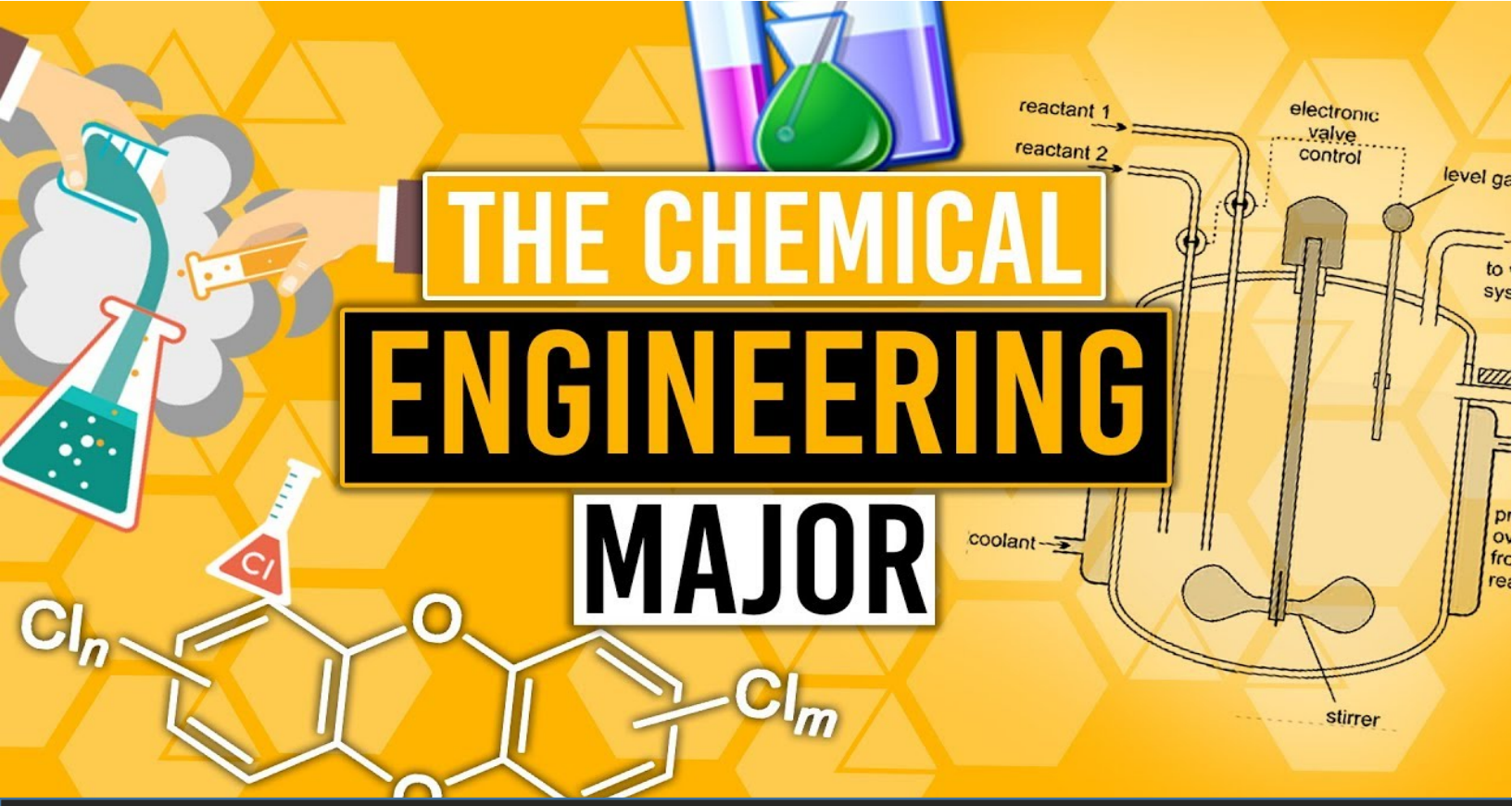

Cathodic Protection Interference (CPI) (Conforming with NACE Standards)

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BTS
Training & Consultancy

Cathodic Protection Interference (CPI) (Conforming with NACE Standards)

Introduction:

This comprehensive Cathodic Protection Interference (CIP) course focuses on AC and DC interference. It provides in-depth coverage of both theoretical concepts and practical applications of identifying interference and interference mitigations techniques. The candidates will learn to identify the causes and effects of interference, conduct tests to determine if an interference condition exits, and perform calculations required to predict AC interference.

It, also, covers CP technology, basic electricity, electrochemistry and corrosion concepts, CP theory, CP systems, and CP field measurement techniques. It provides knowledge for testing on both galvanic and impressed current CP systems. It covers AC and DC stray current interference, and advanced field measurement techniques. It provides knowledge and techniques for testing and evaluating data to determine the effectiveness of both galvanic and impressed current CP systems and to gather design data.

Who Should Attend?

Corrosion Control Engineers & Personnel, Process Engineers, Metallurgists, Inspection Personnel, Mechanical Engineers, Material Selection Personnel, Plant Contractors, Operations Engineers, Team Leaders & Supervisors, Maintenance Supervisors, Senior Plant Supervisors, Mechanical Engineers, Corrosion Control & Monitoring Systems Personnel, Oil and Gas Production Facilities Personnel, Chemists, Chemical Engineers, Technicians and Supervisors, New Petroleum Engineers, Asset Management Personnel, Design & Construction Engineers, Team Leaders & Coordinators, Construction Coordinators, Maintenance Engineers, Technologists, Maintenance Team Leaders & Engineers, Personnel who are / will be responsible for detecting, inspecting, monitoring, controlling corrosion in oil and gas piping, pipelines used in production operations and Personnel responsible for metallurgy, corrosion or the prevention of failures in plant and equipment.

Course Objectives:

By the end of this course delegates will be able to:

- Have in-depth coverage of both the theoretical concepts.
- Learn practical application of identifying interference and interference mitigation techniques.
- Identify the causes and effects of interference as well as conduct tests to determine if an interference condition exists.
- Perform calculations required to predict AC interference.

Course Outline:

- CP theory & concepts
- Factors influencing CP design
- Types of CP systems
- CP systems
- CP criteria
- CP interference
- Detecting stray current, AC interference, and telluric current
- Effect of stray current, AC Voltage, and telluric currents on Metallic structures
- Deleterius effects of AC and DC interference
- Mitigation and monitoring of AC and DC interference
- Predicting AC interference
- Stray current identification
- AC and DC stray current interference
- Stray current and cathodic protection interference, and methods of prevention
- Stray current corrosion and electrolysis
- Dynamic interference
- Static interference
- Examples and mitigation measures practical stray current problems and solutions
- Interference from other cathodic protection installations

- AC Testing and mitigation
- Records, maintenance and troubleshooting
- System information and inspection records
- Routine maintenance schedules
- Troubleshooting basics
- Advanced field measurement techniques
- Evaluation of system performance
- Troubleshooting cathodic protection systems
- Cathodic protection systems installation commissioning
- Safety specific to CP