Introduction
This course outlines the overall concepts of process control for the power generation industry. Specific focus is given to thermal power generation process, and application of the Siemens Power Plant Automation T3000 Control System. Hands-on examples and simulated demonstrations are given.

Course Content
Some out of class study may be assigned. All required instructional materials are provided to each student. The following topics are representative of those covered in the course. Actual course content will be customized to the specific customer requirements and plant configuration.

Thermal Power Plant Process Control and Operation

- Overview of Major Functional Areas for thermal power plant: Electrical, Cooling Water, Condensate, Feedwater, Steam, Air & Gas, Fuel, Turbine-Generator, Unit Controls.
- Thermodynamics and Physics for process control.
- Basics of Boiler Operation, fuel/air/ignition requirements.
- Basics of Steam Turbine Operation and the Steam/Water Rankine Cycle.
- Additional Modulating Control Concepts (measurement signal filtering and integrity, system/measurement fault handling, parameter adaption, control loop limitation, mode and interlocking, manual/automatic/sequence control interface)
- Introduction to Model Based Control design methods.

Course Details
Location: Siemens Training Offices / Customer Site
Size: Max 6 Participants
Duration: 2 days