



# 2019 FES | ACEC-FL ANNUAL CONFERENCE

JULY 24-26 | THE VINOY® ST. PETERSBURG

“Leading Florida’s Innovation”

## Thursday, July 25<sup>th</sup>

<p>10:45am – 11:45am</p>	<p><b>Re-positioning in an Era of Disruptive Change</b> <i>(ACEC-FL Track)</i>  <b>Douglas Reed, PE – FosterGrowth</b>  Learn from an A&amp;E insider engaged with a national "Engineering Change Laboratory" and who authored "Lead a Movement", about the forces that promise to disrupt the engineering business as we know it. AI, robotics, and big data intrude on tasks thought as only human capable. Private equity backed startups play with changed delivery methods. How must we understand and control our destiny? <b><u>1 PDH</u></b></p>
	<p><b>Transportation Technology: Are We Missing Something?</b>  <i>(FES Track)</i>  <b>Michael J. Davis, PE, DBIA - RS&amp;H, Inc.</b>  This presentation focuses on the future of transportation and whether or not we are overlooking an opportunity for earlier benefits and implementation on our roadways. Technology, Safety, and Congestion are all being improved on a daily basis- what else can we use to propel our roads into the future? <b><u>1 PDH</u></b></p>
	<p><b>Becoming a Professional Engineer</b> <i>(FEE Track)</i>  <b>Zana Raybon - Florida Board of Professional Engineers</b>  Covers requirements for becoming a licensed professional engineer in Florida, including the importance of licensure and the process to become licensed. <b><u>1 PDH</u></b></p>
<p>1:30pm – 2:30pm</p>	<p><b>Health and Safety for Civil Engineers</b> <i>(ACEC-FL Track)</i>  <b>Michelle McIntyre, MPH, CIH, CSP - GFA International</b>  Health and Safety for Civil Engineers will explore such questions as: What hazardous activities are specific to civil engineers? What health and safety regulations impact the construction industry? How does the EMR affect civil engineering firms? How is a civil health and safety plan developed? How does safety save money? Common violations and practical means of compliance will be addressed. <b><u>1 PDH</u></b></p>

<p><b>1:30pm – 2:30pm</b></p>	<p><b>Integrated Corridor Management</b> <i>(FES Track)</i></p> <p><b>Roberto Perez, PMP</b> - <i>Parsons Corporation</i></p> <p>This presentation will provide an overview of Integrated Corridor Management (ICM) and detail several ICM implementations across the country; specifically, the SANDAG I-15 ICM solution which incorporate network prediction and real-time simulation. The presentation will be centered on using ICM solutions that influence motorist behavior to alleviate congestion and increase safety. <b><u>1 PDH</u></b></p>
	<p><b>A Holistic Framework for Using Systems Engineering, Cognitive Modeling, and Virtual Simulation to Explore Technological Leadership</b> <i>(FEE Track)</i></p> <p><b>Charles W. Davis, Jr., MS</b> - <i>Valencia College</i></p> <p>System Engineering can help derive requirements and specifications in order to build virtual environments which are good to test behaviors and attitudes. Virtual simulations can have a strong impact, because role-playing facilitates active learning, permits the acceptance of new concepts and generates increased interest, enthusiasm and motivation.</p>
<p><b>2:30pm – 3:30pm</b></p>	<p><b>MDX Kendall Parkway - \$1B SR 836 Extension</b> <i>(ACEC-FL Track)</i></p> <p><b>Juan Toledo, PE</b> - <i>Miami Dade Expressway Authority (MDX)</i></p> <p>Describing the challenges with developing a 14 mile greenfield extension of SR 836 near the Everglades and the project's unique multimodal features and environmental mitigation measures. Discuss the multiple procurement opportunities (consultant and contractor) associated with this \$1B project. <b><u>1 PDH</u></b></p>
	<p><b>Testing Methods for Structural Integrity and Geotechnical Load Bearing Capacity of Deep Foundations</b> <i>(FES Track)</i></p> <p><b>Mohamad Hussein, PE</b> - <i>GRL Engineers, Inc.</i></p> <p>Driven piles, auger-cast piles, and drilled shafts are used to support many types of structures in varied geotechnical conditions. The presentation discusses the basic principles, practical application, and limitations of modern testing and verification methods used to assure a reliable, cost-effective, and efficient foundation. Florida case histories will be used to demonstrate best practices. <b><u>1 PDH</u></b></p>
	<p><b>Elements of a Winning Resume</b> <i>(FEE Track)</i></p> <p><b>Jeffrey Greenfield, Ph.D., PE</b> - <i>Broward County Water &amp; Wastewater Services</i></p> <p>Presentation will discuss Do's and Don'ts for students seeking a first professional position. It will include the required components of a resume: personal identification, education, experience, and skills. Additional categories to be discussed include: qualifications, skills, research, leadership, and honors/awards. Common resume mistakes will be discussed. Example resumes will be presented.</p>

<p>4:00pm – 5:00pm</p>	<p><b>What's in your Contract - Managing Risk Through Contract Language</b> <i>(ACEC-FL Track)</i></p> <p><b>Mark Jackson, ARM &amp; Erin Johnson - JCI Insurance Agency</b></p> <p>This course demonstrates how contract language can affect the outcome of a claim. Learn key contract provisions every design professional should be able to identify and explore ways to avoid uninsurable risks in contracts. We will also review two important contract clauses that should be included with every client contract. <b><u>1 PDH</u></b></p>
	<p><b>Sustainable Pavement Rehabilitation Strategies in the State of Florida</b> <i>(FES Track)</i></p> <p><b>Behnam Golestani, Ph.D., PE - Intertek-PSI</b></p> <p>Pavement distress has been a daunting challenge in pavement maintenance and rehabilitation. This presentation will review the existing practical pavement rehabilitation strategies in the State of Florida and provide a guideline for the engineers and experts to better understand the reason(s) of formation and propagation of pavement distresses and to select the optimal mitigation strategy. <b><u>1 PDH</u></b></p>
	<p><b>Student Chapter Presentations</b> <i>(FEE Track)</i></p> <p><b>Most Active Student Chapter Presentations</b></p> <p>The most active Alpha/Beta and Delta Student Chapters will present their chapter activities for the past year. The students will also discuss what makes their chapter successful.</p>
<p><b>Friday, July 26<sup>th</sup></b></p>	
<p>8:30am – 10:30am</p>	<p><b>FES Chapter Leadership Training</b> <i>(FES Track)</i></p> <p><b>Robert Trompke, PE - Intertek - PSI</b></p> <p>The Leadership Session will focus on training for FES Chapter positions of Treasurer, Secretary, and President, as well as Student Liaison, Membership Chair and State Director. Detailed instruction will be provided for those entering these positions by experienced past chapter leaders and FES staff from Tallahassee. The session will also include demonstrations on the new FES membership platform and membership recruiting tools.</p> <p><b>Safety Leadership - Do I Have a Choice?</b> <i>(FECOM)</i></p> <p><b>Eric M. Jiménez, PE, PMP, CCM - Ardmore Roderick</b></p> <p>Safety comes down to personal choices. People act safe because they chose to do so. As leaders, we can influence others to achieve their maximum performance in a safe culture while accomplishing the project or organizational objectives. As engineers, that leadership expectation is born from our dedication to the protection of the public health, safety, and welfare. <b><u>2 PDHs</u></b></p>

<p><b>8:30am – 9:30am</b></p>	<p><b>The Tampa Bay Water C.W. Bill Young Regional Reservoir Renovation: A Shining Success</b> <i>(FES Track)</i>  <b>Ed Davis, PE - Jacobs Engineering</b>  Tampa Bay Water's Regional Reservoir was in need of renovation due to severe cracking of its soil cement erosion protection system. The Agency sought innovative solutions to the cracking and decided upon a design-build solution to provide a permanent "fix." The Agency selected the Kiewit Team to perform the renovation which has performed very well over the last 5 years. <b><u>1 PDH</u></b></p>
<p><b>9:30am – 10:30am</b></p>	<p><b>Precast Concrete 101</b> <i>(FES Track)</i>  <b>Ralph Verrastro, PE &amp; Rolando Corsa, PE - Bridging Solutions LLC</b>  This presentation was developed for civil engineers, design project managers, contractors, construction inspectors, and construction managers involved in site development, roadway, bridge, utility, and storm water improvement projects. The attendees of this course will gain an understanding of the best practice approach for managing the design process when specifying precast concrete products. <b><u>1 PDH</u></b></p>
<p><b>11:00am – 12:00pm</b></p>	<p><b>How to Excel as a Professional and as a Firm Without Burnout</b> <i>(ACEC-FL Track)</i>  <b>Peter C. Atherton, PE - ActionsProve, LLC</b>  The best engineers and client servers are fully engaged, growing, and excelling. More and more, engineering firm leaders need to confront the growing epidemic of burnout and disengagement in the workplace. Leaders must understand all the factors that contribute and then design and implement solutions to reverse and prevent them in order to be best positioned to serve and grow in the marketplace. <b><u>1 PDH</u></b></p> <hr/> <p><b>Florida Red Tide: Protecting Public Health through Innovation and Citizen Science</b> <i>(FES Track)</i>  <b>Tracy Fanara, PhD, EIT - Mote Marine Laboratory</b>  Neurotoxins from <i>Karenia brevis</i> blooms threaten aquatic and human health. Informing the public of beach conditions is an effective strategy to protect health. Technology deployed by citizen science can help achieve this goal. These tools help protect public health during a bloom, however, how can we control nutrient pollution &amp; prevent prolonged duration or increased intensity? Low Impact Design. <b><u>1 PDH</u></b></p> <hr/> <p><b>America's Energy Infrastructure and Renewable Future</b> <i>(Energy)</i>  <b>Calvin Quinn, PE &amp; William C. Bradford, PE – Hanson Professional Services Inc.</b></p>

<p><b>11:00am – 12:00pm</b></p>	<p>This presentation will dive into the past, present, and future of American energy infrastructure and how we can re-engineer our current energy facilities to accommodate renewable energy. <b><u>1 PDH</u></b></p>
<p><b>2:15pm – 3:15pm</b></p>	<p><b>Implementing a Smart Region Program in North Florida</b> <i>(ACEC-FL Track)</i>  <b>Greg Krueger, PE &amp; Drew Messer - HNTB Corporation</b>  In 2016/2017, the North Florida TPO developed a Smart Region plan that consisted of more than 30 Transportation Safety, Management and Operations (TSM&amp;O) project categories. The presentation will focus on the key implementation efforts with the public and private sector that are currently underway. The presentation will also include a demonstration of the data lake and analytics engine. <b><u>1 PDH</u></b></p>
	<p><b>The Science of Persuasive Communication</b> <i>(FES Track)</i>  <b>Chuck Roberts - Performance Management Group, Inc.</b>  Your persuasive communication skills will have more impact on your organizational and personal success than any other factor. Yet, nearly all people think, write, and speak in a manner that’s diametrically opposed to being persuasive. This session reveals the science of persuasive communication and provides techniques you can immediately apply to more frequently achieve desired outcomes. <b><u>1 PDH</u></b> <i>(by Performance Management Group, Inc.)</i></p>
	<p><b>What is Happening at a Local Government Near You</b> <i>(FPEG)</i>  <b>Alexandra Davis-Shaw, PE, PTOE, Mark R. Fuller, PE, CFM, James Kanard, PE, LEED-AP(BD+C), Billy L. Hattaway, PE, &amp; Adnan “Addie” Javed, PE, CFM</b>  Panel discussion to inform Engineers about what is on the horizon for local governments in Florida. Each panel member will review initiatives in their communities and answer questions from the audience. <b><u>1 PDH</u></b></p>
<p><b>2:15pm – 4:45pm</b></p>	<p><b>St. Pete Pier Tour</b> <i>(Walking Tour)</i>  <b>City of St. Petersburg</b>  A process that started in 2014, shortly after Mayor Kriseman took office, is underway for the development of a new Pier for St. Petersburg.   Initially, funds were allocated for the development of a new Pier, from Spa Beach to the end of the Pier Head. However, an additional \$20 million to develop the Pier approach became available through TIF funds from the downtown tax district. The Pier approach connects the Pier to the downtown business core (Beach Drive and Bayshore Boulevard) and its boundaries follow the waterfront from the Vinoy to Pioneer Park.   The new pier district will provide interactive experiences along its 3,065-foot length. For more details visit <a href="http://www.newstpetepier.com/">http://www.newstpetepier.com/</a>.</p>

<p><b>3:45pm – 4:45pm</b></p>	<p><b>Top Five Potential Site Selection Surprises</b> <i>(ACEC-FL Track)</i></p> <p><b>Rick V. Baldocchi, PE</b> - <i>AVCON, INC.</i></p> <p>Every new development starts with an evaluation of the underlying land and the myriad of political, social and technical issues that are physically or administratively connected to that land. This presentation identifies and discusses the top five issues that either get overlooked or are misunderstood during the real estate contract phase, creating unwanted and costly surprises. <b><u>1 PDH</u></b></p>
	<p><b>FDOT 3D Initiatives for Design Construction and Asset Information</b> <i>(FES Track)</i></p> <p><b>Vern Danforth, PE</b> - <i>Florida Department of Transportation</i></p> <p>Moving towards designing and delivering integrated 3D models to provide: a higher quality of design intent for improved constructability, less field design changes, Automated Machine Guidance in construction of earthwork, paving, resurfacing, concrete, and Intelligent Information Models. The move towards designing and delivering integrated 3D models will also be used as the Legal Contract Document, digitally signed by the EOR in lieu of project plans. <b><u>1 PDH</u></b></p>
	<p><b>How GPUs are Taking Over the World: Implementing Artificial Intelligence (AI) with Graphics Processor Units (GPUs)</b> <i>(FPEI)</i></p> <p><b>Christopher Geiger PE, CEng, PMP</b> - <i>Lockheed Martin</i></p> <p>The current growth of Artificial Intelligence (AI) is driven by the use of Graphics Processor Units (GPUs) for parallel computing. This presentation opens with why parallel computing is coming into its own, moves into practical uses of AI on GPUs for engineers, and finishes with where the field is headed next. <b><u>1 PDH</u></b></p>
<p><b>Saturday, July 27<sup>th</sup></b></p>	
<p><b>8:30am – 10:30am</b></p>	<p><b>Laws, Rules &amp; Professional Ethics</b></p> <p><b>Edwin A. Bayó, Esq.</b></p> <p>Licensees are required to obtain one (1) hour of continuing education focusing on Florida’s professional engineering laws (F.S. 471) and rules (F.A.C. 61G15). Licensees are required to obtain one (1) hour of continuing education focusing on ethics for professional engineers. These courses are expected to cover the basic engineering canons. <b><u>2 PDHs</u></b></p>