HUMAN PERFORMANCE CONFERENCE

8th Annual Conference & Workshops

MARCH 26-28, 2019
ATLANTA, GA
SCHEDULE OF EVENTS
Monday – March 25, 2019

5:30—9:00 Welcome Reception for all conference attendees
(Rear parking deck at the NERC Office – Atlanta Financial Center | 3353 Peachtree Road NE, Atlanta, GA)

Please join us for a genuine Louisiana Crawfish Boil* served family style, right out of the pot. This event is one you just can’t miss!

*Non-seafood options also available

Tuesday – March 26, 2019

<table>
<thead>
<tr>
<th>Time</th>
<th>Topic</th>
<th>Presenter</th>
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<tbody>
<tr>
<td>7:00 – 8:00</td>
<td>Registration and Continental Breakfast</td>
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<tr>
<td>8:00 – 8:10</td>
<td>Logistics, Safety, and how to get the most from the next three days</td>
<td>James Merlo, NERC, Vice President</td>
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<td>Vincent Vincik, ComEd, NATF HP Team Chair</td>
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<tr>
<td>8:10 – 8:40</td>
<td>Welcome</td>
<td>Jim Robb, NERC, President and CEO</td>
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<td>Tom Galloway, NATF, President and CEO</td>
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<td>8:40 – 9:30</td>
<td>Doing Ordinary Things at Extraordinary Times</td>
<td>Joseph W. Pfeifer, Former Chief of Counterterrorism and Emergency Preparedness for the New York Fire Department (FDNY)</td>
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<td>9:30 – 10:00</td>
<td>Firefighters Near Miss Reporting System: An Inside Look at the Program</td>
<td>John Russ, Firefighters Near Miss Reporting System Program Manager</td>
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<td>10:00 – 10:20</td>
<td>Break and Networking</td>
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<td>Jeff White, Applied Learning Science</td>
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<tr>
<td>11:00 – 11:40</td>
<td>The Answer is in the Field: How are you extracting it?</td>
<td>Michelle Miller, BGE</td>
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<td>Monika Bay, BGE (Retired)</td>
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<td>11:40 – 12:10</td>
<td>Event Free Performance – The Mindset!</td>
<td>Pedro Melendez, ITC</td>
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<td>12:15 – 1:15</td>
<td>Lunch</td>
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<td>1:20 – 1:50</td>
<td>Delta Air Lines and HP</td>
<td>Christian Vehrs, Delta Air Lines</td>
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<td>1:55 - 3:25</td>
<td>Get Real – The Use of Animation and Augmented Reality</td>
<td>Sam Reno, MidAmerican</td>
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<td>Patrick Ryan, MidAmerican</td>
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<td>Michael Buntz, MidAmerican</td>
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<td>Doug Hill, Consumers Energy</td>
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<td>Peter Jackson, Georgia Power</td>
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<td>Dan Arczynski, Index AR Solutions</td>
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<td>Brian Doubinin, 3DInternet</td>
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<td>3:30 – 3:45</td>
<td>Break and Networking</td>
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<td>3:50 – 4:30</td>
<td>Resilient Systems: Playing the Game with Three Dice</td>
<td>David Marx, Outcome Engenuity</td>
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<td>4:30 – 4:45</td>
<td>HP Updates: EPRI Projects</td>
<td>Paula Traynor, EPRI</td>
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<td>Patricia Fischer, EPRI</td>
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<td>Eric Bauman, EPRI</td>
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<td>4:45 – 5:00</td>
<td>WECC HP Working Group Update</td>
<td>Rodney Krause, BPA</td>
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<td>5:00 – 5:30</td>
<td>How Risky do you Want to Get?</td>
<td>Dave Sowers, Knowledge Vine</td>
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<td>David Bowman, Knowledge Vine</td>
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<td>5:30 – 7:00</td>
<td>Evening Reception</td>
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<td>Time</td>
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<tr>
<td>7:00 – 8:00</td>
<td>Continental Breakfast</td>
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<td>8:00 – 8:10</td>
<td>Logistics and Safety</td>
<td>James Merlo, NERC,</td>
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<td>8:10 – 9:00</td>
<td>Observations versus Engagement...the difference may be bigger than you think!</td>
<td>Rob Fisher, Fisher IT</td>
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<td>Beth Lay, Lewis Tree</td>
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<td>10:00 – 10:30</td>
<td>What we are Learning from Learning Teams</td>
<td>Stephanie Swindle, Southern Power</td>
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<td>Peter Jackson, Georgia Power</td>
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<td>10:30 – 10:45</td>
<td>Break and Networking</td>
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<td>10:45 – 11:10</td>
<td>DOE Performance and Reliability Program</td>
<td>Rizwan Shah, Department of Energy</td>
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<td>11:10 – 11:50</td>
<td>NATF HP Assistance Visits Panel; Giving Back by Sharing with Others</td>
<td>Sam Reno, MidAmerican</td>
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<td>Kristie Cocco, APS</td>
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<td>John Rymer, MISO</td>
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<td>Sage Williams, Tri-State G&amp;T</td>
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<td>11:50 – 12:15</td>
<td>HP in the Control Room: Dominion Energy’s Journey</td>
<td>Mohammed Alfayyoumi, Dominion Energy</td>
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<td>12:15 – 1:00</td>
<td>Lunch</td>
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<td>1:00 – 1:35</td>
<td>The Science of Culture Driven Success</td>
<td>P. David Yacht, Southwest Airlines</td>
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<td>1:35 – 2:10</td>
<td>Continuous Improvement</td>
<td>David Costello, Schweitzer Engineering</td>
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<td>Laboratories</td>
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<td>2:10 – 2:40</td>
<td>Turning Text into Human Performance Insights</td>
<td>Dr. Kellie Anton, ReliabilityFirst</td>
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<td>2:50 – 3:15</td>
<td>Break and Networking</td>
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<td>3:50 – 4:20</td>
<td>Remodeling and Rethinking Human Performance in the Control Room</td>
<td>Dr. Michael Legatt, ResilientGrid</td>
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<td>4:20 – 4:50</td>
<td>Why You Can’t “Proceduralize” Everything</td>
<td>Dr. Jake Mazulewicz, JMA, LLC</td>
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<td>5:00 – 5:10</td>
<td>The Man Between You and Dinner</td>
<td>James Merlo, NERC</td>
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<td>5:30 – 7:00</td>
<td>Evening Reception</td>
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### Thursday – March 28, 2019

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<tr>
<th>Time</th>
<th>Activity</th>
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<tbody>
<tr>
<td>7:00 – 8:00</td>
<td>Workshop Registration and Continental Breakfast</td>
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<tr>
<td>12:00 – 1:00</td>
<td>Lunch</td>
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#### Full Day Workshop
8:00 a.m. – 5:00 p.m.

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<tr>
<th>Session A</th>
<th>NERC Cause Analysis Training</th>
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<tr>
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<td>Richard Hackman, <em>NERC</em></td>
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<td>Ed Ruck, <em>NERC</em></td>
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#### Half Day Workshops
8:00 a.m. – Noon | 1:00 – 5:00 p.m.

<table>
<thead>
<tr>
<th>Session B</th>
<th>Overview of Human Performance Improvement</th>
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<tr>
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<td>Dr. Jake Mazulewicz, <em>JMA, LLC</em></td>
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<tr>
<th>Session C</th>
<th>Advanced Cause Analysis</th>
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<td>Rick Foote, <em>Fisher IT</em></td>
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<th>Session D</th>
<th>Building a Prospective Risk Model of Switching Errors</th>
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<td>David Marx, <em>Outcome Engenuity</em></td>
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<th>Session E</th>
<th>Stand Your Ground: How Strong Character Improves Safety and Reliability</th>
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<td>Tom Cohenno, <em>Applied Learning Science</em></td>
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<td>Jeff White, <em>Applied Learning Science</em></td>
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<tr>
<th>Session F</th>
<th>Learning Activities for HP</th>
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<td>Tim Golden, <em>Knowledge Vine</em></td>
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<td>Dave Sowers, <em>Knowledge Vine</em></td>
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<th>Session G</th>
<th>The Brain Science Behind Human Performance and Organizational Culture</th>
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<td>Dr. Mike Legatt, <em>ResilientGrid</em></td>
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<th>Session H</th>
<th>How to and the Benefits of a Strategic Gap Analysis</th>
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<td></td>
<td>Ken Hallaran, <em>Knowledge Vine</em></td>
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<td>David Bowman, <em>Knowledge Vine</em></td>
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Workshop attendees will choose either the full day workshop or two (2) half day workshops to attend. Attendees will submit their choices by Wednesday morning and will be given their workshop assignments on Wednesday night by email or Thursday at the registration desk.
Jim Robb
North American Electric Reliability Corporation

James B. Robb assumed the role of president and chief executive officer of NERC in April 2018.

Mr. Robb oversees NERC’s mission of assuring the reliability and security of the North American bulk power system. As president and CEO, Mr. Robb directs key programs affecting more than 1,400 bulk power system owners, operators, and users, including mandatory NERC Reliability Standards, compliance monitoring, enforcement, situational awareness, event and risk analysis, reliability assessments and forecasting, cyber and physical security, and government relations. Mr. Robb also oversees the operations of the Regional Entities who support the reliability mission across North America.

From 2014 to 2018, Mr. Robb served as president and CEO of the Western Electricity Coordinating Council (WECC) where he was responsible for the strategic direction and leadership of all of WECC’s activities.

Mr. Robb has more than 30 years of experience in the energy sector as an engineer, a consultant, and a senior executive. Prior to becoming WECC’s CEO in 2014, he held three major leadership roles in the industry at Northeast Utilities (now Eversource Energy) as senior vice president of Enterprise Planning and Development; at Reliant Energy (now part of NRG Energy) where he served as senior vice president of Retail Marketing for the competitive retail business in Texas and the Northeast; and at McKinsey & Company where he was a partner and the leader of the West Coast’s Energy and Natural Resource Practice. During his 15-year career at McKinsey, he worked closely with prominent electric power companies in California, western Canada, the Pacific Northwest, and the Rocky Mountain states, as well as with some of the region’s largest energy consumers.

Mr. Robb earned a bachelor’s degree in Chemical Engineering from Purdue University in Indiana and a master’s degree in Business Administration from the Wharton School of Business at the University of Pennsylvania, Philadelphia, PA.

Tom Galloway
North American Transmission Forum

Thomas J. Galloway serves as the president and CEO and a board director for the North American Transmission Forum (NATF). As CEO, Mr. Galloway leads staff and facilitates member activities to achieve the NATF’s mission: to promote excellence in the reliable operation of the electric transmission system.

Mr. Galloway began his professional career in 1981 with Northeast Utilities, holding a variety of engineering and managerial roles. Mr. Galloway continued his career with the Institute of Nuclear Power Operations (INPO) for the next 10 years, gaining valuable experience and skills related to human performance, organizational effectiveness, operational excellence, and performance improvement. Mr. Galloway subsequently served as interim president and CEO for SERC Reliability Corporation and SERC’s vice president and director of compliance. In this role, Mr. Galloway was responsible for the implementation of the NERC Compliance Monitoring and Enforcement Program (CMEP) within the SERC Region. Immediately prior to joining NATF, Mr. Galloway was NERC’s chief reliability officer and the senior vice president for the Reliability Performance organization.
During Mr. Galloway’s seven plus years as NATF’s CEO, the membership has grown significantly and has made increasingly positive impacts on transmission reliability and resiliency. These include forging strategic relationships; adding program areas such as sharing operating experience, member assistance, and equipment performance; and leadership on a range of key projects such as supplemental operating strategies and creation of a supply chain cyber security framework.

Mr. Galloway continues to be driven by his passion for electric system reliability and the recognition of the critical role electricity plays in everyday life.

**Dr. James Merlo**
North American Electric Reliability Corporation

Dr. James Merlo is the Vice President and Director of Reliability Risk Management at NERC. Joining NERC in July 2011, James works with the talented professionals in the electric reliability organization to promote the understanding and learning from events and occurrences that are experienced on the Bulk Electric System, assess the industry status and needs with regard to human performance challenges affecting bulk power system (BPS) reliability and provide world class training for the ERO staff and industry. In this role, he identifies opportunities and methods for improvement based on proven methods from other industries, and develops and promotes industry-wide sharing and collaboration to improve human performance components of BPS reliability.

James served in a variety of leadership roles in the US Army including combat tours in Desert Storm and Operation Iraqi Freedom. Significant positions include: Deputy Brigade Commander in Baghdad, Iraq 2004-2005 and as an assistant professor and program director at the United States Military Academy.

James has his B.S. in Human Factors Psychology from West Point, his M.S. in Engineering Psychology from the University of Illinois and his PhD in Applied Experimental and Human Factors Psychology from the University of Central Florida. He is the author of over 50 publications and book chapters on the subjects of human factors engineering and human performance.

**Vincent Vincek**
ComEd, NATF HP Team Chair

Vincent Vincek currently serves in the role of Performance Assessment Principle Specialist at ComEd with over 20 years of Organizational Human Performance experience. While at ComEd he has developed a comprehensive Human Performance Dashboard that is currently delivered to over 50 groups and HP roadshows designed to engage field personnel with the “system” concept of performance improvement. Vincent is currently serving as the NATF Human Performance Core Team Chair and has recently been working on both operational and human risk management. Vincent holds a BS in Management.
Joseph Pfeifer
Former Chief of Counterterrorism and Emergency Preparedness for the New York Fire Department

Joseph Pfeifer is a Senior Fellow at Harvard Kennedy School (HKS) where he teaches several Programs on crisis leadership and leads research teams to examine international preparedness of major cities and their response to extreme events. He is also the Director for Crisis Leadership at Columbia University’s National Center for Disaster Preparedness, a senior fellow at the Combatting Terrorism Center at West Point and a visiting instructor at the Naval Postgraduate School.

As a leading professional on crisis management he has appeared in major news media interviews and has spoken at the World Knowledge Forum, United Nations’ Conferences, National DHS Conferences and other major events. He has taught senior leaders from around the world about crisis leadership, disaster management, critical decision-making, cross-sector information sharing and organizational resiliency. He has conducted hundreds of simulations to test public and private sector response capabilities, surge capacity and coordination. He has also testified in front of the U.S. Congress about the threats cities will face in future.

Pfeifer retired from the New York City Fire Department as an Assistant Chief and the founding director of FDNY’s Center for Terrorism and Disaster Preparedness. During his career, he has commanded at some of the largest disasters in the New York City’s history. He was the first Chief at the World Trade Center attack on 9/11, played a major command role during Hurricane Sandy and helped manage NYC’s Ebola Response.

He earned Master’s Degrees from the Harvard Kennedy School, Naval Postgraduate School and Immaculate Conception. He has written widely in professional journals and books.

John Russ
Firefighters Near Miss Reporting System Program Manager

John Russ is an 18-year veteran of the fire service, currently working for the Brentwood (TN) Fire & Rescue Department as a Lieutenant/ Paramedic. He has been the Program Manager for the International Association of Fire Chiefs’ Firefighter Near Miss Reporting System since January 2016. John has worked in various facets of the Firefighter Near Miss Reporting System since its inception in 2005. John also has worked for numerous career and voluntary fire and emergency service providers to include prehospital emergency medical service providers, specialized technical rescue organizations, along with risk management and prevention entities. He has a Master’s Degree from Middle Tennessee State University in Professional Studies and two Bachelor’s Degrees from Eastern Kentucky University; one in Fire & Safety Administration and one in Pre-Hospital Emergency Care. John also is a veteran of the United States Marine Corps.
Tom Cohenno
Applied Learning Science

Tom Cohenno is a co-founder of Applied Learning Science, a company that partners with organizations to implement workforce development solutions that prepare technical employees in multiple profit and non-profit sectors. Informed by his many years of experience and education, he helps organizations design and execute learning and workforce development solutions through a comprehensive, scientifically validated approach. He is developing strategic partnerships with equipment and training vendors, as well as academic institutions, to decrease overall training costs.

Tom is an experienced utility and learning professional, starting at Southern California Edison after being discharged from the US Navy in 1983. After an initial tour in power plant operations, Tom transferred to the Transmission and Distribution Business (T&D) unit where he specialized in electrical operations for the first half of his career. He had both line management and staff responsibilities.

After earning a graduate degree in Human Resources, Tom worked in Labor Relations. He subsequently earned an MBA and a Doctorate in Education (with an emphasis in corporate education and OD) at Claremont Graduate School and Pepperdine University, respectively. He then served as the Principal Manager of Training for the T&D business unit until becoming the Director of Learning, Leadership and Org Development for SCE. He retired in 2015 to start Applied Learning Science.

Jeff White
Applied Learning Science

Jeff White is a Human Performance Consultant with 41 years of experience in the Electric Power Industry.

His career has included jobs ranging from Utilityman, Distribution and Transmission Line Crews, Safety and Health Coordinator, Manager of Safety and Skills Training and Human Performance Coordinator.

Jeff attended Troy University at night while a Distribution Journeyman Lineman, receiving a BS in Business in 1991.

Jeff has chaired the Southeastern Electric Exchange’s (SEE) Accident Prevention Section and served as a core team member of the North American Transmission Forum’s (NATF) Human Performance Practices Group.

Jeff provides facilitation and consulting services in many areas including:

- Human Performance Fundamentals for Frontline Workers
- Human Performance Fundamentals for Supervisors and Managers
- Event Learning/Event Analysis Training-The-Trainers
- Event Learning/Event Analysis Facilitation
Michelle Miller
Baltimore Gas & Electric

Michelle Miller serves as the Senior Change Consultant in Safety and Human Performance for Baltimore Gas and Electric. In 2012, Michelle joined the Serious Injury and Fatality Prevention Team (SIFT) as the Change Management Lead for a multi-year, cross-divisional, serious injury prevention initiative involving five executive sponsors, 30 mid-level leader advisors and 80+ team members. The SIFT team investigated, developed and implemented a comprehensive suite of solutions to improving safety performance through enhanced job briefings, work procedures and field leadership presence, energy source control qualification, and human performance excellence.

As part of the SIFT initiative, BGE became the first utility to adopt the Just Culture approach pioneered by Outcome Engenuity. Since 2013, BGE has leveraged this approach for reducing safety and operational risk through better understanding of the interaction between system design and behavioral choices, identifying risk drivers, and developing targeted interventions through predictive risk modeling. BGE recognizes that this is an ongoing journey and that proactive risk management is the cornerstone for improving employee safety.

Michelle’s background is in training, organizational development, change management and quality management systems. Prior to joining BGE, she worked in Learning and Organizational Development for Constellation Energy, and spent almost fifteen years providing quality management systems support and frontline leadership and team training within Alcoa’s Primary Aluminum division.

Michelle holds a Bachelor’s degree in Business Administration from Charleston Southern University and a Master’s degree in Human Resources Development from McDaniel College. She is also a certified Just Culture Champion.

Monika Bay
Safety & Operational Risk Solutions, LLC

Monika Bay helps organizations develop innovative solutions for reducing the risk of serious injuries and fatalities. Her unique approach is designed to deliver a real breakthrough in safety and operational performance by helping organizations better understand (1) the inherent human vulnerabilities in the front line worker and (2) the impact of culture and organizational system factors that influence the decisions and actions of the front line worker. By using various risk assessment techniques, creative training solutions, simulations, and the fundamentals of brain science, Monika has worked with leading fortune 500 utilities and construction organizations to help leaders and workers overcome those vulnerabilities and reduce injuries and operational events in targeted risk areas by as much as 85%.

Monika’s 37 year career within the utility industry includes experience in nuclear and fossil generation, environmental land use management, military contracts and utility privatization, distribution pole asset management, business transformation architecture, and serious injury and fatality risk reduction. She has been recognized across the industry with numerous utility safety awards and regularly provides keynote addresses as well as plenary sessions and workshop facilitation at conferences across the United States. Monika earned her BES degree in Civil Engineering from the Johns Hopkins University in Baltimore, MD.
Pedro Melendez  
ITC Holdings Co.

Pedro Melendez is the Director of Asset Protection and Performance at ITC Holdings Co. (ITC). He leads Corporate Security, Safety, Emergency Preparedness and Response and Event Free Performance for ITC. He ensures that the Event Free Performance vision is achieved by establishing behaviors and implementing practices such as the prevention, detection, and correction model that supports the highest level of reliability, safety and security of ITC’s electric operation.

Prior to his current role, he provided strategic direction, oversight, and implementation of NERC Critical Infrastructure Protection practices throughout all ITC Operating Companies and Business Units as Director of CIP Initiatives. In this role, his responsibilities included ensuring NERC CIP compliance requirements were fully implemented and adhered to within ITC’s electrical substations. He actively participated in the development and implementation of ITC’s CIP Compliance Program and has also participated as a Subject Matter Expert on multiple NERC 693 and CIP audits. He currently serves as an advisor on NERC Cyber and Physical Security at ITC.

Pedro is a Michigan licensed Professional Engineer and holds a Master of Science in Electrical Engineering, from Wayne State University and a Bachelor of Science in Electrical Engineering, from University of Puerto Rico; majoring in Power Systems and Control Systems. He has over 18 years of electric utility industry experience in: Safety, Engineering Design, Field Operations, Cyber and Physical Security, Protective Relaying and Control of Distribution, Generation and Transmission facilities, Substation Design and Smart Grid technology implementations.

He is also involved in industry initiatives, such as acting as the team lead for developing a best practices guide for substation systems with the North American Transmission Forum (NATF).

Christian Vehrs  
Delta Air Lines

Christian Vehrs served as a Field Supervisor and Inspector for Nuclear Power Services during the construction of South Texas Nuclear Project units 1 and 2 in Bay City, Texas. During this same time, he also provided inspection services for the construction of Laguna Verde Nuclear plant in Alto Lucero, Veracruz, Mexico.

After the completion of STNP, he provided inspection services for various fossil fuel power generating stations targeting Inter-granular Stress Corrosion Cracking (IGSCC) of main steam lines.

Mr. Vehrs joined Delta Air Lines in 1991 where he provided inspection oversight for Delta’s turbine jet engine rotors and blades. He is currently the Lead Instructor for Delta Air Lines’ Human Factors program. In addition, he also delivers Delta’s Accident / Incident Investigation training.

Mr. Vehrs sits on Delta’s Event Review Committee in partnership with the Federal Aviation Administration (FAA) to review incidents of safety and compliance violations. In this capacity, he performs investigations internal to Delta Air Lines in partnership with the FAA.
**Sam Reno**  
*MidAmerican Energy*

Samuel Reno is program manager of performance improvement at MidAmerican Energy in Des Moines, Iowa. Sam also serves as a core team member for human performance for the North American Transmission Forum. In previous roles at MidAmerican, Sam was a gas operations supervisor, an electric operations planner, and a safety supervisor. Sam has a Bachelor’s degree in occupational safety from Iowa State University, a Master’s degree in organizational performance from Drake University, and is currently a PhD student at Drake University.

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**Patrick Ryan**  
*MidAmerican Energy*

Patrick Ryan is an electric lineman crew leader at MidAmerican Energy in Council Bluffs, Iowa. Pat started as truck driver and a tree trimmer before becoming a lineman and has worked at MidAmerican for 40 years. Pat is represented by International Brotherhood of Electric Workers Local 499. Pat is married with 6 children and 13 grandchildren. Pat is a pastor at Refuge Bible Church in Council Bluffs.

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**Michael Buntz**  
*MidAmerican Energy*

Michael Buntz is an electric lineman crew leader at MidAmerican Energy in Des Moines, Iowa. Prior to working as a lineman, Mike has worked in the gas department and in the tree trimming department and has worked at MidAmerican for the past 42 years. Mike is represented by International Brotherhood of Electric Workers Local 499. Mike is married with two children; his son is a gas journeyman with MidAmerican Energy.
**Doug Hill**  
*Consumers Energy*

Doug Hill has worked in the utility industry for over 30 years as an Electric Lineworker, with extensive experience in Transmission and Distribution systems at Consumers Energy. He has a Bachelor’s Degree in Business from Northwood University, and has spent the last nine years being involved in the safety culture. He serves as a local Co-Chair of Safety Teams and Incident Investigation Teams, and is a full-time instructor and electric representative for the Michigan State Utility Workers Council.

Doug is the author of several articles and theory around a concept called L.I.V.E.S. (Look, Investigate, Visualize, Execute, Safely), which was featured in the IP magazine for Certified Utility Safety Professionals (CUSP), where it was well received.

He has been married to his high school sweetheart, Stacey, for 27 years. They have three daughters, Lyndsay, Madison and Baleigh. He has dedicated his career and time to change the safety culture within the workforce, and is glad to share his experience with others to make them successful on the ROAD TO ZERO.

**Peter Jackson**  
*Georgia Power*

Peter Jackson has been in the utility industry over 20 years, 15 of those with Georgia Power Company. He is currently a Human Performance Coordinator supporting Power Delivery and many other organizations under the Southern Company umbrella. Previously, he served in several leadership roles within Transmission Operations and Maintenance, as well as various field engineering and corporate roles. Peter also spent several years as a Real-time Energy Trader at Mirant Corporation and as a Distribution engineering Co-op student at Florida Power & Light.

Peter graduated from Georgia Institute of Technology with an Industrial Engineering degree, and is a passionate proponent of understanding the role company culture plays in improving Operational and Safety efforts. He has significant experience communicating ‘counter-culture’ concepts directly with executive leadership, as well as leading discussions and dozens of learning teams with front-line workers.

Peter is active in the North American Transmission Forum’s Human Performance and CAP/OE Practices Groups. He is also actively involved in Diversity & Inclusion efforts within Southern Company and does narration/voice-over work as a hobby in his spare time.

Peter currently lives in Atlanta with his wife Christy, and their three children, Daniel (9), Sarah (7) and Hannah (5).
Dan Arczynski
Index AR Solutions

Dan Arczynski is the President and CEO of Index AR Solutions.

Prior to Index, for 19 years Dan held a series of executive positions in the shipbuilding industry. He served as corporate vice president of both business development and strategy at Huntington Ingalls Industries as well as sector vice president of strategy at both Northrop Grumman Shipbuilding and Northrop Grumman Newport News. During this period Dan had staff responsibility for both strategic and growth initiatives and served on the board of directors for Continental Maritime of San Diego, AREVA Newport News and Savannah River Nuclear Solutions.

Prior to shipbuilding, for five years Dan was vice president of strategy and vice president of mergers and acquisitions for Shawmut, a large New England regional bank. He was also a management consultant for Marakon Associates, a firm focused on creating shareholder value for its clients.

Dan is a veteran of the US Army and served for 12 years attaining the rank of Major. During this time, he led five platoon size units and commanded a light infantry company. He also taught economics, finance and investments at West Point.

Dan is a 1978 graduate of the United States Military Academy where he was on the Dean’s List, Commandant’s List and Superintendents List. He is a 1986 graduate of the Harvard Business School where he was a graduate of Highest Distinction and was elected Baker Scholar.

Brian Doubinin
3DInternet

Brian Doubinin is the CEO and co-founder of 3DInternet, a leading supplier of 3D simulations and interactive courseware to the energy sector world-wide. 3DInternet specializes in the areas of 3D interactive safety simulation, virtual reality, app development, and electrical / gas / oil courseware development.
David Marx
Outcome Engenuity

**David Marx** is CEO of Outcome Engenuity, a Dallas-based management consulting firm.

David has a BS in Mechanical Systems Engineering (1985) and Juris Doctor in Law (1997). David began his career as a Boeing aircraft design engineer. In his final years at Boeing, David organized a human factors and safety group that worked to help airlines achieve better safety outcomes.

In 1997, David launched Outcome Engenuity to focus on the management of human error through the integration of systems engineering, human factors, and the law. David’s firm currently spends the majority of its effort on helping organizations design workplace systems and build workplace cultures to create world-class outcomes. In this effort, David has developed award-winning investigative processes and risk modeling methods. David is also recognized as the father of “Just Culture” a model for building a strong culture of accountability within an organization.


Paula Traynor
EPRI

**Paula Traynor** is a Technical Executive at the Electric Power Research Institute. Joining EPRI in 2007, Paula manages Switching Safety & Reliability, transmission arc flash and transmission ratings research. She works with leaders in the electric industry to identify needs and carry out research to determine best switching practices, improve switching training and assess the safety impact of use of new technology and HP practices. She identifies opportunities and methods for improvement based on independent research and testing methods. Through Task Force Meetings, Workshops, Conference and webcasts, she provides industry-wide sharing of switching issues and advancements.

Paula has served in a variety of leadership roles in the industry including managing electric utility system protection and transmission control center departments and worked in multiple technical areas at ABB. She is active in IEEE Committee and Industry Standards efforts and has served as Chair of multiple technical committees and as the Vice President of IEEE Power & Energy Society Technical Activities.

Paula has her B.S. in Electrical Engineering from the University of Illinois and she is the author of numerous technical publications.
Patricia Fischer, CSP, CUSA  
EPRI

Pat Fischer is a Human Performance Senior Analyst currently supporting several projects for the Electric Power Research Institute (EPRI), including "Assessing Human Performance & Behavior Approaches to Reduce Serious Injuries and Fatalities" and "Switching Safety & Reliability." Pat has worked in utility safety and human performance for over 30 years, most recently at American Transmission Company, and also at We Energies. As a utility employee, she represented her employers on the NATF Human Performance Core Team, EEI Safety & Occupational Health committee, and served as an officer on the EPRI Switching Safety & Reliability Task Force and AGA Safety & Health Subcommittee.

Pat graduated from the University of Wisconsin – Milwaukee, in May, 1982, with a Bachelor’s Degree in Business Administration. She is a Certified Safety Professional and Certified Utility Safety Administrator.

Eric Bauman  
EPRI


Previously, he served EPRI member companies in the Central and Eastern United States and Canada on environmental, health and safety project development, client relations, and technology transfer. Bauman was an EPRI member advisor from 1991 to 1997, including Vice Chair of the Electric & Magnetic Fields Advisory Committee.

Bauman has worked for over 40 years in environmental management, regulatory affairs, occupational health, siting, and risk communications. Before joining EPRI, he held positions at Baltimore Gas & Electric in Corporate Strategic Planning and Environmental Affairs. Earlier he was Manager of Transmission at Maryland Department of Natural Resources, Manager of Occupational Health & Safety at the Edison Electric Institute, and Supervisor of Environmental Planning at Cooperative Power (now Great River Energy).

In 1985, Bauman was Guest Scientist at Research Center Juelich, Germany. He has also served in a variety of governmental and industry advisory capacities in Michigan and Minnesota.

Bauman completed his bachelor’s degree in geography and his master’s degree in geography and resource development at Michigan State University.

He is a charter member of the Society for Risk Analysis, associate member of the Environmental Law Institute, and member of the Human Factors & Ergonomics Society and affiliate member of the American Industrial Hygiene Association.
Rodney Krause
Bonneville Power Administration

Rodney Krause is a self-proclaimed Human Performance addict. He is the Chair of the WECC Human Performance Workgroup and has been educated in human performance through his activities with EPRI, NATF, WECC and NERC. He has been the Chair of the EPRI Power Switching Safety and Reliability Project where he presented on topics including normalization of deviance and reporting and tracking near misses. Rodney has enjoyed a career spanning 27 years at the Bonneville Power Administration where he is currently the safety training specialist and has oversight of the OSHA training requirements and associated curriculum. Before joining safety his roles included journeyman substation operator, technical training instructor and substation operations specialist.

Dave Sowers
Knowledge Vine, LLC.

Dave Sowers is a founding member of Knowledge Vine; a Human Performance Training and Consulting organization. Dave has almost 30 years of experience in power generation and the utility industry.

He started his career in the U.S. Naval Nuclear Power Program where he served aboard the aircraft carrier USS George Washington (CVN-73). After the Navy, Dave started working in commercial nuclear power as an operator and trainer in New Jersey and Louisiana. Dave returned to government service with US Army Corps of Engineers at a hydro-electric dam in Alabama. Throughout his career, Dave has served in many diverse roles including Plant Operator and Trainer, Emergency Responder, Control Room Supervisor, and Power Plant Manager.

In addition to the technical training received in the US Navy, Dave has a Bachelor of Science degree in Resources Management from Troy University, a Master of Science in Management degree from Troy University, and a Master of Science in Emergency Management and Homeland Security from George Washington University.

Dave’s work and education experience gives him a unique perspective and the ability to bridge the gaps between an organization’s frontline workforce and their management team. Since he has lived Human Performance from both perspectives he is an effective, relatable, and credible communicator of its principles and methodologies.

David Bowman
Knowledge Vine, LLC.

David Bowman has over 25 years of industrial experience with a strong focus on operations, maintenance, safety engineering, and organizational alignment. David served in the United States Marine Corps and has held various leadership roles with R&R Marine Maintenance, Chevron, Chevron-Phillips, and Entergy. David is the founder and CEO of Knowledge Vine, LLC.

David is a subject matter expert in Human Performance and led those efforts for Entergy Corporation for over 12 years. He has a proven track record in organizational effectiveness and alignment which led Entergy to its best record in
the history of the company in 2013. He gained his experience and knowledge in the petrochemical, nuclear power, fossil fuel generation, utility transmission, and distribution industries. David has a Bachelor of Science in Safety Engineering.

David is an effective leader and dynamic speaker. He can engage audiences at any level and is ready to help any organization achieve their full potential. David believes you can have safety, reliability, and quality if you seek to eliminate errors.

**Rob Fisher**  
*Fisher IT, Inc.*

Rob Fisher is currently the President and Director of Operations for *Fisher IT, Inc.* a Native-American (Cherokee) owned business that was recently awarded a Top-100 Native-American Owned Business in the US and a Top-50 Emerging Business in North Carolina by DiversityBusines.com. Rob has extensive experience in performing incident analysis, designing performance improvement systems, designing and improving corrective action programs, designing and running procedure programs, and educating staff. He is a sought after trainer, and is routinely invited to speak at international, national and regional conferences on safety, procedures, performance improvement, human performance and incident analysis. Fisher IT has most recently been recognized internationally as instrumental in reducing fatalities and serious / life-altering injuries in high hazard industries using human performance and procedure concepts.

*Fisher IT, Inc.* provides training and consulting services in Human Performance Improvement, Incident Analysis, Corrective Action Program and Procedures / Programs / Processes for multiple industries. Current projects include US Nuclear, Non-Nuclear power generation and transmission, US Industrial and Petrochemical, Department of Energy and international clients.

Fisher IT, Inc. is known world-wide for the creation of practical application error reduction tools for use from the Senior Leaders to the hands of the field worker.

**Robert Latino**  
*Reliability Center, Inc.*

Robert J. Latino is CEO of Reliability Center, Inc. (RCI). RCI is a 46 year old Reliability Consulting firm specializing in improving Equipment, Process and Human Reliability. Mr. Latino received his Bachelor’s degree in Business Administration and Management from Virginia Commonwealth University.

Robert J. Latino has been facilitating RCA & FEMA analyses with his clientele around the world for over 33 years and has taught over 10,000 students in the PROACT® Methodology. Mr. Latino is author or co-author of five (5) books related to Reliability, FMEA, Human Error Reduction and/or RCA.

Mr. Latino has applied his RCA methodology to the field of Terrorism and Counter Terrorism via a published paper entitled “The Application of PROACT RCA to Terrorism/Counter Terrorism Related Events” (Muresa, Gheorghe., The Application of PROACT RCA to Terrorism/Counter Terrorism Related Events, in Proc. IEEE International Conference on Intelligence and Security Informatics, Kantor, P., Roberts, F., Wang, F., Merkle, R., Zend, D., and Hsinchun, C., Spring, Atlanta, 2005, 579-589)
Mr. Latino is an internationally recognized author, trainer, software developer, lecturer, and practitioner of best practices in the field of Reliability Engineering and specifically in Root Cause Analysis.

**Beth Lay**  
*Lewis Tree*

Beth Lay is an experienced leader who helps develop resilient, reliable organizations. Four years’ experience as Director of Human Performance at Calpine Corp – an owner / operator of 80+ electric utility power plants. Seven years’ experience as the leader of Siemens Energy Field Service Risk Management team. A Practitioner in Resilience Engineering & Highly Reliable Organizing for 10+ years. She is a mechanical engineer with a graduate certificate in cognitive science. She has worked with companies such as NASA, Los Alamos National Labs, ThyssenKrupp, and contributed to development of EU crisis management guidelines through the Darwin project. Areas of Expertise Include: Resilience Engineering (RE), Highly Reliable Organizing (HRO), Safety 2, Human Performance (HP), Operational Risk Management.

**Stephanie Swindle**  
*Southern Power*

Stephanie Swindle has been with Southern Company for 19 years. She is currently the Maintenance Support Manager for Southern Power where she supports the wholesale gas and biomass fleet. She is also chair of the Southern Company Human Performance Council. Prior to her current role, she served as the Human Performance Coordinator for Georgia Power – Distribution and worked with the Human Performance team in Generation where she coached over 150 learning teams. Previously, she has served in several manager positions at coal and gas plants in Georgia and North Carolina. Stephanie served as the Operations & Maintenance Lead on designing and building Plant Cleveland County Combustion Turbine site while working with Southern Power.

Stephanie graduated from The University of Alabama with a mechanical engineering degree and received her MBA from UAB. She is the current chair of the Industrial Advisory Board for the UA ME Department.

Originally from Birmingham, she currently resides in Birmingham, AL with her husband, Brandon and their two children, Summer (13) and Cooper (11).
Riz Shah
Department of Energy

Rizwan “Riz” Shah is the Organizational Culture Advisor for the Department of Energy. He provides direct consultation and assistance to Appointee, Federal, and Contractor senior officials and their organizations on the assessment, management, development, and improvement of Organizational Culture, Human Resource training and development, Human Performance Improvement, and High-Reliability Organizations. He also serves as the Department’s staff level liaison with other government, international, and professional organizations in these areas. He provides authoritative advice on and is a champion for continuous improvement and promoting organizational performance and reliability.

Mr. Shah’s experience spans 25 years. He has earned a Masters in Social-Organizational Psychology from Columbia University, a Bachelor’s of Science in Technical Management from Embry-Riddle Aeronautical University with a minor in Aviation Safety (Event Investigation), and is a graduate of the US Army Eisenhower Leadership Development Program. He is also an active member of the Association of Talent Development.

As a Soldier and Aviation Officer in the United States Army, he demonstrated exemplary leadership abilities conducting operations in austere conditions in 13 countries. Before his retirement from Military service, he earned the reputation of building high performing teams in any mission profile and is a recipient of the Bronze Star Medal.

Recently, Mr. Shah received the Secretary of Energy Honor Achievement Award for the development and delivery of the VET-Success Program (onboarding and developing Veterans at U.S. Department of Energy (DOE)). His commitment to service extends beyond DOE. In 2016 he was awarded the State of Maryland Certificate for Volunteerism by Governor Hogan for his work with the homeless Veteran community.

Mr. Shah resides in Springfield, Virginia and works in Washington D.C. He is an avid woodworker, and his motto is “Let me not fail them.

Kristie Cocco
Arizona Public Service

Kristie Cocco leads the organizations responsible for operating and maintaining the APS transmission system. She has responsibility for both the Transmission Operator and Balancing Authority function. In addition, her maintenance organization is responsible for compliance to system protection requirements.

Kristie has been with APS since February of 2014. She previously led the APS NERC Regulatory Compliance group. Before coming to APS, she worked at Salt River Project in various operations roles.

Kristie holds a Bachelor of Science degree in Electrical Engineering from Arizona State University. She is also a registered professional engineer in Arizona.
John Rymer
MISO

John Rymer joined MISO in April of 2008 as a Senior Trainer and became the Manager of Technical Training in 2012. His current role as Senior Advisor is dedicated to building a sustainable Human Performance Program for the operations group. He has taught classes on various tools and applications as well as human performance improvement, error prevention, situational awareness, basic transmission and generation system fundamentals, substation operations and system protection, NERC Standards, and numerous other topics designed for Real Time Operations. Mr. Rymer is located in the Carmel, Indiana office.

Prior to joining the MISO in April of 2008, Mr. Rymer spent 26 years with Duke Energy in a number of different roles in Transmission Operations including: Region Operations Supervisor, Senior Technical Specialist, Technical Support, Region Project Engineering, Project Management, and Transmission Operations Training Specialist.

His industry experience includes service on:

- NERC Personnel Subcommittee
- PER-005-2 NERC Standards Drafting team
- NERC Situational Awareness Guideline team
- SERC Operator Training team
- NATF HPI Training team

Education and certifications:
BA from the University of North Carolina Greensboro
Certified Six Sigma Green Belt from Kaplan University
Certified Leadership Coach through CCU
Adult Sunday-School teacher for 25 years

Sage Williams
Tri-State G&T

Sage Williams has worked for Tri-State Generation and Transmission Association, Inc. for 14 years, starting out as a Substation Electrician Apprentice. He has held jobs within Transmission Construction, System Operations, Transmission Maintenance and Transmission Training departments. He currently works in Transmission Maintenance as the Manager of Tri-State’s Eastern maintenance region.

Sage is passionate about supporting maintenance employees’ continued education and training, having developed, implemented and instructed a Leadership program for Tri-State foremen and supervisor’s as Manager of the Training department.

Sage is currently working with construction, maintenance and operations personnel in developing scoping documents, mobile switching procedures and scheduling methodology for improved communication, cooperation and efficiency within Tri-State.
Mohammed Alfayyoumi
Dominion Energy

Mohammed Alfayyoumi is the Director of Electric Transmission System Operations Center at Dominion Energy.

He is responsible for directing a technical and professional staff that is responsible for the safe and reliable operation of Dominion Energy’s transmission assets. Mohammed acts as Dominion Energy’s primary transmission operations interface with regional transmission organizations (RTOs), reliability organizations, neighboring utilities, and grid-connected customers.


Mohammed served on numerous industry committees, panels, and working groups.

He received his bachelor’s degree in Electrical Engineering from Jordan University of Science and Technology and his Master’s in Electrical Engineering from Virginia Tech. He completed his MBA from UMASS and is a Certified Six Sigma Master Black Belt.

Mohammed lives with his wife and two sons in Richmond, Virginia.

David Yacht
Southwest Airlines

Born in Miami, Florida, David Yacht attended Embry-Riddle Aeronautical University and earned Bachelor of Science in Professional Aeronautics, Master of Aeronautical Science, and Master of Science in Human Factors and Systems. Yacht is currently enrolled in The University of Texas at Dallas, School of Behavioral and Brain Sciences, graduate program in Applied Cognition and Neuroscience with a focus on Systems Neuroscience.

In his civilian career, Yacht is the Principal Scientist of Human Performance at Southwest Airlines, and is the Program manager responsible for Risk and Resource Management (RRM) through its uniform implementation, maintenance of fidelity, and standardization across the Southwest Airlines enterprise. Yacht is the Chairman of the Southwest Airlines Human Performance Advisory Council as the subject matter expert (SME) of human factors and ergonomics to support the Safety Management System by providing a framework that enables collaboration with departments to integrate human centric principles and current industry best practices into training, standards, policies, procedures, investigations, daily operations and safety management systems. Yacht is also the Program manager responsible in leading the Southwest Airlines Human Performance Partnership Program by interfacing with Government, Academic, and Industry leaders through the creation of Research and Development opportunities and general collaboration. Yacht is the primary point of contact with Research and Development entities for Southwest Airlines.
Yacht’s past work was with Design Interactive, a research and development firm in Orlando, Fl. Yacht was a research scientist assigned to the Defense Solutions Team providing in-depth field analysis; human factors engineering; systems engineering; and comprehensive task modeling by locating, identifying, and isolating weaknesses within systems to capture and represent user needs in order to improve human performance. Yacht was also the program manager for companywide Collaborative Institutional Training Initiative (CITI) Certificate Program, and Institutional Review Board (IRB) Program.

In his military career, Yacht is a Naval Reserve Supply Corps Officer specializing in Expeditionary Logistics whose awards include: Navy and Marine Corps Commendation Medal (2 Awards), Navy Good Conduct Medal, Naval Reserve Meritorious Service Medal, National Defense Service Medal, Afghanistan Campaign Medal, Global War on Terror Service Medal, Military Outstanding Volunteer Service Medal (3 Awards), Navy and Marine Corps Overseas Service Ribbon, Armed Forces Reserve Medal, NATO Medal, Navy Expert Rifle Shot Medal, Navy Expert Pistol Shot Medal.

David Costello  
Schweitzer Engineering Laboratories

David Costello graduated from Texas A&M University in 1991 with a B.S. in electrical engineering. He joined Schweitzer Engineering Laboratories, Inc. (SEL) as a field application engineer and later served as a technical support director, national sales and customer service director and Sr. Vice President of Sales and Customer Service. He currently serves as Chief Sales and Customer Service Officer and works in Fair Oaks Ranch, Texas.

David has authored more than 30 technical papers and 25 application guides. He was honored to receive the 2008 Walter A. Elmore Best Paper Award from the Georgia Institute of Technology Protective Relaying Conference, the 2013 Outstanding Engineer Award from the Central Texas section of the IEEE Power and Energy Society, and the 2016 Best Overall Technical Presentation Award from the NETA PowerTest Conference.

David completed the Utility Executive Course at the University of Idaho in 2017. He is a senior member of IEEE, a registered professional engineer in Texas and Michigan, and was a member of the planning committee for the Conference for Protective Relay Engineers at Texas A&M University for over 20 years.

Dr. Kellie Anton  
Reliability First

Dr. Kellie Anton is the Senior Data Scientist at ReliabilityFirst. Her current work is focused on harnessing the power of Text Analytics and Natural Language Processing to improve human performance and drive cultural change.

At ReliabilityFirst, Dr. Anton is one of the principals behind the RF Human Performance Workshop and the RF Human Performance Working Group. She has 17-plus years of experience in Analytics, Quantitative Risk, and Engineering. Dr. Anton believes setting people up for success leads to a healthier and more positive workforce, so for the last 10-plus years, she has augmented her regular work to include Human Performance and Human Factors Engineering.
Dr. Anton was introduced to Human Factors Engineering when she worked as Systems Engineer at the NASA Johnson Space Center where she was part of the Probabilistic Risk Assessment teams on the Space Shuttle, Constellation, International Space Station and Commercial Crew programs. She later spent time in Hamburg, Germany working with experts in human performance and human factors engineering giving presentations on human factors design and human reliability analysis.

Dr. Anton holds a Doctorate in Applied Finance from the University of Illinois at Urbana-Champaign, a Master’s of Science from Auburn University, and a Bachelor’s of Science from The Ohio State University. She is a member of the Society of Women Engineers and formerly Engineers Without Borders. In her spare time, she volunteers at the Cleveland Clinic, enjoys power yoga, and is a pro-am photographer.

**L.D. Holland**

Duke Energy

L.D. Holland has over 38 years of experience within the electrical utility industry, including the nuclear electrical generation side of the industry.

L.D. is a qualified:

- Human Performance Management Consultant
- Total Quality Management Certified Consultant
- PII Certified Human Error Reduction Instructor
- INPO Certified Human Performance Fundamentals Facilitator
- Duke Energy Nuclear Accredited Instructor

In 1995 L.D. began developing leadership case studies based on real life situations to highlight and define essential human performance and leadership behaviors. He believes that Human Performance can focus management and worker on the importance of the interdependence between **prevention, detection, and the correction of human errors within the workplace**. These case studies have been used throughout the country to promote and develop these behaviors for the purpose of improving utility performance.

Mr. Holland has also done extensive research and provided lectures on human performance issues of how leaders *(management and workers)* can adequately address demographic challenges within the workplace; diverse work groups of today, such as, traditionalists, baby-boomers, generations X’ers and millennials.

During his years with the utilities, he has served as:

- I&C Technician (Westinghouse Certified) | I&C Supervisor
- Qualified ISS Plant Systems Instructor
- Qualified Classroom and Simulator Instructor - Operations and I&C
- INPO E&A and Training Accreditation Auditor
- Nuclear Site Maintenance Human Performance Supervisor
- Nuclear Site Human Performance Manager
- Transmission and System Ops. Training Specialist
- Transmission System Operations Consultant (current position)
In addition to these qualifications and experiences L.D. is also a pilot instructor, pilot, motorcycle safety instructor and enthusiast, FATHER, and HUSBAND.

**Dr. Michael Legatt**  
ResilientGrid, Inc.

**Michael E. Legatt, PhD** is Founder and CEO of ResilientGrid, Inc., whose mission is to empower critical infrastructure operations to continually strengthen resiliency and reliability. Dr. Legatt has PhDs in both Energy Systems Engineering and Clinical Health Psychology/Neuropsychology. He has used the integration of these fields in his approach to building software solutions and management techniques which focus on optimizing human performance in complex technical operating environments.

Prior to founding ResilientGrid, Dr. Legatt spent a decade as the principal human factors engineer for the Electric Reliability Council of Texas (ERCOT), where his development of the Macomber Map® software system has been helping ERCOT operators for over ten years, and Southwest Power Pool operators for over three years maintain situational awareness and manage transmission operations. The results of which include achieving a new record for integration of wind generation (62% SPP, 54% ERCOT), maintaining increasingly complex real-time operation, and providing advanced tools for operator training and grid simulations.

Dr. Legatt’s work with electric utilities facilitates and fosters a transformation towards improved organizational culture, enhanced collaboration in emergency situations, and a support of organizational creativity as a means to both reduce operating errors and operational costs. In one example, a company improved from a bottom 10th percentile work environment, into a top ten “Best Places to Work” culture in under two years.

He has also done work on the behavioral aspects of electric vehicle to grid integration, leading a project with ERCOT, University of Texas at Austin, EV-TEC and Pecan Street Project to understand the impact of electric vehicle charging and driver behavioral patterns on the bulk electric system. The final result showed ways that EVs can be optimized for distribution operations though intelligent charging and providing ancillary services, enhancing grid stability and resiliency.

Dr. Legatt presents regularly at energy industry and government events about the impact of organizational culture and the importance of optimizing human-computer interaction within complex socio-technical systems, and he has contributed to several articles, research projects, and books on the subject.

It was the 2003 blackout in the Northeastern United States which sparked his interest in the psychology of critical infrastructure management. He provided emergency communications as an amateur (ham) radio operator during the event, and was recognized with a commendation from Westchester County, New York for his participation.

In 2018 Dr. Legatt was honored as one of the U.S. Army’s “Mad Scientists”, by Training and Doctrine Command (TRADOC), for his work focusing on the future of situational awareness and common relevant operational pictures.

In 2016 he became a Certified Performance Technologist.
Before launching his consulting practice in 2015, Dr. Jake Mazulewicz led all Human Performance Improvement (HPI) initiatives for a 3,500+ person business unit within Dominion Energy, a Fortune 500 utility.

In that role, Jake partnered with technical experts in Distribution, Transmission, Substation, Switching, System Operations, System Protection, & Generation. He researched, taught, and advised leaders in these groups how to manage human errors by applying classic Human Performance Improvement (HPI) tools including: Situational Awareness, Checklists, and 3-Way Communication. Jake also applied advanced concepts including Just Culture, and traits of High-Reliability Organizations. Jake served as the founding chairman of the North American Transmission Forum’s Human Performance Core Team. That group created initial principles of HPI excellence for transmission entities. Jake also served on reliability-driven teams as a firefighter, an emergency medical technician, a wilderness search & rescue field team leader, and a military paratrooper. Jake now teaches companies across the country how to reduce, mitigate and learn from human errors.

Richard Hackman
North American Electric Reliability Corporation

Richard Hackman is a Senior Event Analysis Advisor in NERC’s Reliability Risk Management Event Analysis group, leading the Lessons Learned program and Failure Modes and Mechanisms development. Previously, he spent eight years with American Electric Power’s Transmission Substation Engineering and Regulatory Compliance groups. Before that, he had 29 years of Nuclear Power experience including Licensed Reactor Operator, Radiochemist, Shift Technical Advisor, Nuclear Plant Systems Trainer for Professionals, Engineering and Management, Contract Root Cause Analyst for Organizational, Management, Human Performance, and Equipment Failures, and Director of Root Cause Analysis for Failure Prevention Incorporated. He also wrote symptom based power plant equipment failure diagnostic assistance software for EPRI. He has a BS in Chemistry and Biology from Harding University Searcy, AR.
**Ed Ruck**  
*North American Electric Reliability Corporation*

Ed Ruck is a Senior Reliability Engineer and is responsible for performing event analyses of power system events and reviewing the Event Analysis reports written by the industry. Ed joined North American Electric Reliability Corporation (NERC) as a Regional Compliance Program Coordinator in October 2004 and was responsible for oversight of Regional Entities in their implementation of the mandatory compliance program, and since then has held roles in compliance auditing and compliance investigations prior to joining the Reliability Risk Management team.

Prior to joining NERC, he worked as a Senior Engineer at Mid-America Interconnected Network performing the Reliability Coordinator function. He also worked on EMS maintenance projects and regional planning studies.

Ed has a Bachelor of Science degree with a major in Electrical Engineering from the University of Illinois Champaign – Urbana.

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**Rick Foote**  
*Fisher Improvement Technologies, Inc.*

Rick Foote is a Senior Consultant with Fisher Improvement Technologies, Inc. and a co-author of IEEE Standard 1707-2015, *Recommended Practice for the Investigation of Events at Nuclear Facilities*. Rick has successfully led incident investigation teams for over 25 years across various industries, including power generation, transmission and distribution. During that period, he also conducted numerous initial and advanced training sessions for root cause analysts on three continents. Rick was among the first to integrate human performance principles with incident analysis approaches, and also successfully managed the Corrective Action Program for a major corporation. Rick, a veteran of the US Navy submarine service, enjoys outdoor activities and resides with his family in Kent, Ohio.

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**Tim Golden**  
*Knowledge Vine, LLC.*

For over 25 years Tim Golden has worked in the electric utility industry. Tim served in distribution operations business units supporting local operations, including outage management, distribution switching, and field design. In the role of process trainer and subject matter expert, Tim provided critical support on processes, systems and procedures used in distribution operations to front-line operations personnel, ranging from work management and resource scheduling to outage management and complaint resolution processes. He supervised and managed training delivery and curriculum development workgroups, leading efforts to redesign training programs which reduced classroom time by 30% while retaining quality of the training delivered. Tim provided leadership at the Corporate Safety level, managing a program development group that included Human Performance for non-nuclear business units.

Tim holds a Bachelor of Science in Mathematics from Mississippi College in Clinton, MS and is a Certified Occupational Safety Specialist (COSS), and is a lifelong student of adult learning practices.
Ken Hallaran
Knowledge Vine, LLC

Ken Hallaran has spent 18 years in the nuclear power industry. He started his career in the Naval Nuclear Power Program as a 1st Class Petty Officer in the Reactor Laboratories Division. After 6 years in the United States Navy he moved into the commercial nuclear industry as an Equipment Operator at Entergy’s River Bend Nuclear Station. Ken has also held the positions of Chemistry Technician, Chemistry Supervisor, and Chemistry/Environmental Manager and obtained a Bachelor's degree in Nuclear Engineering Technology.

Throughout his career, Ken has become well versed in human performance, organizational improvement, leadership, and causal analysis. His experience as a field worker, supervisor, and manager has given him the ability to be effective in multiple areas and levels of an organization.
ACKNOWLEDGEMENTS

We would like to express our sincere appreciation to the following individuals who have contributed their time and expertise to the planning of the 2019 Human Performance Conference.
Kevin Harris
Eversource Energy

Kevin E. Harris has 31 years of service with Eversource Energy (formally Northeast Utilities) in the field of Test and Commissioning of Generation, Substation and Switchyard facilities. As the Field Engineering Manager, Kevin Serves a Team of 10 Supervisors, and 70 Union Field Engineers and Test Specialist maintaining, troubleshooting and commissioning Transmission and Distribution Substations to include Electric Field Operations support with Distributed Generation and Distribution Automation technology deployed throughout the distribution systems. He is responsible for NPCC/NERC regulatory maintenance of the Eversource Energy system in Connecticut and Western Massachusetts.

In 2012, Kevin presented on Electric Utility Industry Practices with Human Performance Tools at the first annual NERC conference on Human Performance in Atlanta, GA. In 2013, he presented at the first WECC Human Performance Working Group Conference: Job Briefings, Creative Defense Barriers and HP Metrics. In 2014, Kevin was invited back to the WECC Human Performance Working Group Conference and presented on Effective Pre Job Briefs, co-presented with Mike Carden of Dominion Power on Creative Defense Barriers and co-presented with Wally Geoff of Bonneville Power (DOE) on new perspectives around the Safety Pyramid, Iceberg model and SIF. In 2015, at the WECC HPWG Conference Kevin, working with Tom Neary, co-presented on the WECC Pre Job Brief Tool Box, an excellent tool to build or benchmark a PJB form. He has also presented on these subjects at the 2015 and 2016 NATF HP Symposia now merged with the NERC HP Conference. At the 5th Annual NERC Conference on Human Performance in Atlanta, GA, Kevin presented on the HP Journey using Metrics to show the story. Most recently, He has presented on Human Organizational Performance as it relates to PRC-005 at the 21st NPCC Fall Workshops (2017).

Don LeKang
North American Transmission Forum

Don LeKang is a program manager for the North American Transmission Forum (NATF) Practices Program, where he leads and facilitates the activities of various practices groups with a focus on enhancing customer (member) value by providing an interactive, confidential venue for the participants to share experiences and create superior practices. Over the past several years, Don has facilitated the Operator Tools, System Operations, Operator Training, Compliance, and Human Performance practices groups.

Prior to joining the NATF, Don spent over 11 years in a variety of roles and positions at the Federal Energy Regulatory Commission (FERC). As acting director, division of reliability and engineering services, Don provided technical policy options to the Commission and directed engineering staff who served as technical advisors on complex electric regulatory issues, rulemakings, ISO/RTO developments, and reliable electric system operations.

Don received a bachelor’s degree in electrical engineering with a power systems option from Northeastern University and a master’s of science in electrical engineering from George Washington University.
Tom Neary  
OpCon Technologies

Tom Neary, P.E., the CEO and Co-Founder of OpCon Technologies, Inc. Tom pioneered the use of on the job video collaboration software to make field service and plant work force teams more resilient. Tom is an iOS developer and is fluent in applying Apple’s ecosystem to businesses and corporate enterprises. Tom also volunteers time to promote and strengthen Human Performance across the Transmission and Distribution (T&D) business units of the North American electric utilities industry.

Prior to founding OpCon Technologies, Tom designed and installed industrial process control systems for 17 years. Tom holds a bachelor’s degree in Chemical Engineering from University of New Hampshire and a Master’s degree in Chemical Engineering from Tulane University in New Orleans, LA. Tom is a Registered Professional Engineer in the state of California.

Kent Peterson  
Xcel Energy

Kent Peterson is the Human Performance Improvement (HPI) Program Manager at Xcel Energy. He is responsible for leading the HPI efforts and initiative within the Transmission organization. He has held previous roles and duties within Transmission Technical Compliance Training, Fossil and Alternative Energy/Generation Training, and Nuclear training and operations. In addition, he works with company stakeholders and committees focusing on Root Cause and Event Analysis, is chair of the Human Performance Advisory Committee for Transmission, sits on the HPI Sub-Team for Energy Supply and Generation, and is a Core Team member of the NATF Human Performance Practices Group. He has been active in presenting Human Performance Improvement to other utilities, regulatory and oversight groups, and various organizations. Kent has earned a Bachelor of Science in Applied Physics from Winona State University.

Sandy Shiflett  
North American Electric Reliability Corporation

Sandy Shiflett is a Senior Program Specialist for Reliability Risk Management at NERC. She joined NERC in November 2010 and works alongside many talented professionals in order to promote the reliability and security of the bulk power system.

Sandy has played a role in the planning and implementation of the NERC Human Performance Conference since its inception eight years ago. She has been instrumental in the development of this community of practice for human performance for our stakeholders and industry.
Katie Smith
Oncor Electric Delivery

Katie Smith has worked for Oncor Electric Delivery, a Transmission & Distribution Utility in Dallas, Texas for 5 years. Within the Risk Management Organization, she is responsible for leading Human & Organizational Performance efforts such as fundamentals and Just Culture training, learning team facilitation and overall HOP program development. Her previous role was within the Oncor Reliability & Security Compliance Team. Katie holds a Bachelor of Science Degree in Interdisciplinary Studies with concentrations in Psychology, Biology, and Sociology from the University of Texas at Arlington. Katie serves as a core team member in the NATF Human Performance Practice Group and will participate as an HP 101 instructor within NATF training efforts. Over the last year, Katie has developed a passion for studying the complexities of human behavior and is devoted to discovering ways to enhance operational learning as the industry evolves. Katie and her husband Michael have two sons, Connor and Cooper.