Training Program:

Smart Grids & Energy Managements Systems

www.btsconsultant.com

Introduction:

Explore the design principles and practical applications of modern energy management systems, ISOs, and RTOs. Examine hardware,software, communications, and user interfaces. Develop a clear understanding of the philosophy of modern power system operations and the role of energy management systems, their design, and actual implementation. Survey past and current practices, as well as trends in the state-of-the-art design of energy management systems. Discuss new requirements imposed by deregulation, open access, and competition.

Who Should Attend?

- Electric power utility engineers in energy management system design, ISO or RTO design, operations, and planning studies
- Consulting and manufacturing engineers
- Engineers with equipment supply companies of hardware/software components for energy management systems
- Engineers involved in utility work
- University power system educators and graduate students

Objective:

At the end of this course, participants will be able to:

- Study the control and operation of modern power systems

- Review hardware architectures (SCADA, IEDs, computers, and communication components), communication software, applications software, and user interfaces
- Examine real-time control functions performed by modern energy management systems
- Review modern user interfaces and visualization methods and discuss new needs and emerging practices imposed by deregulation and open access

Course Outline

- EMS Description
    - Substation Automation/SCADA
    - Communication Issues/Standards
- Functions
- Applications Software
- Integration of PMU Technologies
- Current Practices and Trends
- Impact of Recent Legislation
- Independent Operation (ISO, RTO)
- Data Standardization
- Visualization Tools
- On-Line Information Systems

Accreditation:

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