground elevations at 31.0 feet and 32.0 feet NGVD29, respectively.



Figure 2. The MCS with Plunge Pool in 1976

The second operation was held from May 14 to June 7, 2011 to pass the floodwaters as mandated by the "Project Flood" design. The 2011 operation was the first time the structure was operated for its designed purpose since construction in 1954. During the structure's operation, 66 out of 125 gates were used, but only up to 17 gates were opened simultaneously at any given time resulting in an estimated discharge flow rate of 170,000 cfs.

#### 2011 Scour Damages & ERDC:

The 2011 operation caused more scour damage than the 1973 operation to the immediate downstream areas of the MCS. The worst scour hole was approximately 30 feet deep, as presented in Figure 3, which maps the series of underwater scour damage



Figure 3. 2011 Underwater Scour Damage Surveys

**4**SCE

surveys performed during the 2011 operation. In April 2012, the U.S. Army Corps of Engineers (USACE) New Orleans District (MVN) un-watered the scour holes to inspect the undermining damage to the concrete slab at the bottom of the plunge pool and to perform a topographic survey. Figure 4 depicts the scour profile plotted downstream of each operated gate bay. Since scouring and riprap movements are caused by the dynamic forces and the application of stone size equations combined with numerical model results below a hydraulic jump were not yet well developed, USACE's Engineering & Research Development Center (ERDC) was asked to perform an investigation study via a physical model. The investigation had four specific purposes: (1) to develop a scour protection plan for the plunge pool gate bays (2) to develop a scour protection plan



Figure 4. Scour Profile Downstream of Each Operated Gate Bay



Figure 5. ERDC Physical Model in 1:22 Scale



Figure 6. ERDC Physical Model with Plunge Pool Experiment

for the non-plunge pool gate bays (3) to update the 1951 discharge rating curve to include a higher headwater, actual crest design, and actual pier design information and (4) to use the study findings to update the MCS gate operation sequence to reduce/eliminate the scour damage seen in 1973 and 2011.

#### **Physical Models:**

The first physical model constructed by ERDC modeled 10 of the 125 gates bays built to a 1:22 scale-down model according to the plunge pool configuration as represented in Figures 5 and 6. After completing the plunge pool modeling, the tailbay portion of the model was reconfigured to the stilling basin configuration without a plunge pool as represented in Figures 7 and 8. For both models, the stability tests were conducted at a peak headwater elevation of 60.0 feet NGVD29, which would result in water at the top of the gates. To convert vertical datum from NGVD29 to NAVD88, one needs to add -0.37 feet. Based on ERDC's modeled results and final report, three principle reasons caused the 2011 MCS tailbay scouring: (1) little to no tailwater immediately behind the structure (2) benchmarked headwater stage had been increased since the structure was constructed in 1954 and (3) only some of the 125 gates were used to pass the flood waters.

For the discharging curve revision, the discharge rating plots and equations were developed for four different flow regimes: un-controlled flow without submergence effects of the tailwater; uncontrolled flow with submergence effects; upper gate leaf in without submergence effects; and upper gate leaf in with submergence effects. The new discharge rating formulation was used to evaluate the discharges estimated during the 2011 flood



Figure 7. ERDC Physical Model Half-Gate Opening Experiment



Figure 8. ERDC Physical Model Baffle Block Experiment

fight; however, based on the discharge rating study, none of the 2011 discharges were affected by submergence from the tailwater. The revised discharge was approximately 6% less than the discharges estimated during the 2011 flood fight. The revised discharge along with the 1951 tailwater rating curve that was used to develop the revised tailwater rating curve is presented in Figure 9.



Figure 9. The Revised MCS Tailwater Rating Curve

#### Gate Opening Strategies:

As recommend by ERDC's physical modeling, the gate operating sequence for the structure needed to be revised to incorporate one of the three recommended operation plans to reduce future scour of the repaired tailbay area. The three different operation plans included half gate operations, full gate operations, and a combination of both half and full gate operations. All three operation sequences start the water discharge within the plunge pool area by initially opening up to 20 out of 42 plunge pool gate bays with no adjacent gates opened simultaneously for an anticipated discharge of about 200,000 cfs and tailwater elevation of 46.0 feet. Once the passage of flow is greater than 200,000 cfs, the operation has three alternative gate operating sequences.

The first alternative gate operation is to start opening non-plunge pool gates to a half gate opening by leaving the upper gate leaf in place. Once the required discharge is above 456,000 cfs, the 78 gates in the non-plunge pool area are half opened and 7 additional plunge pool gates will be set to a half opening until the maximum discharge of 600,000 cfs is reached. The second alternative is to fully open 7 additional gates in the plunge pool area increasing the discharge to 270,000 cfs. Once the required discharge is above 270,000 cfs, 72 non-plunge gates will be opened to a half gate opening by leaving the upper gate leaf in place until the maximum discharge of 600,000 cfs is reached. The third alternative is similar to the second alternative as 7 additional gates are fully opened in the plunge pool area to increase the discharge to 270,000 cfs. Once the required discharge is above 270,000 cfs, 41 of the non-plunge gates will be fully opened to reach the maximum discharge of 600,000 cfs. All three alternative operating sequences modeled assume the maximum head elevation of 60 feet and none of the alternatives prevented some scour from developing past the repaired riprap areas.

#### Critical Conditions:

According to ERDC's extensive testing, tailwater between elevation 41.0 and 47.0 feet NAVD88, with a corresponding flow rate between 100,000 to 250,000 cfs, resulted in worse scour damage below the plunge pool apron. The worst damage occurs at a tailwater elevation of 45.0 feet NAVD88, which has a corresponding flow rate of 170,000 cfs. The repair solution recommended by ERDC concentrates the floodwaters into the plunge pool to dissipate the energy and raise the tailwater to reduce the discharge velocity throughout the tailbay. While some scour will still occur past the repaired sections of the plunge pool and non-plunge pool gates, the potential scour areas are an acceptable range away from the structure (between 300 to 500 feet away) and would not jeopardize the integrity of the structure. The physical model confirmed that the MCS is capable of diverting the 600,000 cfs designed flow rate at the most severe "Project Flood" conditions.

#### Damage Repair Game Plan:

To meet the primary project goal of having the MCS fully repaired by the 2014 flood season, the construction phase of the repair work was executed by the New Orleans District (MVN) in three consecutive phases, each occurring upon completion of its respective physical model experiment. The repair and construction materials (mainly riprap stone) were hauled from pre-approved quarries along the upper Mississippi River via barges to an off loading site along the west bank of the Mississippi River near the town of Morganza. The material strength, stability, slopes and protection of critical sections replicated the conditions tested by the model.

The main object of the first phase was to perform immediate repairs to stabilize the undermined plunge pool's concrete slab that was constructed in 1973 and to prepare the tailbay for the second phase of construction. The Vicksburg District (MVK) and MVN hired labor crews began construction in June 2012 by un-watering scour holes behind the plunge pool, driving steel sheet piles, and grouting spaces under the plunge pool's concrete slab. On September 18, 2012, the plunge pool repair plans as recommended by ERDC were approved. Construction began on September 19, 2012 with hired labor crews grading 200 feet behind the concrete slab of the plunge pool to elevation 10.5 feet NGVD29 and sloping upwards 105 feet with a V/H = 1/7 slope; moving displaced derrick stone back into the existing apron adjacent to the plunge pool and grouting the stone in place; and constructing a three-mile haul road which included widening mainline levee ramps, state highway approaches and Kansas City State railroad crossings. The first phase of repair work



Figure 10. Installing Sheet Pile at the Plunge Pool's Foreslope Toe

was physically completed on April 26, 2013. Figure 10 shows the steel sheet pile installed at the toe of the plunge pool's concrete slab to prevent further undermining in future operations. Figures 11 and 12 were the construction of a three-mile haul road, which provided accessing for trucks hauling the riprap from the Mississippi River bank to the MCS.



Figure 11. Rock Delivery Barge at the Riverine of the Mississippi River



Figure 12. Cow Bayou Crossing Culverts

The main objective of the second phase was to complete all repairs in the plunge pool area of the tailbay before the 2013 flood season by extending the existing plunge pool approximately 300 feet to maintain the structure's integrity and to prevent scour holes from forming immediately downstream of the structure. A contract was awarded on April 2, 2013 to deliver, haul, and place approximately 140,000 tons of stone ranging from bedding stone to derrick stone 2 (6,000 lb top size) in the extended plunge pool area. The contractor completed all the repair work on June 15, 2013 as shown in Figure 13.



Figure 13. The Completion of Phase II Construction

The main objective of the third phase was to have the MCS fully operational by the 2014 flood season by finishing all repairs required behind the non-plunge gates, Cow Head Bayou and tailbay area. The MVN and MVK hired labor crews graded the area behind the non-plunge pool gates to elevation 29.0 feet NGVD29, completed leveling the natural ground behind the Phase III area to allow for drainage, and re-built approximately 300 feet of bank line along Cow Head Bayou that was scoured during the 2011 operations. A contract was awarded on September 19, 2013 to deliver, haul, and place approximately 75,000 tons of stone ranging from bedding stone to R-2200 lb top size riprap 100 feet behind the original riprap apron of the non-plunge pool gates. The contractor completed all repair work on March 19, 2014 as shown in Figures 14 and 15.



Figure 14. The Completion of Phase III Construction

#### Project Status:

After 18 months of repair and construction, the MCS is ready and capable of passing the project flood. Based on ERDC's recommendation and lessons learned from operation in the 2011 flood, USACE is refining the MCS Water Control Manual to ensure that the Corps can safely operate the flood control structure in the future.

#### **Acknowledgements**

The authors would like to thank the following



agencies and people who encouraged and supported the physical model study, which makes repairing the MCS floodway possible: Head Quarters USACE, Mississippi River Commission, MVD, MVN, MVK, ERDC, Dr. Steve Maynord, Project Delivery Team members (George Glos, Tim Bordelon, Leeland Richard, and Matthew Crawford) and many others.

**T. (Jerry) Shih, PhD, PE, M ASCE** is a Senior Hydraulic Engineer of U.S. Army Corps of Engineers, New Orleans District. Dr. Shih can be reached at Tzenge-Huey.Shih@usace.army.mil or (504)862-2423 for additional information.

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Kayla L. LeBlanc is the Assistant Operation Manager of U.S. Army Corps of Engineers, Old River Project. Ms. LeBlanc can be reached at Kayla.L.Leblanc@usace.army.mil or (225)492-2169 for additional information.

# ASCE Seeks Congressional Fellow

By the Louisiana Section ASCE (L.ASCE) Government Relations Committee

# ASCE | GOVERNMENT RELATIONS

ASCE is now beginning the process of selecting our next Congressional Fellow. The ASCE Congressional Fellows Program provides an opportunity for an ASCE member to work for one year on the staff of a Congressional Committee, U.S. Senator or member of the U.S. House of Representatives. The deadline for applications is February 27, 2015 for the Fellowship year beginning September 1, 2015.

Since 1997, eighteen ASCE members have been Congressional Fellows. ASCE Fellows join with more than 30 colleagues from 22 other engineering and scientific organizations to bring engineering and scientific advice to members of Congress. Since the program's founding by the American Association for the Advancement of Science (AAAS) in 1973, the Congressional Fellows Program has had several objectives. First and foremost has been to create a cadre of Congressional staffers who understand science and engineering and enhance the capabilities of Congress to deal with those issues. A second objective has been to develop a group of scientists and engineers who understand Congress and who will return to help the science and engineering community improve its

ability to impact public policy. The third objective has been to expose members of Congress and their staffs to the ways of thinking in scientific and engineering fields. The final objective has been to make it easier for the general scientific and engineering community to deliver messages to Congress.

The Congressional Fellowship is open to any ASCE member who is a U.S. citizen. Factors to be weighed by the selection committee include advanced degrees, registration as a Professional Engineer, involvement in ASCE, public policy experience and professional experience. Additionally, the selection committee must also be sensitive to possible conflicts of interest. For more information about the Congressional Fellows program visit the ASCE website or contact Martin Hight, Senior Manager, Government Relations at 202-789-7843 or mhight@asce.org.

# Louisiana Transportation Funding Task Force

The House Concurrent Resolution No. 166 of 2014 legislative session established the Transportation Funding Task Force to study and make recommendations relative to transportation funding mechanism to be used in the state. Additionally, it required that the task force to make recommendations for guidelines for utilization of the transportation funding mechanisms. The task force members are: Representatives Karen St. Germain and Terry Landry, **CLOSED** Senators Robert Adley and Jack Donahue, DOTD Secretary Sherri LeBas, Ken Naquin, representing Associated General AHEAD Contractors, General John Basilica, representing Louisiana Good Roads and Transportation Association and Dr. Kam Movassaghi, representing ASCE and ACEC.

The task force has held three meetings: one on September 10th, September 30th, and October 30th. On September 10th meeting, Secretary LeBas made a

resentation on DOTD's funding and operation. At the same meeting, Mr. Sujit Canagaretna of the Southern Legislative Conference, made a presentation on transportation issues facing the member state. There were also discussions regarding the TIMED program funding and its relationship to DOTD's budget. Mr. Canagaretna utilized the ASCE National Report Card in his presentation.

> The September 30th meeting included presentations by Treasurer John Kennedy on gas and fuels tax bonds and funding of transportation projects through Capital Outlay process. Dr. Movassaghi made a presentation on "A New Model for Louisiana's Infrastructure."

The October 30th meeting included a presentation by J.P. Morgan on Louisiana Transportation and Infrastructure Financing: A National Perspective. All meetings are open to the public. The next meeting is TBA.

# **ASCE-COPRI Louisiana Chapter News**

By Dennis G. Lambert, PE, Newsletter Editor



The Louisiana Chapter of the American Society of Civil Engineers (ASCE) Coasts, Oceans, Ports, and Rivers Institute (L.COPRI) is continuing to promote membership and visibility throughout the State of Louisiana by conducting joint seminars with local Branches and State Sections of ASCE.

From September 4 – 6, 2014, the ASCE COPRI Leadership Summit was held. Progress was made on several items including the continuing Ports16 Planning Committee's decision to shortlist the location of the Gala and Awards Banguet at the conference scheduled to be in New Orleans, the program of the conference which will include a special panel on the Lower Mississippi River with an emphasis on lessons learned through the interface between navigation, flood protection and restoration and a Special Issue of the ASCE Journal of Waterway, Port, Coastal and Ocean Engineering to be released prior to Ports16 with a focus on the Lower Mississippi River. The summit also held a Plenary Session on Urban Coastlines in a Changing Climate. The Louisiana Chapter was represented by Dennis Lambert. A special awards ceremony was held and the Port of New Orleans Gulf Gateway project received the 2014 COPRI Project Excellence Award in the Small Project Category. The designer, Waldemar S. Nelson and Company, Inc., represented by Charles W. Nelson, PE, Chairman of Waldemar S. Nelson and Company, Inc., received the award on behalf of the firm. For more information, http://www.asce.org/copri/News/ see Headlines/2014/2014-Project-Excellence-Awards-Announced/.



Jane McKee Smith, PE, D.CE, COPRI President (left), Charles W. Nelson, PE (center) and William Hanson, PE COPRI Board of Governors (right)

On October 2, 2014, L.COPRI held an all-day event on marsh creation. Jerry Carroll, PE, CPRA Chief of Engineering, presented on the History and Evolution of Marsh Creation Projects in Louisiana. Russ Joffrion, PE, CPRA Engineer Manager, presented on the Investigation and Analysis of Borrow Areas and Access Corridors. Jack Fink, Moffatt & Nichol, presented on the Costs, Constraints, and Risks Associated with Hydraulic Dredging and Pipeline

Conveyance. David Eley, PE, GeoEngineers, presented on Settlement/

Consolidation Analysis of Dredge Slurry Fill Material and on Post-Construction Monitoring and Instrumentation of Fill Areas. Rudy Simoneaux, PE, CPRA Engineer Manager and Chairman of L. COPRI, presented on Design Challenges and Constructability Issues Associated with the Marsh Fill Area. The event was held at Juban's restaurant in Baton Rouge and was very successful with over 75 L.COPRI and ASCE members in attendance.



Russ Joffrion, CPRA, at the Marsh Creation Conference



L.COPRI Marsh Creation Conference at Juban's Restaurant on October 2, 2014

The Army Corps of Engineers has been actively using beneficial use of dredge material (BUDM) sediment for the creation of 850 acres of wetlands down at Southwest Pass. "From the Gulf of Mexico, through Southwest Pass, up to River Mile 10 Above Head of Pass, the Corps removes roughly 17 million cubic yards of sediment each year from the deep draft navigation channel," said New Orleans District Operations Manager Michelle Kornick. For the first time in more than 15 years, the Corps dredged more material from the





Southwest Pass navigation channel using cutterhead dredges (8.9 million cubic yards) than by hopper dredges (5.6 million cubic yards). This is significant because cutterhead dredges are able to place the dredged material immediately for bank stabilization and the creation of wetlands, instead of into open water disposal areas. In total, the Corps was able to place 61% of the material dredged in the 2014 fiscal year beneficially in coastal



Louisiana. "Certainly, the primary objective of the Army Corps' Mississippi River, Baton Rouge to the Gulf of Mexico project is to ensure navigation and commerce is able to traverse the Nation's most important waterway safely and efficiently," said Col. Richard Hansen, commander of the New Orleans District. This update on the activities in the Lower Mississippi River was provided by Lee Mueller with USACE and Nancy Powell, former New Orleans District Hydraulics and Hydrologic Branch Chief and one of the Directors of L.COPRI.

L.COPRI has recently elected new officers to its Board of Directors. Rudy Simoneaux is now Chairman, Paul Tschirky is Vice- Chairman, Dennis Lambert is Secretary and Ashly Adams remains the Treasurer. Tyler Ortego and Erin Rooney will also be serving as Directors. Additional Board positions are being discussed and will be filled in the coming weeks. Also, L.COPRI's Academic and Practitioner Advisory Committee will still include Dr. Ehab Meselhe, Dr. Clint Willson, Nancy Powell, and Cathy Dunn. Jon Risinger, who led the effort in starting the L.COPRI Chapter, has recently finished his term as Chairman. The L.COPRI Board would like to thank Jon for his hard work and dedication in getting this chapter started.

The activities of L.COPRI will include seminars, workshops and other activities to benefit all ASCE and COPRI members. One does not have to be an Engineer to join COPRI. These Institutes are formed for the benefit of ASCE and non-ASCE members to participate and interact with other professionals interested in coastal and riverine efforts in Louisiana. If you have any questions or to add your name to our mailing list, please contact Tyler Ortetgo, at tortego@gmail.com.

# **ASCE-T&DI Louisiana Chapter News**



By Joffrey Easley, PE - Newsletter Editor

October 2013 marked the fifth full year of operation for the ASCE-T&DI Louisiana Chapter. The Chapter would like to acknowledge the contribution of our 2013-2014 officers. Our Founder and first Chairman was Om Dixit. Om was succeeded by Karen Holden, Dan Aucutt and David Kanger who have continued to provide support to our committee activities.

#### Officers for the 2014-2015 fiscal year:

Chair – Michael Paul Vice Chairman – Ronald Schumann Treasurer – Jim Simmons Newsletter Editor – Joffrey Easley

#### **Executive Committee Members:**

Dan Aucutt, Om Dixit, Robert Dugas, Jr., Elba Hamilton, Malay Hajra, Monica Herrera, David Kanger, Dennis Lambert, Louay Mohammad, Mike Paul, Jennifer Stenhouse, William Temple, Ann Wills

One of the long-term goals of the T&DI Louisiana chapter was to start and sustain a scholarship program. That goal was achieved during 2012 fiscal year with the formation of a scholarship subcommittee. For the third year T&DI plans to award two \$500 scholarships; the funding is provided by using a portion of our seminar proceeds. The first announcement has already been issued to various university department heads across the state. Applications will be reviewed by the Executive Committee and awardees will be announced in the next Newsletter issue.

In October the T&DI Louisiana Chapter hosted the Public-Private Partnership (PPP) - A Case Study on Louisiana PPP Guidelines and other National Projects seminar which was presented at the LSU TTEC auditorium in Baton Rouge. The seminar was coordinated by



P3 Seminar Sponsor Dennis Lambert and Speaker Francisco del Pozo and Cheryl Duviehl (from Left to Right)



T&DI Executive Committee Member Dennis Lambert and was co-sponsored with the Louisiana Transportation Research Center. The seminar presented information about Louisiana legislation that allows alternative and innovative funding sources, including PPP, to be used to supplement public revenue sources. The seminar also discussed the history and development of PPP projects. Two speakers were selected to shed light on PPP projects. The first speaker was Cheryl Duvielh, Executive Counsel at DOTD, who represented the Louisiana public view of PPP projects. The second speaker was Francisco Del Pozo, Senior Vice President of Macquarie Capital (USA) Inc., who shared his international and national experiences on PPP projects.

The Chapter also contributed to the ASCE Fall Louisiana Civil Engineering Conference and Show (LCEC&S) in Kenner by selecting presentation topics.

The intent of T&DI is to promote transportation and development as a career path, and to provide training and networking opportunities for all professionals involved in transportation projects. If you are interested in co-sponsoring a seminar at your branch, the T&DI Louisiana Chapter has prepared a Seminar Coordinator's Check List to assist you in your preparation. Contact Michael Paul, PE, at MPAUL@trcsolutions.com for a copy of the checklist. Our seminars are two hours in length and are typically presented from 5:30-7:30 pm in either the New Orleans or Baton Rouge area. We have also presented out-reach seminar with the ASCE Acadiana Branch and Shreveport Branch. We are open to co-hosting seminars in additional Louisiana cities if requested. In keeping with the intent of the Institute to provide training and networking opportunities for all professionals involved in transportation projects, the Chapter is planning the following future seminars:

- Bridge Load Rating in Louisiana
- New LADOTD Bridge Manual
- Blueprint for Louisiana Growth Management and Transportation
- Louisiana ITS
- Pavement Engineering (Part 3 of 3) Application of Earthwork and Embankment Materials
- New Pavement Design / Empirical Methods
- Mitigation Banking

# **Branch News**

### **ACADIANA BRANCH** By Beau J. Tate, PE, Branch President

The Acadiana Branch kicked off the second half of 2014 by hosting the section awards and inviting members from all of the branches to attend the awards ceremony. New board members for the Acadiana Branch were also inducted. The Acadiana Branch Board for 2014-2015 is listed below.

President – Beau J. Tate, PE Vice President – Garland P. Pennison, PE Treasurer – Sarah Richard, El Secretary – Jared Veazey, PE, MS

The Board is very eager to serve the Acadiana Branch this year. Garland Pennison, Sarah Richard, and Jared Veazey are new to the board this year, so when you run into them please thank them for volunteering their time to the ASCE Acadiana chapter.

The Acadiana Branch October meeting, which was held on October 16, 2014, was a success and I would like to thank Brandon Lomasney from Technical Coating Services, Inc. for his presentation. Acadian Branch meeting in October was well attended

Lomasney's presentation on "Concrete Waterproofing by Crystallization" was very informative.

Dr. Ehab Messelhe presented at our next meeting, which was held on November 12, 2014 as a joint meeting with the UL Lafayette Student Chapter. A jambalaya dinner followed in Girard Park in Lafayette. The weather was great and we took advantage of that for this meeting, thanks to all who attended and made it a success.



### **BATON ROUGE BRANCH** By Kirk Lowery, PE, Branch President

The Baton Rouge Branch is excited about the 2014-2015 year! This past year was well-shepherded by a true leader. Under his leadership, the Baton Rouge Branch started a program for children from ages 6 to 12 at the Louisiana Arts and Sciences Museum called "Engineer IT", assisted with and helped host the Louisiana Section's 100-year Gala, retooled and upgraded the branch's website and introduced



The 2014-2015 Baton Rouge Branch Officers: (front left to right) Blake Roussel, Danielle Welborn, Joey Coco, Jennifer Shortess (back row) Sarah Laakso, Ben McArdle, Thomas Montz, and Kirk Lowery

permanent member badges. Thank you, Joey Coco for a GREAT year and for your service.

At the branch's September luncheon, our energetic and highly motivated board was sworn in. The 2014-2015 Baton Rouge Branch Officers:

> President - Kirk Lowery President Elect – Danielle Welborn Vice President – Jennifer Shortess Secretary/Treasurer – Kahli Cohran Programs – Sarah Laakso Membership – Blake Roussel Education – Jarret Bauer LSU Practitioner Advisor – Ben McArdle Younger Members – Thomas Montz Past President – Joey Coco

Also at the luncheon, the branch's yearly awards were presented to those people who excel in their contribution to the society. Outreach Award - Danielle Welborn, Outstanding Young Civil Engineer -Jennifer Shortess, Outstanding Civil Engineer -Jeff Duplantis, Educator of the Year -

continued on next page

#### Baton Rouge Branch, continued.

Kerry Reed, Lifetime Achievement Award - Ken Perret and Wall of Fame Award – Ara Arman.

On October 4th, the Southern University Jaguars Hosted Arkansas Pine Bluff for their 2014 Homecoming. The Southern University tradition is as much about tailgating festivities as the game. Taking advantage of the opportunity, the Baton Rouge chapter of ASCE in collaboration with the Southern University Engineering Department and Civil Solutions Consulting Group sponsored an engineering The event brought together alumni from multiple tailgate.



Joey Coco



Jeff Duplantis accepts the Outstanding Civil Engineer Award from Kenneth A. Perret accepts the Lifetime Achievement Award from Branch Branch President Joey Coco



Ara Arman accepts the Wall of Fame Award from Branch President Joey Сосо

generations and current students to enjoy great food and fun, while establishing and cultivating relations that will strengthen our engineering community.

This year the branch will start with an off-site field visit to the Port Allen locks and the board is currently planning for our annual Christmas Party, which will be held Friday, December 5th at The Bocage Racquet Club in Baton Rouge. Additional plans are underway to have the Young Members and the LSU Student Chapter host an LSU tailgate party for the membership.



Danielle Welborn accepts the Outreach Award from Branch President Jennifer Shortess accepts the Outstanding Young Civil Engineer Award from Branch President Joey Coco



President Joey Coco



Kirk Lowery accept the President's Gavel from Past President Joey Coco

#### SHREVEPORT BRANCH By David Smith. PE. Branch President

The Shreveport Branch is ready for Fall, and as incoming President, I'm excited about continuing our progress and supplying our members with knowledge and opportunities. The fall has been beautiful and it is a great time for us to get busy spreading the news about engineers and encouraging everyone to be active in their community.

The Branch kicked off the year with a 2-hour PDH session on September 19th, with discussions about geo-polymers and corrosion. The discussion on geo-polymers was a particularly interesting one, where we discussed a low-carbon, cementitious-type material that could be an environmentally friendly replacement for Portland cement. Professors at Louisiana Tech are testing the product and finding that it has many of the benefits of Portland cement, but with less CO2 emissions and better corrosion resistance.

On October 8th, we held our annual joint meeting with the Shreveport Chapter of the Louisiana Engineering Society (LES), where we heard a potential Mayoral candidate for Shreveport give his insight and plan

### NEW ORLEANS BRANCH By Lee M. Alexander, PE, F.ASCE, Branch President

It will be hard to top the successful year that our Chapter had under the tutelage of Stephen Johns. We all appreciate the dedication of Steve from being the Emcee at the Causeway Bridge being recognized as a ASCE Landmark to the hard work at the September Louisiana Civil Engineering Conference and Show held recently a the Pontchartrain Center in Kenner.

The event was a joint effort of the ASCE New Orleans Branch and ACI Louisiana Chapter. Tonja Koob, Chapter Vice President, represented our Branch. Historic landmarks were captured in posters and were available for purchase at the ASCE's booth. Besides the technical session, on September 24, the keynote luncheon speaker was Mr. Jerome Zeringue, Executive Assistant of the Governor for the Coastal Protection and Restoration Authority of Louisiana. The subject was Louisiana's Comprehensive Master Plan for a Sustainable Coast. Over 35 presentations were made covering the areas of Structures, Geotechnical, Transportation, Hydrology/Drainage to Legal. The 700 plus attendees enjoyed music, drink and great food, provided by over 15 major sponsors such as Atkins; All South Consulting Engineers, Inc.; Badeaux Engineers, Inc; LB Foster; Skyline Steel; Gainey's Concrete Products; ECM; Eustis Engineering; Fenstermaker; Meyer Engineers, Ltd.; MSMM Engineering, LLC; and Principal Engineering.

The show had over 60 Exhibitors, that also enjoyed the 2014 Buzz Hair Lecture, to honor the late Buzz Hair, active with ASCE, given by Robert Gilbert, PhD, PE, professor at the University of Texas at Austin on the subject of Forensic geotechnical engineering. The 2014 Herbert J. Roussel, Jr. Lecture, made in honor of one of the founding members of the ASCE Structural Committee of New Orleans, was given by Carlos Ospina, PhD, PE, a senior project manager with the International Ports and Terminal group of Berger ABAM, Inc. in Houston on the Serviceability Design of Concrete Structures in Marine environments.

Our October 21st Meeting held at the Five Happiness restaurant featured Billy Nungesser, Plaquemines Parish President, giving a presentation on the US Army Corps of Engineers progress for flood control and spoke on the ongoing projects for the restoration and for bettering the community and economy for the residents. We also acknowledged the new branch officers, and presented the Past President's Plaque to J. Mitch Guy, PE, in appreciation of his service for the 2013-14 year. The new branch officers are as follows:

President – David B. Smith, PE President-Elect – Christopher E. Myers, PE Treasurer – Jared Boogaerts, El Secretary – Markay K. Brown, PE

The ASCE Shreveport Branch Annual Golf Tournament will hold the annual golf tournament in the Spring, the date is to be determined. The proceeds from the tournament will fund the yearly scholarships awarded to Louisiana Tech students.

We wish everyone a happy holidays and a great end to 2014. Thanks to all of you for the continued support of our organization and the efforts made to benefit the community.

saving of our Coast in Southeast Louisiana. HIs in-depth knowledge of the past, present and future projects gave insight that is rarely summarized in one session. As a bonus, Charles Nelson, Chairman of Waldemar Nelson, Inc. presented a short overview of the 2014 ASCE COPRI Award winning Gulf Gateway Terminal. This exciting project



showcases the new industry and innovations created in New Orleans to transport oil from the US oil fields to the world markets using train and rail in lieu of pipe, due to the lack of the controversial Keystone Pipeline.

Be sure to keep tuned in for our November 11th meeting to be held at the Five Happiness restaurant with Bob Breck, a local TV personality to speak on Weather Related Effects to Southeast Louisiana.

I am honored to serve as the Branch President for the upcoming term and assist in the success of another ASCE event filled year!



Since they were unable to attend the Centennial Gala in August, Stephen Johns presented the Superdome Award to Ron Forman & Doug Thornton at their office

# COASTAL ENGINEERING AND SCIENCES (CEAS)

### CEAS.UNO.EDU

### CEAS@UNO.EDU

#### **Program Overview:**

The University of New Orleans (UNO) is offering two (2) new graduate level certificates through the Coastal Engineering And Sciences (CEAS) program. The certificates are titled (i) Graduate Certificate in Coastal Engineering and (ii) Graduate Certificate in Coastal Sciences.

- The certificate courses will cover physical, hydrodynamic, geological, geotechnical, environmental, ecological, management, and social aspects of Coastal Engineering, Coastal Sciences, and Coastal Restoration.
- Each certificate can be earned after successful completion of four (4) graduate level courses offered by UNO over a two-year period (Spring and Fall semesters).
- The Cumulative Grade Point Average (GPA) of the four courses must be a minimum of a B average (3.0) to earn the certificates.
- All courses will be offered in a dual format (classroom + online over the internet).
- All courses will cover material independent of each other and none of the four (4) courses are prerequisite to any other course. Depending upon work schedule and other commitments, the student can start taking the courses at any semester, or miss a semester, and take the missing course(s) when they are offered again.
- The students can also use these courses towards their M.S. in Engineering program.

#### **Student Academic Requirements:**

- Undergraduate degree from an accredited university in Engineering and Sciences (Civil, Environmental, Earth Sciences, Geosciences, Geology, etc.)
- Current graduate students from UNO or other universities can enroll in the courses
- Practicing Engineers with a B.S. degree in Engineering, Sciences, Geology or related fields are encouraged to enroll in the courses

#### **Certificate Coursework:**

	Graduate Certificate in Coastal Engineering		Graduate Certificate in Coastal Sciences
٠	Ocean and Coastal Engineering (ENCE 5723)	• (	Coastal Geomorphology (EES 5550)
•	Coastal Processes (EES 5900)	• (	Coastal Processes (EES 5900)
•	Sediment Transport and Dredging (ENCE 6323)	• 5	Sediment Transport and Dredging (ENCE 6323)
•	Design of Coastal and Hydraulic Structures (ENCE 6320)	• (	Coastal Restoration and Management (EES 6760)

#### How to Apply to UNO:

Students interested in the coastal certificates will have to get admission to the University of New Orleans (UNO) prior to registering in the courses. The successful applicants will be admitted as a non-degree seeking post-bachelorrate student. An online application to UNO can be submitted at: <a href="http://www.uno.edu/admissions/apply/index.aspx">http://www.uno.edu/admissions/apply/index.aspx</a>

#### How to Register in a course:

The students will be able to register in a course after receiving official admission confirmation from UNO. After getting admitted to UNO, the following link can be used to register in a class: <u>http://webstar.uno.edu/</u>

#### Faculty:

Ioannis Georgiou, Ph.D.	Mark Kulp, Ph.D.
Associate Professor, Earth & Environmental Science	Associate Professor, Earth & Environmental Science
The University of New Orleans	The University of New Orleans
Malay Ghose Hajra, Ph.D., P.E.	John Alex McCorquodale, Ph.D., P.E.
Assistant Professor, Civil & Environmental Engineering	Professor, Civil & Environmental Engineering
The University of New Orleans	The University of New Orleans

# **ASCE-SEI New Orleans Chapter News**

By Om Dixit, PE, FASCE, Newsletter Editor



Since our report in August 2014 issue of this magazine, ASCE SEI New Orleans Chapter was busy with the 2014 LCEC&S and planning the future seminars.

On October 16, 2014, SEI New Orleans Chapter invited Basile G. Rabbat, PhD, SE (Consultant) to present the seminar "The AASHTO LRFD Strut-and-Tie Model for Design of Concrete Bridges." Basile started with a recap of structural concrete fundamentals ASCE essential to the understanding of the Strut-and-Tie Model (STM). The AASHTO LRFD specifications pertinent to the STM were summarized including provisions for struts, ties and nodes, and detailing of the reinforcement. The regions of structural members where application of the STM is mandatory was highlighted. Finally, application of the STM requirements was illustrated through a design example of a bridge bent cap. The seminar was attended by about 55 members.

On October 1, SEI NO newly elected new Chairman of its Executive Committee L.T. Cooper, PE. (EDG) started his term of 2014-15. Chairman Cooper appointed Leslie Campbell, PE (COE, New Orleans District) as the Vice Chairman. James Danner, PE (Denson Engineers) continues to serve as Treasurer and Om Dixit, PE continues to serve as Newsletter Editor. Past Chairman Stevan M. Fall, PE did great job guiding the Chapter and completed his one-year term on September 30. During the past year the ASCE SEI New Orleans Chapter hosted 3 two hours seminars. Among other activities the chapter sponsored awards at the Regional Science Fair. The Chapter also sponsored New Orleans Regional Math Count Competition hosted by Louisiana Engineering Society every year.

SEI NO Chapter also helped 2014 Louisiana Civil Engineering Conference and Show (LCEC&S) with a few good structural presentations. This year, the Annual Herb Roussel Lecture (presented at LCEC&S) was delivered by Carlos E. Ospina, PhD, PE (Berger ABAM Inc., Houston, TX). The title of this presentation was "Serviceability Design of Concrete Structures in Marine Environments". The lecture was attended by about 120 attendees.

The other topics for the future seminars being finalized are Joplin Missouri Tornado Investigation Study Report (November 20, 2014) and Direct Design Method with AISC Code (January 22, 2015). Other topics for future seminars are API Standard rollout, Yulman Stadium Design and Construction, COE Permanent Pump Station for New Orleans and a few more current topics.

The committee is looking for good topics and speakers for future presentations. Members with expertise in the field of structural engineering would be welcome to join the Executive Committee. For any suggestion and information on joining the Executive Committee, contact Chairman L.T. Cooper, PE, at Itcooper@edg.net.

All seminars are held at the University of New Orleans. Seminar dates and pertinent information on registration or addition of your name to the emailing list can be requested by e-mailing to Om P. Dixit, PE at omdixit@cox.net.



SEI New Orleans Chapter seminar on October 16, 2014. Speaker Basile Rabbat, PhD, SE (on left) and Seminar Coordinator Om Dixit, PE



2014 Herbert Roussel Lecture was presented on September 24, 2014 at LCEC&S. Presenting the plaque of appreciation is L.T. Cooper, PE Chairman SEI NO Chapter to Carlos Ospina, PE (on left)

# **Student Chapter News**

## LOUISIANA STATE UNIVERSITY

### By Alicia Fortier, Student Chapter President

ASCE at LSU has had a busy start to the fall semester! Our first three meetings of the semester were well attended. At our first meeting on August 28, a representative from Forte & Tablada came to speak about new technology that the company has been using -3-D scanning. Joey Coco, the current President of the ASCE Baton Rouge Branch, also spoke at our first meeting about the 2012 ASCE Report Card, as well as the importance of staying involved with ASCE outside of college. ASCE at LSU also attended the Engineering Tiger Connections Fair hosted by LSU's College of Engineering. It is an annual welcome event and open house for incoming freshmen and transfer students. We are excited about the number of students that



August 28, 2014 - Engineering Tiger Connections Fair (pictured left to right): Emily Weigand, Sean Moore, Alicia Fortier, Mitch Everhardt, Brendan Copley, Brad Jacobs, and Jabari Landry

### MCNEESE STATE UNIVERSITY By Jessica Trahan, Student Chapter Secretary

With 8 weeks left of the fall semester, McNeese ASCE student chapter is preparing for the 2015 Deep South Regional ASCE Conference hosted by University of Mississippi. We intend to compete in the concrete canoe, steel bridge, and surveying competitions.

Along with preparing for the upcoming conference, we've been involved with a few volunteer projects. One of the most monumental projects occurred in mid-September with Citgo and the Coalition to Restore Coastal Louisiana to restore the coastline. We participated in the dune restoration project at Holly Beach, the largest volunteerbased restoration event Cameron Parish has ever seen. The project consisted of planting a 5-mile span of newly constructed beach with approximately 70,000 plugs of dune grass. The goal of this project were interested in our chapter and attended our first meeting! BASF spoke at our second meeting on September 4, and Stantec spoke at our third meeting on September 25. We also held officer elections at our third meeting! The officer positions for 2015 are as follows:

President - Alicia Fortier Vice President - Robert Davis Secretary - Kelsey Schmaltz Treasurer - Enrico Targa Meeting Coordinator - Gabrielle Dubroc Fundraising Chair - Megan Corzo Webmaster - Mitchell Everhardt Community Service Chair - Amy Olson

Our fourth meeting featured Jason Duhon and John Taylor from ISC Group (October 23). Upcoming speakers at our meetings include Kenny Ferachi and Justin Haydel from Manchac Consulting Group, Inc. (November 6). The steel bridge and concrete canoe teams are currently working hard and fundraising to get everything prepared for the Deep South Regionals at the end of March in Oxford, MS. If anyone is interested in donating or meeting with our teams to give pointers on our design and/or performance, please don't hesitate to contact us! Or if you are interested in speaking at one of our meetings about ethics, professional development, licensure, current civil/environmental projects, etc., we would love to hear from you! Contact ASCE at LSU: asce@lsu.edu or www.lsuasce. weebly.com.

is to increase soil retention along the beach, promote dune growth, provide critical habitat for nesting birds, and enhance protection to the coastal communities of Cameron Parish. Our organization worked alongside Sulphur High School students for a mile stretch. In a few months, we will visit the site to see its progress.

We are very excited to see what the rest of the semester and the spring semester have to offer for our organization. We welcome any participation from the community, as we are always looking for new volunteer projects and guest speakers for our meetings. For more information, feel free to visit our Facebook pagewww.facebook. com/msuasce for pictures and updates or email us at mcneeseascestudentchapter@gmail.com.



**.4SCE** 30

# UNIVERSITY OF NEW ORLEANS

By Kelsey Martin, Student Chapter President

ASCE-UNO 2014-2015 Board: President- Kelsey Martin Vice President- Darby Hartenstein Secretary- Markella Bilalis **Treasurer- Cristian Franco** 

ASCE-University of New Orleans has been involved in many different activities this year- namely fundraising, volunteering, as well as hosting and attending a variety of events. We are looking forward to a successful year at the 2015 Deep South Conference, and have begun preliminary designs for both concrete canoe and steel bridge. Junior Shane Troendle is serving as this year's concrete canoe captain as well as ACI-UNO president, seniors Darby Hartenstein and Robert Casey are co-captaining the steel bridge, and sophomore Stephen Borengasser is serving as conference chairperson. We have raised approximately \$2,500 towards our final conference goal of \$7,000 as of October of this year.

All volunteer events this fall semester were coordinated by secretary Markella Bilalis. The most notable events were the Wetland

Wetland Warriors

Green Apple Day of Service

Warriors project with City Park, and the Green Apple Day of Service at Benjamin Franklin High School. During the Wetland Warriors event, we assisted in the eradication of invasive species in the bioswale located in City Park's festival grounds, and we helped plant a student vegetable garden at the Green Apple Day of Service.

As for meetings and events, we have had a busy semester. On October 1st. ASCE-UNO hosted a resume review featuring guest speaker L.T. Cooper. PE from EDG Engineering Consulting. We hosted an informational concrete canoe "party" on the bayou on September 13th, and we are co-hosting a Fall Fest fundraiser on October 25th in order to raise money for UNO College of Engineering's student organizations.

We still need a lot of guidance and assistance in order to have a successful year. We are \$4000 short of our final Conference goal, and we have four open meetings requiring guest speakers next spring. Any donations, advice, or interested lecturers are welcome; we appreciate any and all mentorship and aid! Contact ASCE UNO at asceuno@gmail.com or www.facebook.com/UNOASCE.



Canoe Party

### UNIVERSITY OF LOUISIANA AT LAFAYETTE By Taylor Heirsch, Student Chapter President

The University of Louisiana at Lafayette ASCE Student Chapter has had a successful start to the Fall 2014 semester. The chapter participated in the Louisiana Engineering Society (LES) Student Chapter volleyball tournament against other engineering disciplines. Students ranging from freshmen to seniors were invited to join the "Shear Studs" team for the tournament. The event served as a great bonding experience between students from the different departments.

The UL Student Chapter hosted the annual Department of Civil Engineering Fall BBQ. There was a great turnout of Civil Engineers ranging from freshmen to seniors, graduate students, faculty and local professionals.

ASCE student leaders attended a reception following LAPELS (Louisiana Professional Engineering & Land Surveying Board) board meetings hosted in Lafayette. Students also represented UL ASCE by attending the LAPELS Annual Student Jambalaya Lunch. These events allowed students to interact with members on the Louisiana Licensing Board.

The ASCE Student Chapter supports the Ragin Cajun Nation by participating in student tailgating at the UL home football games.

The UL Student Chapter has many things in the works for the upcoming year. Dr. Chris Carroll presented "Structural Design and Construction in the Ancient World" at the chapter's October meeting. The chapter is also coordinating a volunteer event with the local Habitat for Humanity organization. Finally, the chapter is continuing preparations for the Deep South conference in the spring by preliminary design work on the concrete canoe and steel bridge projects.

2014-2015 UL Student Chapter Officers:

Jeanne Switzer - President Aaron Miller - Vice President Taylor Heirsch - Secretary Matthew Deshotle - Treasure Alfredo Portillo - Public Relations Sarah Pippen - Events Coordinator Rvan Fasone - Conference Chair



Back row: Aaron Miller, Ryan Fasone, Alfredo Dr. Russell Hibbeler interacting with UL Civil LES Volleyball tournament participants (I to r): Portillo and Matthew Deshotle. Front Row: Engineering students at the annual department Taylor Heirsch, Aaron Miller, Tommy Philayvanh, Dylan Hardy, Aaron Blanchard, and Sarah Pippin

Taylor Heirsch, Jeanne Switzer and Sarah Pippen BBQ

- CALENDAR OF EVENTS -				
November 30, 2014	November 30, 2014 Section and Branch Annual Reports due at headquarters Region Annual Reports due at headquarters			
		JANUARY 2015		
January 9-10, 2015	2015 Multi-R	egion Leadership Conference -	Regions 1	, 2, 4 & 5 – Miami, FL
January 9-10, 2015	9-10, 2015 Eastern Regional Younger Member Council (ERYMC) Annual General Meeting - Regions 1, 2, 4 & 5 – Miami, FL			
January 30-31, 2015	2015 Multi-R	egion Leadership Conference -	Regions 3	, 6, & 7 – Houston, TX
		FEBRUARY 2015		
February 20-21, 2015	2015 Multi-R	egion Leadership Conference -	Regions 8	& 9 – Bellevue, WA
	_	MARCH 2015	-	
March 24-26, 2015	ASCE Fly-In –	Washington, DC		
Please check for lat	est updates o	nline: <u>http://www.lasce.o</u>	rg/calen	idar.aspx
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Aucoin & As Consulting Engined 433 N. C. C. Duso EUNICE, LOI Phone (33 Fax (337 email: auc966 web site: www.au	<b>Sociates, Inc.</b> ars & Land Surveyors In St. • P. O. Box 968 UISIANA 70535 (7) 457-7366 ) 457-1565 3@bellsouth.net ucoinandassoc.com	AMERICAN SOCIETY OF ENGINEERS Centennial Anniversary	2	BADEAUX ENGINEERS INCORPORATED CONSULTING STRUCTURAL AND-CIVIL ENGINEERS 115 EAST SIXTH STREET 70301 POST OFFICE BOX 1055 70302 985-447-2317 THIBODAUX, LA
BALAR 631 ENGIMERS & SURVEIGRS WEB: W	l Milam Streff, Suthe 200 everyori, Louisiana 71101 Phone: 318-221-8312 Fax: 318-424-6508 ww.balar-engineers.com	Ann Springston, PE. President aspringston@orgnola.com 9619 Interline Ave Suite A Baton Rouge: LA 70809 P (225) 924-3116 3012 26th Street (Main) Metaine: LA 70002 P (504) 454-3866	convisuentivo gineera.com	ARCHITECTURE I ENVIRONMENTAL I TRANSPORTATION BUCHAFT BUCHAFT Suite A 18163 fast Petroleum Drive Baton Rouge, LA 70809-6104 (225) 755-2120

# **PROFESSIONAL LISTINGS**



# **PROFESSIONAL LISTINGS**



# **PROFESSIONAL LISTINGS**



#### LOUISIANA CIVIL ENGINEER

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