

Course Overview:

Our experienced trainer provides you with the background knowledge of partial discharge detection. In theoretical and hands-on sessions the basics of partial discharge measurement are explained and applied using the MPD 500/600 on special training equipment. You will work in small groups of up to 3 persons to perform partial discharge tests and to get to know the hardware and software.

Course Objective:

- Measure partial discharge on high voltage devices with the MPD 500/600
- Perform measurements to determine the insulation condition and identify fault types and fault location
- Evaluate aging and deterioration processes in primary assets by partial discharge measurements
- Monitor the quality of the production process by performing measurements on assembled parts
- Apply partial discharge technology to design or redesign devices exposed to high voltage

Course Outline:

- Understanding the physics behind partial discharges
- Getting to know the MPD system and understand how partial discharges are measured
- Connecting the MPD to high voltage devices, such as power transformers, generators, motors
- Performing partial discharge tests according to IEC 60270 and the IEC standard of the test object
- Performing real partial discharge hands-on sessions
- Interpreting partial discharge test results
- Getting to know PRPD, 3PARD and 3CFRD/3FREQ diagrams to discriminate noise
- Classifying partial discharge types and determine the risk for the test objects
- Synchronous and multichannel partial discharge testing for optimized test results
- Performing measurements in frequency and time domains
- Handling interferences (unit gating, amplitude gating, dynamic gating)
- Getting to know the software of the MPD 500/600 for efficient measurements

Who Should Attend:

Technical staff from electric utilities, railway and service companies as well as manufacturers involved in partial discharge testing

Training Language:

EN / AR

Training Methodology:

- Presentation & Slides
- Audio Visual Aids
- Interactive Discussion
- Participatory Exercise
- Action Learning
- Class Activities
- Case Studies
- Workshops
- Simulation