GTC Transforming Emerging Economies
GTC Training Consulting Group Ltd,
22 Kumasi Crescent,
Off Aminu Kano Crescent,
Wuse 2, Abuja.
Tel: +234(0) 9056761232
Email: enquiries@thegtcgroup.com
Web: www.thegtcgroup.com

Reliability and Operational Performance of Electricity Power Systems

COURSE OVERVIEW

This course provides a thorough exploration of the principles, methodologies, and technologies essential for ensuring the reliability and efficiency of electric power systems. It covers topics like system reliability indices, fault detection, risk assessment, and strategies to prevent failures and minimize disruptions. Participants will delve into fundamental concepts of reliability theory, learning how to apply these principles to various components of electric power systems, including generation, transmission, and distribution. The course equips participants with the knowledge and tools to enhance system reliability, optimize performance, and address challenges in modern electricity networks.

WHO SHOULD ATTEND?

The course is designed for a wide range of professionals in the energy sector, including engineers and operational staff from electric power utilities, system operators from ISOs, RTOs, and TSOs, as well as regulatory authorities overseeing compliance with reliability standards. It is also ideal for industrial and commercial energy managers responsible for ensuring reliable energy supply within their operations, power system consultants advising on performance optimization, and researchers or postgraduate students specializing in energy systems

COURSE OUTCOMES

Delegates will gain knowledge and skills to:

- Understand key concepts of reliability and operational performance in power systems.
- Analyze system reliability indices and their impact on performance.
- Apply fault detection and risk assessment techniques to power systems.
- Develop strategies to prevent system failures and minimize disruptions.
- Implement system protection, maintenance, and monitoring practices to optimize performance.
- Evaluate the influence of renewable energy and smart grids on system reliability.
- Use real-world case studies to improve power system reliability and efficiency.
- Enhance the operational performance of power systems while reducing downtime.

KEY COURSE HIGHLIGHTS

At the end of the course, you will understand:

- System Reliability Indices and Performance Metrics
- Fault Detection, Risk Assessment, and Prevention Strategies
- Role of System Protection, Maintenance, and Monitoring
- Influence of Renewable Energy and Smart Grids on Reliability
- Practical Case Studies and Real-World Applications
- Techniques to Improve Power System Efficiency and Minimize Downtime
- Strategies to Enhance the Operational Performance of Power Systems
- Advanced Reliability and Performance Optimization Methods

All our courses are dual-certificate courses. At the end of the training, the delegates will receive two certificates.
1. A GTC end-of-course certificate
2. Continuing Professional Development (CPD) Certificate of completion with earned credits awarded