

**:: TRAINING MODULES IN POWER PLANT THEORY & OPERATING EFFICIENCY ::****Course Code: ACS001 Gas Turbine Performance**

Course Duration - 3 Days

**WHY YOU SHOULD ATTEND**

Develop the knowledge and skills to monitor the performance and maintain efficiency of your plant. Maintaining efficient operation of Gas Turbines has never been more important than it is today with deregulation of the power industry. Bottom line accountability are driving power producers to maintain or improve unit heat rate and minimize derating.

To achieve this on a continuous basis, operational and engineering staff must have the necessary knowledge and tools. By the end of this course you will be able to:

Evaluate the performance monitoring needs of your plant to meet efficiency and maximum capacity objectives

Identify data requirement needs and devise collection methods

Establish baseline performance

Carry out data analyses to determine which component has deteriorated against baseline performance

Establish realistic heat rate and capacity targets

Develop action plans for the heat rate and capacity targets to be achieved and maintained

**WHO SHOULD ATTEND**

Gas Turbine Engineers

Performance Engineers

Plant Operators

**Course Syllabus***Introduction**Conventional Performance Testing**Thermodynamic Principles of the Gas Turbine**Gas Turbine Basics*

- Design Aspects
- Major Components
- Control Scheme
- Factors Affecting Performance
- Specifics of GE, Siemens, MHI and ABB GTs

*Gas Turbine Performance*

- Rating Performance
- Off Design Performance
- Correction Curves
- Performance Testing and Monitoring

*Performance Monitoring and Improvements*

- Establishing Objectives and Heat Rate Targets
- Methodology and Techniques
- Baseline Performance
- Model Based Technique Performance Calculations
- Develop Action Plan for Achieving and Maintaining Heat Rate Targets

Each participant will be allocated a PC with installed thermodynamic modeling software that will be used to enable modeling of equipment taught to enhance learning.