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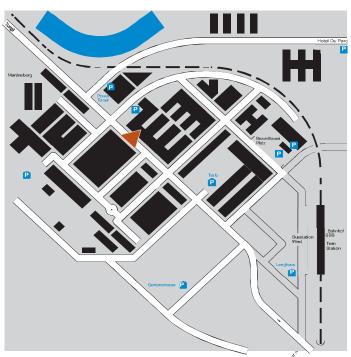# – Communication Networks

ABB

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.

Travel information

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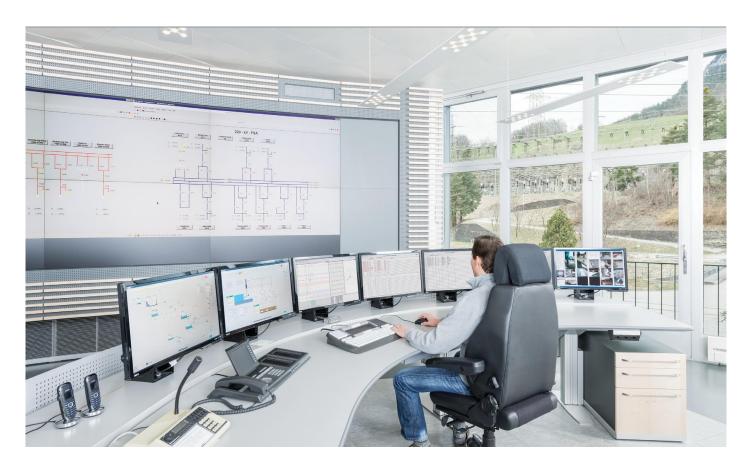
Training conditions

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.

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.

Power Grids - Grid Automation
LC Substation Automation & Protection

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.

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EDU QUA
Schweizerisches Qualitätszertifikat für Weiterbildungsinstitutionen
Certificat suisse de qualité pour les institutions de formation continue
Certificato svizzero di qualità per istituzioni di formazione continua

Learning Center Substation Automation & Protection
Course Schedule 2017

			JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC

Calendar header (Week numbers): 52 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

LC	Title	No.	Days	Remark
	Power Systems			
	Basic Courses			
	Power System Technology – Fundamentals	CHS100	5	Mon-Fri
	Smart Grid the Power System of the Future – Fundamentals & Applications	CHS060	4	Mon-Thu
	Principles, Disposition & Components of HV-Substations – Applications & System Solutions	CHS004	5	Mon-Fri
New	Planning & Realization of Electrical Traction Systems for Railways – Applications & System Solutions	CHS008	3	Tue- Thu
	Substation Automation and Protection			
	Basic Courses			
	IEC 61850 Substation Automation Systems – Fundamentals	CHP107	5	Mon-Fri
New	Digital Substation - Fundamentals & Applications	CHP101	2	Mon-Tue
	Cyber Security for Power Utilities – Fundamentals	CHP108	2	Mon-Tue
	System Architecture Design for Substation Automation with IEC 61850 – System Solutions	CHP184	3	Mon-Wed
	Telecontrol Protocols for Power Utilities – Fundamentals	CHP142	2	Mon-Tue
	Ethernet Switching and TCP/IP – Introduction	CHP522	2	Thu-Fri
	Protection for Electrical Power Systems – Fundamentals	CHP102	5	Mon-Fri
	Protection in Power Plants – Applications	CHP131	5	Mon-Fri
	Protection for Transmission Lines – Applications	CHP132	5	Mon-Fri
	Protection for Busbars, Circuit Breakers and Power Transformers – Applications	CHP133	5	Mon-Fri
	Protection for Distribution Networks and Industry – Fundamentals & Applications	CHP134	5	Mon-Fri
New	Advanced Protection for various Power Networks – System Solutions	CHP188	8	Mon-Wed
	Product Courses			
	Relion® 670/650 series with PCM600 – Operation & Maintenance	CHP115	3	Mon-Wed
	Relion® 670 series for Transmission Protection Solutions – Configuration	CHP155	5	Mon-Fri
	Relion® 670/650 series for Generator Protection Solutions – Configuration	CHP156	5	Mon-Fri
	Relion® 650 series for Transmission Protection Solutions – Configuration	CHP041	4	Mon-Thu
	Relion® 615/620 series with PCM600 – Operation & Engineering	CHP118	2	Thu-Fri
	Relion® 630 series – Operation	P263	1	Wed
	Relion® 630 series – Programming	P264	2	Thu-Fri
	REB500/REB500sys Busbar and Station Protection System – Operation & Maintenance	CHP113	3	Mon-Wed
	REB500/REB500sys for Busbar & Station Protection Solutions – Configuration	CHP153	2	Thu-Fri
	PCM600/ITT600 for IEC 61850 Integration & Testing – System Integration	CHP190	2	Thu-Fri
	IET600/ITT600 for IEC 61850 Integration & Testing – System Integration	CHP191	5	Mon-Fri
	MicroSCADA Pro for Substation Automation – Operation	CHP122	2	Mon-Tue
	Substation Automation System – Maintenance	CHP126	3	Wed-Fri
	MicroSCADA Pro for Substation Automation Solutions – Configuration	CHP172	4	Thu-Tue
	SDM600 System Data Management – Operation & Configuration	CHP170	1	Wed
	RTU560 Remote Terminal Unit Basic – Operation & Configuration	CHP030	3	Wed-Fri
	RTU560 as IEC 61850 Gateway – Configuration	CHP175	2	Mon-Tue
	IET600/ITT600 for SAS600 Maintenance – System Integration	CHP194	8	Wed-Fri
New	IET600 for IEC 61850 Integration with MicroSCADA – System Integration	CHP195	10	Wed-Tue
	NSD570 Teleprotection Equipment	CHP574	2.5	Mon-Wed
	NSD570 IEC61850 GOOSE Interface	CHP575	1	Thu
	AFS600 Switch Family	CHP558	3	Mon-Wed
	AFF Firewall	CHP560	2	Thu-Fri
	German Courses			
	Schutz in elektrischen Netzen – Grundlagen	CHP102	5	Mon-Fri
	Relion® 670/650 Serie mit PCM600 – Betrieb & Unterhalt	CHP115	3	Mon-Wed
	Relion® 670/650 Serie Generatorschutzlösungen – Konfiguration	CHP156	5	Mon-Fri

Legend:
= Public holidays   **G** = German   **E** = English

* The course is in the specific language spoken, but with English documentation
(Mon = Monday; Tue = Tuesday; Wed = Wednesday; Thu = Thursday; Fri = Friday)
(Mo = Montag; Di = Dienstag; Mi = Mittwoch; Do = Donnerstag; Fr = Freitag)

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

LC	Title	No.	Days	Remark
	Substation Automation and Protection			
	On Request			
	Power System Analysis – Fundamentals (incl. in CHP188)	CHS003	3	on request
	Specification of Instrument Transformers for Protection – Applications (incl. in CHP188)	CHP135	3	on request
	Advanced Protection in Transmission Networks – System Solutions (incl. in CHP188)	CHP181	5	on request
	Advanced Protection in Industrial Networks – System Solutions (incl. in CHP188)	CHP182	5	on request
	IEC 61850 Standard for Utility Automation – Fundamentals (incl. in CHP107)	CHP143	3	on request
	REF542plus Feeder Protection & Control IED – Operation & Maintenance	CHP114	2	on request
	REF542plus for Control and Protection Solutions – Configuration	CHP164	4	on request
	REG216/316°4 for Generator Protection Solutions – Configuration	CHP151	5	on request
	PSM500 Power System Monitoring – Configuration	CHP171	3	on request
	RTU560 Remote Terminal Unit Advanced – Configuration	CHP031	3	on request
	RTU560 Remote Terminal Unit PLC Programming – Configuration	CHP032	3	on request
	ITT600 SAS Explorer for IEC61850 Systems – Operation & Maintenance	CHP192	2	on request

The latest version of our course schedule can be found on Internet:
http://new.abb.com/service/abb-university/ch/lc-sas

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.

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ABB
Power and productivity
for a better world™

Power Grids - Grid Automation
LC Communication Networks

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.

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Web   http://new.abb.com/service/abb-university/ch/lc-com.net

Learning Center Communication Networks
Course Schedule 2017

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Week	52 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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Tu	27 03 10 17 24	31 07 14 21	28 07 14 21 28	04 11 18 25	02 09 16 23	30 06 13 20 27	04 11 18 25	01 08 15 22 29	05 12 19 26	03 10 17 24	31 07 14 21 28	05 12 19 26
We	28 04 11 18 25	01 08 15 22	01 08 15 22 29	05 12 19 26	03 10 17 24	31 07 14 21 28	05 12 19 26	02 09 16 23 30	06 13 20 27	04 11 18 25	01 08 15 22 29	06 13 20 27
Th	29 05 12 19 26	02 09 16 23	02 09 16 23 30	06 13 20 27	04 11 18 25	01 08 15 22 29	06 13 20 27	03 10 17 24 31	07 14 21 28	05 12 19 26	02 09 16 23 30	07 14 21 28
Fr	30 06 13 20 27	03 10 17 24	03 10 17 24 31	07 14 21 28	05 12 19 26	02 09 16 23 30	07 14 21 28	04 11 18 25	01 08 15 22 29	06 13 20 27	03 10 17 24	01 08 15 22 29

LC	Title	No.	Days	Remark	Scheduled (English sessions)
Communication Networks					
Basic Courses					
	Utility Communications – Fundamentals	CHP511	3	Wed-Fri	E (Aug)
	Communication Solutions for Distribution Networks	CHP516	3	Wed-Fri	E (Aug)
	Utility SDH Networks – Fundamentals	CHP520	2	Thu-Fri	E (Feb)
	Ethernet Switching and TCP/IP – Introduction	CHP522	2	Thu-Fri	E (Mar), E (Aug)
	Wireless Communication – Introduction	CHP523	2	on request	
	Cyber Security for Power Utilities – Fundamentals	CHP108	2	Mon-Tue	E (Apr), E (Jun), E (Nov), E (Dec)
	Utility MPLS-TP Networks – Fundamentals	CHP525	2	Thu-Fri	E (Feb), E (Nov)
	IEC 61850 Substation Automation Systems – Fundamentals	CHP107	5	Mon-Fri	E (Mar), E (Aug)
	Smart Grid the Power System of the Future – Fundamentals & Applications	CHS060	4	Mon-Thu	E Tue-Fri (Apr), E (Aug)
	Power System Technology – Fundamentals	CHS100	5	Mon-Fri	E (Feb), E (Aug)
Product Courses					
	FOX515H & Hs Multiservice Utility MUX	CHP552	3	Wed-Fri	E (Feb)
	FOX505 Access MUX	CHP553	4	Mon-Thu	E (Aug)
	FOXView Enterprise Network Management System	CHP554	1	Fri	E (Feb), E (Aug)
	FOX605 A Secure MPLS enabled Utility MUX	CHP555	4	Mon-Thu	E (Feb), E (Aug)
	FOX660 Multiservice Utility MUX for TDM Transport	CHP556	3	Wed-Fri	E (Mar), E (Aug)
	FOX660 Multiservice Utility MUX for Packet Switch Transport	CHP557	3	Mon-Wed	E (Apr), E Wed-Fri (Sep)
	FOX660 Multiservice Utility MUX for Optical Transport	CHP571	3	on request	
	AFS600 Switch Family	CHP558	3	Mon-Wed	E (Mar), E (Aug)
	AFR Router	CHP559	3	on request	
	AFF Firewall	CHP560	2	Thu-Fri	E (Mar), E (Aug)
	AFSView Network Management System	CHP561	1	on request	
	ETL600 R3 Universal Digital PLC Equipment	CHP568	5	on request	
	ETL600 R4 for Experienced ETL600 R3 Users	CHP569	2	on request	
	ETL600 R4 Universal Digital PLC Equipment	CHP570	5	Mon-Fri	E (Mar), E (May), E (Aug), F (Sep)
	NSD570 Teleprotection Equipment	CHP574	2.5	Mon-Wed	E (Mar), E (Jun), F (Aug), E (Nov)
	NSD570 IEC61850 GOOSE Interface	CHP575	1	Thu	E (Mar), E (Jun), E (Nov)
	Tropos Wireless Mesh Networks	CHP582	3	Mon-Wed	E (Mar), E (Aug)
	iS3000 SIP@NET Telephone System	CHP586	5	Mon-Fri	E (May)
	iS3000 SIP@NET Trunk Routing and Advanced Features	CHP587	5	Mon-Fri	E (May)
	SV9500 Appliance Server Telephone System	CHP588	5	Mon-Fri	E (Oct)
	SV9500 Standard Server Telephone System	CHP589	5	Mon-Fri	E (Nov)
	SV9100 Telephone System	CHP590	4	Mon-Thu	E Tue-Fri (May), E (Nov)
	FOXOLM Overlay Management System	CHP591	2	Mon-Tue	E (Oct)
	FOX515 Access/Transport MUX	CHP592	5	Mon-Fri	E (Feb), E (Aug)
	FOXMAN-UN Network Management System - Basic Features	CHP593	3	Mon-Wed	E (Mar), E (May), E (Oct), E (Nov)
	FOXMAN-UN Network Management System - Advanced Features	CHP594	2	Thu-Fri	E (Mar), E (May), E (Oct)
	FOX615 as TDM Utility Grade Access/Transport MUX	CHP595	5	Mon-Fri	E (Mar), E (Apr), E (May), E (Jun), E (Aug), F (Sep), E (Nov), E (Dec)
	FOX615 as TDM Access/Transport MUX for FOX515 Experienced Users	CHP596	5	Mon-Fri	E (Jun), E (Aug)
	FOX615 Advanced Packet Switch features for expert users	CHP597	5	Mon-Fri	E (Jun), E (Dec)
	FOX615 as MPLS-TP Utility Grade Access/Transport MUX - Basic Features	CHP598	5	Mon-Fri	E (Mar), E (May), E (Oct), E (Nov)
	FOX615 as MPLS-TP Utility Grade Access/Transport MUX - Advanced Features	CHP599	3	Mon-Wed	E (Mar), E (May), E (Oct), E (Dec)

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