

ENERGY1 Asia - Virtual instructor-led Training (Online)

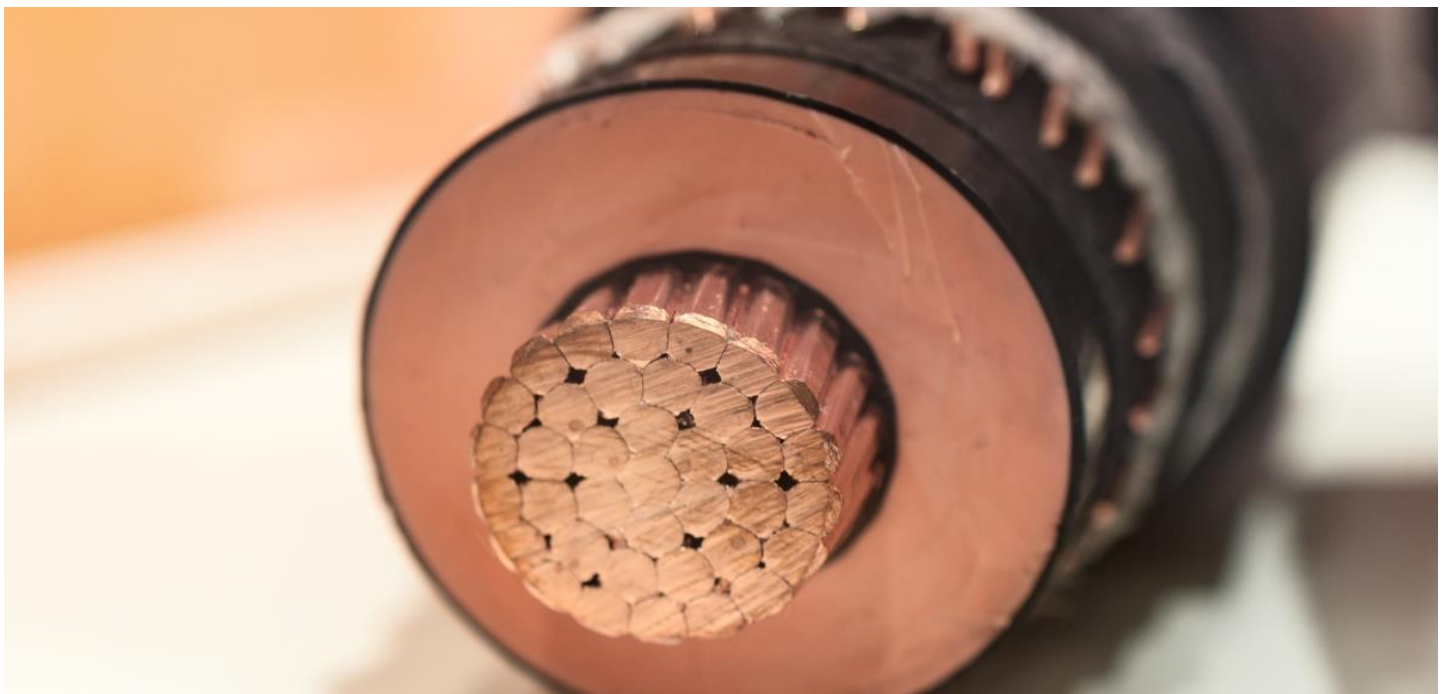
Due to the recent developments with COVID-19 we have, for the health and safety of our speakers and attendees, our selected multi-day courses will be delivered live online led by experience practitioners. This will enable you to experience a similar engagement experience to our successful traditional classroom setting which includes exercises, answering your question and provide feedback – all without having to travel anywhere!

Cable Systems Assessment

(Classification, Defects, Diagnostic Test and Assessment Strategies)

Provide a guideline to design the proper condition assessment strategy for the Medium voltage, High voltage and Extra High voltage cable system installed in your plant.

1st – 2nd Dec 2021 | 09:00 – 13:30 (GMT+8) Daily | ONLINE Virtual instructor-led Training



In collaboration:

Cable System Assessment (2 Half Days)

Online Virtual instructor-led Training

Medium voltage, High voltage and Extra High voltage cable systems represent an important part of our electrical network and their assessment is important to keep the load flow. Explore the basics to build the most appropriate testing plan and learn how to interpret the test results.

These **2 half-days Online Virtual instructor-led Training (VILT)** start with reviewing of the existing electrical stresses within the power cables and describing the main defects that can be present. Relevant diagnostic tests available for assessing the presence of the cable's defects are then described during the second session in order to provide the right tools to properly design the testing strategy based on the characteristics of the cable systems installed.

Attendees will further improve their practical knowledge on:

- **Cable Classification :** Provides the basic to recognize the differences between the existing cable systems.
- **Typical defects :** Provides an overview of the possible issues which can occur within the cable systems. Partial discharge and Water trees processes are described in depth since are the two most common issues in the modern cables.
- **Diagnostic Test:** Provides an explanation of the diagnostic test, general procedure, test result evaluation. This will help engineers to select the right test based on with benchmark has to be monitored. (Diagnostic tests to international standards)
- **Assessment strategies:** Provides a guideline for design the assessment strategy (including commissioning and condition assessment) within their plant/network.

This virtual training will provide the best practices tools to manage the condition of the cable the training does not enter too much into the theoretical part but provide an overview of all topics. The diagnostic tests are described in depth to explain the test result evaluation. **This will be augmented by case studies to show some real examples of assessment.**

Advance your knowledge and learn about:

- Cable classification
- Main cable defects
- Failure modes processes
- Selection of the right diagnostic test
- Diagnostic tests limitations
- Diagnostic tests advantages
- Test result evaluation
- Condition assessment practice

Case Studies:

Having the ability to implement directly once you are back at your workplace is crucial for every participant. During the 2 half days online training case studies, interactive discussion with participants and relevant industry experiences will be share.

- Example of online assessment strategy implementation on a Cement factory
- Example of offline assessment strategy implementation on an Oil & Gas facility
- Many more examples from different industry will be share.

Participant are encouraged to bring 1 – 2 cases of their own to discuss (Time permitting)

This program is intended for:

This comprehensive virtual course will be valuable to professionals who work in the power industry, oil & gas plants, refineries, chemical & petrochemical plants, mining, manufacturing, fertilizer & process industries that uses **Medium voltage, High voltage and Extra High voltage cable systems**. It also applies to **underground cables**.

- Electrical engineer
- Service engineer & Testing Engineering
- Engineering, Testing and Maintenance
- Managers / Maintenance personnel / Technicians
- Engineers who wish to learn how to assess the cable conditions.
- Engineers who want to know how to assess their existing cables and the test performed in the commissioning.
- Anyone involves in HVAC cables, Extra High voltage, Medium voltage cable systems.

Cable System Assessment (2 Half Days)

Online Virtual instructor-led Training

DAY 1

Cable systems characteristics:

- Components
- Electrical field distribution
- Voltage line distribution
- Terminations/joint voltage grading systems

Cable systems classification:

- Medium voltage
- High voltage
- Extra high voltage
- Example of different design

Typical defect

- Defect classification
- Defect's development process
- Main diagnostic marker for each defect
- Partial discharge process detailed description
- Tan Delta process detailed description

DAY 2

Diagnostic test

- Classification
- External insulation diagnostic test
- Internal insulation diagnostic test
- Description of each diagnostic test:
 - Type of defect detectable
 - Test theoretical explanation
 - Test procedure
 - Test results evaluation – guideline

Assessment strategies

- Required information
- Example of strategy using:
 - Cable life's stage
 - Rated voltage
 - Insulation material
- Strategy including:
 - Commissioning test
 - Online/Offline tests



Remote Consultancy Support Services

Energy1 Asia have now expanded the scope of Cable system assessment virtual training to include remote consultancy support services to provide total offerings of Cable assessment strategy design and Health Index Analysis consultancy support to companies in Asia Pacific Region.

Cable assessment strategy design

Review all the cables details (design, historical data, failure, condition assessment results) and design the proper condition assessment strategy to:

- Reduce the risk of failure
- Maximise the lifetime of the assets

Cable Health Index analysis

Review and analyse all the cables details (design, historical data, failure, condition assessment results) to provide:

- Cables Risk/Health ranking (This will include a single license to access our condition assessment platform.)

****Please note all consultancy support will be perform remotely due the current pandemic situation.**

***Remarks: There is no limitation for the numbers of representatives attending the remote consultancy support services.**

You may register together with the Virtual instructor led training with 2 Hours of Remote Consultancy Support services.

Cable System Assessment (2 Half Days)

Virtual instructor-led Training

Registration Form

Cable Systems Assessment (Classification, Defects, Diagnostic Test and Assessment Strategies)	Per Participant	Virtual Training + Remote Consultancy Support services (2 Hrs)	PROGRAM DETAILS ONLINE Virtual instructor-led Training Date: 1 st – 2 nd Dec 2021 Time: 09:00 – 13:30 (GMT+8)
Full 2 Half Days	USD 1099 ()	USD 1699 ()	STEPS TO REGISTER: Simply fill up the registration form and email it to: Email to : registration@petro1.com.my Call us : +603 7727 3952 Mobile /Whatsapp: +6012 568 4696 (Harn)
<ul style="list-style-type: none">The above investment fee is inclusive of e-course material.This course is limited to 15 attendees to ensure that the course can remain interactive.Please note the Online Virtual Instructor Led Training (VILT) time zone will be as "Malaysia / Singapore" time zone (GMT+8).			If you or your company is facing travel restrictions, we may be able to arrange the training at your preferred location for remote participation or conduct the training in-house with minimum 10 pax. Please contact lhtraining@petro1.com.my to discuss this possibility.

Delegates Details

1. Name: _____ Mr Mrs Ms Dr

Job Title: _____

Email : _____

Contact No: _____

Department: _____

2. Name: _____ Mr Mrs Ms Dr

Job Title: _____

Email : _____

Contact No: _____

Department: _____

3. Name: _____ Mr Mrs Ms Dr

Job Title: _____

Email : _____

Contact No: _____

Department: _____

Head of Department: _____

Invoice Details

Invoice Attention to: _____

Company: _____

Industry: _____

Address: _____

Postcode: _____ Country: _____

Telephone: _____ Fax: _____

Email: _____

Authorized Signature : _____

Payment Method

By Direct Transfer: Please quote invoice numbers on remittance advice.

ACCOUNT NAME: PETRO1 SDN BHD

BANK : United Overseas Bank (Malaysia) BHD

ACCOUNT NO : 2609008514 (USD)

All bank charges to be borne by payers. Please ensure that PETRO1 SDN BHD received the full invoice amount.

CREDIT CARD PAYMENT

Credit card payment will include a charge 3.1%.

Payment Policy: Upon receipt of a completed registration form, it confirms that the organization is registering for the seat(s) of the participant(s) to attend the conference or training workshop. Payment is required with registration and must be received prior to the event to guarantee the seat. Payment has to be received 7 working days prior to the event date to confirm registration.

DATA PROTECTION

The information you provide will be safeguarded by Petro1 that may be used to keep you informed of relevant products and services. We take it seriously when it comes to protection of our client data.

Sales and service Tax (SST):

Apply to Malaysia register company only.

The above investment fee is excluding of SST 6%. The SST charges of 6% will be include during issuance of the invoices.

Cancellation & Substitutions:

Should you be unable to attend, substitutes are always welcome anytime at no additional cost. Please inform us as early as possible. Payment is non-refundable if cancellation occurs 7 working days prior to event commencement. However, delegates will receive a 100% credit on the amount paid which can be used in another PETRO1 SDN BHD training course for up to one year from the date of issuance. The credit is transferable to other persons in the same company and applicable against any future PETRO1 SDN BHD public course/ Online Live Webinar. If cancellation occurs 7 working days prior to the registration date and there is no substitute, the organizer reserves the right to charge 50% of the total investment from your organization.

In the event that, PETRO1 SDN BHD. postpones or cancels a course, delegate payments at the date of cancellation or postponement will be credited to a future PETRO1 SDN BHD course. This credit will be available for up to one year from the date of issuance, and it is transferable to other persons in the same company and applicable against any future PETRO1 SDN BHD public course.

PETRO1 SDN BHD is not responsible for any loss or damage as a result of a substitution, alteration or cancellation/postponement of an event. PETRO1 SDN BHD shall assume no liability whatsoever in the event this training course is cancelled, rescheduled or postponed due to a fortuitous event, Act of God, war, fire, labor strike, extreme weather or other emergency.

Program Change policy:

The organizer reserves the right to make any amendments and/or changes to the webinar, Date/ time, facilitator replacements and/or modules if warranted by circumstances beyond its control.

This course information may not be copied, photocopied, reproduced, translated, or converted to any electronic or machine-readable form in whole or in part without prior written approval of PETRO1 SDN BHD.