Uninterruptible Power Supply Systems

DAY 1

Uninterruptible Power Supply Technologies

- Primary Types of Uninterruptible Power Supply Systems
- Single Source and Dual Source Uninterruptible Power Supply Systems
- Migration of Batteries and Uninterruptible Power Supply Systems
- Critical Loads and Equipment Categories
- Power Quality and Mains Failure
- Uninterruptible Power Supply Protection Systems
- Automatic Transfer Switch Functionalities
- Standby Generator Set Characteristics

DAY 2

Static UPS Technologies and Characteristics

- Merits and Characteristics of Online and Offline UPS
- Double Conversion UPS
- Delta Conversion UPS
- Transformer Based and Tranformerless UPS
- UPS Operation Modes
- UPS components Functionality and Filters
- UPS Rating and Power Factor
- Parallel Systems and Redundancy

DAY 3

Dynamic Uninterruptible Power System Architecture and Merits

- Overview and Features of a Dynamic UPS System
- Operations of a Dynamic UPS System
- Kinetic Energy Storage in a Dynamic UPS System
- Batteries and Flywheels of a Dynamic UPS System
- Reliable Solutions by Installing the Dynamic UPS System
- Merits of a Dynamic UPS System

- Kinolt *(former Euro Diesel)* System Description
- Uniblock Diesel Rotary Uninterruptible Power Supply System

DAY 4

Dynamic and Diesel Rotary Uninterruptible Power Supply System Components Functionalities

- HiTec Diesel Rotary UPS System Description
- Four Basic Principles of HiTec DRUPS
- Types and Configuration of DRUPS
- The Induction Coupling Functionalities
- The Synchronous Machine Operations
- The Freewheel Clutch and The Flywheel
- The Diesel Engine and The Auxiliary Components
- Merits of the Diesel Rotary Uninterruptible Power Supply Systems

DAY 5

Automated Battery Monitoring System, Battery Types and Chargers

- Benefits of a Battery Monitoring System and Architecture
- Lead-acid AGM Battery Characteristics
- Nickel-cadmium Maintenance-free Battery Characteristics
- Condition Monitoring for UPS System and Batteries
- Charging Methods and Type of Chargers