
Dates:	October 25-26, 2017
Times:	8:30 AM to 5:00 PM
Venue:	Posada Royale Hotel and Suites 1775 Madera Road Simi Valley, CA 93065 Tel: 805 584 6300 Website We have reserved a block of rooms for Workshop attendees. Please mention QualityLogic when you make your reservation to receive a discounted rate.
Air Travel:	Bob Hope Burbank Airport (BUR) – 30 miles - Map Los Angeles International Airport (LAX) - 46 miles - Map
Ground Transport:	Car rentals, Uber, Lyft, and shuttle services are available at the airport. <ul style="list-style-type: none">• Roadrunner Shuttle - www.rrshuttle.com – Specialize in Ventura County, so Roadrunner shuttles may have fewer stops SuperShuttle - www.supershuttle.com• PrimeTime Shuttle - www.primetimeshuttle.com/SoCal.htm
Meals:	Breaks and lunches will be provided as part of the class. For dinners, several restaurants are nearby: <ul style="list-style-type: none">• Golden Panda Chinese Buffet – next door• The Dugout Sports Grill - 1 mile• Chili's -1 mile• Yolanda's (Mexican) – 1 mile• MB Grille – 2.4 miles• Tomodachi Sushi – 1.8 miles
Entertainment:	If you'd like to extend your stay, there are many things to see and do nearby: <ul style="list-style-type: none">• The famous beaches of Malibu are a half an hour away.• Universal Studios and Magic Mountain are a 40-minute drive.• Some of the most challenging golf courses in the west are nearby• The Ronald Reagan Presidential Library is just minutes away
Info/Registration:	https://www.qualitylogic-store.com/p-111-ieee-20305-der-workshop.aspx
Price:	Price includes Workshop, materials, breaks, and lunches List Price: \$1,495 Government/Non-profit/Educator Price: \$750 IEEE 2030.5 Test Tools Promotion Members Price: Contact us at info@qualitylogic.com for details

DAY 1

Session 1: Background

- Smart Grid Landscape
- 2030.5 Purpose
- CSIP's guide to Rule 21

Session 2: IEEE 2030.5 Introduction

- Open Standards
- Discovery process
- Function Sets/Categories
- Servers and Clients
- Security

Session 3: Function Sets/Categories

- Support Resources
- Common Resources
- Smart Energy Function Sets

Session 4: Support and Common Resources

- IEEE 2030.5 Conventions
- DeviceCapability
- Basic Resources (Design, EndDevice, Time)
- Subscription/Notification

Session 5: Smart Energy Function Sets

- DER and DERP
- Metering and Mirrored Meter
- Pricing
- Events and Randomization

Session 6: Rule 21/CSIP Overview

- Core Functionality
- DER Functions
- Usage Scenarios

Session 7: CSIP Communications

- Scenarios: inverter, aggregator, EMS
- 2030.5 Communications
- 2030.5 Security
- 2030.5 Authorization

Session 8: CSIP Basic Functions

- DER devices and groups
- DER Events and Controls
- Scheduling and Prioritization
- DER Status and Alarms

DAY 2

Session 9: CSIP & IEEE 2030.5 Function Sets

- High Level Architecture
- 2030.5 Function Sets
- Inverter Identification/EndDevice
- Commissioning

Session 10: CSIP Utility/Aggregator

- Group Assignment of Inverters
- Utility Server Start-up
- Utility-Aggregator Operations
- DER Controls and Curves

Session 11: Aggregator Operations

- Aggregator Responsibilities
- Commissioning
- Retrieval of Group Assignments and DER
- Use of Subscription and Polling

Session 12: DER Event Scenarios

- Simple Event Scenario
- Multiple Events Scenario
- Conflicting Events Scenario
- Rules of 2030.5 Event Handling

Session 13: Meter Data, Status and Alarms

- Metered Data from DERs
- Status Information from DERs
- Alarms from DERs
- Error Handling

Session 14: Introduction to QualityLogic Tools

- Testing CSIP using QualityLogic Tools
- Functional Test Suite Tool
- Ad-Hoc Test Tool

Session 15: Conformance and Certification

- CSIP and SunSpec
- SunSpec DER Test Plan
- SunSpec Certification Program

About the Instructor



The workshop is led by Steve Kang, QualityLogic Sr. Vice President of Engineering. Steve has spearheaded efforts on a variety of Smart Grid initiatives, including IEEE 2030.5, OpenADR, Transactive Control, and IEC 61850. He holds an MS in Computer Science from USC and an MBA from UCLA Anderson School.

Steve is currently working on the SunSpec IEEE 2030.5 DER Certification Test Specification. He has taught two international test labs to test IEEE 2030.5 and organized an industry one-day IEEE sponsored technical workshop on IEEE 2030.5.