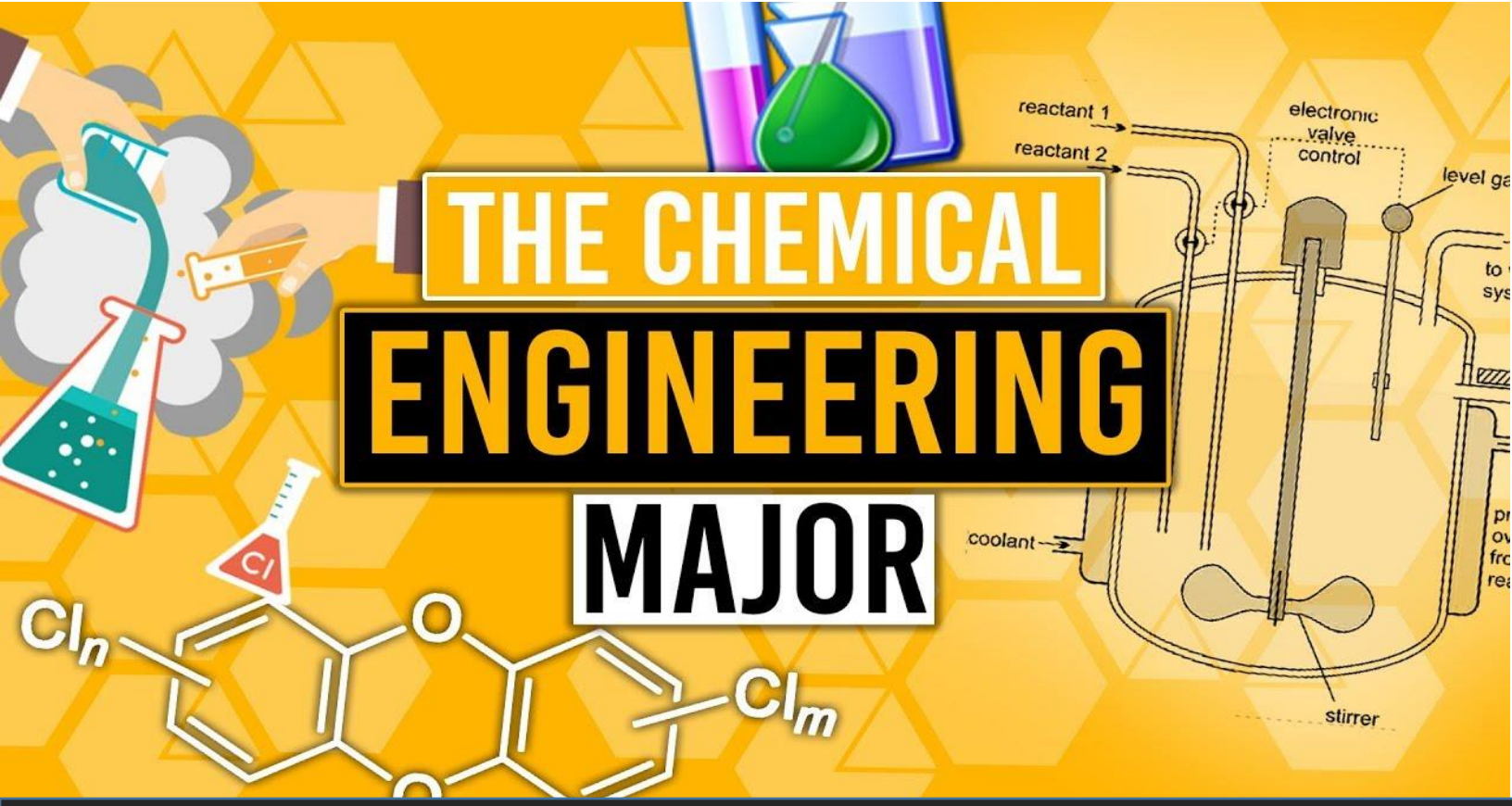

Special Topics In Water Treatment (Advanced Level)

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BTS
Training & Consultancy

Special Topics in Water Treatment (Advanced Level)

Who Should Attend?

Engineers, operators and lab chemists who deals with water treatment in industry.

Methodology:

This interactive Training will be highly interactive, with opportunities to advance your opinions and ideas and will include;

- Lectures
- Workshop & Work Presentation
- Case Studies and Practical Exercise
- Videos and General Discussions

Certificate:

BTS attendance certificate will be issued to all attendees completing minimum of 80% of the total course duration.

Objectives:

An advanced course to develop the engineers and operators deals with water purification used in plants generally to a topics (principles, practice, operation, and steam generation troubleshooting) for industrial water treatment on boiler water, RO, oil field water, cooling water, EDR and flash evaporation.

Contents:

Overview of Water Treatment.

- Sources and properties of water available.
- Impurities in water and associated problems.
- Water quality requirements for primary uses in industrial facilities and treatments used.

Boiler Water Treatment.

- Fundamentals of industrial boilers and impacts of water quality on operation.
- Documented criteria for boiler water quality.
- Causes of scale in boilers and preventive processes.
- Causes of corrosion in steam-generating systems and preventive processes.
- Types and causes of carryover in boilers and preventive processes

- Causes of oil contamination of boiler feed water and preventive processes.
- Steam generation troubleshooting.

Reverse Osmosis.

- Reverse osmosis system design parameters.
- Major treatment components in a reverse osmosis system.
- Monitoring and control of a reverse osmosis system.
- Operating problems in a reverse osmosis system and corrective actions.

Oil field water treatment.

- Oil field waters, associated problems, and disposal methods.
- Factors affecting formation, prevention, and removal of mineral scales in oil field waters.
- Factors influencing prevention of microbiological fouling and corrosion.
- Oil field water corrosion, influential impurities and factors, and monitoring and control.
- Equipment for removal of gases, solids, and dispersed oil.

Cooling water treatment.

- Types of cooling water systems and parts of cooling towers and heat exchangers.
- Control of corrosion in cooling water.
- Prevention of scale formation in cooling water.
- Prevention of the harmful effects of microbiological growth in cooling water.
- Control of general fouling in cooling water.

- Monitoring and control required to operate cooling water systems.

Electrodialysis Reversal Process.

- Design parameters for electrodialysis reversal systems.
- Major treatment components in an electrodialysis reversal system.
- Monitoring and control in electrodialysis reversal system.
- Common operating problems and corrective actions for an electrodialysis reversal system.

Flash Evaporation Systems.

- Design parameters for a flash evaporation system.
- Major treatment components in a flash evaporation system.
- Monitoring and control of a flash evaporation system.
- Comparison of the three desalination systems: reverse osmosis, electrodialysis reversal and flash evaporation.