



## ORLANDO PES/PEL/IAS JOINT CHAPTER

# MONTHLY NEWSLETTER

## April 2021

### Upcoming Events

#### **Orlando IEEE PES/IAS/PEL Spring 2021 Technical Conference:**

**April 6, 13, 20 and 27: 6 – 8:30 pm**

Virtual Event: Registration Required

*More Details and Speaker information on IEEE portal (Registration is required):*

*Day 1 (April 6): JST Power: A variety of short technical topics*

1. The future of SF6 and it's alternatives
2. Single Phasing distribution with Medium Voltage Switchgear
3. A Decision tool for deciding between Oil filled and Dry Type transformers.

Speaker: Mathew Polk, VP of Marketing, JST Power

#### Bio

Matt Polk is the Vice President of Marketing for JST Power Equipment which supplies Transformers and MV Equipment to its diverse customer base. The key target customer bases of Wind, Critical Power, Utility, Construction, and Industry rely on JST equipment to provide reliable power systems and ensure safe and consistent operations for their business. Supported by a highly talented team of professionals who design, develop, sell, and manufacture these critical systems, JST delivers world class solutions to its customers.

As the leader of the JST product and services portfolio, Matt's goal is to align the company with customers' needs now and into the future. By working with different industries, he is quickly able to identify changing customer needs and develop the portfolio for them as their industries grow and change over time.

Matt brings with him over 25 years of leadership experience in the electrical industry market with an extensive background in Product Development, Marketing and Sales. Prior to joining JST, Matt worked for both Eaton Corporation and ABB Inc. and held a variety of roles including product



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management, marketing manager, sales executive, and business development. His roles required him to develop an array of skills from technical consulting, business development, P&L management to customer interface and relationship management.

Prior to joining the electrical industry, Matt also served for over 6 years in the US Navy aboard submarines.

Matt holds a degree in Mathematics from the U.S. Naval Academy and an MBA from the University of Central Florida.

Event details: <https://events.vtools.ieee.org/m/261238>

*Day 2 (April 13):* ECI USA

## 1. IEEE 61850 Substation Design

Speaker 1: Jake Bogen, Design Engineer II, Electrical Consultants, Inc.

### Bio

Jake Bogen joined ECI from their acquisition of formerly known, Relay Application Innovation Inc. in October 2019. Jake received a Bachelor of Science in Computer Science with minors in Electrical Engineering and Computer Engineering from Washington State University. His passion for software development and the power industry intertwines constantly in his role at ECI. Jake has assisted in developing software for system protection, integration, and modeling.

### Abstract

The 61850 standard protocol enables communication between a variety of Intelligent Electronic Devices (IEDs). We will focus on the transformer IEDs and their critical role in a system. A generalized summary of a few select devices will be provided, as well. The summary will include the IED's purpose, functionality, and issues they may have encountered. Our goal is to give an example of real-life scenarios in which 61850 may be applied and the devices it can impact.

### Agenda

- What is an IED?
- Types of IEDs
- Transformer IEDs
- IED communication issues
- IED configuration example
- 61850 Pros/Cons for IED communication

Speaker 2: Adriano Urgena PE, Senior Engineer, Electrical Consultants, Inc.

### Bio

Adriano Urgena has been in the electrical power field for over 30 years. He has been in the field of substation engineering for at least 20 years doing both physical and P&C designs as well as studies.



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Besides substation he has done work in generation particularly nuclear and hydroelectric plants. He has written and presented an IEEE conference white paper titled, “Designing Optimum Substation Lightning Protection” which is searchable in IEEE Spectrum. He is currently working on another paper titled, “Designing Substations Based on the IEC-61850 Standard”.

## Abstract

The IEC-61850 protocol was created to be an international substation automation standard that enabled communication between equipment that uses different protocols. It was also aimed to digitize signals thus reducing hard wiring and the number of control equipment. With improved equipment integration and expanded digitalization of signals, functionality is expanded and improved and equipment/labor cost is reduced. The IEC-61850 is not a standard protocol but a substation design standard that integrates equipment by defining them in abstract data models and then mapping them in one of a number of defined communication protocols with capabilities appropriate to the application.

## Agenda

- Introduction to past and present substation SCADA
- Detailed description of the IEC-61850
- Description of the multiple sections of the IEC-61850
- Description of an ECI substation design based on the IEC-61850

Event details: <https://events.vtools.ieee.org/m/261240>

**Day 3 (April 20): ECI USA**

### 1. Transformer IED

Speaker: Alexander Masterson, Design Engineer I, Electrical Consultants, Inc.

## Bio

Alexander joined ECI out of college after briefly working with them through Aerotek in 2019. Alexander has received a Bachelor's of Science in both Electrical Engineering as well as Computer Engineering from the University of Central Florida. Since then, he has been working for ECI in the aid of designing protection and controls systems for renewable energy substations.

## Abstract

Substations have a lot of equipment on the facility and not all of that equipment is always owned by a single entity. This becomes especially important with function critical equipment like SCADA. We will focus on the types of joint ownership, owner requirements of shared equipment, security impact levels, as well as some coordination requirements described by NERC's CIPC. Our goal is to provide information about the requirements needed for joint ownership of substation equipment.

## Agenda

- Types of joint ownership.
- Basic Requirements for Shared Devices.
- CIP Impact Levels



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- Common Coordination Arrangements between Multiple Owners

Event details: <https://events.vtools.ieee.org/m/261530>

## Day 4: ABB/Hitachi and GIS Substations

What, How, Why – Hitachi/ABB views, insight and future trends of Gas insulated Substation (GIS) Technology for North America

Speaker 1: Nicolas Sanloup – VP – Switchgear NAM, Hitachi ABB Power Grids

### Bio

Nicolas Sanloup is an experienced leader in the Power industry business having held several management positions in Europe, Asia, Latin America and North America throughout his 17 years experiences in the Industry. He ran Operations, Global Head Manufacturing for GIS, as well as Field Service Manager for substations, FACTS, HVDC, offshore and Country Head President of Transmission Solutions US for Siemens.

Nicolas, a native of France, is the Hitachi ABB Operating Unit Manager, Switchgear, North America Business Unit High Voltage. Nicolas holds a Master degree specialized in Mechanical and Industrial Management from the Ecole Catholique Des Arts et Métiers in France.

Speaker 2: Thomas Schulz – Director M&S GIS – NAM, Hitachi ABB Power Grids

### Bio

Thomas Schulz is Manager for Marketing and Sales for the for Hitachi ABB Gas Insulated Substation business in Princeton, NJ. In his role he manages marketing and sales for the GIS business in the USA, Canada and Mexico. He is with the GIS business for 18 years with responsibilities for project management and sales on the European and North American market. He supported the development and integration of GIS solutions for Utilities and industrial customers in North America. Thomas served as project manager for several Airport projects in Central Asia.

Thomas holds a Masters Degree in Electrical Engineering from HTWK Leipzig in Germany specialized in Power technology.

Speaker 3: Vaibhav Singh – Area Manager GIS – NE, Hitachi ABB Power Grids

### Bio

Vaibhav Singh is Area Marketing and Sales Manager (North East) for Hitachi ABB Gas Insulated Substation business. Since 2016, Vaibhav's is actively involved in creating valuable GIS solutions for customers to improve the Grid reliability. He actively promotes new technologies, latest trends & solutions for Gas Insulated Switchgear product portfolio. Prior to this role, he was Product Marketing Manager at the HAPG GIS Factory in Oerlikon, Switzerland and was supporting major Utility customers globally. He has over 15 years of experience in High Voltage Transmission and Power Generation industry.



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Vaibhav holds a MBA from Edinburgh Business School , UK and an Engineering degree in Control & Instrumentation from Kurukshetra University , India.

**Speaker 4:** Ryan Hupalo – Project Engineer GIS – NAM, Hitachi ABB Power Grids

## Bio

Ryan Hupalo serves as a project engineer for Hitachi ABB Gas Insulated Substation business . Ryan designs, orders, and supports in the delivery of GIS substations based on customer specifications and requirements. He has self-managed multiple multi-million-dollar concurrent projects while providing over 130 design packages for customer bids. Ryan assisted in the establishment and training of a US based engineering team to more efficiently meet North America based customer requirements and standards and develop a closer customer relationships.

Ryan holds a Bachelor Degree in Mechanical Engineering from the University of Florida.

Event details: <https://events.vtools.ieee.org/m/261531>

**PRICING:** *You only have to register for one night if you want to purchase the four night option.*

IEEE Student Members: Free

IEEE Members: \$5 per night or \$15 for all four nights

Professionals (non IEEE Member): \$10 Per Night or \$30 for all four nights

Registration and Attendance is required for CEUs.



## Miscellaneous

### **Find the Chapter online:**

IEEE Events system. [Chapter & Section Events](#)

LinkedIn at: [Chapter LinkedIn Page](#)

***\* As always, if you would like to be removed from this email list, please reply back and we will remove you.***