GE Digital Energy

GE Grid Automation: Learning & Development
Curriculum Guide

Principles & Fundamentals

Product Applications

Integrated Systems

imagination at work

GEDigitalEnergy.com/multilin/support/training

GE Grid Automation Learning & Development Facility

GE Multilin and GE Substation Automation Systems have come together as GE Grid Automation to offer you a comprehensive solution for your Power System Protection, Control & Automation requirements

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The GE Grid Automation: Learning & Development Advantage

Grid IQ Innovation Center
Experience learning in our state-of-the-art facilities, providing students with live testing labs, interactive demonstrations and enriched media content. Or engage in one of our learning experiences remotely via our tele-presence technology.

Customized Learning
Tailor your training for the specific needs of your business. Check out the "Build Your Own Custom Learning Events" section of this Curriculum Guide and discover how GE Smart Substation can deliver customized training for you.

Wide Target Audience
Our learning event material is built to suit a wide range of students whether they be maintenance personnel, engineers or consultants. No matter what your background or depth of understanding, our trainers tailor each learning event to deliver relevant training for you.

CEU Credit
GE training centers are authorized by the International Association for Continuing Education and Training (IACET) to award Continuing Education Units (CEUs) to participants who successfully complete our training learning events. Please refer to each learning event for the number of credits awarded.

Learning Avenues

GE Grid Automation: Learning & Development Centers
Located at our Grid IQ Innovation Center in North America and our Regional Head Quarters in Europe, these state-of-the-art facilities offer regularly scheduled learning events with open enrollment.

Regional Learning Seminars
We also take our training on the road throughout the year by presenting our most popular training sessions at different North American locations.

On-Site Learning
We provide all the necessary equipment and learning event materials needed to duplicate the environment of our learning & developement centers at your facility. On-site training gives you the added benefits of customizing your learning event content.

Interactive Learning CDs
On their own or combined with another learning avenue, our Interactive Learning CDs enrich the education experience. Please see the "Interactive Learning CDs" section of this Curriculum Guide for a complete CD list.

The GE Grid Automation: Learning & Development Industry Expert Advantage

Experienced Trainers

As a core service within the GE Digital Energy business, our GE Grid Automation: Learning & Development team is able to leverage the intellectual horse power of the entire GE organization! Your learning & development will be guided by trainers who are seasoned experts with many years of practical experience in the protection, control & automation industry. But our trainers don't just bring their talents into the class room; they are backed with the full technical expertise of our applications engineering team – the team that has literally created our products from the ground up! With decades of applied industrial and utility knowledge, as well as numerous advanced degrees in protection, automation, electronics and communications engineering, our applications engineering team members span three continents and are active with standards organizations. Their expertise is a part of every learning event we deliver! Additionally, we leverage our talent-base and partnerships to provide our learners with the opportunity to study under leading industry experts.

John D. McDonald, P.E.
Through his distinguished 37 year career in the electric utility industry, John McDonald has held many positions of leadership within the IEEE Power & Energy Society including a 2003 fellowship in the development of substation integration and automation. He was also editor-in-chief and chapter author for the book *Electric Power Substations Engineering*, Second Edition, 2007. In his current role as director of GE Digital Energy's Technical Strategy and Policy Development, he is a sought-after industry leader and educator. See John's regularly scheduled learning event, "Smart Grid/Distribution Automation," listed in the Fundamentals section of this Curriculum Guide.

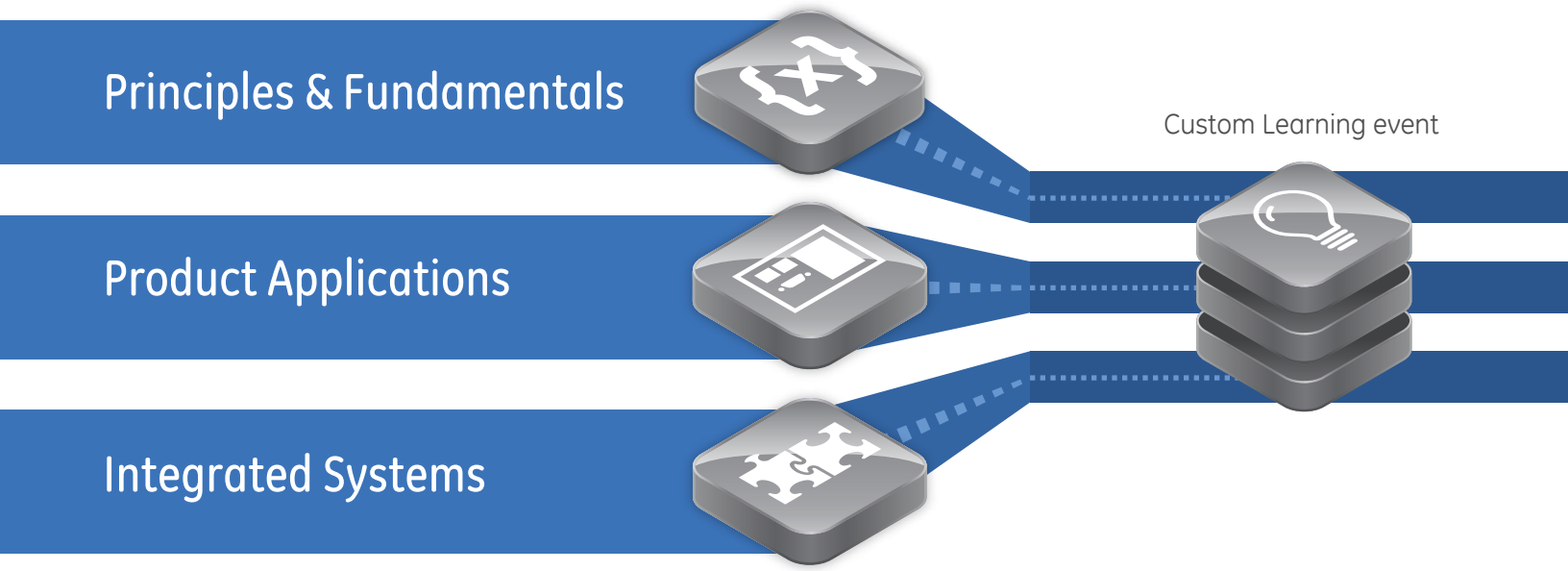
Mark Adamiak, Director, GE Digital Energy Advanced Technologies
Mark Adamiak started his career with American Electric Power (AEP) and has since held many positions of distinction, including Principle Investigator on the EPRI IntelliGrid project that defined an architecture for the Smart Grid. Mark is also a Fellow of the IEEE and a member of the IEC Working Group on Utility Communication. Now as Director of Advanced Technologies for GE Grid Automation, he is responsible for identifying and developing new technology for GE's substation protection, control, and automation business. Mark received his BS and ME degrees from Cornell University in Electrical Engineering and an MS-EE degree from the Polytechnic Institute of New York.

Tarlochan S. Sidhu, Ph.D., P.Eng., CEng.
As a faculty member at some of North America's top universities, Dr. Sidhu is a leader in the field of power system protection and monitoring. His award winning research, outstanding leadership and contributions in the IEEE and passion for this industry place Dr. Sidhu's learning events in high demand. See his regularly scheduled learning event, "Power System Analysis & Protection," listed in the Fundamentals section of this Curriculum Guide.

Jorge Cardenas, MBA, P. Eng.
Jorge Cardenas began his career with the Utility Electroperu (Peru) in 1979, as a protection & control engineer. Since then he has also worked as an HV equipment sales engineer and control design engineer. Currently as an application manager with GE Digital Energy, Jorge has worked with some of the world's leading Utility and Oil & Gas businesses. He has authored and co-authored more than 35 papers on protective relaying, is a member of the CIGRÉ WG B5.31 and WG B5.43 and a contributor of the magazines GE P&C Journal and Pacworld. Jorge received his engineering degree from the Universidad de Ingenieria (Peru) in 1977 and his MBA from the Universidad Politecnica de Madrid (Spain) in 1998.

Our Learning Events Path

Learning Events Path - Our learning events are organized into a three-tier Learning Path, covering Principles & Fundamentals, Product Applications and Integrated Systems. Depending on your background and the GE Digital Energy solutions you implement, only a subset of the Learning Path may be right for you and/or your business.



Build Your Own Learning Events

Allow us to create a custom learning event for your organization. Here is how to get started:

Step 1 - Content
Choose your learning event content the same way we build learning events, selecting the application(s), product(s) and/or integrated system tool(s) of interest from our offerings. You should also feel free to include any theoretical concepts, industry standards, products or applications of interest that are not currently in our training curriculum.

Step 2 - Focus
We want to enhance your organization by setting the right focus in training delivery. You can help us do this by letting us know how this learning event will support your organization's goals/objectives and who you anticipate will be attending it (maintenance staff, engineers, system integrators, etc.).

Step 3 - Logistics
To deliver your custom learning event we will also need to discuss a few details, including the timing, schedule, location and attendance for your learning event, etc.

Visit us at www.gedigitalenergy.com/multilin/support/training/custom-courses.htm, follow these three steps and we'll start building your custom learning event!

Designed for recent graduates entering the field of power system protection, control and automation as well as seasoned professionals who want to stay up-to-date on the latest industry trends and technology. Our principles & fundamentals learning opportunities come in three flavors:

- Theoretical courses address the fundamental nature of modern day power systems and the protection principles our product employ to mitigate inherent risks.
- Hands-On Essentials courses are focused on implementing communication standards and protocols on one of our hardware platforms.
- Courses Taught by Leading Industry Experts offer great value to those wanting to stay up-to-date with the latest industry trends, technology and best practices.

Gain the knowledge and skillset required to implement GE Digital Energy protection, control and automation products in your real-world applications. We offer standardized learning & development opportunities on a wide range of our products for both industrial and utility applications. These courses include:

- Review application-specific theory
- Installation and wiring configuration
- Setup/Interface software
- Hands-on lab assignments

Our powerful software solutions will translate individual IEDs and gateways from standalone products into an integrated system to simplify power monitoring and management capabilities. Through integrated systems training, students are offered learning & development opportunities on three of our key software platforms:

- EnerVista™ Suite courses will provide training on viewing simplified real-time data, event recordering, building complex FlexLogic™ and more, to simplify every aspect of your workflow process.
- The LogicLinx course provides basic guidelines on logic programming and how to implement these programs on the RTU using LogicLinx.
- In the PoweLink Advantage course, students will leverage this software to plan and implement a complete SCADA system.

Modular Design - This is what our learning events are all about! Modular learning events allow us to offer combined training, providing you with material from multiple learning events in one session. We can draw material from all tiers of the Learning Path, resulting in a semi-customized learning event.

Check the "Build Your Own Learning Events" section to set-up your own unique learning event. Also, from time to time we offer this type of combined training along side our regularly scheduled learning events; look for these upcoming learning events available on our event calendar at www.gedigitalenergy.com/multilin/support/training/.

Principles & Fundamentals Learning Events

The GE Grid Automation: Learning & Development principles & fundamentals learning events are listed in the chart below.

These learning events serve three purposes.

1) These learning events provide a strong foundation for potential students interested in gaining development opportunities in the power systems protection, control & automation industry.

2) They deliver the necessary level of knowledge for students wanting to advance to one of our product application or integrated systems learning events.

3) Many seasoned professionals will find value in learning about the latest industry trends and advances, especially in one of our learning events taught by a leading industry expert.

For more details on each learning event, simply click on the learning event of interest in the chart or visit us at: www.gedigitalenergy.com/multilin/support/training/. Please note that tuition shown is for scheduled learning events, please contact us for custom on-site pricing.

Theoretical Courses	Course Code	Length	CEU Credits	Tuition	Learning Path Prerequisites
Fundamentals of Modern Protective Relaying*	TRNG-FMPR	4 Days	2.8	$2,400	Not Required
Power System Protection for Industrial Facilities	TRNG-PIND	3 Days	2.1	$1,800	Not Required
Power System Protection for Utilities	TRNG-PUTL	3 Days	2.1	$1,800	Not Required
Fundamentals of Arc Flash Safety	TRNG-ARCF	2 Days	1.4	$1,200	Not Required
Fault Investigation & Analysis	TRNG-FAULT	1 Day	0.7	$600	TRNG-FMPR
Introduction to Electro-Mechanical Relays	TRNG-EMR1	3 Days	2.1	$1,800	TRNG-FMPR
Hands-On Essentials Courses					
Industrial Power System Communications*	TRNG-ICOM	2 Days	1.4	$1,200	TRNG-FMPR
Utility Power System Communications*	TRNG-UCOM	2 Days	1.4	$1,200	TRNG-URPL
Introduction to the IEC 61850 Protocol	TRNG-61850	3 Days	2.1	$2,400	TRNG-URPL
Integrated Substation Control Systems (iSCS)	TRNG-ISCS	5 Days	3.5	$3,000	TRNG-D20, TRNGD20MX, TRNG-D25 or TRNG-D400
Courses Taught by Leading Industry Experts					
Power System Analysis & Protection	TRNG-PSAP	3 Days	2.1	Contact Us	Not Required
Smart Grid/Distribution Automation	TRNG-SGDA	2 Days	1.4	$1,800	Not Required

* GE Grid Automation: Learning & Development offers Interactive learning CDs for these learning events to enhance the in-class experience. Receive 25% off the learning CD when purchased with an in-class learning event.

- Utilities
- Industrial Facilities
- Communications
- Best Practices

FAQs

Q **What is principles & fundamentals training?**

A Principles & fundamentals training covers the knowledge, theory, standards and new trends in the power system protection, control and automation industry. Some learning events are purely theoretical while others will make use of GE Digital Energy hardware platforms to teach learning event topics.

Q **Who should attend your principles & fundamentals learning events?**

A Students ranging from recent graduates entering the field of power system protection, control & automation as well as seasoned professionals who require an update on the latest technology and industry trends will benefit from these learning events.

Q **Which principles & fundamentals learning events should I take if I am interested in a particular product application or integrated systems learning event?**

A Throughout this Curriculum Guide, GE Grid Automation: Learning & Development makes specific recommendations about which principles & fundamentals learning events to take in the "Learning Path Prerequisites" field of each learning event.

Q **I am interested in a topic for which I do not see a learning event. Can you create a custom learning event?**

A Yes, we can create custom learning events for your business! Please see the "Build Your Own Learning Events" section (pages 5-6) of this Curriculum Guide.

Level 2 - Product Application

Protection, Control, Monitoring & Diagnostic Learning Events

GE Grid Automation: Learning & Development provides in-depth learning events for our protection, control, monitoring and diagnostic products. These learning events are designed not just to teach student's our product's functionality but also the "hands-on" skills to implement them in real-world applications. The following chart, spanning pages 9 through 11, outlines these learning events grouped by application.

For more details on each learning event, simply click on the learning event of interest in the chart or visit us at: www.gedigitalenergy.com/multilin/support/training/. Please note that tuition shown is for scheduled learning events, please contact us for custom on-site pricing.

UR/UR^{Plus} Product Platform	Course Code	Length	CEU Credits	Tuition	Learning Path Prerequisites
UR Platform*	TRNG-URPL	3 Days	2.1	$1,800	Not Required
UR ^{Plus} Platform	TRNG-UPPL	3 Days	2.1	$1,800	Not Required
UR Advanced Applications[1]	TRNG-APPS	5 Days	3.5	$3,000	TRNG-URAPPS
Transmission Line Protection & Control					
L30/L60/L90 Differential Relays	TRNG-L90	2 Days	1.4	$1,200	TRNG-URPL +
D30/D60 Line Distance Relay*	TRNG-D60	2 Days	1.4	$1,200	TRNG-URPL +
D90^{Plus} Line Distance Relay	TRNG-D90P	2 Days	1.4	$1,200	TRNG-UPPL +
ALPS/LPS Line Distance Relay	TRNG-ALPS	3 Days	2.1	$1,800	TRNG-FMPR
Specialized Protection, Control & Recording					
C60 Breaker Controller	TRNG-C60	2 Days	1.4	$1,200	TRNG-URPL +
C90^{Plus} Breaker Automation & Controller	TRNG-C90P	2 Days	1.4	$1,200	TRNG-UPPL +
C70 Capacitor Bank Protection Relay	TRNG-C70	2 Days	1.4	$1,200	TRNG-URPL +
N60 Network Stability & Synchophasor Measurement	TRNG-N60	2 Days	1.4	$1,200	TRNG-URPL +

1 A degree in Electrical Engineering or equivalent is required for this learning event.
* GE Grid Automation: Learning & Development offers Interactive learning CDs for these learning events to enhance the in-class experience. Receive 25% off the learning CD when purchased with an in-class learning event.
\+ These learning events are designed as additional learning modules for the UR/URPlus Product Platform learning events. See each module's learning path prerequisites for which learning events these modules apply.

D90^{Plus} Line Distance Protection System

N60 Network Protection System

Protection, Control, Monitoring & Diagnostic Learning Events Continued

Substation Protection & Control	Course Code	Length	CEU Credits	Tuition	Learning Path Prerequisites
Distribution Protection Courses					
Distribution Protection Principles with SR Relays (covers 745 & 750/760 relays)	TRNG-SRDIS	3 Days	2.1	$1,800	Not Required
Distribution Protection Principles with 3 Series Relays (covers 345 & 350 relays)	TRNG-3SDIS	3 Days	2.1	$1,800	Not Required
Transformer Protection Courses					
745 Transformer Management Relay*	TRNG-745	2 Days	1.4	$1,200	Not Required
345 Transformer Management Relay	TRNG-345	2 Days	1.4	$1,200	Not Required
T35/T60 Transformer Management Relays	TRNG-T60	2 Days	1.4	$1,200	TRNG-URPL +
Feeder Protection Courses					
750/760 Feeder Management Relays*	TRNG-760	2 Days	1.4	$1,200	Not Required
350 Feeder Management Relay	TRNG-350	2 Days	1.4	$1,200	Not Required
F35/F60 Feeder Management Relay*	TRNG-F60	2 Days	1.4	$1,200	TRNG-URPL +
F650 Digital Bay Controller*	TRNG-F650	3 Days	2.1	$1,800	Not Required
Bus Protection Courses					
B30/B90 Bus Protection Relay	TRNG-B90	2 Days	1.4	$1,200	TRNG-URPL +
B95Plus Bus Protection	TRNG-B95P	2 Days	1.4	$1,200	TRNG-UPPL +

* GE Grid Automation: Learning & Development offers Interactive learning CDs for these learning events to enhance the in-class experience. Receive 25% off the Learning CD when purchased with an in-class learning event.

\+ These learning events are designed as additional learning modules for the UR/URPlus Product Platform learning events. See each module's Learning Path Prerequisites for which learning events these modules apply.

750 Feeder Protection System

F650 Bay Controller

350 Feeder Protection System

Level 2 - Product Application

Protection, Control, Monitoring & Diagnostic Learning Events Continued

Motor Management	Course Code	Length	CEU Credits	Tuition	Learning Path Prerequisites
Motor Protection Principles & Relaying (Covers the MM200/300, 239, 369, 339, 469 & M60 relays)	TRNG-MOTOR	3 Days	2.1	$1,800	Not Required
MM200/300 Motor Management Relay	TRNG-MM300	1 Day	0.7	$600	Not Required
239 Motor Management Relay	TRNG-239	1 Day	0.7	$600	Not Required
369 Motor Management Relay*	TRNG-369	2 Days	1.4	$1,200	Not Required
339 Motor Management Relay	TRNG-339	2 Days	1.4	$1,200	Not Required
469 Motor Management Relay*	TRNG-469	2 Days	1.4	$1,200	Not Required
M60 Motor Management Relay	TRNG-469	2 Days	1.4	$1,200	TRNG-URPL +
Generator Management					
489 Generator Management Relay*	TRNG-489	2 Days	1.4	$1,200	Not Required
G30/G60 Generator Management Relay	TRNG-G60	2 Days	1.4	$1,200	TRNG-URPL +
DGP Generator Protection Relay	TRNG-DGP	2 Days	1.4	$1,200	Not Required
Digital Meters					
Metering with PQM II & EPM Series	TRNG-METER	2 Days	1.4	$1,200	Not Required

* GE Multilin offers Interactive learning CDs for these learning events to enhance the in-class experience. Receive 25% off thel earning CD when purchased with an in-class learning event.

\+ These learning event are designed as additional learning modules for the UR/URPlus Product Platform learning events. See each module's Learning Path Prerequisites for which learning events these modules apply.

G60 Generator Protection System

MM200 Control Panel

369 Motor Management Relay

Automation Gateway Product Learning Events

GE Digital Energy offers a range of products to build comprehensive substation automation systems. These products are listed in the chart below and continued on the next page.

In the case of our Gateway and RTU product learning events, we offer a number of standard additional learning modules which can be added to each of these learning events to provide application-specific training pertaining to many different conditions and protocols. These modules are listed on the next page and include I/O peripherals as well as data translation, collection and processing applications.

For more details on each learning event, simply click on the learning event of interest in the chart, or visit us at: www.gedigitalenergy.com/multilin/support/training/. Please note that tuition shown is for scheduled learning events, please contact us for custom on-site pricing.

Communications	Course Code	Length	CEU Credits	Tuition	Learning Path Prerequisites
JungleMux SONET Multiplexer	TRNG-JMUX2	4 Days		Contact Us	Not Required
TN1U/TN1Ue SDH Multiplexer	TRNG-TN1U	4 Days		Contact Us	Not Required
MultiLink Ethernet Switches	TRNG-MLES	2 Days	1.4	$1,200	Not Required
Gateways & Remote Terminal Units (RTUs)					
D20/D20ME/D200	TRNG-D20	4 Days	2.8	$2,400	Not Required
D20MX	TRNG-D20MX	4 Days	2.8	$2,400	Not Required
D25	TRNG-D25	4 Days	2.8	$2,400	Not Required
IBox	TRNG-IBOX	4 Days	2.8	$2,400	Not Required
D400	TRNG-D400	5 Days	3.5	$3,000	Not Required
CCU1000	TRNG-CCU	5 Days	3.5	$3,000	Not Required

TN1U SDH Multiplexer

D25 Multifunction IED

Automation Gateway Product Learning Events Continued

Input/Output Modules	Course Code	Length	CEU Credits	Tuition	Learning Path Prerequisites
DNP I/O	TRNG-DNPIO	1 Day	0.7	$600	Any Gateway or RTU course +
D20 I/O	TRNG-D20IO	1 Day	0.7	$600	TRNG-D20 or TRNG-D20MX +
D.20 DNA	TRNG-D20DNA	1 Day	0.7	$600	TRNG-D400 +
Data Translation Applications					
Calculator	TRNG-CALC	2 Days	1.4	$1,200	Any Gateway or RTU course +
Data Processing/Collection Applications					
DNP	TRNG-DNP	1 Day	0.7	$600	Any Gateway or RTU course +
IEC61850	TRNG-61850DPA	3 Days	2.1	$2,400	Any Gateway or RTU course +
IEC101	TRNG-101	1 Day	0.7	$600	Any Gateway or RTU course +
IEC103	TRNG-103	1 Day	0.7	$600	Any Gateway or RTU course +
IEC104	TRNG-104	1 Day	0.7	$600	Any Gateway or RTU course +
Modbus	TRNG-MDBUS	1 Day	0.7	$600	Any Gateway or RTU course +
Spabus	TRNG-SPBUS	1 Day	0.7	$600	Any Gateway or RTU course +
Harris	TRNG-HARRIS	1 Day	0.7	$600	Any Gateway or RTU course +

+ These learning event are designed as additional learning modules for one of the Gateway or RTU product learning events. See each module's learning path prerequisites for which learning events these modules apply.

- Protection, Control, Monitoring & Diagnostics
- Automation Gateways

FAQs

Q **What is product application training?**

A Product application training offers students learning & development opportunities to understand our products and apply this product knowledge in real-world situations. Topics in these learning events vary, but typically include hardware overview, installation, settings, interface/setup software and of-course, hands-on lab exercises.

Q **How are your product application learning events organized?**

A Our product application learning events are placed into one of two main groups: 1) Protection, Control, Monitoring & Diagnostics, covering our high speed and intelligent relays, as well as our digital meters (found on pages 10 to 12). 2) Automation Gateways, with communications and automation products such as switches, multiplexers, gateways, RTUs, I/O peripherals and data transfer/collection/processing applications. (found on pages 13 to 14) .

Q **Why do you offer training on the UR/UR^{Plus} product platforms instead of just offering product applications learning event?**

A Unlike our other product lines, the UR and UR^{Plus} product families are built on a common modular platform which allows them to apply shared features and protective elements in a wide array of applications. This means we can deliver a great deal of training for all products in the line with just one class while additional, shorter, learning modules extend this training for specific applications.

Q **Can I combine product application learning events with Principles & Fundamentals or Integrated Systems learning events?**

A Yes! Our learning events' modular design is intended to allow for easy integration in different combinations. Please Consult the "How We Build Learning Events" section of this Curriculum Guide (pages 5-6) for more details.

Q **I am interested in training for a specific product or application that I do not see here. Can you create a custom learning event?**

A Yes, we can create custom learning events for your business! Please see the "Build Your Own Custom Learning Events" section (pages 5-6) of this Curriculum Guide.

Level 3 - Integrated Systems

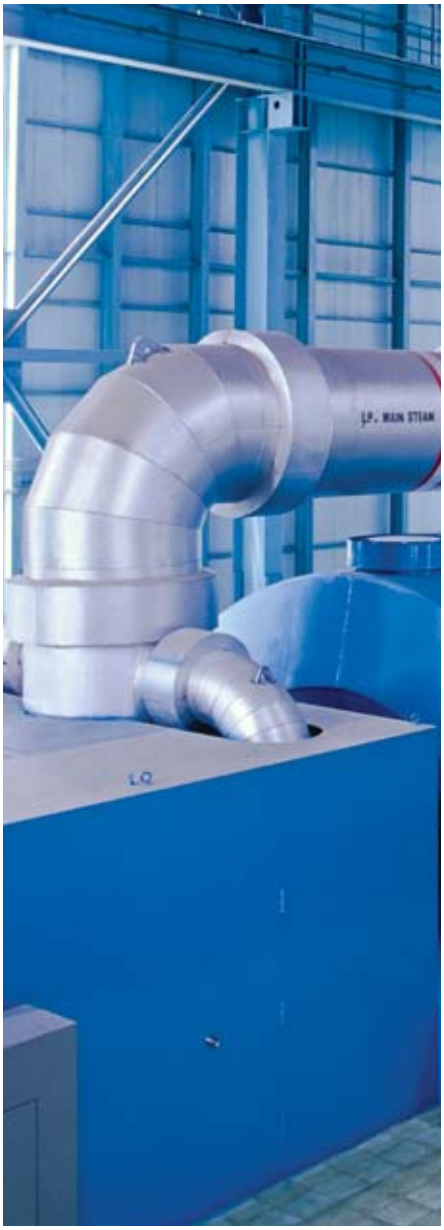
Integrated Systems Learning Events

GE Digital Energy software training provides students with the tools necessary to operate and maintain their own power management and monitoring system based on one of our software products. Learning events for these solutions are offered in the chart below. Prior to enrolling in any integrated systems learning events it is strongly recommend that students possess training and/or experience with protection, control & automation products and communications protocols. The appropriate level of training can be obtained by completing any one of a number of our product application learning events.

For more details on each learning event, simply click on the learning event of interest in the chart or visit us at: www.gedigitalenergy.com/multilin/support/training. Please note that tuition shown is for scheduled learning events, please contact us for custom on-site pricing.

EnerVista™ Software	Course Code	Length	CEU Credits	Tuition	Learning Path Prerequisites
EnerVista™ Software Suite Integration (covering Viewpoint Engineering, Viewpoint Maintenance, Viewpoint Monitoring and Integrator)	TRNG-EV	3 Days	2.1	$1,800	Not Required
EnerVista™ Viewpoint Engineer (Covers UR Engineer, UR^{Plus} Engineer & MM300 Engineer)	TRNG-EVE	1 Day	0.7	$600	Not Required
EnerVista™ Viewpoint Monitoring	TRNG-EVM	1 Day	0.7	$600	Not Required
Substation Automation Software					
PowerLink Advantage	TRNG-PLA	5 Days	3.5	$3,000	Not Required
LogicLinx	TRNG-LGLX	4 Days	2.8	$2,400	Not Required

- EnerVista™ Software Suite
- PowerLink Advantage
- LogicLinx



FAQs

Q **What is integrated systems training?**

A GE Grid Automation: Learning & Development offers a range of software solutions designed to integrate our protection, control and automation products to deliver power system monitoring and management. Integrated Systems training provides students with opportunities for these software solutions.

Q **Which products do your integrated systems tools work with?**

A Virtually our entire product lineup is designed to work with our software solutions. Please contact us regarding specific products.

Q **Will this training qualify me to be a system integrator?**

A No. The focus of these learning events is to provide the skills and knowledge necessary to competently operate and maintain your own system with GE Digital Energy software tools.

Q **I need a powerful custom built energy management system. What learning events can you provide?**

A Our Services Group is dedicated to not only building advanced power management and monitoring solutions but also providing our customers with the training resources to operate their unique solution. For more information please enquire with us about our Services Group.

Q **Can I create a custom learning event by combining integrated systems training with other classes?**

A Yes! Our learning events' modular design is intended to allow for easy integration in different combinations. However, given the length and weight of some of these software topics, combining some of this material may not be recommended. To get started building your own custom learning event, see the "Build Your Own Custom Learning Events" section of this Curriculum Guide (pages 5-6).

Interactive Learning CD's

GE Grid Automation: Learning & Development also offers Interactive Learning CDs for a number of learning event topics, listed below. These CDs use simulations, examples and practical applications to provide students with the same information and practical experience they would receive if they attended the in-class learning event. They allow Engineers, Electrical Personnel and Maintenance Staff to learn at their own pace and review the learning event material as often as they desire.




To maximize the value of our instructor-led classes we recommend purchasing and listening to these CDs prior to attending. Receive 25% off the learning CD when purchased with a learning event. For more information or to place a CD order please contact us at training.multilin@GE.com or visit our website at www.gedigitalenergy.com/multilin/support/training/.

CD Title	CD Code	Recommend For:
Fundamentals		
Fundamentals of Modern Protective Relaying	TRCD-FMPR0-C-S-1	TRNG-FMPR
Industrial Data Communications	TRCD-ICOMC-S-1	TRNG-ICOM
Utility Power System Communications	TRCD-UCOM-C-S-1	TRNG-UCOM
GE Multilin Product Maintenance	TRCD-PRMAINT-C-S-1	see note [1]
Universal Relay (UR) Family		
UR Applications 1	TRCD-URA1-C-S-1	TRNG-URPL
Transmission Line Protection		
Distance Protection with the D60 Relay	TRCD-D60-C-S-1	TRNG-D60
Substation Protection		
Feeder Protection with the F35/F60 Relay	TRCD-F60-C-S-1	TRNG-F60
Feeder Protection with the 750/760 Relay	TRCD-SR750-C-S-1	TRNG-760
Feeder Protection with the F650 Digital Bay Controller	TRCD-F650-C-S-1	TRNG-F65
Transformer Protection with the 745 Relay	TRCD-SR745-C-S-1	TRNG-745
Motor Management		
Motor Protection with the 469	TRCD-M469-C-S-1	TRNG-469, TRNG-MOTOR
Motor Protection with the 369	TRCD-M369C-S-1	TRNG-369, TRNG-MOTOR
Motor Protection with the 269 Plus	TRCDM269-C-S-1	TRNG-MOTOR
Generator Protection & Control		
Generator Protection with the 489	TRCD—C-S-1	TRNG-489

1 Recommended for all UR, URPlus, SR, 3 Series and motor management products

Online Learning Event Registration

Register for GE Grid Automation: Learning & Development learning events through our website on our online store at store.gedigitalenergy.com/TrainingCourses.asp. A 15% discount will be offered on the tuition price when two or more registrations are booked simultaneously. Confirmation of enrollment will be sent via email once payment is received.

Registration & Contact Information
For information regarding customer-site and customized learning events, please contact us:

Americas/ Middle East/ Asia/ Sub Saharan Africa
Tel: +1-905-294-6222 Fax: +1-905-201-2098
North America: +1-800-547-8629
Email: training.multilin@ge.com
Website: www.gedigitalenergy.com/multilin/support/training/

Europe/ North Africa
Tel: +34 94 485 8860
Fax: +34 94 485 88 45
Email: services.bilbao@ge.com
Website: www.gedigitalenergy.com/multilin/support/training/schedule_es.htm

Class Logistics
All classes run from 8:30am to 4:30pm unless otherwise specified. Tuition fees include learning event manuals, instruction manuals, necessary software, use of training relays and computers and complimentary lunch. Students are responsible for the arrangement and payment of all travel and living expenses.

Learning Event Cancellation
Students must provide written cancellation of enrollment to the training center 3 weeks prior to the learning event start date in order to receive a full refund. GE Digital Energy reserves the right to cancel a learning event due to under-enrollment. In the event of a learning event cancellation, GE Digital Energy will notify the students with at least 2 weeks notice. For this reason, students are advised to purchase refundable airline tickets, or wait for written confirmation of a learning event before proceeding with travel arrangements.

Training Centers

Suggested Accommodations:

Delta Markham Hotel
50 East Valhalla Dr. at Hwy #7
Tel: +1-905-477-2010
Fax: +1-905-477-2026
www.deltahotels.com

Hilton Suites Hotel
8500 Warden Ave. at Hwy #7
Tel: +1-905-470-8500
Fax: +1-905-477-8611
www1.hilton.com

Ercilla Hotel
C/Ercilla, 37/39 – Bilbao
Tel: +34 944 705 705
www.hotelercilla.es

Petit Palace Hotel
C/Bidebarrieta, 2 – Bibao
Tel.: +34 944 156 411
www.petitpalacearana.com

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