



NASPI Work Group Meeting and Vendor Show

PERA Club

1 E Continental Drive

Tempe, Arizona, 85281

April 4-5, 2023 (In Person)

The North American SynchroPhasor Initiative (NASPI) Work Group Meeting and Vendor Show will be held in Tempe, Arizona, April 4-5, 2023, at the beautiful PERA Club. Our agenda will feature invited speakers and technology partners demonstrating their latest hardware and software. There are presentations from companies and individuals who have deployed, or are exploring emerging, applications associated with time-synchronized measurements.

Our distinguished **keynote speaker** is Chris Janick, Salt River Project (SRP) Senior Director of Power Delivery.

NASPI wishes to thank Chris Janick, Salt River Project (SRP) Senior Director of Power Delivery, and our Partners for a very successful meeting in Tempe, AZ. Look forward to seeing everyone at our fall Work Group meeting.

Final Agenda (4/3/23)

Tuesday, April 4, 2023 (Local Time)	
8:00 - 9:00 am	Registration and coffee
9:00 - 9:05 am	Welcome, Introductions, and Logistics Review: Jeff Dagle (PNNL)
9:05 - 9:25 am	Keynote Speaker : Chris Janick, SRP Senior Director of Power Delivery
9:25 - 9:45 am	NASPI Update – Jeff Dagle (Pacific Northwest National Laboratory)
Session 1	
9:45 - 10:05 am	Financial Impact of High-Resolution Telemetry on the Clean Energy Transition - Kevin Jones (Dominion Energy)
10:05 - 10:25 am	Observed challenges specific to distribution grid synchrophasor deployments from a Distribution System Operations perspective - Bryce Johannek (Quanta Technology, LLC)
10:25 - 10:45 am	Categorizing and Understanding the State of Applications Driven by Time-Synchronized Grid Data – Michael Brown for Sean Murphy (PingThings, Inc.)
10:45 - 11:10 am	Break – 15 Minutes
11:10 - 11:30 am	Interaction of Forced Oscillation with Multiple System Modes - Mani Venkatasubramanian (Washington State University)
Session 2 - American-Made Utility Digital Transformation Prize Session Hosted by Sandra Jenkins, U.S. Department of Energy	
11:30 - 12:00 pm	Digitizing Utilities Prize – Jim Follum for Sandra Jenkins (DOE)
12:00 - 1:00 pm	Lunch
Session 3 - Inverter-Based-Resources Super Session	
1:00 - 1:20 pm	Monitoring Momentary Cessation of IBRs with Synchrophasors - Tariq Rahman (San Diego Gas & Electric)
1:20 - 1:40 pm	Modeling Dynamic Response of Inverter-Based Resources Using Waveform Measurements - Hamed Mohsenian-Rad (University of California)
1:40 - 2:00 pm	Measurements and Analytics for Resilient Integration of Inverter-Based Resources - Jim Follum (Pacific Northwest National Laboratory)
Session 4 - Technology Partner Flash Talks (5 minutes talk)	

2:00 – 2:40 pm	<ul style="list-style-type: none"> • PingThings • Schweitzer Engineering Laboratories • Oscilloquartz and Establishing Truth in Network Synchronization • Meinberg • Powerside • MathWorks
2:40 – 3:00 pm	Break – 20 Minutes
	Session 5 - Task Team Breakout Sessions
3:00 – 5:00 pm	Control Room Solutions Task Team (CRSTT) - James Kleitsch and Cody Parker (Whitetail East Room)
	Data & Network Management Task Team (DMTT) - Dan Brancaccio (Whitetail West Room)
	Distribution Task Team (DisTT) - Dan Dietmeyer and Panos Moutis (Sandhill West Room)
	Engineering Analysis Task Team (EATT) - Evangelos Farantatos and Matthew Rhodes <ul style="list-style-type: none"> • The Grid Event Signature Library: A Centralized Repository of Power System Waveform Data - Aaron Wilson (Oak Ridge National Laboratory) and Jhi-Young Joo (Lawrence Livermore National Laboratory) • The Use of High-Speed Synchronized Measurements to Create Dynamic Indicators of Grid Resilience - David A. Schoenwald and Sam Ojetola (Sandia National Laboratory)
5:00 - 7:30 pm	NASPI Reception, Vender Show, & Poster Session

Wednesday, April 5, 2023 (Local Time)	
8:00 - 9:00 am	Registration and coffee
	Session 6 - NASPI Task Team Updates (10 minutes each) Panel Session
9:00 – 9:50 am	<ul style="list-style-type: none"> • PRSVTT - Jim O'Brien and Farnoosh Rahmatian • CRSTT - James Kleitsch and Michael Nugent • DNMTT - Dan Brancaccio • DisTT - Dan Dietmeyer and Panos Moutis • EATT - Evangelos Farantatos and Matthew Rhodes
	Session 7 - Organization Updates (10 minutes each)
9:50 – 10:20 am	<ul style="list-style-type: none"> • IEEE - Yi Hu • NERC SMWG - Clifton Black
10:20-10:40	Break – 20 minutes
	Session 8 - Practical Applications of Synchrophasor Technology
10:40 – 11:00am	AEP's Experience in Configuring and Deploying Linear State Estimator to Enhance Grid Resilience - Yidan Lu (American Electric Power)
11:00 – 11:20 am	Tracking Periodic Voltage Sags via Synchrophasor Data in a Geographically Bounded Service Territory - Luigi Vanfretti (Rensselaer Polytechnic Institute, on behalf of Dominion Energy)
	Session 9 - Streaming Telemetry Transport Protocol (STTP)
11:20 – 12:00pm	<p>The new IEEE Standard for the Streaming Telemetry Transport Protocol (STTP) - Session moderated by Christoph Lackner (Grid Protection Alliance)</p> <p>Technical Intro to STTP (Ritchie Carroll, GPA)</p> <ul style="list-style-type: none"> • STTP as IEEE standard (Ken Martin, EPG) • STTP Security Features (Scott Mix, PNNL) • STTP at Dominion (Kevin Jones, Dominion) • STTP at SDG&E (Jared Bestebreuer, SEL) • STTP at SPP (Mike Nugent, SPP)

	<ul style="list-style-type: none"> • STTP at ComED (Mike Brown, PingThings)
12:00 - 1:00 pm	Lunch – 1 hour
	Session 10 - Data Quality
1:00 – 1:20 pm	Synchrophaser system data quality - Can we do better? - Yi Hu (Quanta Technology, LLC)
	Session 11 - Advanced Applications
1:20 – 1:40 pm	Localizing and Mitigating Delayed Voltage Recovery in Distribution Systems via DER & Load Control - Amarsagar Reddy Ramapuram Matavalam (Arizona State University)
1:40 – 2:00 pm	Fault Location using Realistic PMU data: Physics-Informed Machine Learning for enhancing robustness and verification - Wenting Li (Los Alamos National Laboratory)
2:00 – 2:20 pm	Designing Model-Free Time Derivatives in the Frequency Domain for Ambient PMU Data Applications - Luigi Vanfretti (Rensselaer Polytechnic Institute, on behalf of Dominion Energy)
2:20 – 2:40 pm	Break 20 minutes
	Session 12 - Inertia Estimation
2:40 – 3:00 pm	Real-Time Inertia Estimation Monitor Based on Pumped Hydro Operation Signatures - Yilu Liu (University of Tennessee)
3:00 – 3:20 pm	Assessment of Inertia Using PMU Data for Indian Power System - Male Pradeep Reddy (Grid Controller of India Limited)
	Session 13 - Visualization and Operator Training
3:20 – 3:40 pm	Visualizing PMU data for the end-user: A human factors approach - Mary Ngo (Pacific Science and Engineering Group)
3:40 – 4:00 pm	Dynamic Synchrophasor Simulator for Real-Time Operator Training - Arthur Mouco (Brazilian Independent System Operator – ONS)
4:00 – 4:30 pm	Closing remarks, open discussion, next steps – moderated by Jeff Dagle
4:30pm	Adjourn

NASPI would like to say **“THANK YOU”** to the following partners for their support.

Gold Partners



**SCHWEITZER
ENGINEERING
LABORATORIES**

Silver Partners

