

2017 Tulane Engineering Forum

Friday, April 21, 2017- Morial Convention Center, New Orleans
Second Floor Rooms 244 - 257 and La Nouvelle Orleans Ballroom

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

Ryan Burks, MSChE, RYCARS, 2017 TEF Chairman
 Robin Forman, PhD, Senior VP for Academic Affairs and Professor of Mathematics

8:45 MORNING PLENARY La Nouvelle Orleans Ballroom, 2nd Floor

Chair: Ryan Burks, MSChE

Expert Panel Discussing US Energy Independence

Somnath Sinha, PhD, Energy & Technology Advisor, Corporate Strategic Planning, ExxonMobil Corporation

Peter Lyons, PhD, (retired) U.S. DOE Assistant Secretary for Nuclear Energy; Commissioner - U.S. Nuclear Regulatory Commission; Science Advisor - U.S. Senate Energy & Natural Resources Committee

Eric Smith, BChE, MBA, Associate Director, Tulane Energy Institute, Professor of Practice

Mary Landrieu, Former US Senator

BREAK La Nouvelle Orleans Ballroom, 2nd Floor

Chair: Michelle Hewlett Sanchez, PhD

K-12 Robotics Demonstrations, Science Projects and Student Research Posters

10:45 - 12:15 CONCURRENT SESSIONS

Session A: Local and Regional Infrastructure Projects Rooms 252 - 254	Session B: Energy & the Environment La Nouvelle Orleans Ballroom, 2nd Floor	Session C: Aerospace - Powering The Mars Vision Rooms 244 - 245	Session D: Wetlands Rooms 255 - 257
<p><i>Ryan Burks, MSChE & VJ Gopu, PhD, PE</i></p>	<p><i>John McGaha, Jr. & Daniel F. Shantz, PhD</i></p>	<p><i>Celia Blum</i></p>	<p><i>Mead Allison, PhD</i></p>
<p>Urban Infrastructure Upgrades - Challenge of Living with Water <i>Joe Becker, General Superintendent, Sewerage and Water Board</i></p>	<p>Solar – The National Landscape and What’s Going on in Your Backyard <i>Andrew Owens, Director, Regulatory Research, Entergy Services, Inc.</i></p>	<p>Power Sources for a Mars Base Camp <i>Ryan Dardar, PE, Lockheed Martin Space Systems</i></p>	<p>Gulf Coast Ecosystem Restoration Council: Planning, Projects, and Funding for Coastal Restoration <i>Alyssa Dausman, PhD, Science Director, Gulf Coast Ecosystem Restoration Council (Restore Council)</i></p>
<p>Things are Not Always What They Appear - ENR Project of the Year 2015/2016 <i>Henry R. Seawell III, PE, Chairman/Principal, Thompson Engineering, Inc.</i></p>	<p>Current Work on Nuclear Hybrid Energy Systems <i>Daniel Curtis, Research Assistant, MIT Nuclear Science & Engineering, Secretary of the Board, Generation Atomic</i></p>	<p>Powering the Future of Space Exploration <i>David Rigby, Launch and Re-Entry Space Vehicles Flight Engineering Capability Leader, The Boeing Company</i></p>	<p>Measurements of Subsidence in New Orleans and the Mississippi River Delta Using Radar Interferometry (InSAR) <i>Cathleen Jones, PhD, Radar Scientist, NASA-Jet Propulsion Laboratory</i></p>
<p>Design and Construction of the World’s Longest Floating Bridge <i>Dave Becher, SR 520 Program Director of Construction, Washington State Department of Transportation</i></p>	<p>Energy Storage <i>Carlos Gonzales, Director, Grid Engineering Solutions, SolarCity /Tesla, Inc.</i></p>	<p>New Orleans and Michoud - Powering Deep Space Exploration <i>Patrick Whipps, SLS Resident Manager/Michoud Assembly Facility, NASA</i></p>	<p>Louisiana’s 2017 Comprehensive Master Plan for a Sustainable Coast <i>Bren Haase, Chief - Planning and Research Division, LA Coastal Protection and Restoration Authority (CPRA)</i></p>

12:30 LUNCHEON La Nouvelle Orleans Ballroom, 2nd Floor

Chair: Nicholas Altiero, Dean, Tulane School of Science and Engineering
 Mohit Singh, PhD, Chief Development Officer, Quantumscape Corporation

Battery Technology for Mass Adoption of Electric Vehicles and Renewable Energy

2:15 - 3:45 CONCURRENT SESSIONS

Session E: National Infrastructure Projects Rooms 252 - 254	Session F: Energy Sourcing La Nouvelle Orleans Ballroom, 2nd Floor	Session G: Overcoming Current Market Challenges in Gulf of Mexico Oil & Gas Rooms 244 -245	Session H: Flood Protection/Levees Rooms 255 -257
Ryan Burks, MSChE & V. J. Gopu, PhD, PE	Douglas B. Chrisey, PhD & Don Vinci, MBA	L.T. Cooper, PE	Doug Meffert, PhD & Carlton Dufrechou, AICP
<u>The Dulles Corridor Metrorail Project</u> Keith Couch, DBIA, Senior Vice President, Virginia Class A Contractor, Clark Construction Group LLC	<u>Fully Utilizing the Solar Resource - Hybrid Solar Systems for Process Heat and Electricity</u> Matthew D. Escarra, PhD, Assistant Professor, Tulane Department of Physics & Engineering Physics	<u>Preparing for the Unexpected; Lessons from Decommissioning</u> Drew Hunger, VP of Strategic Business Development, Morrison Well Services	<u>August 2016 Louisiana Flood</u> Alek Krautmann, National Weather Service, New Orleans/Baton Rouge, National Atmospheric and Oceanic Administration (NOAA)
<u>Engineering Innovations for the New Mercedes Benz Stadium</u> Erleen Hatfield, SE, AIA, LEED AP, Partner, BuroHappold Engineering	<u>Repowering New Orleans, a New Approach to a Historic City</u> Rick Torres, Senior Manager, Transmission Project Management and Construction, Entergy Corporation	<u>Big Bend, Dantzler and Gunflint - Program Approach to Long Deepwater Subsea Tiebacks</u> James Wiseman, Deepwater Project Manager, Noble Energy Major Projects Group	<u>CPRA's Flood Risk and Resilience Program</u> Andrea Galinski, CFM, ASLA, Coastal Resource Scientist, Louisiana Coastal Protection Restoration Authority (CPRA)
<u>National Museum of African American History and Culture: A Structural Perspective</u> Graham Seward, PE, LEED AP, Senior Engineer, Silman	<u>High Temperature Superconductors Near - Term Power Applications</u> Yifei Zhang, PhD, Senior Product Engineer, SuperPower, Inc.	<u>Improving Deepwater Project Economics Using Standardization</u> Richard Fowler, Vice President - Deepwater Projects, LLOG Exploration Company	<u>Community Conversations on CPRA's Flood Risk and Resilience</u> Simone Maloz, Executive Director, Restore or Retreat, Inc.

3:45 BREAK La Nouvelle Orleans Ballroom, 2nd Floor

4:00 CLOSING SESSION La Nouvelle Orleans Ballroom, 2nd Floor

Ethics
 Chair: Nicholas Altiero, PhD, Dean, Tulane School of Science and Engineering

Engineering Ethics: Crossing the Line
 John H. "Jack" Grubbs, PhD, PE Brigadier General (Ret.), U.S. Army, Author and Consultant

5:00 PROGRAM ENDS