

WebCorr Corrosion Consulting Services Presents

Electrochemical Impedance Spectroscopy (EIS) -Measurement, Modelling, Data Interpretation and Applications

Date: As published on website Venue: As published on website

Course Overview

This short course thoroughly and systematically covers the fundamentals of electrochemical impedance spectroscopy, the procedures/steps involved in EIS measurements, equivalent circuit modeling, data interpretation and practical applications in corrosion testing and monitoring. Participants of this short course will gain hands-on experience in operating the state-of-the-art EIS equipment to collect impedance data. The participants will also gain hands-on experience in using EIS modelling softwares such as ZView and Boukamp's Equivcrt. The detailed procedures for EIS equivalent circuit modeling using both ZView and Boukamp's Equivcrt software will be discussed in details at this 2-day corrosion short course.

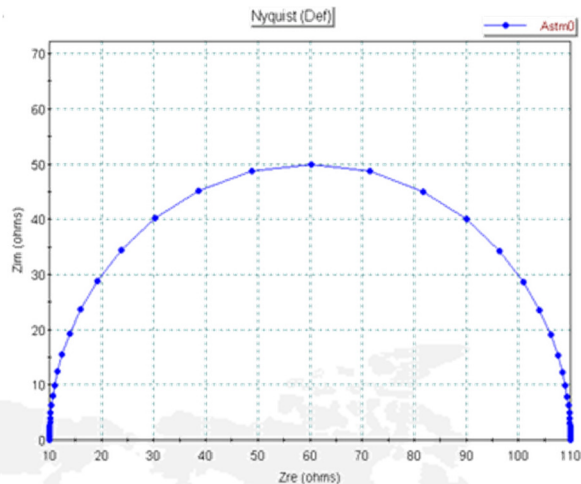
This corrosion short course is available for in-house training, online and distance learning worldwide. It can also be customized to meet the specific needs of your organization.

Who Should Attend

Corrosion practitioners, researchers, engineers, technical managers, inspection and maintenance engineers, quality control personnel, laboratory technicians and those involved in failure analysis.

Course Outline

1. Fundamental concepts in electrochemistry
2. Fundamentals of Electrochemical Impedance Spectroscopy (EIS)
3. Equivalent Circuits for Common Corrosion Processes
 - 3.1 General corrosion
 - 3.2 Localised corrosion
 - 3.3 Corrosion inhibitors
 - 3.4 Anodized coatings, chromating, phosphating
 - 3.5 Electrodeposit and electroless plating
 - 3.6 Polymer paints on metals and alloys
 - 3.7 Coated tinplate food cans & beverage cans
 - 3.8 Steels in soils and concrete structures
 - 3.9 Batteries and fuel cells



4. EIS Modeling Software:
 - ZView and Boukamp's Equivcrt
 - 4.1 Overview of EIS modeling software
 - 4.2 Capabilities and functionalities
 - 4.3 Practical tips on EIS modeling
 - 4.4 Hands-on session on EIS modeling software
5. EIS Data Interpretation and Applications
 - 5.1 Corrosion rate measurements
 - 5.2 Evaluation of anodized coatings, chromate/phosphate coatings
 - 5.3 Evaluation, testing, monitoring and life-prediction of paints
 - 5.4 Evaluation of quality and performance of coated food cans and beverage cans
 - 5.5 Materials selection
 - 5.6 Corrosion inhibitor screening
 - 5.7 Corrosion testing and monitoring of structures aboveground or underground
 - 5.8 Corrosion of reinforcing steel in natural rocks, buildings, bridges and other concrete structures

Course Registration

Please register online at www.corrosionclinic.com
Or use the form below (photocopies of this form may be used for multiple bookings).

Dr/Mr/Ms _____
 Organization _____
 Contact Person _____
 Contact Dept _____
 Telephone _____ Fax _____
 Email _____

Payment should be made by TT or online banking. Currencies in Australian Dollar, Canadian Dollar, US Dollar, Euro and Sterling Pound can be transferred directly without conversion. Our bank details can be found at the link below:

<https://www.corrosionclinic.com/payment.html>

Course Fee and Discount

Standard: \$3,500 **Discount:** \$3,150

The fee includes a hardcopy of course note, certificate, light lunch, coffee breaks each day during the course.

Discount applies to a group of 3 or more persons from the same organization registering at the same time, or early-birds making payment at least 8 weeks before the course commencing date.

Cancellation and Refunds

Cancellation or replacement should be conveyed to WebCorr in writing (email or fax). An administration charge of 50% of the course fee will be levied if the cancellation notice is received from 14 to 7 days before the course commencing date. No refund will be made for cancellation notice received 6 days and less. No refunds will be given for no-shows. Should WebCorr find it necessary to cancel a course, paid registrants will receive full refund. Refund of fees is the full extent of WebCorr's liability in these circumstances.



WebCorr has NACE certified Corrosion Specialist (#5047) providing customized in-house training, online and distance learning corrosion courses, corrosion seminars and workshops on corrosion, materials, metallurgy, paints and metallic coatings. Our corrosion courses are developed and taught by NACE certified Corrosion Specialist with over 30 years of practical experience in the field. Our training success is measured by your learning outcome.

