ABB CGA/CEMS Analyzer Advance Training Synopsis
**Course type and Goal**

This is an instructor led course with interactive class room discussions, presentations, and practical exercises.

This course will cover theory and operation of CEMS (Continuous Emission Monitoring Systems), IR & UV Photometers, Oxygen measurement, TCD and FID.

This course provides knowledge of the functional capabilities of an emission monitoring system with ABB CGA analyzers URAS, Limas, O2 electro chemical cell, Magnos, Caldos & Multi FID.

**Learning Objective**

Upon completion of this course the participants will be able to,

- Understand Status & Error messages and take required corrective actions
- Use TCT & SMT software
- Install / remove analyzer hardware components
- Identify parts that need replacements based on status and error messages
- Issues related to validating analyzers

**Prerequisite**

Students attending this course should have basic knowledge of gas analysis and emission monitoring system

**Course Duration**

The duration is 2 days
Day 1

- Agenda and Introduction of emission monitoring system
- Identifying analyzer status
- Drift and Absolute drift
- Sharing QR code for remote support
- AO 2000 – identifying internal parts and assemblies and functionality
- CANBUS error
- IR photo meter Uras 26 – major components and life times
- Basic calibration
- TCT & SMT software usage

Day 2

- Identifying analyzer status
- Drift and Absolute drift
- Sharing QR code for remote support
- AO 2000 – identifying internal parts and assemblies and functionality
- AO 2000 Or EL 3000 system design and functionality.
- CANBUS error
- Basic calibration
- TCT & SMT software usage
- General idea about sample systems associated with CGA / CEMS
- Understanding EDL and intensities

- O2 Measurement with Electro chemical cell & Magnos 206 - Measuring principle, hardware components, analyzer design & calibration
- Caldos - Measuring principle, hardware components, analyzer design & calibration
- MFID - Measuring principle, hardware components, analyzer design & calibration
- CEMS Regular Maintenance & trouble shooting

**Day 3**

- Time based troubleshooting
- Understanding error messages and confirming the parts that may need replacements
- TCT & SMT software operation
- EDL intensity explanation

**Training Terms & Conditions**

- Training session accommodates minimum 6 to maximum 8 students per class
- Comprehensive colored printed training material are included at no extra charge

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