ABB University Switzerland
Course Program 2017
For Power Grids - Grid Automation
- Substation Automation and Protection
- Communication Networks
ABB University Switzerland – Power Grids - Grid Automation

ABB University Switzerland

Baden
LC Substation Automation and Protection
LC Communication Networks

Parking
For parking please use Trafo-, Gartenstrasse- and Langhausparking
Editorial

Vision
ABB University enhances the productivity of businesses and individuals for its customers and employees by making learning a valuable experience.

Training courses
Scheduled classes (public)
In our scheduled standard courses the trainees will gain practical experience using available tools and techniques by doing practical exercises. All of our standard courses are conducted in our future proof learning center in Baden, Switzerland.

Tailored classes (on request)
The training can be held in our learning center in Switzerland or on-site at customer’s facilities. The program and content can be adapted according to your needs and requirements. All information related to your project will be used to run a custom-tailored training.

Training conditions
For our training conditions please refer to our ABB University Switzerland - General Information brochure 2017.

Equipment and infrastructure
We strongly emphasize that our trainings are in step with actual practice. Therefore we provide our trainees with adequate infrastructure in each course, such as computers, simulators and devices.

Instructors
All our instructors are product or system experts and very experienced in their field of work. In addition to their engineering knowledge they are capable of didactics and training methodology.

Travel information
More detailed travel information can be found on our webpage or in our ABB University Switzerland - General Information brochure 2017.

Training Quality
Our highly qualified team are always aiming to meet your needs. Grid Automation Learning Centers are certified by EduQua, which is a Swiss Certificate for quality in further education. It guarantees and develops the quality in the institution of further education.
Learning Center Substation Automation and Protection

We offer in our Learning Center courses in the field of Power Grids.

Our main topics are:
- Power Systems Technology
- IEC 61850-based Substation Automation Systems
- RTU Applications
- Protection for Power Grids
- Cyber Security in Substation Automation Systems
- Smart Grid Applications in the Power Grid

The courses are conducted in our modern equipped Learning Center in Baden. On request we also conduct tailored courses in our Training Center or at your own site.

Please contact us for further information.

We look forward to seeing you soon.

ABB Switzerland Ltd
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### Power Systems
**Basic Courses**
- Power System Technology - Fundamentals
- Smart Grids in the Power System of the Future - Fundamentals & Applications
- Principles, Disposition & Components of HV-Substations - Applications & System Solutions
- Planning & Realization of Electrical Traction Systems for Railways - Applications & System Solutions

**Product Courses**
- Advanced Protection in Industrial Networks - System Solutions (incl. in CHP248)
- Advanced Protection in Transmission Networks - System Solutions (incl. in CHP248)
- Power System Analysis - Fundamentals (incl. in CHP248)

### Substation Automation and Protection
**Basic Courses**
- Substation Automation and Protection
- Planning & Realization of Electrical Traction Systems for Railways - Applications & System Solutions
- Protection for Busbars, Circuit Breakers and Power Transformers - Applications
- Protection for Distribution Networks and Industry - Fundamentals & Applications

**Product Courses**
- Relion® 670/650 serie for Generator Protection Solutions – Configuration
- Relion® 670/650 serie for Transmission Protection Solutions – Configuration
- Relion® 670/650 serie with PCM600 – Operation & Maintenance

### Product Courses
- IET600 for IEC 61850 Integration with MicroSCADA – System Integration
- PCM600/ITT600 for IEC 61850 Integration & Testing – System Integration
- REB500/REB500sys Busbar and Station Protection System – Operation & Maintenance
- Relion® 630 series – Programming
- Relion® 630 series – Operation
- Relion® 615/620 series with PCM600 – Operation & Engineering
- Relion® 670/650 serie for Generator Protection Solutions – Configuration
- Relion® 670 serie for Transmission Protection Solutions – Configuration

### Learning Center Substation Automation & Protection Course Schedule 2017

| Week | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
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Learning Center Communication Networks

We offer comprehensive technology and product training courses in the field of ABB Communication Networks for e.g.:
- PDH and SDH Communication
- MPLS-TP Communication
- FOX Family
- ETL600
- Teleprotection NSD570
- Wireless / Tropos
- AFS Family
- FOXMAN & FOXView NMS

With our proven course concepts and professional trainers, participants become fully familiar with the setup, operation and maintenance of the equipment and will be able to achieve the most benefits from the system functions and capabilities.

Besides our scheduled courses, we also provide tailored courses either in Switzerland or at your own site.

We look forward to welcoming you to our professional and future proof-learning center in Baden, Switzerland.

ABB Switzerland Ltd
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E-Mail ch-lc-com.net@abb.com
### Learning Center Communication Networks

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#### Communication Networks

**Basic Courses**

- Utility Communications – Fundamentals
  - CHF11 3 Mon-Fri
- Communication Solutions for Distribution Networks
  - CHF10 3 Mon-Fri
- Utility SDH Networks – Fundamentals
  - CHF30 2 Thu
- Ethernet Switching and TCP/IP – Introduction
  - CHF32 2 Thu-Fri
- Wireless Communication – Introduction
  - CHF31 2 on request
- Cyber Security for Power Utilities – Fundamentals
  - CHF12 2 Mon-Tue
- Utility MPLS-TP Networks – Fundamentals
  - CHF33 2 Thu
- IEC 61850 Substation Automation Systems – Fundamentals
  - CHF107 5 Mon
- Smart Grid the Power System of the Future – Fundamentals & Applications
  - CHS060 4 Mon-Thu
- Power System Technology – Fundamentals
  - CHS100 5 Mon-Fri

**Product Courses**

- FOX515 H & Hs Multiservice Utility MUX
  - CHF52 3 Wed-Fri
- FOX525 Access MUX
  - CHF53 4 Mon-Thu
- FOXView Enterprise Network Management System
  - CHF54 3 Fri
- FOX605 A Secure MPLS enabled Utility MUX
  - CHF55 4 Mon-Thu
- FOX660 Multiservice Utility MUX for TDM Transport
  - CHF56 3 Wed-Fri
- FOX605 Multiservice Utility MUX for Packet Switch Transport
  - CHF57 3 Mon-Wed
- FOX660 Multiservice Utility MUX for Optical Transport
  - CHF571 3 on request
- APS605 Switch Family
  - CHF58 3 Mon-Wed
- AFR Router
  - CHF59 3 on request
- AFR Firewall
  - CHF60 2 Thu-Fri
- AFS view Network Management System
  - CHF61 3 on request
- ETL 600 R3 Universal Digital PLC Equipment
  - CHF62 5 on request
- ETL 600 R4 for Experienced ETL 600 R3 Users
  - CHF63 2 on request
- Tropos Wireless Mesh Networks
  - CHF62 3 Mon-Wed
- E1000 SIP/G711 Telecommunication System
  - CHF68 5 Mon-Fri
- E1000 SIP/G711 Trunk Routing and Advanced Features
  - CHF67 5 Mon-Fri
- SV9000 Appliance Server Telephone System
  - CHF68 5 Mon-Fri
- SV9000 Standard Server Telephone System
  - CHF69 5 Mon-Fri
- SV9000 Telephone System
  - CHF68 4 Mon-Fri
- FOXOLM Overlay Management System
  - CHF91 2 Mon-Tue
- FOX615 Access/Transport MUX
  - CHF92 5 Mon-Fri
- FOX615 Access/Transport MUX – Basic Features
  - CHF93 3 Mon-Wed
- FOX615 US Network Management System – Advanced Features
  - CHF94 2 Thu
- FOX615 US TDM Utility Grade Access/Transport MUX
  - CHF95 5 Mon-Fri
- FOX615 US TDM Access/Transport MUX for FOX615 Experienced Users
  - CHF96 5 Mon-Fri
- FOX615 US Advanced Packet Switch features for expert users
  - CHF97 5 Mon-Fri
- FOX615 US MPLS-TP Utility Grade Access/Transport MUX – Basic Features
  - CHF98 5 Mon-Fri
- FOX615 US MPLS-TP Utility Grade Access/Transport MUX – Advanced Features
  - CHF99 5 Mon-Fri

### Learning Center Substation Automation and Protection

- ELC100 Substation Automation and Protection
  - CHS101 5 Mon-Fri
- Smart Grid the Power System of the Future – Fundamentals & Applications
  - CHS060 4 Mon-Thu
- Power System Technology – Fundamentals
  - CHS100 5 Mon-Fri

### Communication Networks

- Organizing Learning Center (LC):
  - LC Communication Networks, Baden
  - LC Substation Automation and Protection, Baden

The latest version of our course schedule can be found on internet:

Several courses can be conducted on request in other languages with English documentation. It is also possible to combined different course modules to one course cluster for a specific training group.

ABB University Switzerland - Course Schedule 2017 for Power Grids - Grid Automation

LC Title No. Days Remark

Week 5 2 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52

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### Contact Information

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The courses are in French spoken, but with English documentation.

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