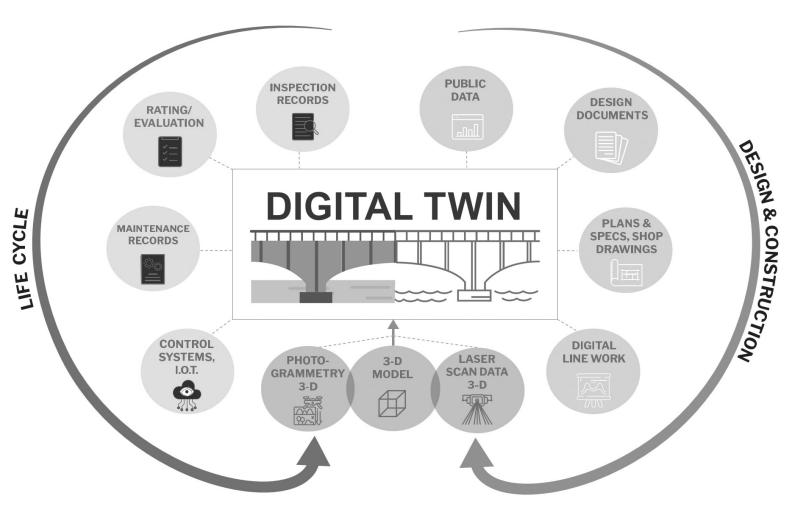
LOUISIANA CIVIL ENGINEER

Journal of the Louisiana Section

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Digital Twins: The Next Frontier of Civil Engineering and Infrastructure

FEATURES:

Digital Twins: The Next Frontier of Civil Engineering and Infrastructure

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MAY 2025 VOLUME 33 • NO 3

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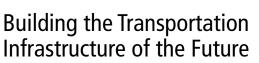
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The Louisiana Section of the American Society of Civil Engineers was founded in 1914 and has since been in continuous operation. The Section consists of the entire state of Louisiana and is divided into four branches that directly serve over 2000 members.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

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PUBLISHER:

Baton Rouge Printing, Inc., Port Allen, LA

Louisiana Civil Engineer quarterly journal is an official publication of the Louisiana Section of the American Society of Civil Engineers with an average circulation of approximately 2100. The Section neither guarantees the accuracy of the information provided nor necessarily concurs with opinions expressed. It does not claim the copyrights for the contents in this publication. Please submit letters and articles for consideration to be published by email to <u>nedrahains@gmail.com</u> or mail to the Publications Committee c/o Nedra D. Hains • 622 Steele Blvd. • Baton Rouge, LA 70806-5742.





TABLE OF CONTENTS

MAY 2025 • Volume 33 • No. 3

Section Roster
President's Message 5
Digital Twins: The Next Frontier of Civil Engineering and Infrastructure
Region News
Section News
ASCE – COPRI Louisiana Chapter News
ASCE – Geotechnical Institute Louisiana Chapter News 18
ASCE – Government Relations Committee News
ASCE – T&DI Louisiana Chapter News
Branch News 22
Student News 26
Calendar of Events 29
Professional Listings 29
Service & Suppliers 2 32



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ASCE

The Louisiana ASCE Section has had an eventful Spring as we head into Summer! Our Board and Committees have continued their work to engage at the National, Section, and Local level to deliver value to our members.

Our Report Card committee has continued work to develop the next ASCE Louisiana Report Card and is engaged with our Society-level Report Card committee to bring the final release across the finish line. The Shreveport Branch has been actively planning our Section Spring Conference, which delivered excellent technical programs, and held our annual General Membership Meeting, which confirmed nominations for next year's Section Board. Our Website committee, led by Jared Veazey, is preparing the launch of a redesigned website which aligns with the brand and image of the Society.

In this issue, we spotlight a groundbreaking article by Joey Coco, PE and Malay Ghose Hajra, PhD, PE that introduces digital twins as the next transformative leap in civil engineering. These dynamic, data-rich virtual models integrate geospatial, sensor, and design information to mirror real-world infrastructure in real time. As "systems of systems," digital twins offer new opportunities for lifecycle asset management, predictive maintenance, and interdisciplinary collaboration, particularly for engineers, surveyors, and public agencies. With advances in cloud computing, LiDAR, and IoT, the time is ripe for civil engineers to lead in deploying this technology. The article not only explains the concept but outlines the challenges and strategic opportunities ahead as our profession adapts to this digital evolution.

Members of our Section Board, Brant Richard, PE, and Nedra Hains, Doctoral Candidate supported by representatives from the Baton Rouge and New Orleans Branches, respectively Jack Koban, PhD, PE and Norma Jean Mattei, PhD, PE, & former National Society President attended the national Legislative Fly-In March 26-28 to learn about ASCE national policy initiatives and to engage with our Louisiana Congressional delegation on policies and topics that affect infrastructure in our state and in their districts. In addition, the team distributed the newly released 2025 Report Card for

America's Infrastructure.

Branch Acadiana is gearing up for their annual golf tournament set for October 10, 2025. The Baton Rouge Branch highlighted The Melissa Young Doucet, PE Memorial Scholarship in this issue and will be bring back the Engineer It! series at LASM in Baton Rouge

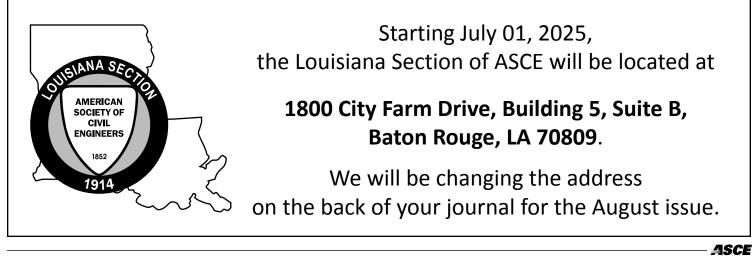


Andrew Woodroof, PE

this summer. New Orleans Branch is celebrating it's successful First Annual Tri-Society Golf Tournament & Crawfish Boil held on March 27, 2025, at English Turn Golf Club. And finally, the Shreveport Branch is winding down from a very successful Section Spring Conference. Our Branches, Institutes and Student Chapters have continued to provide educational and PDH opportunities for our members, as you will read in this quarter's journal. Please continue to support your Branch through attendance at these events.

Before closing, I want to recognize the passing of Ali Mustapha, PE, F.ASCE, on April 19, 2025. Ali's service to ASCE Louisiana as Section President and Region 5 Governor, along with his many contributions to the broader engineering profession, exemplified the highest ideals of our Society. His memory and legacy will continue to inspire us as we carry forward the work he so passionately championed. Please see the *In Memoriam* for Ali and his daughter, Sara Mustapha Thines' remarks.

The Louisiana Section is here to serve you and help you maximize your lifelong professional impact. Please do not hesitate to contact me with questions or suggestions on how we can support your society interests. Have a great Summer and please join us for our exciting programs and events!



Digital Twins: The Next Frontier of Civil Engineering and Infrastructure

By Joey Coco, PE, MBA and Malay Ghose Hajra, PhD, PE

Introduction

Over the past century, the civil engineering profession has borne witness to revolutionary changes in the way we design, construct, and manage infrastructure. Our collective journey has taken us from slide rules to adding machines, from paper-based calculations to spreadsheet software, from drafting boards to Computer-Aided Design and Drafting (CADD), and from two-dimensional floorplans to three-dimensional Building Information Modeling (3D BIM). Each transition has profoundly reshaped the engineering landscape, enabling us to undertake projects of greater complexity, speed, and scale.

Today, we stand on the cusp of another transformative shift: **Digital Twins**. While this term may be new to many in the civil engineering community, it promises to be a key convergence point for multiple technologies and disciplines. Digital twins offer us a platform for synthesizing vast amounts of data including geospatial, architectural, engineering, operational, maintenance, sensors, environmental with the potential of enabling real-time feedback loops between the physical and digital worlds. At their core, they represent a **"system of systems,"** uniting everything from CADD, BIM, Geographic Information Systems (GIS), control systems to sensor networks and Infrastructure Internet of Things (IIOT) devices into a single living model.

The timing could not be better and is now. Rapid advancements in clustered CPU and GPU power, large scale data storage and data access speeds, remote sensing (including drones, aerial, mobile, and terrestrial LiDAR), and everyday mobile devices make it increasingly simple, fast, and inexpensive to capture high-fidelity representations of our built environment. Cloud-based platforms, Application Programming Interfaces (APIs), secure authentication methods, and the integration of IIoT devices now allow for easy sharing, updating, and collaborating on infrastructure datasets in near-real-time. All of these advancements, which have truly exploded exponentially, are foundational for Digital Twins.

This journal article explores the concept of digital twins in a way that is accessible to those new to the topic while providing insights into why they matter right now. We will examine the role of stakeholders, the current industry drivers, and the emerging opportunities for civil engineers and geospatial professionals to take the lead in shaping this evolving field. Finally, we will discuss what is needed to fully realize the vision of digital twins as the ultimate system of systems, helping us to navigate the challenges, complexities, and transformative potential of this technology revolution.

1. What Are Digital Twins and Their Types?

1.1 Defining Digital Twins

At the most fundamental level, a **digital twin** is a virtual representation of a real-world physical asset, process, or system across its life cycle (Figure 1). This model is continuously updated

with data (e.g., sensor readings, inspection results, usage data) to mirror the physical reality as closely as possible. In civil engineering, the physical asset could be a single bridge, a complex water treatment plant, or even an entire city's transportation network. The digital twin aims to provide comprehensive situational awareness, predictive analytics, and enhanced decisionmaking by leveraging real-time and historical data.



Joey Coco, PE, MBA



Malay Ghose Hajra, PhD, PE

1.2 A "System of Systems" Perspective

Civil infrastructure often consists of interconnected subsystems like utilities, transportation networks, water resources, structural components, environmental controls, and more. Digital twins function as a **system of systems**, pulling data from multiple sources (GIS, sensors, building automation systems, IIoT devices) into one unified interface. This allows stakeholders to see interdependencies and cascade effects more clearly. For example, changes in water distribution networks can be analyzed for their impact on roadway integrity or structural foundations, leading to more holistic and proactive management.

1.3 3D Reality Layers and Data Federation

A hallmark of digital twins is their **3D reality interaction** capability. This goes beyond traditional 2D floorplans or schematic GIS layers. By incorporating LiDAR scans (3D Laser scans), photogrammetry (Figure 2), and other reality capture techniques, digital twins can offer realistic, detailed, and immersive 3D environments. These 3D models are often layered with static and dynamic data:

- Static Data: Design plans, specifications, construction pictures, shop drawings, GIS layers, asset inventories, or as-built plans.
- **Dynamic Data:** Sensor outputs (temperature, stress, strain, traffic volume), operational data (water flow, pressure), and real-time monitoring information (cameras, occupancy triggers).

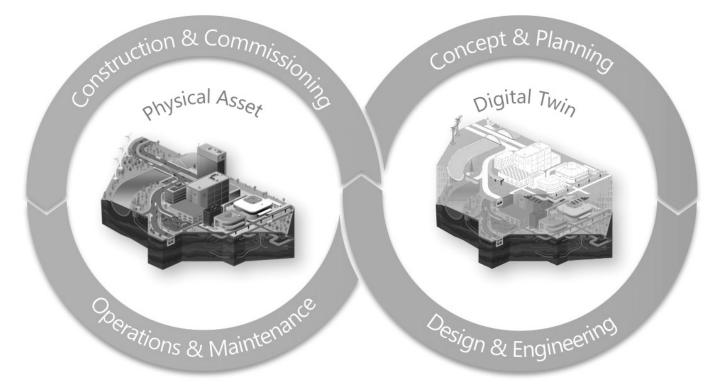


Figure 1 Digital Twin Framework - Image by Bentley Systems

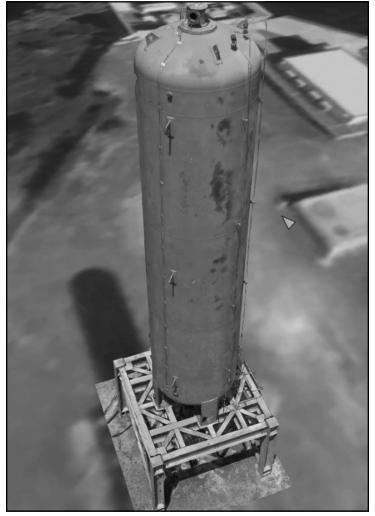


Figure 2 Photogrammetry -200 Images

The combination of static and dynamic datasets is typically achieved through **content federation**, wherein data from various platforms and formats such as GIS, Building Management Systems (BMS), SCADA (Supervisory Control and Data Acquisition), and sensor networks are integrated into one cohesive model (Figure 3). This integrated approach is designed to unlock powerful capabilities like real-time condition monitoring, predictive analytics, and scenario planning.

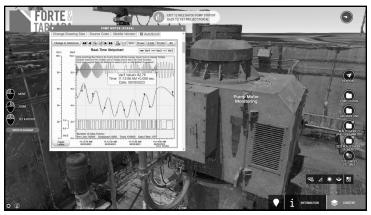


Figure 3 Direct-to-Assset SCADA Integration

1.4 Examples of Digital Twin Applications in Infrastructure

Digital twin technology is increasingly appearing across various civil infrastructure contexts, yet most existing implementations are still **pilot initiatives** aimed at exploring their benefits for different stakeholders and evaluating associated costs, constraints, and trade-offs. These pilot projects also inform decisions about scaling up in terms of resources and complexity. In **transportation**, for example, a digital twin of a highway corridor may integrate live traffic data, construction activities and all roadside assets, enabling

ASCE

highly detailed **queries and physical measurements** that can go beyond what consumer grade platforms like Google Earth can offer. In **water and wastewater treatment**, engineers and operators use small-scale digital twins that track flow rates, chemical usage, equipment performance, detailed 3D modeled pipe network, and environmental sensors allowing them to optimize processes and anticipate potential problems. Digital twins of **bridges and other structures** (Figure 4) often rely on content federation, linking design documents and specifications to each structural element such as columns, beams, or girders as well as their associated inspection reports and maintenance records.

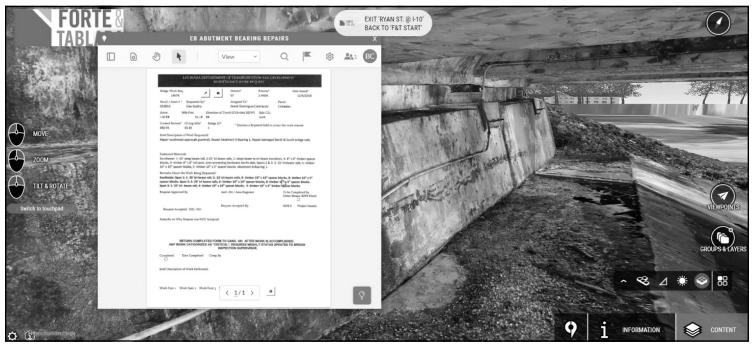


Figure 4 Bridge Digital Twin



Figure 5 Smart Campus LSU Library Site Digital Twin

This approach supports more targeted lifecycle management and data-driven decision-making. Even in **smart buildings and campuses** (Figure 5), emerging digital twin pilots integrate **Revit BIM models**, asset management systems, floorplans, and more granular details such as building **materials**, **paint codes**, **boundary surveys**, **and adjacent topographic features**. By federating this information, facility managers and engineers gain a more holistic view of building performance, boundary constraints, conflict and clash detections, and potential external impacts. While the field remains quite young, these early-stage demonstrations help identify pain points, refine development requirements, and balance trade-offs, ultimately setting the stage for broader adoption and sustainable integration of digital twins across entire portfolios.

2. Who Needs Digital Twins?

The **general public** and **elected officials** will benefit significantly from the enhanced transparency that digital twins will bring to the complex world of infrastructure. These dynamic models will provide **accessible, interactive visualizations** of real-world conditions, enabling the public to understand complex issues more intuitively. They will also open the door to **public input** or crowdsourced data, allowing communities to share insights that could influence dayto-day operations or maintenance decisions. Through **virtual tours** of proposed projects as part of a broader environment, the public will be able to see anticipated changes in context and offer more informed, constructive feedback during planning processes.

For **leadership teams and executives**, digital twins will place critical information at their fingertips, helping them make more strategic choices without needing to search across multiple disconnected systems, an advantage that will prove invaluable during emergencies. By merging data into one platform, digital twins will support **scenario-based planning**, allowing leaders to

simulate alternative operational or policy approaches quickly. In our region, digital twins will transform how we deal with emergency management and operations.

On-the-ground professionals, such as **technicians and field operators**, will see their daily tasks streamlined through realtime performance monitoring and integrated troubleshooting guides within the digital twin. This setup could include step-bystep operational procedures and maintenance protocols, ensuring consistency and reducing human error. As **augmented reality (AR) and mixed reality (MR)** tools become more sophisticated, technicians will be able to overlay digital twin data onto physical infrastructure, identifying underground utilities or verifying equipment setups in real time.

For **engineering professionals**, digital twins will provide a robust environment for querying essential data, running measurements, and iterating designs. Engineers will retrieve native datasets for deeper analysis and then feed newly generated insights back into the system, creating a **two-way feedback loop** that encourages collaboration on complex, interdisciplinary projects (Figure 6). This will position digital twins as a central hub for **multi-disciplinary coordination** and the seamless exchange of information.

Lastly, **maintenance professionals** will reap substantial rewards from digital twins' **predictive capabilities**. By tracking asset health in real time, they will move from a reactive to a proactive maintenance model, scheduling repairs or equipment overhauls precisely when needed. This will reduce downtime and extend the lifespan of critical infrastructure. Centralizing data and documentation such as performance logs, sensor readings, and maintenance histories will make planning far more efficient, eliminating the need to juggle multiple systems or scattered data sources.

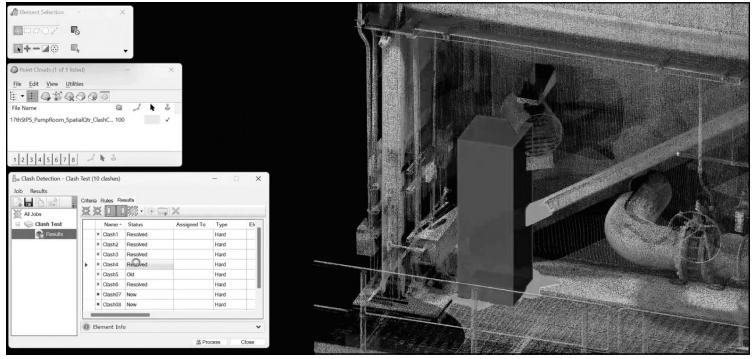


Figure 6 Virtual Clash Detection with Native DT Data

3. Why Now?

3.1 Advances in Computing Power and Data Storage

One of the chief enablers of digital twins is the explosion in **computing and storage capacity**. Cloud computing providers offer virtually unlimited on-demand resources, allowing organizations of all sizes to store, process, and analyze massive datasets. Historically, the computational intensity required to run real-time simulations or handle large 3D datasets was prohibitive. Today, parallel processing, graphical processing units (GPUs), and distributed computing clusters can handle these tasks efficiently and affordably.

3.2 Remote Sensing and Reality Capture

The proliferation of **drones**, **aerial imaging**, **mobile LiDAR scanners**, **and even the cameras embedded in most smartphones** has made possible detailed and expansive reality capture. High-quality 3D point clouds, orthophotos, and photogrammetric models can be generated quickly and at a fraction of the cost compared to just a decade ago. This unprecedented ability to capture the "as-is" state of physical assets is the backbone of any effective digital twin strategy. Without accurate and frequently updated data, a digital twin would remain a static digital representation and miss out on its real value. Further, free online resources are a good starting point for a base layer for a digital twin and will continue to improve to the point of where they are a commodity.

3.3 Internet-Based Deployments and Collaboration

Modern digital twins can exist in a **cloud environment**, making them accessible to a wide array of stakeholders regardless of geographic location. Roles and permissions can be assigned to different collaborators, ensuring data integrity and security. Web-based platforms also enable continuous updates, real-time analytics, and asynchronous collaboration. In many ways, the digital twin approach parallels the evolution of version control and data sharing we have seen in GIS advancements.

3.4 System Integrations and APIs

Digital twins thrive on **API-driven** integrations. Each subsystem such as GIS platforms, sensors, SCADA, or IoT platforms can share data seamlessly using standard protocols and authentication methods. The result is a unified integration, where new data feeds or IIoT devices can be incorporated into one holistic experience. As standards for open data exchange continue to mature, the potential for digital twins to scale up in complexity and usefulness grows accordingly.

4. Opportunity for Our Industry

4.1 The Evolving Survey and Geospatial Sector

The survey and geospatial industry have always been at the forefront of capturing and interpreting spatial data. With digital twins, the **demand for geospatial expertise** will skyrocket, as accurate coordinate systems, georeferencing, and datum transformations become critical for integrating diverse datasets. Surveyors and geospatial specialists will find new avenues to apply their skills, from curating massive point clouds to managing geospatial databases that feed digital twin models. This is an explosive opportunity to leverage a new generation of surveyors and geospatial professionals. Using a familiar parallel in engineering, they will become the foundation for the rest of the overall building.

4.2 Engineers' Expanded Roles

Traditionally, civil engineers have been immersed in design and plan development on projects, whether that be new construction or the rehabilitation of existing assets. Digital twins expand our role, whereby **engineers can help align as-designed static and dynamic information to reality models**. For example, a bridge engineer will be needed to interpret a set of plans from say, the 1970s, and most appropriately align the content within the set to the specific asset for a bridge digital twin. The specific knowledge of bridge engineers on the components within a set of bridge plans will serve as a unique opportunity to unpack that set of plans in a reverse sense to load data directly to elements within the digital twin. This example demonstrates a shift from a project-based engagement to a continuous service model and unlocks new business opportunities for engineering firms and extends the engineer's involvement across the asset life cycle.

4.3 Civil Engineering to Lead the Charge

Civil engineering is inherently multi-disciplinary, interfacing with supporting disciplines such as electrical, mechanical, geotechnical, as well as with planners and other specialties. Because of our breadth, civil engineers are well-positioned to **lead the development and implementation of infrastructure digital twins at a disproportionate rate to other engineering sectors**. Digital Twins require immense collaboration with a wide variety of stakeholders and with other disciplines, a great advantage for the mirrors the nature of the profession.

4.4 New Opportunities for Firms and Clients

Digital twins will likely become a **competitive differentiator** for engineering firms. Clients ranging from government agencies to private developers are beginning to understand the value of realtime data and fully integrated immersive data. Over time, the use of digital twins may become a de facto expectation, similar to how BIM became standard practice in many design projects and will lead to new opportunities in the A/E/C industry. This however, doesn't come without riding the "bleeding" (expensive) edge of technology and dealing with the trial and error that is required of anything new and transformative in our industry. Firms will have to swim upstream for a while before Digital Twins convert their value to the bottom line.

5. Big Picture Considerations, Issues, and Collaborations for the Industry

5.1 Building the Business Case

Before embarking on a digital twin project, **client engagement** is critical to define scope, objectives, and ROI. Civil engineers should be prepared to explain cost benefits, risk reductions, and longterm savings to secure buy-in from decision-makers. Although the upfront investment can be substantial, the payoff in operational efficiency and predictive capabilities often justifies the cost and reduces down-the-road disappointments.

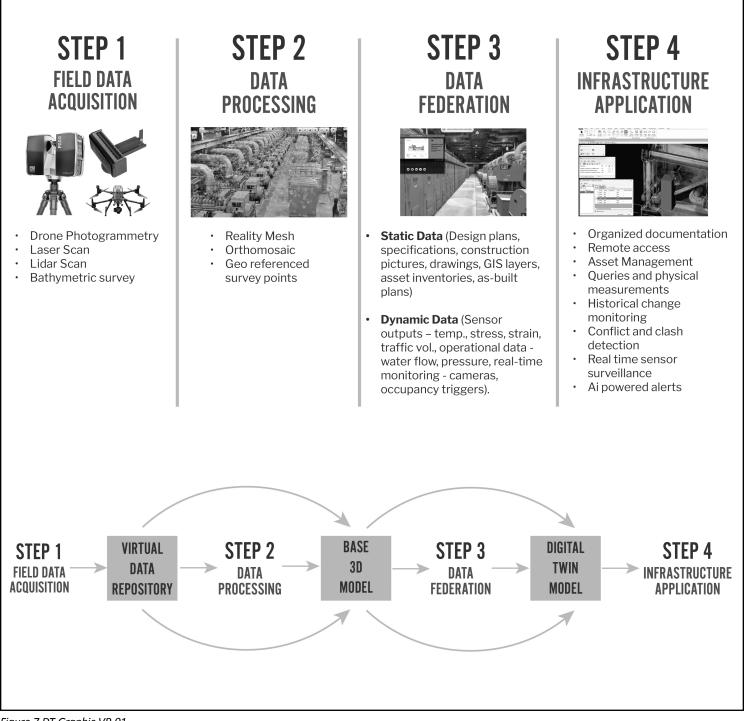


Figure 7 DT Graphic VP-01

5.2 Data Ownership and Security

As we move towards more data-intensive projects, **questions of data ownership**, **governance**, **and cybersecurity** become critical. Who owns the data once it is collected and stored in the cloud? How does an engineer who is handed information from a client know that data has prior intellectual property use agreements? How do we ensure that sensitive infrastructure data remains secure from external threats? Engineers will need to collaborate with legal and IT professionals to craft robust data sharing agreements, security protocols, and authentication methods. Balancing openness (for collaboration) and protection (for security and privacy) is a delicate but essential aspect of digital twin deployments.

5.3 Metadata and Ethical Considerations

Infrastructure digital twins largely depend on data sources to make them intelligent, or to even build out the visual base content. Digital twins will test the industry with regards to understanding where that data originated, the quality of that data, and its original intended use. Defining metadata standards, such as asset classification, naming conventions, and version history, helps streamline collaboration. However, **ethical considerations** come into play when dealing with public infrastructure. How much of a city's infrastructure data should be publicly available? Could malicious actors exploit this data? Engineers and policymakers must work together to ensure that the drive for transparency and open data does not compromise public safety.

5.4 Technical Complexity and Workforce Development

Creating and maintaining a digital twin requires expertise in data science, software development, GIS, sensor technology, and engineering fundamentals. Many organizations will need to upskill or hire specialized personnel to manage digital twin systems. Alternatively, some may rely on strategic partnerships or specialized vendors for implementation. Professional societies like the American Society of Civil Engineers (ASCE) and the American Council of Engineering Companies (ACEC) can play a pivotal role by supporting education programs and standardizing best practices.

5.5 Generative AI and Machine Learning Integration

A major growth area for digital twins lies in **generative artificial intelligence (AI) and machine learning (ML)**. Once a robust dataset is curated in the twin, AI algorithms can be trained to identify patterns, forecast failures, or optimize design configurations. Machine learning can also facilitate anomaly detection such as spotting unusual sensor readings or patterns that might indicate impending asset failure. This layer of intelligence is where digital twins could truly become transformative, enabling not just realtime monitoring but also automated decision support.

5.6 Industry Collaboration and Standards

Realizing the full potential of digital twins will require **industry-wide collaboration**. Organizations like ASCE and ACEC are well-placed to drive the creation of standards and guidelines. Geospatial standards, sensor data formats, open APIs, cybersecurity frameworks all need to be defined and adopted universally. While significant work has been done in the GIS world, digital twins extend beyond mapping and into fully integrated, real-time systems. As such, a fresh look at policy, licensing, and data-sharing frameworks is required, ensuring that digital twins truly become the **ultimate "system of systems.**"

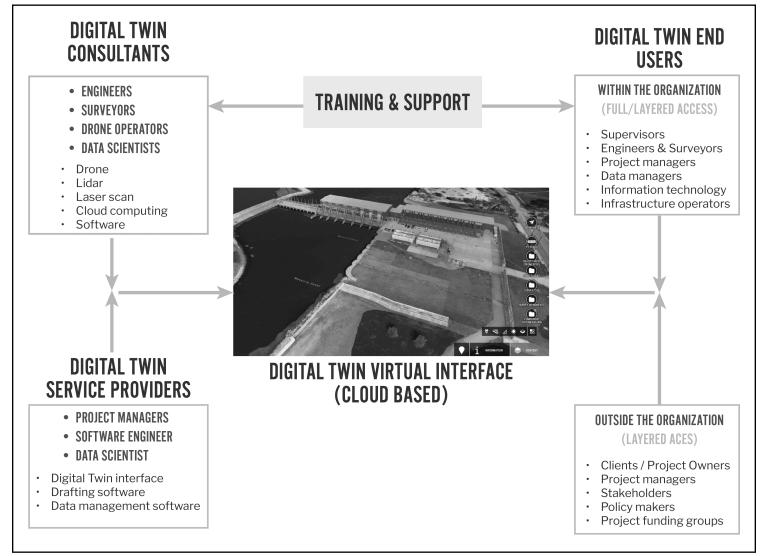


Figure 8 DT Graphic VP-02

Conclusion

The promise of digital twins is both exciting and immense. We are at a pivotal moment, akin to when engineers transitioned from manual drafting to CADD or from 2D to 3D BIM. By uniting disparate data sources into a living, breathing model of our infrastructure, digital twins allow us to visualize, manage, and optimize our built environment in entirely new ways. They represent the convergence of geospatial technologies, sensor networks, advanced analytics, and cloud-based collaboration and are truly a "system of systems" that can transform how we conceptualize, plan, design, operate, and maintain civil infrastructure. For civil engineers in Louisiana and beyond, this is a call to innovate, lead, and collaborate. Our profession already has many of the foundational skills, a deep understanding of physical processes, and the ability to work across disciplines. By embracing digital twins, we stand to improve the reliability, safety, and sustainability of infrastructure while creating new business opportunities and services. However, much work lies ahead: we must tackle challenges around business models, data ownership, security, metadata standards, and ethical considerations. As technology evolves, the civil engineering community will be at the forefront, ensuring that digital twins serve the greater good and help lift all boats in this new era of data-driven design and infrastructure management.

Joey Coco, PE, MBA

Joey Coco, PE, MBA is CEO of Forte and Tablada and President of Digi-Twin Global. A licensed civil engineer with over 25 years of design, management, and leadership experience, he has spent much of his career investing in and developing more holistic, intelligent infrastructure approaches that couple geospatial and reality capture knowledge with design expertise. His technical background includes structural and bridge design, along with LiDAR, photogrammetry, and advanced 3D modeling. Joey served as deputy director of Louisiana's first Infrastructure Report Card and is a past president of ASCE's Baton Rouge Branch. He is a recipient of the national ASCE Edmund Friedman Young Engineer Award.

Malay Ghose Hajra, PhD, PE

Malay Ghose Hajra, PhD, PE is a Professional Engineer from New Orleans, Louisiana. He received his Doctor of Philosophy (PhD) degree in Civil Engineering from Kansas State University in 2001 and has worked as project manager and senior geotechnical engineer with multiple engineering firms and agencies across Louisiana and Texas. In the recent past, he also served as a faculty member and department chair in the department of Civil and Environmental Engineering at the University of New Orleans. Dr. Ghose Hajra is actively involved with American Society of Civil Engineers (ASCE) and has served as President of the ASCE – Louisiana section. He is also an active member of the Academic Committee for the Institute for Sustainable Infrastructure (ISI) and ASCE's Geo-Institute.

Review ASCE's 2024 Accomplishments

The ASCE Annual Report provides a look at the highlights of the Society's achievements for the year. 2024 marked the second year of implementing ASCE's 2023-2028 Strategic Plan.

Under that strategic plan, ASCE accomplished several objectives. This included various initiatives such as the *Cities of the Future* film, the "Bridging the Gap" report, standards resources, training programs, community-building opportunities, and more.



Read more about these accomplishments in the 2024 executive summary and financial report and see ASCE's other 2024 highlights at <u>https://www.asce.org/about-asce/annual-report</u>.

ASCE Region 5 News By Chris Humphreys & Tonja Koob Marking

In Memoriam Ali Mohammed Mustapha Obituary

Ali Mohammed Mustapha of Shreveport, Louisiana, passed away surrounded by his loving family on Saturday, April 19, 2025.

He was preceded in death by his father, Mohammad; his mother, Sheikha Omar; and his brother Mustapha.

He is survived by his wife, Rita Darlene Mustapha; his daughter, Angela Mustapha; his son, Ryan Mustapha and his fiancée, Esereal Gebrehiwot; his daughter, Sara Thines and her husband, Benjamin Thines; his stepdaughter, Brandi Knotts and her husband, Steven Knotts; his stepson, Jeremy Gordano and wife, Kristi Gordano; grandsons Hayden and Holden Knotts; granddaughter Ainsley Gordano; and granddaughters Cora and Amira Thines. He is also survived by his brothers Ahmad, Adel, Issam, Ibrahim, and Samih Mustapha, along with numerous nieces and nephews.

Ali was born in Lebanon on February 01,1958. He immigrated to the United States of America in 1981 and attended Louisiana Tech University, from which he earned a B.S. in Civil Engineering in 1985.

As a well-respected and admired member of the civil engineering community, Ali Mustapha, PE (Professional Engineer), served the City of Shreveport for 25 years and the Levee Board of Caddo Parish for 10 years. He achieved a variety of occupational milestones and contributed valuable insights to the civil engineering profession. Ali was a Fellow Member of the National Society for Professional Engineers (NSPE) and belonged to the Louisiana Engineering Society (LES), at one point serving as its President. Ali



was also a Fellow Member of the American Society of Civil Engineers (ASCE), for which he once served as the president of the Louisiana Section and, from 2014 until 2020, acted as the Louisiana Section's Governor on the Region 5 Board. Additionally, Governor Kathleen Blanco appointed him to the Louisiana Professional Engineering and Land Surveying Board (LAPELS), for which he was a former Chairman. As part of the Curricular Advisory Board for the Louisiana Tech Civil Engineering program, he helped sharpen the knowledge base of future civil engineers. On the Louisiana Capital Outlay Architectural and Engineering Selection Committee, he provided incisive input. He belonged to the Engineers Selection Board for the Office of Facility and Planning, with which he reviewed plans submitted by engineering companies for work on projects for the State of Louisiana.

Even though it is a cliché, it is also true words cannot express all the nuances of the amazing man Ali was or capture how much his family and friends loved him. They appreciated his warmth and generosity. He was a devoted husband, father, and grandfather, who cherished spending time with his family members. Ali and his beloved Rita were TV buddies, and they traveled extensively, visiting countless places, including San Francisco, Hawaii, Alaska, Puerto Rico, Lebanon, Israel, and many more. Watching his children grow into the people they are today brought him immense joy and pride. His family all over the world treasured their frequent conversations with him, and he always eagerly looked forward to speaking with them. Ali possessed a special bond with his grandchildren, the youngest of whom affectionately called him CeeDee. He will always be with those who loved him and so will not be thought of in the past tense.

A Celebration of Life took place on Tuesday, April 22, 2025 at Flames Mediterranean in Shreveport, Louisiana. On Wednesday, April 23, 2025, his funeral took place at Antioch Baptist Church in Leesville, Louisiana. A graveside service followed in Antioch Cemetery. Ryan Mustapha, Jeremy Gordano, Steven Knotts, Hayden Knotts, Richard Savoie, and Patrick Furlong served as pallbearers.

Sara Mustapha Thines

In memory of my father, Ali Mustapha, who studied civil engineering as an international student at LA Tech and dedicated his life to the field, we are honoring his legacy through charitable donations to his alma mater. He was passionate about his work and made a lasting impact as a leader in the civil engineering community.

If you would like to make a donation in his memory, please use the links below: COES Civil Engineering <u>https://bit.ly/3H8VRYY</u> LATech International Student Scholarship <u>https://bit.ly/4dv2cdf</u>

You will enter your own contact information and then check the box indicating that your gift is in memory of someone. You can include my name (Sara Thines) and email address (<u>Thines.sara@gmail.com</u>) if you'd like the family to be notified of your contribution.

Thank you for helping to carry forward his legacy.

2025 ASCE Section Spring Conference

By Thomas Jenkins, PE, Shreveport President

The 2025 ASCE Section Conference was hosted this year by the ASCE Shreveport Branch beginning Thursday, May 29 through Friday, May 30, 2025. The Conference was held at the Shreveport Convention Center in Shreveport and was a success!

Special thanks goes out to the ASCE Shreveport Branch Officers, who helped plan and organize the event, and for their tremendous assistance before and during the event: Tanner Hines, EI, Vice President, Amanda Gordon, EI, CFM, Treasurer, and Chandler Warren, Secretary, along with the conference committee: Sabrina Kelly, Victor Bivens, and Lori Yeo.

We would also like to recognize the ASCE Louisiana Section for their financial support to ensure the success of this conference. Our goal was to provide an informative, productive, and motivational event and the opportunity to make valuable connections throughout the days.

The lineup for this year's conference offered a variety of topics in all areas of civil engineering and real-world practice applications. This conference had two different PDH opportunities per time slot. The Conference averaged around 30 attendees per day, and we had 9 exhibitors participate. We also had 6 gold sponsors (\$500), 4 silver sponsors (\$300), and 3 bronze sponsors (\$175) that contributed to make this conference a success!

Thursday's event began with registration in our main event hall. Each attendee then had the option of attending one of the two speakers in our breakout rooms. Our presentations included:

- The road to 100year Pavement Foundations
- Resiliency of HP Polypropylene Pipe in Critical Drainage Applications
- Durability and Service Life of Southern Plains DOT Steel Structures: Addressing Heat and Corrosion Challenges
- The Port
- Nature Based Low Carbon Engineered Solutions
- Carbon Fiber Reinforced Polymers
- Value Engineering Pavement with Lithification
- Range Manufacturing
- 3D Printing using Fly-Ash Based Geopolymer Cement
- Ethics and AI
- Frontal Polymerization of Geopolymer for Rapid Curing
- Solutions with Prefabricated Systems
- Reinventing Suburban Shopping Centers

- Mobile Lidar Data Collection and Machine Learning
- 2D Stormwater Modeling for Transportation Resiliency
- Friday's presentations included:
- Roadway Challenges and Solutions Keeping up with Technology and AI Resources
- Fiscal Analysis and Infrastructure R&R
- Improving the Accuracy of Flood Damage Assessments via the Use of Experimental Data
- Erath Cycling Plant: Priority A-1-a



Norma Jean Mattei had a full house while presenting on Ethics and AI

The conference wrapped up with lunch and the **Section General Membership** meeting lead by Andrew Woodroof, President of Louisiana Section. They also recognized Distinguished Senior and Junior Civil Engineering Students who received Section Awards.



ASCE Louisiana Section President Andrew Woodroof began the Section General Membership meeting



Liliane Lavine, Ashtyne Monceaux, Nicholas Simon, Andrew Nettleton, and Penelope Pichardo received Distinguished Student Awards at the 2025 Spring Conference

Distinguished Senior Civil Engineering Student Awards

Emily Stephens, Louisiana State University Liliane Lavine , Louisiana Tech University Kallie Broussard, McNeese State University Kalani Jones, Southern University Nicholas Simon, University of Louisiana Lafayette Andrew Nettleton, University of New Orleans

Distinguished Junior Civil Engineering Student Awards

Ethan Nguyen, Louisiana State University

Ashtyne Monceaux, Louisiana Tech University

Ana Cabanas, McNeese State University

Javante Martin, Southern University

Holden Hebert, University of Louisiana Lafayette

Penelope Pichardo, University of New Orleans

In total, the conference was a great success, offering a total of nineteen (19) PDH opportunities for over 62 total attendees. On behalf of the Shreveport Branch, I would like to thank the speakers, sponsors, exhibitors, attendees, and ASCE members for the ongoing support of the branch. We strive to provide innovative information for the growth of your professional career, and we look forward to continue serving you and our community. We really appreciate everyone's involvement, and we were happy to coordinate an event that benefitted the membership from around the State.

Gold Sponsors

D&W System Sales Environmental Technical Sales Halff JH White Volkert

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Bronze Sponsors

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Exhibitors

Advanced Drainage Systems

EJ

Gulf States Engineering

Intertek PSI

JH White

Lithified Technologies

QSM

Solmax

Utiliserve

16

ASCE-COPRI Louisiana Chapter News

By Kiara Horton, El, Director – Communications



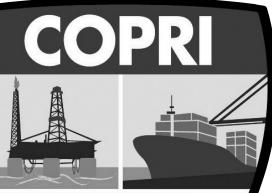


Kiara Horton, El Director – Communications

The Louisiana Chapter of the Coasts, Oceans, Ports, and Rivers Institute (L.COPRI) of the American Society of Civil Engineers (ASCE) promotes membership, professional development, and visibility throughout the State of Louisiana by conducting virtual webinars and inperson events.

YPG and Student Chapter Updates

Please reach out to Hayden Franklin (Student Chapter President, <u>hfran15@lsu.edu</u>) and Kiara Horton (<u>kiara.horton@freese.com</u>) for information on how to get involved as an LSU Student or Younger Member.



Past Events

ASCE and LCOPRI Joint Social

On Monday, April 14, 2024, ASCE and LCOPRI hosted a joint social at Wrong Iron in New Orleans to help connect industry professionals. The event was sponsored by APS.

Half-Day Spring Seminar

On Tuesday, April 15, 2025, COPRI held its annual Spring Half-Day Seminar at the Tulane River and Coastal Center in New Orleans. Alex Kolker, PhD spoke on Land Building as a Result of Neptune Pass in the Lower Mississippi River and Kristi App spoke on Tarriff Impacts on Louisiana Imports and Exports.

Other Information

The activities of L.COPRI include seminars, workshops, and other activities to benefit all ASCE and COPRI members.

Members do not have to be engineers to join COPRI. The Institutes of ASCE are formed for the benefit of ASCE and non-ASCE members to participate and interact with other professionals interested in coastal, oceans, ports, and riverine efforts in Louisiana. We would like to extend an invitation to our members to submit feedback and ideas for upcoming webinars and events. Please submit these ideas to <u>kiara.horton@freese.com</u>, and be on the lookout for emails and posts on our LinkedIn page for upcoming events.

Submit Your Abstract to ICCE 2026

ASCE



Join us in Galveston, TX for the premier coastal engineering conference: The International Conference on Coastal Engineering (ICCE)! https://icce2026.com/

Original papers are invited in theory, measurement, analysis, modeling, novel technologies and practice. Practical papers detailing the design, construction and performance of case studies on coastal projects are also encouraged.

CALL FOR ABSTRACTS – SUMBIT TODAY!

https://icce2026.com/call-abstracts

ASCE-G-I Louisiana Chapter News

By Ricardo C. de Abreu, PhD, PE, BCGE, F.ASCE, G-I Chairman



INSTITUTE



Ricardo C. de Abreu, PhD, PE, BCGE, F.ASCE G-I Chair



We are halfway through the year, and I am proud to say the momentum we built early on is only growing stronger. The Louisiana G-I Chapter continues to thrive, thanks to the participation and support of our members, partners, and sponsors.

In March, we hosted an engaging webinar with Dr. Guoming Lin, Vice President and Senior Geotechnical Consultant at Terracon, who shared critical insights from the 2022 bulkhead collapse in Savannah, Georgia.

In April, we welcomed Mr. Jesse Rauser (LaDOTD) and Dr. Xin Peng (Geosyntec Consultants), who presented on LaDOTD's pioneering work in geotechnical data management. Their joint presentation highlighted modern approaches for improving infrastructure resilience and design efficiency.

Now in May, we are thrilled to feature a highly anticipated presentation by Dr. Adda Athanasopoulos-Zekkos, Associate Professor at the University of California, Berkeley. Her talk, "From Miles to Inches: Big Data Frameworks for Levee Health Assessment," explores lessons learned from Hurricane Katrina and introduces a UAV-enabled, data-rich framework for levee monitoring. The webinar showcases pilot work in California's Delta, utilizing optical, thermal, LIDAR, MASW, and EMI data to detect hazards and support proactive flood protection strategies.

What's Next?

We have a dynamic lineup of webinars and events planned for the coming months; each one crafted to expand our collective knowledge and spark meaningful conversations in our geotechnical community:

June: We're organizing a case-study-focused webinar on ground improvement and deep foundations. This session will highlight real-world applications, construction challenges, and performance monitoring outcomes, featuring regional projects and innovations. Whether you're working in design, construction, or research, you do not want to miss these practical insights.

July: Our upcoming webinar on soil corrosivity will dive into detection methods, case studies, and implications for materials

selection and infrastructure durability. With corrosion-related issues becoming more prominent in both public and private projects, this session will be highly relevant to practitioners across the board.

August and Beyond: We are also in the early stages of planning inperson meetups and joint events with other ASCE chapters and student groups. These gatherings aim to reconnect our professional community, showcase student research, and facilitate mentorship across generations of geotechnical engineers.

Stay tuned for announcements and registration links in your inbox and on our LinkedIn page.

Call for Speakers: 2025 Louisiana Civil Engineering Conference & Show

We are currently seeking geotechnical speakers for the Louisiana Civil Engineering Conference & Show, taking place September 24–25, 2025, at the Pontchartrain Center in Kenner, LA. If you are interested in presenting, please email Gwen Sanders at gsanders@eustiseng.com.

New Initiative: Digital Innovation in Geotechnical Engineering

We are launching a new sub-committee/interest group focused on digital innovation in geotechnical engineering. As digital tools like Python, remote sensing, and automated data workflows become more prevalent, this group aims to:

- Host hands-on workshops and training sessions
- Share real-world case studies and best practices
- Foster collaborative research initiatives
- Create space to explore digital transformation challenges and solutions

If you're passionate about innovation and want to help shape this group, please reach out to George Segre (<u>George.Segre@terracon.</u> <u>com</u>) or Dr. Xin Peng (<u>xin.peng@geosyntec.com</u>).

Let's Keep the Momentum Going!

Let's keep the momentum going! As always, feel free to connect with me directly at <u>ricardo@fdaengineers.com</u> and follow us on LinkedIn at Geo-Institute Louisiana Chapter.

Together, we're shaping the future of geotechnical engineering in Louisiana and beyond. Thank you for your dedication to our field. I'm excited to keep engaging with each of you!

ASCE

ASCE Government Relations Committee By Nedra Davis Hains, Doctoral Candidate, GR Secretary & LA Advocacy Captain

ASCE 2025 Legislative Fly-In and Policy Week

The ASCE 2025 Legislative Fly-In was held in person in Washington, D.C., from March 26 - 28, 2025. The Fly-In is organized by ASCE's Key Contact Program and Government Relations Team. ASCE's Legislative Fly-In in Washington, DC was an intensive two-day event which provided participants with professional development in honing their skills in the public policy process and advocacy peer-topeer networking. ASCE members had an opportunity to meet with their Members of Congress and advance the Society's collective policy priorities while they learned beneficial leadership skills they brought back to their Sections, Branches, and workplace. The 2025 Legislative Fly-In was held in conjunction with the release of the 2025 Report Card for America's Infrastructure and was an opportunity for ASCE members to share the final report with their Members of Congress. Representing the Louisiana Section were Brant Richard, PE - Louisiana Section Vice President; Norma Jean Mattei, PhD, PE - former National President ASCE; Jack Koban, PhD, PE, PG - Baton Rouge Branch President; and Nedra Davis Hains, MA - Louisiana State Advocacy Captain, who met with several Congressional offices on Capitol Hill.



2025 Legislative Fly-in, photo by Nedra Hains

The 2025 Legislative Fly-In program included:

- Briefing sessions on key legislation active in Congress and ASCE's priority issues;
- Training on lobbying and influencing your elected leaders;
- Networking with your ASCE peers from across the country;

- Organized meetings with your Members of Congress or their staff; and
- Tips on continuing relationships with your elected officials once you return home.

This year's Fly-In saw over 260 attendees and covered a variety of key issues, highlighted by the timing of the event. One of the main issues was the release of



Nedra Davis Hains, MA Government Relations Secretary

the 2025 Report Card for America's Infrastructure. The event highlighted how personal stories can effectively communicate the urgent need for resilient and well-supported infrastructure systems. The Fly-in began with briefings on advocacy strategies, legislative priorities, and networking opportunities. Highlights included the Advocacy Captains Briefing by Elisabeth 'Lizzie' Dorman - Director of Grassroots Initiative, ASCE, and the "Legislative Fly-In Refresher" by Carlos Condarco - Director of Government Relations, ASCE. Jeff Dufour – Editor in Chief at the National Journal, provided insights on congressional activities of the 119th Congress impacting the profession. The first day featured ASCE Committee meetings, a keynote presentation by U.S. Representative Rob Bresnahan Jr. (PA-08), and panel discussions on key issues, followed by networking events. The second day focused on meetings with Representatives and Senators, concluding with an evening reception - The Infrastructure Gamechangers Reception at the Hall of States rooftop sponsored by EPIC Games and U.S. Pipes.

Key Findings

The 2025 Report Card for America's Infrastructure demonstrates that recent federal investments have positively affected many of the infrastructure sectors Americans rely on every day. As a result, incremental improvements were made across some of the historically lowest-graded categories in the Report Card. Almost half of the 18 assessed categories saw increased grades and contributed to an overall grade improvement from C- to C. This is promising momentum, but sustained infrastructure investments are necessary to equip stakeholders with certainty for long-term planning and execution of policies and projects that fully realize the benefits of robust resources.

Congressional Visits

During the Fly-In, the Louisiana delegation had several meetings with Louisiana Congressional offices. They met with Congressman Cleo Fields' Legislative Assistants, Matt DeVille and James Theus, where they discussed the new 2025 *Report Card for America's Infrastructure* grades and the importance of protecting tax-exempt municipal bonds. The delegation also met with Senator Bill Cassidy's office, Senior Policy Advisor Ron Anderson, to emphasize the need for effective use of IIJA funds, which expires in the Fall of 2026 and addressing critical infrastructure issues.

ASCE | GOVERNMENT RELATIONS



Left to right: Representative Cleo Field's office James Theus – Legislative Assistant, Nedra Hains, Matt DeVille – Legislative Assistant, Jack Koban, Norma Jean Mattei, and Brant Richard at the 2025 Fly-in



Left to right: Brant Richard, Norma Jean Mattei, Ron Anderson, Senior Policy Advisory, Jack Koban, & Nedra Hains visit Senator Bill Cassidy's office

In a meeting with Senator John Kennedy's office, Cooper Moore and Jackson Bewley, Legislative Correspondents, engaged in discussions about the 2025 *Report Card for America's Infrastructure*, budget reconciliation, infrastructure resiliency, and the importance of protecting tax-exempt municipal bonds. The group also visited Representative Troy Carter's office, where they dropped off a copy of the 2025 *Report Card for America's Infrastructure*.



Left to right: Jackson Bewley Legislative Correspondent, Nedra Hains, Cooper Moore Legislative Correspondent, and Brant Richard visit Senator John Kennedy's office

Additionally, the delegation dropped off a copy of the 2025 *Report Card for America's Infrastructure* with Representative Clay Higgins and Speak of the House, Representative Mike Johnson's office. These meetings were crucial in conveying ASCE's key messages and ensuring that the needs of the engineering profession and infrastructure projects were understood and supported by lawmakers.

Finally, Brant Richard, Jack Koban, Norma Jean Mattei and Nedra were also able to meet with Representative Julia Letlow's and Representative Steve Scalise's office. Kade Smith, Legislative Assistant for Rep. Letlow's office was focused on advancing infrastructure projects that focused on economic growth and public safety. Matt Palmer Legislative Assistant for Rep. Scalise's office was focused on enhancing flood protection and improving waterway navigation. Both offices received the *2025 Report Card for America's Infrastructure*, along with key documents on projects supported by municipal bonds – underscoring the critical need to preserve the tax-exempt status of this essential local funding tool that enables continued infrastructure development.



Left to right: Jack Koban, Norma Jean Mattei, Nedra Hains, Kade Smith Legislative Assistant, and Brant Richard visit Representative Julia Letlow's office

To improve America's infrastructure grades over the next four years, ASCE recommends a comprehensive strategy that maintains investment, emphasizes resilience, and promotes innovative, forward-looking policies. Sustained, and in some cases increased, investment is essential, even amid recent constraints that have slowed progress in closing the infrastructure investment gap. Cutting or delaying federal and state funding will only increase the costs and dangers associated with an aging infrastructure system, placing additional burdens on American families and businesses.

Infrastructure planning must consider a project's entire life cycle, especially in light of more frequent extreme weather. Investing in resilient designs improves public safety and ensures a more efficient use of public funds, allowing infrastructure to better withstand natural disasters, climate events, and other hazards. Employing best practices for resilience throughout the project's life cycle is therefore vital.

To fully realize the benefits of current infrastructure efforts, we must embrace forward-thinking approaches today; ones that will deliver clean drinking water, safer transportation, and dependable electricity and broadband for the next century.



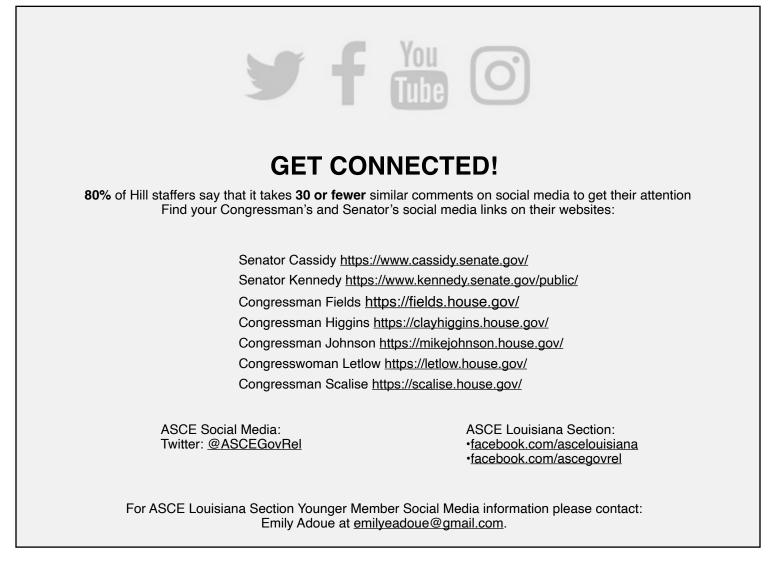
Left to right: Jack Koban, Brant Richard, Matt Palmer Legislative Assistant, Nedra Hains, & Norma Jean Mattei visit with Rep. Steve Scalise's office

The core messages were delivered, emphasizing ASCE's expertise and the importance of long-term relationships with Congressional and Senatorial staff. The LA Section Government Relations Committee encourages members to schedule **Back Home Visits** or attend local town hall meetings to raise infrastructure issues. For more information on the 2025 *Report Card for America's Infrastructure*, visit [infrastructurereportcard.org] (http://www.infrastructurereportcard.org).

With over 160,000 members, ASCE has a powerful voice on Capitol Hill and in statehouses across the country. To stay informed and become a Key Contact, visit [ASCE Key Contacts Program](<u>https://www.asce.org/advocacy/key-contacts</u>).

With over 160,000 members, ASCE has a powerful voice on Capitol Hill and in statehouses across the country. Be the first to know about legislation that matters – become a Key Contact today.

If you would like to become a Key Contact, please visit the Key Contact Program through ASCE's website at https://www.asce.org/advocacy/key-contacts.



ASCE-T&DI Louisiana Chapter News

By Ronald Schumann, Jr, PE, Chairman





Ronald Schumann, Jr, PE T&DI Chair

Benefit-Cost Analysis for Grant Applications

On February 18th, the T&DI Louisiana Chapter hosted the Benefit-Cost Analysis for Grant Applications seminar in New Orleans. This seminar has been successfully presented twice in the Baton Rouge area, and interest related to federal grant programs continues to keep this topic relevant.

Federal grant obligations have nearly tripled in the past several years mostly due to the *Infrastructure Investment and Jobs Act*. Whether the infrastructure is a new highway or a shoreline revetment project, a major component of the federal grant application process is the Benefit-Cost Analysis (BCA).

The BCA is a systematic process for identifying, quantifying, and comparing expected benefits and costs of an investment, action, or policy. It is used by federal agencies to help understand the relative level of quantified benefits of projects as compared to each other as part of the award determination process.

As federal discretionary grant programs rise in quantity, the importance of understanding the BCA process is increasing for both planners and engineers. In this seminar, our speakers provided an overview of BCAs, their application, and best practices in support of successful grant applications.



The speakers were Mr. Sean Daly and Mr. Dennis Lambert, PE, F. ASCE. Both Sean and Dennis are members of the Executive Committee of T&DI. We are grateful for their years of service to our profession and our Institute.

Louisiana State Science and Engineering Fair

In continuation of our efforts to promote interest in transportation, planning, and engineering, the T&DI Louisiana Chapter contributed to the annual Louisiana State Science and Engineering Fair that was held at LSU on March 25th and 26th. The State is divided into multiple regions and each region holds a Science Fair early in the year. The top winners from each Region can participate at the State level. The Judges for the transportationrelated special awards category consisted of T&DI Executive Committee members Dan Aucutt, PE, Sean Daly, Ronnie Schumann, PE, Joffrey Easley, PE, and Mike Paul, PE. T&DI awarded prizes for the best projects related to Transportation Engineering. Prizes of \$200 and \$100 were awarded for first and second place respectfully in both the Junior and Senior Divisions. The winners were:

Junior Division:

ASCE



1st Place: Garrett Vincent – Strongest Bridge Model 2nd Place: Ishan Samant – Hovering Beyond Gravity



1st Place: Antonina Sobera – How do Objects Fly 2nd Place: Sohan Reddy – How to Hush Highway Noise

Senior Division:

ASCE

ASCE-T&DI Louisiana Chapter News, continued

Looking Ahead

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 the transportation industry. 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 Ronnie Schumann at <u>rschumann@ilsiengineering.com</u> for a copy of the checklist. Historically 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 areas. We have also presented outreach seminars with the ASCE Acadiana Branch and Shreveport Branch. We are open to cohosting 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:

- Bus Rapid Transit in New Orleans
- River District Development
- New Orleans Ferries
- I-220 and I-20 Barksdale Air Force Base Interchange Access Project in Bossier City
- DOTD Construction Cost Estimating

Branch News



ACADIANA BRANCH By Emily Faulk, PE, Branch President

The beginning of the year has been very busy for ASCE Acadiana! We have successfully held multiple luncheons including an Ethics presentation from LAPELS where we also recognized our spring scholarship awardees. In April, we hosted a luncheon presentation about Design Professional Liability & Risk

Management from Mary Anne Wolf. We also kicked off the summer months by hosting a joint luncheon with LES Lafayette where Warren Abadie, PE gave an update on recent and future planned projects for the Lafayette Consolidated Government.

At the beginning of May, we hosted the annual Joint ASCE/IEEE/ LES crawfish boil at Girard park which drew in over 100 participants of varying engineering disciplines in the Lafayette area. Attendees were able to gather and socialize with family and friends in a relaxed environment. I'd like to thank the board members of IEEE and LES Lafayette for their continued interest and effort in planning this event for our members. A huge shoutout goes out to Ardaman & Associates for their continued support being our drink sponsor for this event.

We are continuing to plan our annual golf tournament set for October 10th, which draws in a large crowd of professionals in the area to offer a day of fun and friendly competition. Keep an eye out for a registration link which will be sent out in the coming months, and connect with us on LinkedIn to stay up to date with the Acadiana Branch! I would like to thank all the members of the ASCE Acadiana Branch for their continued support!



March Luncheon: Ethics Presentation by LAPELS



April Luncheon: Design Professional Liability and Risk Management by Mary Anne Wolf



BATON ROUGE BRANCH By Jack Koban, PhD, PE, PG, Branch President

The first quarter of 2025 is in the books and for the ASCE Baton Rouge Branch it's been an eventful one. In February, we partnered with the Louisiana Engineering Society (LES) to celebrate Engineers Week, starting with an awards and scholarship luncheon at Ruffino's Restaurant where our branch had the pleasure of recognizing a group of

exemplary engineering students from around the state and present each of them with a \$1,000 contribution to their academic pursuits. Each of our scholarship recipients has maintained an impressive GPA while actively participating in their respective university's ASCE Student chapter, in addition to other notable extra curriculars.

The recipient of the 2025 ASCE Baton Rouge Branch Scholarship is Colin Shortess of LSU, pictured below, with Scholarship Committee Chair, Ryan Williamson.



LSU Colin Shortess receives scholarship from Ryan Williams

The Melissa Young Doucet, PE Memorial Scholarship is dedicated to supporting and empowering women aspiring to build a career in engineering. The scholarship, named in honor of Melissa Young Doucet, celebrates her legacy of academic excellence and the inspiration she continues to provide to the next generation of successful female engineers. Thanks to the generosity of the Young Family and our contributions of our members to our scholarship fund, we were

able to award scholarships to five deserving individuals this year.

The recipients of the 2025 Melissa Young Doucet, PE Memorial Scholarship are:

- Emma Skeath of LSU
- Briana Smith of Southern University
- Rachel Bancroft of LSU
- Delaini Brou of the University of Louisiana Lafayette
- Ashtyne Monceaux of Louisiana Tech



From Left to Right: Greg Young, Rhonda Young, Briana Smith, Emma Skeath, Rachel Bancroft, Rachel (Young) Lambert, PE

Congratulations again to all our scholarship recipients and a heartfelt thank you to the Young family and everyone who has contributed to our scholarship fund. Your generosity provides a direct and profoundly positive impact on the future of the engineering community of Louisiana.

We continued with our E-Week Celebration held at City Club of Baton Rouge in cooperation with LES, WTS, and ACEC. The event was attended by over 100 guests and was highlighted by a commendation from the newly elected mayor-president Sid Edwards and a proclamation from Governor Jeff Landry. Special thanks to Kimberly McDaniel for spearheading an outstanding finish to Engineers Week 2025!



EWeek at the Baton Rouge City Club



EWeek proclamation from Governor Jeff Landry

We rolled into March with our monthly luncheon featuring a presentation from Patrick Roth, PE of HNTB on the emergency inspection and repair of Hernando de Soto (I-40) Bridge over the Mississippi River in Memphis, TN. The topic was one of great interest and couldn't have been more timely given the fact that ASCE was set to unveil the National Infrastructure Report Card just two weeks later during the annual legislative fly-in. I was fortunate enough to be in Washington, DC co-chairing a coastal policy summit that same week and had the privilege of joining some of the ASCE Louisiana Section leadership

on their hill visits with our Louisiana delegates. In our meetings, we discussed the importance of continued investment in our state's infrastructure and how the benefits of that investment reach far beyond our state borders. We also provided copies of the national report card and primed each of our delegates for the release of the state infrastructure report card which we hope to publish this fall.

We look forward to seeing everyone at our April Luncheon coming up at Juban's. For more information on past and future events, we encourage you to follow us on social media at <u>www.Facebook.com/</u><u>ASCEBatonRougeBranch</u> or linkedin.com/groups/14307287/.



Left to Right: Brant Richard (Louisiana Section Vice President), Norma Jean Mattei (former ASCE National President), Ron Anderson (Sr Policy Advisor, Senator Bill Cassidy) Jack Koban (Baton Rouge Branch President), Nedra Hains (LA State Government Advocacy Captain and Editor in Chief Louisiana Section)



NEW ORLEANS BRANCH By James Williams, PE, Branch President

The New Orleans Branch has had a very active Spring Season.

The biggest event for the branch this spring was the First Annual Tri-Society Golf Tournament & Crawfish Boil on March 27, 2025 at English Turn Golf Club! The New Orleans Branch participated in this joint event with the local SAME and

CMAA chapters. It was a great event thanks to the hard work of our planning committee, and we look forward to making this a yearly occurrence for our membership.

Recent speakers we had the pleasure of hosting included:

- March 20th Luncheon Presentation by Dr. Chris Dunn, Chief of the Engineering Division at the USACE New Orleans District on New Orleans District Activities and Programs; and
- April 24th Luncheon Presentation by Ms. Cara Bartholomew with the City of Mandeville on the topic of Programs and Projects for the City of Mandeville;

The April luncheon was held in Mandeville to provide an opportunity for more participation from our North Shore membership. We also held a Northshore Happy Hour on May 15th at Covington Beer Garden to give this part of our membership the opportunity to network.

Our outreach team has also been busy. We once again participated at MudFest sponsored by Louisiana Children's Museum (LCM by hosting a table to provide an interactive activity for the children to gain hand on experience with engineering principles. We also participated in the local STEM fest in the New Orleans Super Dome.



First Annual Tri-Society Golf Tournament & Crawfish Boil

Our Younger Members hosted our annual Younger Member Forum and networking event held at The Crab Trap Room at the Blue Crab Restaurant on May 14th. At the event our members had the opportunity to have conversations in a casual setting with a panel of engineers from around the New Orleans Metropolitan Area. This year's topic was artificial intelligence and its impact on Civil Engineering.

To stay updated with the New Orleans Branch, we encourage you to follow ASCE New Orleans on Facebook or LinkedIn (@ asceneworleans) and visit our website at <u>www.asceneworleans.</u> org. You can always reach out to us at <u>ASCEneworleans@gmail.</u> com with any inquiries or suggestions. We have an excellent lineup of upcoming luncheons. We also anticipate a summer social as we move past from spring into the hotter months. We hope to see you at our upcoming events! Our branch plans to continue to provide activities and opportunities for our membership.



SHREVEPORT BRANCH By Thomas Jenkins, PE, Branch President

We did not have a May Luncheon in lieu of the Spring Conference being this month. April PDHs will be sent out in June.

One of the ASCE Member Benefits is that you can receive up to ten (10) free

PDHs by watching on-demand webinars through the ASCE Website. If you need PDHs, check it out!

EMPLOYMENT OPPORTUNITIES - Please send us an email and we would be happy to list any employment opportunities that you have in our newsletter! ASCE Shreveport Branch is happy to serve its members by advertising your current employment opportunities for the Civil Engineering Profession. If you have a position available, please feel free to email ASCE.Shreveport@gmail.com or Thomas.Jenkins@shreveportla.gov.

Additionally, if you have an advertisement for a position that is no longer available, please contact us to have it removed.

A few of our members have not been receiving the newsletters since we changed our Constant Contact newsletter format, and I have been notified that the emails were being sent to their Junk/ Spam folders. Please check in with your colleagues to make sure they are receiving the newsletters so that they can stay in the loop. Sign up at Constant Contact: https://bit.ly/shreve_asce

Student News

LSU STUDENT CHAPTER By Maya McGrath

As final exams wrap up and Summer approaches, the team behind the student chapter at Louisiana State University and A&M College want to say that they are grateful for all the support they have received in 2025. This year's board is relatively new, yet excited to bring the students and local professionals together. There is a group of advisors and professionals assisting the student officers along the way. Thank you so much for your guidance –David Robertson, Chao Sun, PhD, Mitchell Brooks, and Jason Pasqua!

Even as the planning for the next semester began, there were many exciting events and opportunities LSU ASCE members took part in to reflect on. From large regional events to local outreach, there was a new face among the friendly returners. The chapter hopes to continue this growth in membership and engagement into the fall.

Over 20 students represented the chapter at the Gulf Coast Regional Symposium in March. Thank you to Mississippi State University for hosting a wonderful event. Our members appreciate all the work that went into making it a great trip — including our logistical team with our Symposium Coordinator, Augustus Mondragon.

The 2025 Steel Bridge team, led by Sarah Christopher and Cayden Winslow, earned many awards and took third place overall. New interest in the concrete canoe competition, made possible by our Vice Presidents Emily Stephens and William Latiolais, tested the waters this year and have their eyes on the prize for 2026!

All chapter meetings this semester were successful due to the coordination of our two Vice Presidents and Meeting Coordinator Skylar DeWerff. Each time, they gathered an audience, spoke with the professional presenters, and set up with chapter news and food. The work they put into it cannot be understated.

Please look forward to an exciting calendar put together by our officers! Our largest event, the annual Bayou Regional Career Fair, is coming soon again this fall. This student-led event has already begun preparations thanks to the team behind it this year, Chandler Hastings and Cooper Ackman. If you would like to reach out to us, please send career fair-specific inquiries to lsu_asce_careerfair@ outlook.com and general questions to <u>asce@lsu.edu</u>.



2025 Steel Bridge Team



LSU Student Chapter 2025

UNIVERSITY OF LOUISIANA AT LAFAYETTE By Emily Delcambre, UL Public Relations Chair Student Chapter

Exciting things are happening within the UL Lafayette ASCE Student Chapter. The student group recently received multiple recognitions from ASCE Nationals for its accomplishments, successful activities, and membership growth, as identified in its most recent annual report.

The student chapter received a "Letter of Honorable Mention", which recognizes the group for being in the top third of all student organizations, as well as a "Letter of Significant Improvement". This national recognition is a reflection not only of its members' individual achievements, but of an overall student-led culture of excellence that continues to grow stronger each year.

Student morale and engagement with the group's projects, such as fundraising efforts, "Gulf Coast" conference competitions, volunteering, and participation with Acadiana Branch and other departmental activities, is extremely high thanks to student and faculty leadership. Additionally, support from local professional members of ASCE is at an all time high, with many younger members continuing to stay engaged with students.

As always, the annual "Gulf Coast" competition is a great teambuilding and recruiting event. The student chapter had a strong showing at this year's competition taking place at Mississippi State University, earning the following honors:

- Timber Strong
 - 1st Place Construction
 - 3rd Place Overall
 - Honorable Mention in Aesthetics
- Steel Bridge
 - 2nd Place Stiffness
 - 3rd Place Structural Efficiency
- Concrete Corn hole
 - 1st Place Tournament Plan
 - 2nd Place Overall
- 1st Place Mystery Fluid Mechanics
- 3rd Place March Madness Free Throw
- 3rd Place Water Resources PE Exam
- Honorable Mention Construction Institute
- Concrete Beam Bending 4th Place Overall
- Mead Paper 4th Place Overall

This year's competition success was driven by the students' proactive engagement in professional development, outreach, and technical initiatives that elevated the chapter's knowledge on civil engineering subject matters.

It mustn't go without mentioning that spearheading much of the student chapter's momentum and success recently is its faculty advisor, Mr. Wayne Sharp. Mr. Sharp is an instructor with the department teaching the first and last civil engineering courses students are required to take within the curriculum: Introduction to Civil Engineering and Senior Civil Engineering Design. In these courses, Mr. Sharp incorporates mentorship from local engineering firms on a variety of challenging projects. This collaboration helps to engage professionals with a variety of experience and roles, from business owners to new engineering interns. His interest in student well-being, personal and professional development, and individual experiences in the department cultivates an enjoyable environment around the ASCE student chapter and around the department in general.

Mr. Sharp's enthusiasm and commitment to the health of the student organization is contagious, and with his leadership, will ensure the longevity and strength of the chapter well into the future.

From hosting industry speakers and organizing hands-on service projects to excelling in competitions and strengthening peer mentorship, the students have shown what's possible through collaboration, vision, and hard work. The chapter's energy, organization, and leadership played a key role in helping the group surpass its goals and bring new energy to the department.

These honors and the chapter's recent success reflect the extraordinary commitment, teamwork, and development demonstrated by the chapter's members and faculty advisor. Congratulations to the entire chapter for these incredible accomplishments – you've set a high bar for the future of civil engineering students at UL Lafayette.



ASCE Gulf Coast Conference Attendees



Prestress Concrete Competition

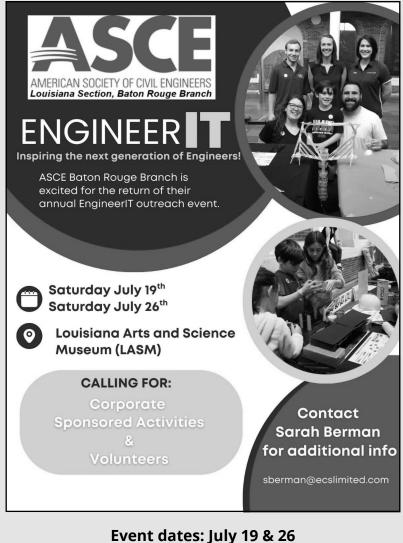


Timber Strong Team

EngineerIT 2025 Information and Volunteer Sign-up

We are excited to announce EngineerIT 2025, an engaging outreach event hosted by the Baton Rouge Branch of the American Society of Civil Engineers (ASCE)! This event is designed to introduce kids aged 6–12 to the exciting world of civil engineering through fun, hands-on demonstrations across a variety of disciplines.

At this time, we're looking for enthusiastic volunteers to help bring this event to life! Lunch and refreshments will be provided.



Event dates: July 19 & 26 Event time: 10AM to 1PM Volunteer Commitment (est.): 9AM to 2PM

- Calendar of Events -

2025

July

July 9-11 - Florida Section Annual Conference – Orlando, FL July 17-19 - Alabama Section Annual Conference – Orange Beach, AL

September

Sept 24-25 - Louisiana Civil Engineering Conference & Show – Kenner, LA

October

Oct 7-10 - Annual Convention – Seattle, WA

Events are constantly being updated online:

For ASCE Society events please see online: https://www.asce.org/conferences_events/ https://www.asce.org/student_conferences/

For ASCE Acadian events please see online: http://branches.asce.org/acadiana/events For ASCE Baton Rouge events please see online: http://branches.asce.org/baton-rouge/events For ASCE Shreveport events please see online: https://www.facebook.com/ASCEShreveport/

For ASCE NOLA events please see online: http://asceneworleans.org/events/

For more events visit the ASCE Events Calendar: http://www.lasce.org/calendar.html

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Journal of the Louisiana Section-ASCE Brant Richard, PE 9643 Brookline Ave. Suite 116 Baton Rouge, LA 70809-1488

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