



Training Course on Flexible AC Transmission Systems (FACTS): Best Practices For Engineers



AGILE LEADERS
Training Center

Training Course on Flexible AC Transmission Systems (FACTS): Best Practices For Engineers

Course Overview:

The course is a comprehensive program designed to equip engineers with in-depth knowledge and practical skills in FACTS of controllers and power transmission. This course delves into the essential concepts and applications of Flexible AC Transmission Systems FACTS, focusing on static shunt and series converters, and the Unified Power Flow Controller UPFC. Participants will gain insights into Voltage Sourced Converters, Current Sourced Converters, and the design of FACTS controllers. With a strong emphasis on Power Transmission Stability, Controllable VAR Generation, and Power Oscillation Damping Techniques, this course offers hands-on learning and real-world applications. Engineers will learn to enhance voltage regulation, improve transient stability, and compare SVC and STATCOM systems. By mastering Thyristor-Controlled Series Capacitors and Pulse Width Modulation PWM Converters, participants will be prepared to address complex challenges in power flow control and transmission.

Target Audience:

- Electrical Engineers
- Power Systems Engineers
- Transmission Engineers
- Control Systems Engineers
- Senior Technicians
- Engineers looking to specialize in Flexible AC Transmission Systems FACTS

Targeted Organizational Departments:

- Power Transmission Departments
- Electrical Engineering Divisions
- Control Systems Units
- R&D Departments in Power Systems

Targeted Industries:

- Power Generation and Transmission
- Electrical Engineering Services
- Renewable Energy Sector
- Utility Companies

Course Offerings:

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

- Understand and apply the principles of Flexible AC Transmission Systems FACTS
- Design and implement FACTS controllers in power transmission systems
- Enhance power transmission stability and efficiency using advanced techniques
- Compare and evaluate different types of static shunt and series compensators
- Implement Voltage Sourced and Current Sourced Converters effectively

Training Methodology:

This course employs a variety of training methodologies to ensure an engaging and effective learning experience. Participants will benefit from interactive lectures, case studies, group discussions, and hands-on workshops. Real-world examples and practical applications of FACTS controllers will be emphasized to bridge the gap between theory and practice. Collaborative group work and feedback sessions will encourage active participation and knowledge sharing.

Course Toolbox:

- Comprehensive workbooks and manuals
- Access to online resources and reading materials
- Checklists and templates for FACTS controller design

Course Agenda:

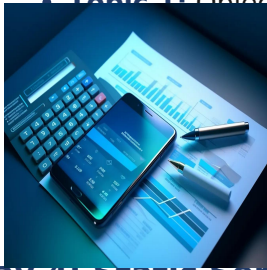
Day 1: Concepts of Flexible AC Transmission Systems

- **Topic 1:** Introduction to Flexible AC Transmission Systems FACTS
- **Topic 2:** Types and Applications of FACTS Controllers
- **Topic 3:** Shunt Controllers in Power Transmission
- **Topic 4:** Series Controllers and Their Benefits
- **Topic 5:** Combined Shunt and Series Controllers
- **Reflection & Review:** Key Learnings and Benefits of FACTS

Day 2: Voltage And Current Sourced Converters

- **Topic 1:** Fundamentals of Voltage Sourced Converters
- **Topic 2:** Single Phase and Three Phase Full Wave Bridge Converters
- **Topic 3:** Transformer Connections for 12-Pulse Operation
- **Topic 4:** Current Sourced Converters with Turn Off Devices
- **Topic 5:** Comparison Between Voltage Sourced and Current Sourced Converters
- **Reflection & Review:** Practical Applications of Converters

Day 3: Static Training Course Categories



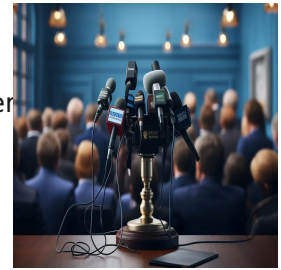
Finance and Accounting Training Courses



Agile PM and Project Management Training Courses



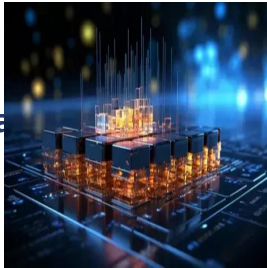
Certified Courses By International Bodies



Communication and Public Relations Training Courses

Day 4: Static Series Compensators

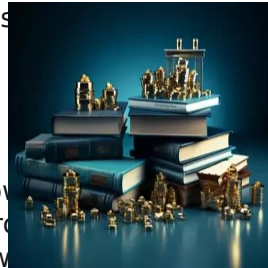
- **Topic 1:** Objectives and Methods of Shunt Compensation
- **Topic 2:** Techniques for Voltage Stability Improvement
- **Topic 3:** Thyristor-Controlled Series Capacitor TCSC Systems
- **Topic 4:** Operating Control Schemes for Series Compensators
- **Topic 5:** Static Synchronous Series Capacitor SSSC



Data Analytics Training and Data Science Courses



Environment & Sustainability Training Courses



Governance, Risk and Compliance Training Courses



Human Resources Training and Development Courses

How This Course is Different from Other

FA

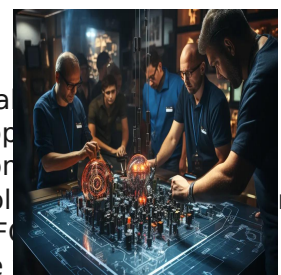
This course is designed to provide a comprehensive understanding of the various aspects of power transmission engineering. It covers the fundamentals of power systems, the design and operation of power transmission equipment, and the latest trends in the field. The course is structured to provide a balance of theoretical knowledge and practical skills, ensuring that participants are well-equipped to excel in the field of power transmission engineering.



Leadership and Management Training Courses



Legal Training, Procurement and Contracting Courses



Maintenance Training and Engineering Training Courses

and expertise needed to excel in the field of power transmission engineering.



Training Course Categories



Marketing, Customer Relations, and Sales Courses



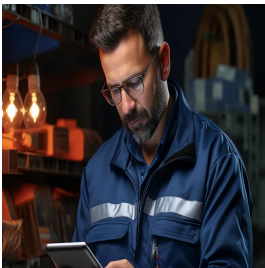
Occupational Health, Safety and Security Training Courses



Oil & Gas Training and Other Technical Courses



Personal & Self-Development Training Courses



Quality and Operations Management Training Courses



Secretarial and Administration Training Courses



AGILE LEADERS
Training Center

Training Cities



Accra - Ghana



Amman - Jordan



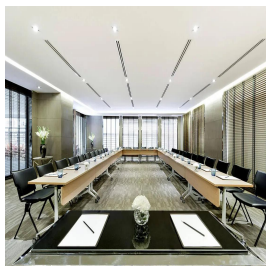
Amsterdam - Netherlands



Baku - Azerbaijan



Bali - Indonesia



Bangkok - Thailand



Barcelona - Spain



Cairo - Egypt



Cape town - South Africa



Casablanca - Morocco



Doha - Qatar



Dubai - UAE



Geneva - Switzerland



Istanbul - Turkey



Jakarta - Indonesia



Johannesburg - South Africa

Training Cities



Kuala Lumpur - Malaysia



Langkawi - Malaysia



London - UK



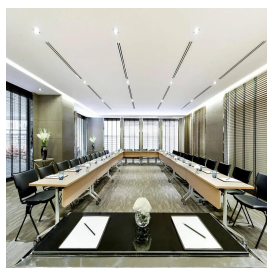
Madrid - Spain



Manama - Bahrain



Milan - Italy



Nairobi - Kenya



Paris - France



Phuket - Thailand



Prague - Czech Republic



Rome - Italy



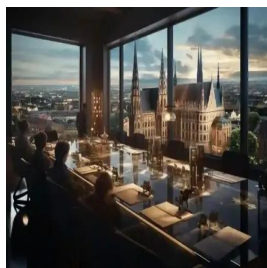
Sharm El-Sheikh - Egypt



Tbilisi - Georgia



Tokyo - Japan



Vienna - Austria



Zanzibar - Tanzania



AGILE LEADERS
Training Center

Training Cities



**Zoom - Online
Training**

WHO WE ARE

Agile Leaders is a renowned training center with a team of experienced experts in vocational training and development. With 20 years of industry experience, we are committed to helping executives and managers replace traditional practices with more effective and agile approaches.

OUR VISION

We aspire to be the top choice training provider for organizations seeking to embrace agile business practices. As we progress towards our vision, our focus becomes increasingly customer-centric and agile.

OUR MISSION

We are dedicated to developing value-adding, customer-centric agile training courses that deliver a clear return on investment. Guided by our core agile values, we ensure our training is actionable and impactful.

WHAT DO WE OFFER

At Agile Leaders, we offer agile, bite-sized training courses that provide a real-life return on investment. Our courses focus on enhancing knowledge, improving skills, and changing attitudes. We achieve this through engaging and interactive training techniques, including Q&As, live discussions, games, and puzzles.



AGILE LEADERS
Training Center

CONTACT US

 UAE, Dubai Investment Park First

 +971585964727
+447700176600

 sales@agile4training.com