

ENERGIZE YOUR FUTURE



**Join us in the golden
land of promise.**

February 27 through March 3

ANAHEIM • CALIFORNIA

February 27 - March 3 • 2017

DISNEYLAND HOTEL

POWERTEST.ORG 888.300.6382

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THE PREMIER ELECTRICAL MAINTENANCE & SAFETY EVENT
.....

Hosted by **NETA**

February 27 - March 3 • 2017

PowerTest heads to Anaheim, California in 2017

California became the 31st State of the Union in 1850; at the time, it was not the fertile and diverse land it is today. Cattle ranching and gold mining drove the economy and culture. It wasn't until the turn of the century that Southern California's destiny would be ignited by San Diego's Panama-California Exposition of 1915, which promoted a vision of the American Southwest and Southern California as a region of "Edenic abundance." San Diego would be only the first in a long series of cities building irrigation societies.

The California Aqueduct opened in 1913, bringing water from the Sierra Nevada Mountains over 230 miles to Los Angeles and the entire southland region. This, combined with the expansion of the Pacific Electric Railway, spurred Southern California toward becoming the *Golden Land of Promise*.

Vision, ingenuity, resourcefulness, and purpose are the qualities of Southern California that PowerTest 2017 draws on as we come together to strengthen our industry, expand our knowledge, and improve the quality, safety, and reliability of electrical power systems.



Keynote Speaker Todd Conklin, Ph.D., Los Alamos National Laboratory

Dr. Conklin is a Senior Advisor to the Associate Director at Los Alamos National Laboratory, where he has served for the last 15 years in the Human Resource and Reliability Management and Training arena with an emphasis in Organizational Development and Human Reliability. His book, *Simple Revolutionary Acts: Ways to Revitalize Yourself and Your Workplace*, helps readers become a positive deviant in the workplace in a fun way. He may be recognized as a guest host on National Public Radio's "All Things Considered" and "Morning Edition".

Dr. Conklin has a B.A. in Communication from Southwestern College; an M.A. in Interpersonal Communication from Fort Hays State University; and a Ph.D. in Organizational Communication from the University of New Mexico.



DAY 1 Monday

We've gathered leaders in the industry and will stage a full day of engaging, 45-minute presentations sure to expand your thinking and generate new ideas. Choose from 27 detailed presentation track topics.

TECHNICAL PRESENTATIONS

ELECTRICAL SAFETY

- **Improving Human Performance**
D. Ray Crow, DRC Consulting Ltd.
- **Electrical Safety for Contractors (Multi-Employer) Working in Industrial Facilities**
Dennis Neitzel, AVO Training Institute, Inc.
- **Guarded or Unguarded and Why It Makes a Safety Difference**
Jim White, Shermco Industries
- **Application of Work Flow Process in an Electrical Safety Program**
Terry Becker, ESPS Electrical Safety Program Solutions INC.
- **Human Performance Best Practices in Electrical Safety**
Mike Doherty, eHazard
- **Design, Implementation and Testing of Arc-Flash Mitigation on Low and Medium-Voltage Systems**
Christopher Inshaw, Southwest Energy Systems, LLC

PROTECTIVE RELAYS

- **Testing High Magnitude Faults on a Transmission Line Using COMTRADE Records: A Case Study**
Mohit Sharma, Chinmay Desai, and Vijay Sundaram, Megger
- **Testing Protective Relays – A Procedural Review**
John Cadick and Jefferson Bronfeld, Cadick Corporation and Dennis Moon, AVO Training Institute, Inc.
- **Influence of Non-Linear Loads on Generator Differential Protection**
Vijay Sundaram and Dhanabal Mani, Megger
- **Understanding Basic High Speed Tripping and Communications (Basics of Tone and Carrier Schemes)**
Jay Garnett, Doble Engineering Company
- **End-To-End Testing Methods Compared**
Christopher Pritchard and Will Knappek, OMICRON electronics Corp. USA
- **Man-Made Faults – Line Protection Operation for an Unintended Phase Cross-Connect Condition**
Ryan McDaniel and Jon Larson, Schweitzer Engineering Laboratories, Inc.

EQUIPMENT & RELIABILITY

- **How Vacuum Interrupters Work and How They Fail**
Finley Ledbetter, Group CBS, Inc.
- **Commissioning of Plant Electrical System Using Distributed Testing**
Randall Sagan, MBUSI
Mose Ramieh III, PGTI, a CE Power Company
Will Knappek, OMICRON electronics Corp. USA
- **Primary Current Injection Testing: Then and Now**
Robert Probst, Megger



- **How to Choose the Right Power Monitoring Tools**
Ross Ignall, Dranetz Technologies
- **Making Reliability Lean & Mean**
Noah Bethel, PdMA
- **Grounding Fundamentals That Help Avoid Electrical Disasters**
David Brender, Copper Development Association

POWER TRANSFORMERS

- **Why Get Excited about Excitation Current Tests**
Keith Hill, Doble Engineering Company
- **Understanding the Value of Electrical Testing for Power Transformers**
Charles Sweetser, OMICRON electronics Corp. USA
- **Sweep Frequency Response Analysis (SFRA) and the Best Practices for Reliable Results**
Sanket Bolar and Robert Foster, Megger
- **Emergency Transformer Bushing Replacement**
Mark Haas, Power Asset Recovery Corporation and Randy Williams, ABB
- **A Systematic Approach to Analyzing Exciting Current Measurements on Power Transformers**
Brandon Dupuis, OMICRON electronics Corp. USA
- **Cable Fault Location Techniques when Faced with Corroded Neutrals**
Robert Probst and Jason Souchak, Megger

BATTERY SYSTEMS

- **Battery Testing by the Standards and Field Experiences**
Daniel Carreño-Perez and Volney Naranjo, Megger
- **Station Battery Maintenance 101: What You Need to Know**
Tom Sandri, Shermco Industries
- **NERC Requirements for Battery Acceptance and Maintenance Testing**
Steve Canale, American Electrical Testing Co., Inc.

SYMPOSIUM

Medium-Voltage Vacuum Circuit Breakers: An Industry Update

Moderator: *David Huffman, Power Systems Testing Co.*

Medium-voltage circuit breakers are key and integral to system reliability and electrical power system performance, and have been a part of the electrical landscape for many years. This symposium will focus on the medium-voltage circuit breaker technology, both new and old, and will provide insight and updates from medium-voltage circuit breaker subject matter experts.



DAY 2 Tuesday

Join in the discussion during the Tuesday morning Panel Sessions. Select two of the four panel topics and get ready to learn from experts and peers alike.

Panels:

Electrical Safety

Moderator: *Jim White, Shermco Industries*

Relays

Moderator: *Rod Hageman, Shermco Industries*

Circuit Breakers

Moderator: *Dan Hook, Western Electrical Services, Inc.*

Power Transformers

Moderator: *Jean-Pierre Wolff, Applied Engineering Concepts*

DAY 3 & 4 Wednesday & Thursday

Two days are dedicated to high-power learning. Choose from 12 in-depth, four hour seminar presentations. PowerTest 2017 Technical Seminars cover current topic and important industry issues that will broaden your horizons and expand your knowledge, preparing you for challenges ahead.

SEMINAR TITLES

- **2018 Edition of NFPA 70E Changes**
Jim White, Shermco Industries
D. Ray Crow, DRC Consulting Ltd.
Daleep Mohla, DCM Electrical Consulting Services
- **Relay Troubleshooting 2.0**
Ryan McDaniel, Schweitzer Engineering Laboratories, Inc.
- **Power Transformer Commissioning**
Donald Platts and Brandon Dupuis, OMICRON electronics Corp. USA
- **Understanding Generator Protection**
J. Scott Cooper, OMICRON electronics Corp. USA
- **What Does a Partial Discharge Tell Me and How Do I Perform the Test?**
Tom Sandri, Shermco Industries
- **Interpretation of Power Factor and Excitation Test Data**
Keith Hill and Jay Garnett, Doble Engineering Company
- **Exploring the Techniques and Philosophies of Testing Electrical Insulation**
Tom Sandri, Shermco Industries
- **Ground Fault Testing per ANSI/NETA ATS and MTS**
Tim Reed, Electrical Reliability Services
- **Mechanical Condition Assessment of Transformers Using Sweep Frequency Response Analysis**
Dinesh Chhajjer and Robert Foster, Megger
- **Advance Ground Testing Concepts and Techniques**
John Humphrey and Hilton Mills, Hood-Patterson and Dewar
- **Advanced Test Techniques for Generator and Transformer Protection**
Steve Turner, Beckwith Electric Co., Inc.
- **Exploring Ohmic Trending of Battery Systems and Battery Capacity Testing – What Do These Tests Tell Me? Which One Should I Use?**
Tom Sandri – Shermco Industries

Tuesday Afternoon

PowerTest 2017 Trade Show

The PowerTest 2017 Trade Show promises more than 100 top-tier electrical power vendors whose mission is electrical safety and reliability. Enjoy a complimentary lunch and beverages as you tour the show and make connections. The PowerTest 2017 Trade Show will take place from 12:00 PM – 5:30 PM.

Tuesday Evening

Don't miss the PowerTest 2017 – PowerBash Reception!

A gathering you don't want to miss. Enjoy an evening of Southern California charm, awards, and recognitions, while mixing and mingling to musical entertainment. Tuesday evening from 7:00 PM – 10:00 PM.

DAY 5 Friday

The Doble Laboratory Seminar is designed for engineers, chemists, and others responsible for reviewing data to interpret laboratory results to detect and identify problems within electric apparatus. The seminar will be interactive, combining theoretical background with practical experience and hands-on examples including case studies illustrating common problems found in the field.

Hospitality Suites

Mingle with colleagues and a host of leaders at Monday night's hospitality suites. Eight companies will offer their own brand of hospitality with uniquely themed suites.

6:00 PM – 10:00 PM





Early Bird Registration is now Open!

Register on-line at: **www.powertest.org** or call: **888-300-6382 (NETA)**

	Non Members	NAC/Alliance
Monday & Tuesday	\$ 995	\$ 895
Monday - Thursday	\$1895	\$1695
Single Day	\$ 580	\$ 550
Doble Seminar	\$ 445	\$ 445

Register On-line: To register for PowerTest 2017, save time by registering on-line. You'll find a complete brochure and registration form available at www.powertest.org.

*Hotel Reservations

Disneyland Hotel
714.520.5005
1150 Magic Way
Anaheim, CA 92802

Reservation Deadline:

February 4, 2017

Group Name:

PowerTest/NETA

Group Rate: \$199

**Once you register for PowerTest 2017, you will receive a link via email to secure your hotel reservations at the Disneyland Hotel.*

Payment: NETA accepts all major credit cards. Save time and register on-line at www.powertest.org or call **888-300-6382 (NETA)**.

Extras: PowerTest 2017 Technical Papers – Registered conference attendees will receive all PowerTest technical presentations on a USB drive on site in their registration bag.

Social/Guest Pass: Includes admission to the Hospitality Suites, Trade Show, and the PowerBash reception. \$60 per person. Those registered for Mon-Thurs technical sessions do not need to purchase a social pass, as it is included with registration (with exception of the PowerBash - this is an additional \$25).

Easy Steps for Registration

1. Go to www.powertest.org and review the complete PowerTest 2017 on-line brochure.
2. Decide the number of days you will attend the conference.
3. Tuesday attendees select up to two panels. (Cost of panels included in the registration fees.)
4. Wednesday attendees register for up to two seminars. (Cost of seminars included if registered for Monday – Thursday.)
5. Thursday attendees register for up to two seminars. (Cost of seminars included if registered for Monday – Thursday.)
6. Register for Doble Lab Seminar. (Cost of seminar is in addition to the registration fees.)
7. Sign up for Social Passes. Social pass only needed for guests of attendees that wish to attend the hospitality suites, the Trade Show, and the PowerBash Reception (Cost of passes is in addition to the registration fees.)
8. Sign up for PowerTest 2017 conference polo shirts and select size. (Cost of polo shirts is in addition to the registration fees.)



2017 POWERTEST CONFERENCE *Sponsors*

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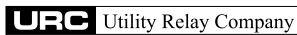
HIGH VOLTAGE SPONSORS



MEDIUM VOLTAGE SPONSORS



LOW VOLTAGE SPONSORS



GENERAL SPONSORS



Sunday, February 26 9:00 AM – 4:00 PM

Megger Best Practices

Join us as Megger hosts a FREE Hands-On Best Practices Seminar at NETA's PowerTest 2017! Megger's Best Practices Seminars are designed to bring you up to speed on new testing techniques and technology as well as offer the opportunity to engage in hands-on learning with our expert engineers. Megger's world-class Applications Engineers utilize their vast industry knowledge and experience to craft an in-depth program backed by Megger's expertise in the market. This full-day of quality education includes training related to key industry topics as well as 2 hours of hands-on instruction.

Monday, February 27 12:00 PM – 2:00 PM

PowerDB User's Group

Annual User's Group Meeting open to licensed users of PowerDB Pro Software. Agenda will include presentations by the PowerDB Pro development team as well as utility, industrial and contractor groups discussing how this product is an integral part of their business operations. Pre-registration is required by contacting PowerDB at (979) 690-7925 ext. 702 or by registering at www.powerdb.com.

5:00 PM – 6:00 PM

New Product Forum

Learn about dozens of the latest products and innovations, and major expansions by leading industry-specific manufacturers and suppliers.

