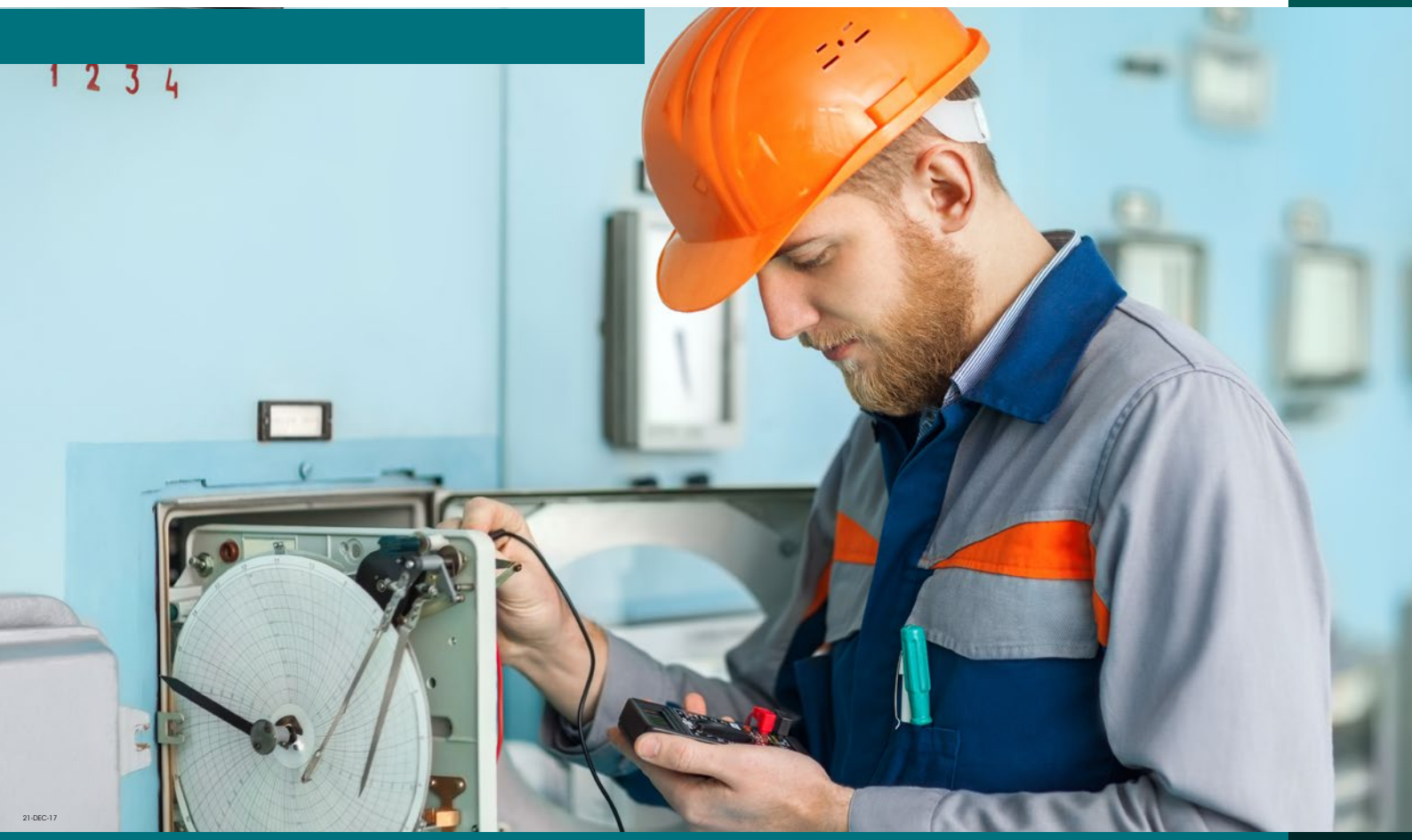
AZ TECH

An ISO 9001:2015 & ISO 29990:2010
Certified Company



Power Quality and Reliability

Assuring your Power Systems meets Customer Expectations

16 - 20 December 2018
Dubai, United Arab Emirates

ACS REGISTRARS Quality Assurance ISO 9001 | ACS REGISTRARS ISO 29990 | ACCREDITED IACET PROVIDER | energy institute Company Member | RSNT Corporate Partner | THE GLOBAL COMPACT United Nations Global Compact

Power Quality and Reliability

Assuring your Power Systems meets Customer Expectations

Course Schedule

16 - 20 December 2018

Dubai, United Arab Emirates

Why Choose this Training Course?

This AZTech training course explores the topic of power quality and its effects on the reliability of the electrical system. Power quality is first precisely defined, because without a precise definition, measurements of baseline conditions and assessments of improvement are impossible. Then methods of evaluating reliability are investigated. After completing this course, you will have a thorough understanding of how power quality and reliability can be measured, and how changes made to the electrical system will affect these important properties.

This training course will feature:

- Basic terminology and definitions
- Voltage sags and interruptions
- Effects of fault clearing on voltage
- Reliability indices
- Transient overvoltages and arresters
- Understanding and mitigating harmonics
- Analysis of AC power and steady-state voltage regulation

How will this Training Course be Presented?

This AZTech training course will utilize a variety of proven adult learning techniques to ensure maximum understanding, comprehension, and retention of the information presented. These methods include workshops where attendees practice solving problems (bring a scientific calculator), case studies where concepts covered are applied to real-world situations, and simulations and animations to visually illustrate what would otherwise be abstract concepts in a novel and intuitive manner.

What are the Goals?

By the end of this training course, participants will be able to:

- Understand common power quality and reliability terms
- Know how to assess the impact of voltage sags on sensitive electrical equipment
- Comprehend the influence of fault clearing on voltage stability
- Calculate and use standardized reliability indices
- Understand the sources of transient overvoltages and be able to specify arresters
- Know why harmonics are produced and be able to implement mitigation methods
- Analyze the components of AC power and understand the relationship with voltage regulation

Who is this Training Course for?

This AZTech training course is designed for utility, plant, or consulting engineers and technicians who work with transmission or distribution systems, or facilities that utilize electrical power. If you are beginning a career or assignment in these areas, this training course will be of value to you. Those responsible for improving system reliability or resolving power quality issues will find this training course especially helpful. Topics will begin at the fundamental level and move to more advanced content as the training course progresses. Prerequisites include a basic understanding of three-phase power systems.

This training course is suitable to a wide range of professionals but will greatly benefit:

- Engineers and technicians new to the power industry
- Intermediate-level engineers and technicians who seek to improve system reliability
- Professionals involved with the assessment of power quality
- Facility engineers and consultants responsible for mitigating power quality issues
- Engineers tasked with monitoring system performance and reliability

The Course Content

DAY ONE: Introduction, Voltage Sags and Interruptions

- Power quality definition and basics
- Quantifying power quality
- ITI curve
- Causes of voltage sags
- Causes of interruptions
- Mitigation methods

DAY TWO: Transient Voltage Excursions

- Motor starting
- Switching and traveling waves
- Capacitor switching
- Lightning
- Lightning shielding and grounding
- Ferroresonance

DAY THREE: Reliability Indices, Effects of Fault Clearing on Power Quality

- IEEE-defined reliability indices
- Interpreting reliability indices
- Fault clearing
- Reclosing strategies
- Fuse saving philosophy
- Fuse blowing philosophy

DAY FOUR: Insulation Coordination, Arresters, and Steady-State Voltage Regulation

- Basic impulse level
- Insulation systems
- Insulation testing
- Arrester selection and application
- Load tap changers and voltage regulators
- Effects of steady-state voltage on system operation

DAY FIVE: Harmonics

- Fundamentals of harmonics
- Causes and effects of harmonics
- AC power and power factor
- Mitigating harmonic effects
- K-factor transformers
- Harmonic filters

The Certificate

AZTech Certificate of Completion for delegates who attend and complete the course

Power Quality and Reliability

Assuring your Power Systems meets Customer Expectations

This fee is inclusive of Documentation, Lunch and Refreshments

Date	Venue	Fees(USD)	Book your seat
16 - 20 Dec 2018	Dubai	$4,750	**Register Now**

VAT Announcement: The Government of UAE have introduced Value Added Tax (VAT) on goods and services from 01-January-2018. In compliance with the legislation issued by the UAE Government, we will be applying a 5% VAT on the fees for all our programs and services offered from January 2018 as applicable and stipulated in the FTA circulars.

Complete & send by fax/mail to address given below. Please use BLOCK CAPITALS.

REGISTRATION DETAILS

Family Name:_____ First Name:_____

Position:_____ Company:_____

Mailing Address:_____

Telephone:_____Mobile:_____Fax:_____Email:_____

AUTHORISATION

Authorised by:_____Position:_____

Telephone:_____Fax:_____Email:_____

Postal Address:_____

MODE OF PAYMENT

☐ **Please invoice my company** ☐ **Please invoice me** ☐ **Please find enclosed a cheque payable to AZTECH**

HOTEL ACCOMMODATION

Hotel accommodation is not included in the Registration Fee. A reduced corporate rate and a limited number of rooms are available for attendees wishing to stay at the hotel venue. Please make your request for accommodation at least **3 weeks prior** to the commencement of the course.

CANCELLATIONS & SUBSTITUTIONS

You must notify the Registrar of cancellations at least 2 weeks before a scheduled seminar in order to be eligible for a credit. If you cannot attend, you may send a replacement from your organisation at no charge. There is a $250 handling charge for all cancellations or rescheduling. We reserve the right to cancel a seminar due to low enrollment. All registrants will be notified in advance and a full refund will be provided upon request.

DOWNLOAD TRAINING PLAN 2018

Scan this code with your smart phone to download Training Plan 2018. Our training portfolio will provide you a number seminars and courses to choose from depending on your organisational goals and personal development objectives.

EVENT DISCLAIMER

We reserve the right to cancel or postpone a seminar or related event, change venue, substitution of the Instructor at our sole discretion. If this occurs, our responsibility is limited to a refund of any registration fee(s) already paid. We are not responsible for airline tickets, hotels costs, other tickets or payments, or any similar fee penalties or related or unrelated losses, costs and/or expenses registrant may incur or have incurred as a result of any trip cancellations or changes.

4 WAYS TO REGISTER

Toll Free: 800-AZTECH
Telephone: ..... +971 4 427 5400
Fax Number: ..... +971 4 427 5401
Email Address: ..... info@aztechtraining.com
Visit our website: ..... www.aztechtraining.com

CERTIFICATION

AZTech Certificate of Completion for delegates who attend and complete the training course