

# **Operation & Maintenance of Heat Recovery Steam Generator**

Date Venues (\$)Fees Book your seat

08 Dec -12 Dec 2024 Cairo 2900 Register Now

#### Course Overview

The course is primarily intended for experienced Operations & Maintenance working in combined cycle power plants, and it should also be of interest to engineers and managers involved in new project development. This 5 days course gives attendees a comprehensive and an in-depth survey of a broad range of topics relating to the design, operation and maintenance of the HRSG and associated steam cycle systems.

### Course Objective

- Gain a comprehensive understanding of the key systems and processes involved in the combined cycle power plant.
- Appreciate the key constraints and tradeoffs involved in designing an HRSG.
- Learn the water chemistry treatment options available for HRSG unit, their respective advantages and disadvantages.
- Get access to applied theory in real life situations through a series of worked case histories.

#### Who Should Attend?

- 1. Electrical, mechanical, and chemical Engineers.
- 2. Senior technicians who work in the electrical control and power utilities.
- 3. Technicians who would like to refresh their knowledge.
- 4. Mechanical and chemical Engineers who are interested in control subjects.

#### Course Outline

- 1. HEAT EXCHANGE FUNDAMENTALS OF HEAT & FLUID FLOW
- 2. THERMODYNAMICS & HEAT TRANSFER REVIEW
- 3. NATURAL AND FORCED CIRCULATION
- 4. SUPPLEMENTAL FIRING
- 5. BASIC CONSTRUCTION DETAILS
- 6. HRSG DESIGN VARIATIONS
- 7. TYPES OF HRSG
- 8. VARIATIONS
- 9. FLOW PATH DESCRIPTIONS
- 10. WATERSIDE FLOW PATHS
- 11. GAS SIDE FLOW PATHS
- 12. FEEDWATER: PREHEATERS, RECIRCULATION,
- 13. DEAERATORS,
- 14. ECONOMIZERS: LOW, HIGH PRESSURE
- 15. EVAPORATORS & DRUMS

- 16. RELIEF AND SAFETY VALVES
- 17. SUPERHEATERS, REHEATERS, ATTEMPERATORS
- 18. DRAINS, VENTS
- 19. STANDARD MAINTENANCE ACTIVITIES
- 20. DAMAGE & DEGRADATION MECHANISMS
- 21. OPERATIONS AND MAINTENANCE

## **Training Methodology**

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

