

2023 Tulane Engineering Forum

Friday, March 31 at the New Orleans Ernest N. Morial Convention Center

7:30 DOORS OPEN - CHECK-IN & CONTINENTAL BREAKFAST - 3rd Floor, Rooms 346-347

8:15 OPENING SESSION WELCOME - 2nd Floor, Nouvelle Orleans Ballroom C

Kimberly Foster, PhD, Dean SSE
Wayne Pertuit, 2023 TEF Chairperson

8:45 MORNING PLENARY SESSION - 2nd Floor, Nouvelle Orleans Ballroom C

Chair: Cynthia "Tia" Ferguson, Director, Space Systems Department, Engineering Directorate, NASA Marshall Space Flight Center

Moon to Mars

Ryan Dardar, Senior Staff Mechanical Engineer / Spacecraft Lead, Lockheed Martin
Davey Jones, Program Planning & Control Manager, Human Landing System Program, NASA
Niki Werkheiser, Director, Technology Maturation in the Space Technology Mission Directorate, NASA HQ

10:15 Morning Break - Robotics Demonstrations - 3rd Floor, Room 346-347

Chair: Michelle Sanchez, PhD

10:45 - 12:15 CONCURRENT SESSIONS

Session A: Infrastructure Rooms 356-357	Session B: Energy Significant Changes in Energy Markets and their Impact Nouvelle Orleans Ballroom C	Session C: Oil & Gas Rooms 353-355	Session D: Aerospace Rooms 343-344
<i>Co-chairs: Dave Kanger and VJ Gopu, PhD</i>	<i>Co-chairs: Doug Chrisey, PhD, Melanie Spring, John McGaha, Don Vinci</i>	<i>Co-chairs: John Kelly III, Chuck Mart, Tommy Meehan</i>	<i>Co-chairs: Eric Enright and Matt Barrios, PhD</i>
<u>Emerging Technologies in Bridge Inspection</u> <i>Bradley Mistich, PE, Louisiana Bridge Repair Engineer LADOTD</i>	<u>Global View of Energy Markets in Light of Significant Changes</u> <i>Daniel Brooks, PE, Vice President, EPRI Integrated Grid and Energy Systems EPRI</i>	<u>Chalmette Refinery Renewable Diesel Project</u> <i>Al Gomes, Renewable Diesel Project Director and Steven Duck, MS, PE, Project Advisor PBF Energy</i>	<u>Developing Space Transportation Technologies</u> <i>Will Adams, Thermal Lead, Blue Ghost Spacecraft Firefly Aerospace</i>
<u>The Evolution of the Inner Harbor Navigation Canal Lock Project</u> <i>Christopher Dunn, PhD, PE, Chief Engineering Division USACE</i>	<u>Entergy Infrastructure Strategy and Investment Plans</u> <i>Matt Bulpitt, PE, Vice President, Power Development Entergy</i>	<u>The Role of the Independent Energy Operator in the Deepwater Gulf of Mexico</u> <i>Eric Zimmermann, Chief Operating Officer LLOG Exploration Company LLC</i>	<u>Advancements in Expandable Habitats to Enable Human Space Exploration</u> <i>Tyler Muma, Softgoods Technology Lead Lockheed Martin</i>
<u>The Louisiana International Terminal – The Challenges of Delivering Louisiana’s Next Container Terminal</u> <i>Chris E. Gilmore, PE, PMP, Director of Engineering & Environmental Port of New Orleans</i>	<u>Energy Markets and Their Potential for De-carbonization</u> <i>Eric Smith, Prof. of Practice and Associate Director Tulane Energy Institute</i>	<u>Using Enhanced Problem-Solving Teams (EPST) to Solve Complex Problems</u> <i>John Rhodes, PE, EPST Team Lead & CLFP (Incident Investigation and Problem Solving) Shell Energy and Chemicals Park Norco</i>	<u>Hermeus and Hypersonics - Where We Are and Where We're Going</u> <i>Glenn Case, Chief Technology Officer Hermeus Corporation</i>

12:30 LUNCHEON - 2nd Floor, Nouvelle Orleans Ballroom A-B

Chair: Melanie Spring
Airport Master Planning: Louis Armstrong New Orleans International Airport
 Jacob Sotsky, Vice President, Jacobsen|Daniels

2:15 - 3:45 CONCURRENT SESSIONS

Session E: Infrastructure 2	Session F: Energy 2	Session G: Water	Session H: Engineering Innovation	Session I: LNG
	Energy Technologies	Coastal and Riverine Hazards in a Changing Climate		Growing Importance of LNG from the US Gulf Coast in Global Energy Landscape
Rooms 356-357	Nouvelle Orleans Ballroom C	Rooms 353-355	Rooms 343-344	Room 345
<i>Co-chairs: Dave Kanger and VJ Gopu, PhD</i>	<i>Co-chairs: Doug Chrisey, PhD, Melanie Spring, John McGaha, Don Vinci</i>	<i>Co-chairs: Annalisa Molini, PhD, Soenke Dangendorf, PhD</i>	<i>Co-chairs: Trivia Frazier, PhD, Katherine Raymond, PhD and Chan Wong</i>	<i>Co-chairs: Chuck Mart, John Kelly III, Tommy Meehan</i>
<u>LA 47: IWGO Bridge Rehabilitation (HBI) Project</u> Durk H. Krone, PE, Vice President, Design Management Services, Alternative Project Delivery <i>TRC Companies, Inc.</i>	<u>The Louisiana Energy Evolution: Economic Development Strategy and Benefits</u> Lacy McManus, Executive Director of Future Energy <i>Greater New Orleans, Inc.</i>	<u>Revitalizing the Maurepas Swamp - Fixing a 100 Year Old Problem</u> Brad Miller, Project Management Division, Project Manager <i>Coastal Protection Restoration Authority (CPRA)</i>	<u>Silicon for High-Performance Li-ion Batteries</u> Shiva Adireddy, CEO <i>Advano</i>	<u>LNG Projects: Engineering to Start-up</u> Shelley Rueff, Global Manager of Engineering <i>Bechtel Corporation</i>
<u>Bayou Barataria Swing Span Movable Bridge Replacement Project</u> Andrew Michael, Engineer 6 - DCL <i>LADOTD</i>	<u>A Vision for Future Offshore Wind Energy Technology: New Turbine Concepts and Opportunities for the Gulf Region and Beyond</u> D. Todd Griffith, PhD, Professor University of Texas at Dallas, Mechanical Engineering	<u>Climate Preparedness and Resilience Planning in the Mississippi Delta Region</u> Will Veatch, PhD, PH, Lead, Climate Preparedness and Resilience <i>USACE Headquarters, Washington, DC</i>	<u>Accelerating Innovation for Offshore Wind in the Gulf</u> David King, Chief Technology Officer <i>Gulf Wind Technology</i>	<u>Engineering Support in an LNG Facility</u> Juan Martinez Garcia, Director, LNG Engineering Services <i>Cove Point LNG, LP</i>
<u>Long Span Concrete Bridges</u> Matthew Lengyel, PE, SE, Project Director Figg Bridge Engineers, Inc.	<u>Fully Using Solar Energy: Capture More to Do More</u> Matthew Escarra, PhD, Associate Professor <i>Tulane School of Science and Engineering, Department of Physics & Engineering Physics</i>	<u>Coastal Storm Surge & Wave Modeling and its Implications for USACE Projects in a Changing Climate</u> Chris Massey, PhD, Research Mathematician, US Army Corps of Engineers <i>Engineer Research & Development Center's Coastal & Hydraulics Lab (ERDC-CHL)</i>	<u>Reality Capture/Laser Scanning for Industrial and Commercial Projects</u> John Tav, Technology Manager <i>Engineering & Inspection Services, LLC, Captura (A Technology Division of EIS)</i>	<u>Selecting the Liquefaction Unit Refrigeration Cycle and Power Source for Large and Small LNG Plants</u> Robert Saunderson, Engineering Associate - LNG Technology <i>Air Products and Chemicals, Inc.</i>

3:45 - 4:00 Break

4:00 ETHICS - 2nd Floor, Nouvelle Orleans Ballroom

Chair: Tommy Meehan
 Martin Peterson, PhD, Professor of Philosophy and Bovay Professor of the History and Ethics of Professional Engineering, Texas A & M
The Flint Water Crisis: Some Ethical Reflections

5:00 - 6:00 PM FORUM HAPPY HOUR - 3rd Floor, Rooms 346-347