

2022 Tulane Engineering Forum

New Orleans Convention Center - 2nd Floor, Above Hall E
Friday, April 22, 2022

8:15	OPENING SESSION WELCOME La Nouvelle Orleans Ballroom C			
	Tommy Meehan, 2022 TEF Chairperson Marie Dillon Dahleh, PhD, Associate Dean, Strategic Innovation & Program Development, Senior Professor of the Practice, Mathematics, Tulane University			
8:45	MORNING PLENARY SESSION <i>co-sponsored by Ampirical and Mitsubishi Power</i>			
	La Nouvelle Orleans Ballroom C <i>Co-chairs: Melanie Spring, M Eng and John Kelly III, PhD</i> <u>NOAA's Science and the Climate</u> A. Rost Parsons, PhD, Deputy Chief, Oceanographic and Geophysical Science and Services Division, NOAA National Centers for Environmental Information; Jennifer Bowers, Senior Oceanographer and Uncrewed Systems Services Lead, National Centers for Environmental Information; Patrick Hogan, PhD, Chief, Oceanographic Sciences Branch, National Centers for Environmental Information and NOAA Unified Modeling Committee; and Sharon Mesick, NOAA Regional Climate Services Director, Southern Region			
10:15	BREAK La Nouvelle Ballroom B			
	First Lego League Robotics Team Demonstrations , Michelle Sanchez, PhD, Tulane SSE			
10:45-12:15	CONCURRENT SESSIONS			
	Session A: Infrastructure	Session B: Energy Powering the Electrical Grid in an Era of Environmental Stewardship	Session C: Oil & Gas	Session D: Aerospace: Sustainable Human Presence in Space
	Rooms 252-254	La Nouvelle Orleans Ballroom C	Rooms 244-245	Rooms 255-257
	<i>Co-chairs: VJ Gopu, PhD, Dave Kanger PE</i>	<i>Co-chairs: Doug Chrisey, PhD, Melanie Spring M Eng, John McGaha, Don Vinci</i>	<i>Co-chairs: Charles J. Mart, D Eng and John Kelly III, PhD</i>	<i>Chair: Eric Enright</i>
	<u>I-10 BR Widening CMAR Delivery</u> Robert Schmidt, PE, Design Manager <i>LADOTD</i>	<u>Clean Energy After Ukraine</u> Mark W. Nelson, Managing Director <i>Radiant Energy Fund</i>	<u>The Next 100: Managing the Reliability of Electrical Equipment at a Century-Old Refinery</u> Brendan Isham, Staff Electrical Engineer <i>Shell Norco Manufacturing Complex</i>	<u>NASA Artemis/Space Launch System Overview</u> Hansel Gill, Deputy Director <i>NASA Michoud Assembly Facility</i>
	<u>Integrated Services Leads to Success at the US Olympic and Paralympic Museum</u> Michael Olsen, PE, Detailing Manager <i>KL&A Engineers & Builders</i>	<u>The Path to Commercial Fusion Energy</u> Benjamin Byboth, Business Development & Strategy <i>Commonwealth Fusion Systems</i>	<u>Energy Transition: Production of Chemicals from Biofeedstocks</u> David Sudolsky, President and CEO <i>Anellotech</i>	<u>Space Fluids: Alien, Yet Closer to Home than You May Think</u> Nathan Andrews, Group Leader, R&D <i>Southwest Research Institute (SwRI)</i>
	<u>Design of the Keneda Building For Innovative Sustainable Design at Georgia Tech</u> James W. Case, PE, SE, Sr. Principal <i>Uzun+Case, LLC</i>	<u>Carbon Capture and H2 Technology</u> Linette Casey, Director, Power Systems Development <i>Siemens Energy</i>	<u>Robotics and Advanced Inspection Technologies for Oil and Gas Facilities</u> Tao Cheng, Technology Development Lead, ExxonMobil Upstream Integrated Solutions Mauricio Calva, NDE Engineer, Chevron Technical Center	<u>Space Nuclear Propulsion for Mars Missions</u> Dayna Ise, Manager - Space Nuclear Propulsion <i>NASA</i>

12:30 **LUNCHEON** sponsored by Laitram
La Nouvelle Orleans Ballroom A

Chair: Kimberly Foster, PhD, Dean, Tulane SSE
Drainage Engineering in New Orleans: The First Century, 1722-1835
 Richard Campanella, Author, Geographer, Professor and Associate Dean, Tulane School of Architecture

2:15-3:45 **CONCURRENT SESSIONS**

Session E: Infrastructure 2 Rooms 252-254	Session F: Energy 2 The Electric Grid - Today's Weather Impacts & Solutions <i>sponsored by Bernhard</i> La Nouvelle Orleans Ballroom C	Session G: Water Rooms 244-245	Session H: Innovation <i>sponsored by Captura</i> Rooms 255-257
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<u>Loyola Interchange Design-Build Project</u> Timothy Nickel, PE, Critical Projects Manager <i>LA Department of Transportation and Development</i>	<u>What Energy Infrastructure Owners should do to Assess the Risk & Impact of Climate Change & Develop Resilience Programs</u> Hector Artze, Partner <i>Guidehouse, Inc.</i>	<u>Connecting Silos: A Food-Energy-Water Nexus Approach for Coastal Resilience Planning</u> Kristin Raub, PhD,DHS Flood Apex Postdoc (CUAHSI); Postdoctoral Research Associate (GRI) Consortium of Universities for the Advancement of Hydrologic Science Inc. (CUAHSI); Northeastern University's Global Resilience Institute (GRI)	<u>Immersive Technology: Once Emerging, Now Scaling</u> Brian Lozes, PE, Founder & CEO <i>Kinemagic</i>
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<u>Airport Master Planning</u> Jacob Sotsky, Director <i>Jacobsen Daniels</i>	<u>Hurricane Ida and Lessons for Resiliency</u> Jim Schott <i>E4 Infrastructure Advisors, Inc.</i>	<u>Using Recycled Glass Sand to Restore Louisiana's Coast</u> Franziska Trautmann, Founder and Co-Director, Glass Half Full and Julie Albert, PhD, Associate Professor, Tulane SSE	<u>De-risking Your Innovation</u> Benjamin Legum, CEO <i>Muse Engine</i>
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<u>Long Beach Civic Center</u> Scott Stewart, SE <i>Nabih Youssef Associates</i>	<u>Connecting Customers to the New Grid</u> Bryan Phillips, Vice President, Power Delivery <i>Enercon Services, Inc.</i>	<u>Ground Zero: How New Orleans Can Lead the Sustainable Urban Water Movement</u> Rebecca Malpass, Policy and Research Coordinator <i>The Water Collaborative of Greater New Orleans</i>	<u>Innovating your Career: Engineering and Entrepreneurship</u> Molly Hegarty, MS, RDN, Founder and CEO <i>Junum</i>
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3:45 **BREAK**

4:00 **ETHICS**
La Nouvelle Orleans Ballroom C

Chair: LT Cooper, PE
Changes to the Licensing Environment: the Ethics of a Self-Regulated Profession
 Karl Tonander, PG, PE, CEO at Souder, Miller & Associates

5:00 **PROGRAM ENDS**