

Furnaces Units Z TPU-04

Duration

Five days 25 Hours

Who should attend?

Engineers and senior engineers from chemical and industrial plants

Language

Arabic , English



Overview

The course covers theory and operation of furnaces. After introduction to the fundamentals (using a cbt-program) the focus of the course will be on furnace operation and control. Normal operation modes as well as start up and shut down procedures will be taught. Furthermore, troubleshooting of emergency and malfunction situations will be covered. In order to strengthen the theoretical knowledge a real time process simulator will be used for practicing plant operation skills in a simulated control room environment. As process example a typical natural draft four pass furnace with radiation , convection and heat recovery section is Simulated.

Topics

- Overview of Furnaces
- Furnace System
- Combustion Devices
- Heating Tubes
- Radiation Section
- Convective Section
- Heat Recovery Section
- Draft Devices and Stack
- Furnace Performance
- Air Flow Rate & Excess Air
- Burner Characteristic
- Stack Damper
- Air Register
- Fuel Temperature
- Oil/Steam ratio for Oil Burner
- Fuel Composition
- Start up and shutdown operations