

Course 602

Voltage Security Assessment Using VSAT

Course Objectives	To provide the necessary background for practical application of VSAT
Material Covered	<ul style="list-style-type: none"> ○ The basic concepts of voltage security ○ Practical study methods ○ Operation of VSAT
Who should attend	Engineers and operators involved in the study of voltage security and use of VSAT
Background required	Basic knowledge of power system operation, modeling, and analysis.
Duration	2 days (extendable upon request)

Part 1 : Voltage Security Assessment Basics

1. **Introduction to Voltage Stability**
2. **Factors Influencing Voltage Stability**
3. **Practical Aspects of Voltage Collapse**
4. **Methods of Voltage Stability Analysis**
7. **Study Procedures**
8. **Case Studies**

Part 2 : Using VSAT : Voltage Security Assessment Tool

1. **Overview and introduction to VSAT**
2. **Main Features**
 - Security Assessment of an Operating point
 - Voltage Security Criteria
 - Transfer Limit Computation
 - Contingency Screening
 - Contingencies
 - Governor Response
 - AGC Action
 - Modal Analysis
 - Remedial Actions
 - Distributed Processing
3. **Data Requirements and Models**
4. **Outputs**

Part 3: Case study

1. Test Case Descriptions
2. Hands-on Exercise