GE Grid Solutions



Technical Training from GE Technical Institute





# Power-up Your Knowledge, Let The Grid Experts Train You!

The courses delivered by the GE Technical Institute encompass all aspects of electricity from fundamentals to in-depth equipment knowledge. They are based on the following value added pillars:



**EXPERIENCE** with over 30 years of training experience in electricity transmission, network management and substation technologies. GE's training centers offer courses on new and legacy GE products and solutions.

AVAILABILITY with 24/7 access to e-learning modules, which can be used on-line at anytime, anywhere. In addition, with many training centers located at GE manufacturing sites around the world, GE offers the proximity and convenience for customers training needs. GE expert trainers can also travel to the customer premises to train onsite.

TECHNICAL EXPERTISE with 230 experienced trainers with deep subject matter technical expertise in product development, services, maintenance and engineering. All trainers have proven teaching experience and a commitment to knowledge transfer. Trainers accompany trainees in the classroom, factory, on customer site and on-line.

CUSTOMIZED TRAINING to fit specific customer needs and installation. With more than 200 training courses and over 100 e-learning modules in different languages, GE offers a wide portfolio within which one can find the courses adapted to the trainee's level of knowledge (operators, managers, engineers...) and objectives. If not, the GE Technical Institute can customize it.

COMPREHENSIVE OFFERS that lets each customer tailor their training needs based on their requirements including: wide e-learning library, modular training at GE facilities or on-site, software training, competency development programs, education partnership. GE's Technical Institute offers a full range of training in electrical safety, operation & maintenance of GE's power equipment, protection & control and network management solutions.

UP TO DATE course content and equipment. All course modules are continually revised to reflect the latest technologies and local regulatory standards. New interactive animations, video, 3D illustration content empowers the learning experience.

# **Supporting Operational Excellence**

Training matters. It is the key towards motivating staff to maintain equipment for peak performance in a safe environment. Gaining hands-on experience and enhancing technical skills will add long-term value to business and careers.

GE's Technical Institute is an industry leader in electricity transmission, power electronics and network solutions and is committed to transferring knowledge and expertise to help customers achieve operational excellence.

#### **Levers for Operational Excellence**

- Avoid risk and accident with a skilled workforce that understands and respects the latest regulations and safety rules.
- Improve efficiency through greater technical knowledge
- Operate and maintain your equipment and solutions at the optimal level of performance
- Understand new technology, standards, products and solutions



Hands-on training at GE Technical Institute

#### **Invest in Excellence**

Training is the most efficient tool to develop know-how and enhance employee performance. "Excellence is an art reached by training and habituation. We are what we repeatedly do. Excellence, then, is not an act but a habit". Source: Aristotle

#### Covering the Entire Scope of Electrical Substation and Network Needs



**Power Transformers** 



**Gas-Insulated Substations** 



**Network Management Solutions** 



**Instrument Transformers** 



Disconnectors



Telecommunications



Circuit Breakers



Protection and Control Systems



**Electrical Safety** 

# E-Learning

#### Modular Online Technical Training

Technical Institute e-learning offers the best combined solution to support our customer's needs.

#### **Maximizing Training Efficiency**

- 24/7 access
- Licenses available on an annual basis
- Cost effective training method with no travel costs
- Scalability from a few users to worldwide deployment
- Tracking capabilities to measure skills and confirm compliance
- Reporting capabilities to identify skill gaps for an individual or department

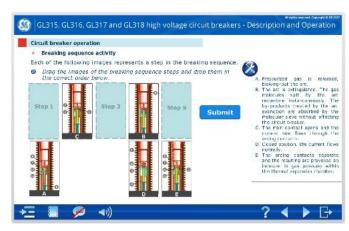
#### **Cost Effective**

Flexible system accessible at anytime and anywhere without additional travel or accommodation cost. For maximum value, elearning modules can be used before, during or after classroom training to reach the required level of knowledge and reinforce learning.

#### Ready to Use

The standard solution is rapid to install needing only an internet connection and a license to access the GE Learning Management System.

Designed to develop know-how and enhance employee's performance the collection of +90 e-learning modules covers Power Transmission and Distribution, HVDC, Automation, Quality of Power. Electrical Risk Prevention and Environmental issues.



Example of interactive content of a GE standard e-learning module

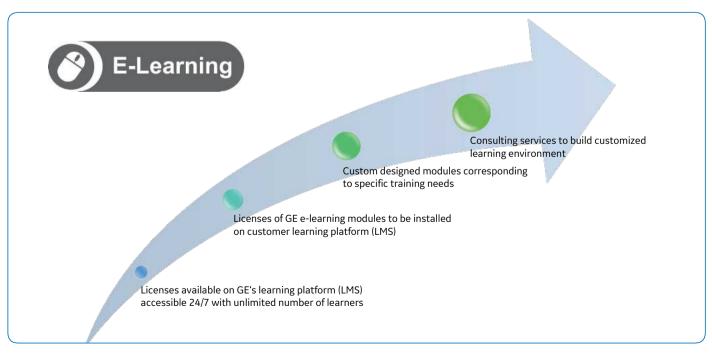
#### **Engaging Pedagogy and Content**

E-learning reinforces theoretical training and remains available for a license period of one year. Modules incorporate refreshers, quiz, evaluations for pre-work and after training.

Training modules consist of 3D animations to train employees on equipment parts that cannot be accessed in the field. The 3D animations demonstrate the internals of an asset to discover hidden components composition and operation.

#### **Customized Services**

GE provides consulting services to help customers set up a customized learning environment. Courses can be adapted from existing modules to incorporating the customer corporate design. Modules can also be designed from scratch by subject matter experts for specific customer needs.



A scalable offer from license to consulting services

# **Modular Training**

#### Expert Knowledge - Hands-on Experience

The core curriculum includes over 200 training courses with an emphasis on practice. The benefits of training on real equipment are instantaneous. In small groups, trainees learn both theory and practice skills on the "why" and the "how-to."

GE trainers share their know-how and field experience through demonstrations on dedicated equipment located in our Technical Institutes and 3D modelling. Courses include training support documents and an optional follow-up with e-learning modules.

Courses can vary from one to five days depending on the topic, trainees get in-depth, hands-on instruction and the opportunity to practice their acquired know-how.

Courses can be carried out in GE training centers or at the customer site.

#### Focus on Knowledge and Know-How

- Standardized and proven technical content
- Training on real equipment led by field experienced trainers
- · Certified delivery options
- · Customized training
- Complete curriculum

#### **Real Products for Hands-on Training:**

- GIS bays: F35 132 kV, B105 220 kV, T155 400 kV and various cross sectional modules showing live parts
- AIS poles: GL312 145 kV, GL314 245 kV, GL316 420 kV
- FK breaker operating spring mechanism
- Disconnectors center and vertical break type
- Current and capacitor voltage transformer
- Bushing 66 kV
- Transformer tap changers
- Micom relays and test kits



Real equipment accessible at GE Training Centers

# **Software Training**

#### Learn from the Automation Solutions Market Leader

The Technical Institute offers courses including GE's suite of network and distribution management systems, energy and market management, plus telecommunications.

For upgrades, add-on or new technology software, the training tools are available both in-house and on-line including sandbox demo platforms, virtual classrooms, on-line seminars and in-lab experience.

GE training laboratories are equipped with the latest digital screens, telecom and Remote Terminal Unit (RTU) equipment.

The latest developments cover Smart Grid, cyber security and the integration of renewable energy sources.

#### **Software Modules Include:**

- Network management
- Energy management
- Telecommunication solutions

#### **Partner for Better Operation**

- Training during system development, integration and ramp-up
- Tailored programs for new hires and team cohesion
- Preparation for operator certification
- Partnerships with national authorities and grid operators

#### **Customer Voice Counts**

After each course, trainees and managers complete a survey to evaluate not only their satisfaction but also the main topic of acquired knowledge. This customer feedback helps GE's Training Team to improve the courses in terms of content, rhythm and balance between theory and practice.

# **Competence Development Training**

### **Excellence Through Certification on Customer Equipment**

#### **Fast-Track Experience Development**

This training option is ideal where there has been growth, restructuring, a new group of employees who must acquire technical skills in a short period, or for electricity intensive industries, where electricity management is not a core business.

**PREPARING** Course design e-learning/ Planning

2

To evaluate To optimize the course knowledge level

1

**ANALYSING** 

Evaluation quiz

Needs

trainees

Analysis/

# **Tailored to Customer Specific Needs**

This option is an extremely in-depth program, giving customer the support to maintain the installed equipment in optimum operating conditions. As this course is designed to train people to a specific required skill level, it also serves to boost employees' career development, allowing them to become certified technical

The training focuses on hands-on application training at customer site and involves time spent at an GE's Technical Institute.

The program begins and ends with skill assessment. Evaluations are essential to understanding the depth of knowledge transfer and the teaching program required to best fulfil specific needs.



3



# **Education Partnership**

GE Training Institute can provide an educational partnership. This includes setting up a campus on the customer site or supporting existing customer training center based on long term agreement, where GE subject master expert trainers help to strengthen specific areas of knowledge, fill new requirements and broaden customer training portfolio.

#### **A Measured Result**

As part of the training there is a structured evaluation with online quiz and off-line assessments, face-to-face interviews and hands-on tests. This proven process provides a clear competence picture and measurable results.

#### At the Heart of Collaboration

- Industrialized training methodology
- Compliance with ISO 9001 and/or ISO 14001 certification
- Equipment lease or loan for hands-on training
- · Up-to-date teaching tools and knowledge base





# Imagination at work

#### **GEGridSolutions.com**

For more information please contact GE Grid Solutions

#### **Technical Institute**

 $email: technical.institute@ge.com\\ web: http://www.gegridsolutions.com/services/hv-mv-training.htm$ 

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