

The 14th IET International Conference on AC and DC Power Transmission (ACDC 2018)

Draft programme



Valid on 14th May 2018 only, final programme is subject to change

Date	Time	Activity	Programme					Location				
27th June	All DAY	10:00-17:00	Registration	Conference Registration, collecting delegate pack					Registration Desk			
28th June	Morning	08:00-09:00	Registration	Conference Registration, collecting delegate pack					Registration Desk			
		08:30-09:00	Opening Ceremony	Opening Remark by Professor Rong ZENG, ACDC 2018 Conference Chair -10 mins Opening Remark by the representative from Chengdu local government -5 mins Opening Remark by Consul General of British Consulate -5 mins Opening Remark by Mr. Joseph Du, IET China Country Manager -10 mins					Main Conference Hall			
		9:00-10:20	Plenary Session 1	Speech 1 - 20 mins Speech 2 - 20 mins Speech 3 - 20 mins Speech 4 - 20 mins	Farhad Rachidi Licheng Li Guangfu Tang Ram Adapa	Electromagnetic Time Reversal: From Theory to Applications in Power Systems Advances in DC Transmission Technology Role of HVDC and FACTS in Future Smart Electric Grid Multi-terminal VSC-UHVDC Project			Main Conference Hall			
		10:20-10:40	Refreshment Break & Poster Display							Foyer & Exhibition Area		
		10:40-12:30	Plenary Session 2	Speech 5 - 20 mins Speech 6 - 20 mins Speech 7 - 20 mins Speech 8 - 20 mins	Boon Teck Ooi Christian Franck Ramon Blasco-Gimenez Dongli Lee	Integration of large wind farms into HVDC grids Power Conversion Technology In search of next generation gases for high-voltage gas-insulated switchgear TBD			Main Conference Hall			
	Noon	12:30-13:30	Lunch Break							Lower Ground Canteen		
	Afternoon	13:30-15:10	Report Session A	A1. Converter 1 Li RAN	A2. Circuit Break 1 Zhanqing YU	A3. Medium & Low Voltage 1 Chengyong ZHAO	A4. DC/DC Transformer Biao ZHAO	A5. New Energy Access 1 Qianjin LIU	Poster Display PO0001 to PO0225 All Day	Conference Room 1-5 & Exhibition Area		
				Refreshment Break & Poster Display								
				B1. Converter 2 Qiang SONG	B2. Control & Protection 1 Shukai XU	B3. Medium & Low Voltage 2 Zheng XU	B4. Simulation Analysis & Overvoltage and Electromagnetic Environment	B5. UHVDC Projects 1 Jian LI				
				Drink Reception (TBC)								
29th June	Morning	9:00-10:40	Report Session C	C1. Converter 3 Lu QU	C2. Circuit Break 2 Xiang WU	C3. Medium & Low Voltage 3 Yuming ZHAO	C4. Simulation Analysis & Overvoltage and Electromagnetic Environment	C5. New Energy Access 2 Bangwook Lee	Poster Display PO0226 to PO0450 All Day	Conference Room 1-5 & Exhibition Area		
				Refreshment Break & Poster Display								
				D1. Converter 4 Zedong ZHENG	D2. Control & Protection 2 Zhichang YUAN	D3. Material & Equipment 1 Jinliang HE	D4. Simulation Analysis & Overvoltage and Electromagnetic Environment 3 Bo ZHANG	D5. UHVDC Projects 2 TBC				
	Noon	12:30-13:30	Lunch Break							Lower Ground Canteen		
	Afternoon	13:30-15:10	Report Session E	E1. New Energy Access 3 Chao YANG	E2. AC Transmission Tech Yulong HUANG	E3. Material & Equipment 2 Qi LI	E4. Simulation Analysis & Overvoltage and Electromagnetic Environment	E5. UHVDC Projects 3 TBC	Conference Room 1-5 & Exhibition Area			
Refreshment Break & Poster Display												
Afternoon	15:30-17:10	Report Session E	F1. Converter 5 Dawei YAO	F2. Others 1 Chijie ZHUANG	F3. Others 2 Jun HU	F4. Simulation Analysis & Overvoltage and Electromagnetic Environment	F5. UHVDC Projects 4 TBC	Conference Room 1-5 & Exhibition Area				
			Technical Visit to Sichuan Energy Internet Research Institute Tsinghua University & Chengdu Tianfu New Area Exhibition Hall									
30th June	9:00-17:00	Technical Visit to Sichuan Energy Internet Research Institute Tsinghua University & Chengdu Tianfu New Area Exhibition Hall										
01st July	9:00-17:00	Chengdu Tianfu New Area Exhibition Hall										

Oral Presentation (Session A)



Session A	Oral ID	Paper ID	Title	All authors (first, last)
Session A1	A1.1	0026	Power conditioning system control strategy for cascaded H-bridge converter battery energy storage system	Hashim Hasabelrasul, Xiangwu Yan, Abuzaid Saeed Gadallah
	A1.2	0027	Power and Energy Balance for Cascaded H-bridge Multilevel Inverter based on Virtual Synchronous Generator	Hashim Hasabelrasul, Xiangwu Yan, Abuzaid Saeed Gadalla
	A1.3	0043	Performance of the Battery Energy Storage Systems Based on the Modern Cascaded Multilevel Converter	Abuzaid Saeed Gadalla, Xiangwu Yan, Hashim Hasabelrasul
	A1.4	0074	Design, analysis and testing of PP-IGBT based submodule stack for the MMC VSC HVDC with 3000A DC bus current	Huifeng Chen, Frank Wakeman, Julian Pitman, Gangru Li
	A1.5	0103	Stability Analysis of Distributed Generation Grid - connected Inverter	xuemei zheng
Session A2	A2.1	0482	Research on the fitting method to describe the mathematic expression of VFTO in GIS	Almenweer Reem, xin Su, Xiu Wu
	A2.2	0548	Fast Limit Current Optimization Scheme and Simulation Analysis of Hybrid HVDC Circuit Breaker	Liu Lulu, Hu Siqun, Han Kun, Hu Qiuling
	A2.3	0564	Research of SF Circuit Breaker Based on Similarity Theory	Hai Chen, Yaqian Zhang, Liying Li, Wei Liu, Xiaoming Liu
	A2.4	0567	Experimental Research of Arc Characteristics for 40.5kV Vacuum Circuit Breaker	X H Zhan, X M Liu, L N Li, G J Zhu, P Y Li
	A2.5	0592	Study on Voltage Distribution Characteristic of a 363kV Fast Multi-break Vacuum Circuit Breaker	Ai Shaogui, Yu Xiao, Huang Yongning, Yang Fan, Fan Yiping, Li Xing

Session A3	A3.1	0001	The paramount importance of using distributed extra-low direct current voltage in the built environment	Moshe Kinn
	A3.2	0095	A Review of the DC Voltage Coordinated Control Strategies for the Multi-terminal VSC MVDC Distribution Network	Patrobers Simiyu, Ai Xin, Girmaw Teshager Bitew, Muhammad Shahzad, Wang Kunyu,
	A3.3	0118	Analysis of DC Voltage Oscillation Mechanism in AC/DC Hybrid Distribution System	L Y Li, W Pei, H Xiao, W Deng, L Kong
	A3.4	0122	Transient Stability Analysis of One Special Type of AC Microgrids With a Gas Reciprocating Generator Unit	Jun Liu, Huiwen Sun, Can Su, Jun-hui Wu, Gui-quan Han, Jian He
	A3.5	0199	Research on the Dual-terminal Ring Topology-based DC Microgrid System	Yijun Fei, Jun Zhuang, Guanjun Li, Liangzhong Yao, Bo Yang
	A3.6	0820	Research on the Transformerless Connection Mode For DC Power Distribution System	Y Yu, D Z Jiang, Y Q Liang, J T Chen
Session A4	A4.1	0080	Benefit Analysis of Using Multi-port and Multi-function Power Electronic Transformer Connecting Hybrid AC/DC Power Grids	Yanhong Yang, Wei Pei, Wei Deng, Shizhong Zhang
	A4.2	0129	Input-Parallel-Output-Series Control Strategy for Three-level MVDC Grid Type Converter	Faisal Mehmood shah, Wenqiang xie, WenLi Yan, Rui Li, Han Minxiao, Girmaw
	A4.3	0578	Hybrid-wave Modulation for Modular Multilevel High-frequency DC Converter in DC Distribution Application	Yu Wang, Yuewu Wang, Guidong Zhang, Sizhe Chen, Yun Zhang
	A4.4	0630	DIRECT POWER CONTROL OF DUAL-ACTIVE-BRIDGE DC-DC CONVERTERS BASED ON UNIFIED-PHASE SHIFT CONTROL	F An, W S Song, K X Yang
	A4.5	0701	A Novel High-Conversion-Ratio Bidirectional Three-Phase DC–DC Converter	F Wang, Y B Wang, F Y Zhang, C P Teng

Session A5	A5.1	0036	Optimal configuration of battery energy storage systems using for rooftop residential photovoltaic to improve the voltage profile of distributed network	Jinrui Tang, Defu Cai, Chengqing Yuan, Yuanchao Qiu, Xiangtian Deng, Yunhui
	A5.2	0105	research on the self-discipline control strategy of dispersed wind power	jing wang, jiangdong duan, lupeng chen
	A5.3	0165	Low Frequency Oscillation Analysis of AC/DC System with Offshore Wind Farm Integration via MMC-based HVDC	Zhongrui Nie, Libao Shi, Yue Zhao, Yixin Ni
	A5.4	0339	Influence of wind turbine blade modeling on echo Doppler characteristics	Bo Tang, Bin Hao, Li Huang, Jiawei Yang
	A5.5	0374	A NOVEL MPPT METHOD BASED ON LARGE VARIANCE GA-RBF	Zhang Jing, Liu Ning, Xu Jiabin, Zhao Shengfang, Xu Yan

Oral Presentation (Session B)



Session B	Oral ID	Paper ID	Title	All authors (first, last)
Session B1	B1.1	0134	An Improved Hybrid Modular Multilevel Converters with DC Short-Circuit Fault Ride-Through Capacity	Yuhang Lei, Gangquan Si, Jianwei Zhu, Yanbin Zhang
	B1.2	0282	Hierarchical Control of Parallel Voltage Source Inverters in AC Microgrids	Zhongwen Li, Zhiping Cheng, Yali Xu, Yifan Wang, Jing Liang, Jinfeng Gao
	B1.3	0305	The Sub-module Voltage Balanced Control Strategy of MMC-HVDC Based on Model Prediction	M. Zhang, B. Li
	B1.4	0359	Calculation Method of Critical Voltage Drop of DC Commutation Process considering AC system three-phase fault moments	Jingqiu Zhang, Yongli Li, Jingzhao Song, Xiaolong Chen, Yunke Zhang
	B1.5	0378	An Iterative Design method of LCL Filter for Grid-Connected Converter to Achieve Optimal Filter Parameter Combination	Li Tong, Chao Chen, Xianjun Shao, Qicheng Zhao, Jianping Zhang
	B1.6	0388	An Improved Model Predictive Control Method for Photovoltaic Voltage Source Inverter	Baojiang Wu, Yi Zhang
Session B2	B2.1	0057	A fault location scheme for meshed MMC-MTDC grids based on current traveling waves	Shuo Zhang, Guibin Zou, Chenjun Sun, Jie Zhang, Qiang Huang
	B2.2	0067	A fast single-end line protection method for the meshed multi-terminal HVDC Grid	Q Huang, G B Zou, C H Xu, J Zhang, S Zhang
	B2.3	0072	Identification method based on correlation analysis for SPTG fault in MMC-MVDC system	Yu Zeng, Guibin Zou, Chenjun Sun, Shan He, Lingtong Jiang

	B2.4	0091	PRINCIPLE OF ULTRA-HIGH-SPEED PROTECTION FOR DC TRANSMISSION LINE BASED ON INVERSION TRANSFORMATION OF WAVE FRONT	Chenhao Zhang, Guobing Song, Wei Han, Guang Shi, Chao Liu
	B2.5	0158	Study on the suppression measures of commutation failure in MIDC transmission systems	qing wang, kaipei liu, ling wang
Session B3	B3.1	0201	Construction of an example system for AC / DC hybrid power grid with high proportion renewable energy	Dawei Zhao, Minhui Qian, Jin Ma, Lingzhi Zhu, Liangzhong Yao, Kun Ding, Hualing Han
	B3.2	0390	Zero-Sequence Circulating Currents Inhibition of Microgrid Based on MPC and Droop Control	XH Yang, XQ Han, PX Wang
	B3.3	0475	Real-time Diagnosis of High Speed Rail Traction Transformer in Different Topologies	Ming Tu, Wei Yan, Yang Zhao, Enrong Wang, Chunxiao Fu, Runqing Ma, Jiaming Zhu
	B3.4	0537	A Novel Architecture of Urban Rail Transit Power Supply Based on PET Braking Energy Feedback	Hao Liu, Zedong Zheng, Zheng Xu
	B3.5	0572	Comprehensive Inertia Control for Hybrid AC_DC Distribution System	Li He, Yong Li, Ming Wen, Yijia Cao, Jingrong Shi
	B3.6	0577	Network Reconfiguration and Operation Optimization of Distribution System with Flexible DC Device	Yanhong Yang, Shizhong Zhang, Wei Pei, Jianjun Sun, Yi Lu
Session B4	B4.1	0068	Study on Characteristics of Slow-front Overvoltage of ± 1100 kV UHVDC Transmission Lines	Jiqun Zhong, Qinya Qi, Hengxin He, Huiwen He, Ting Ding, Junjia He
	B4.2	0094	Multi-Layer Power System Tearing Methodology for EMT-TS Hybrid Parallel Simulation	Qing Mu, Xing Zhang, Chunming Gong, Yu Chen
	B4.3	0110	The study on the calculation of shielding failure for DC transmission lines	Jinbo Wu, Wei Cao, Shuai Wan, Shanqiang Gu, Jian Wang, Jinliang He
	B4.4	0172	Modelling and Control of a back to back MMC-HVDC system using ADPSS	Pucheng Cai, Wang Xiang, Jinyu Wen

	B4.5	0202	Application of Short-Time Fourier Transform for Harmonic-Based protection of Meshed VSC-MTDC Grids	Mani Ashouri, Filipe Faria Da Silva, Claus Leth Bak
	B4.6	0250	Study on the lightning overvoltage protection of a 500kV unified power flow controller station	Ting Ding, Fengbo Tao, Hengxin He, Jiqun Zhong, Junjia He, Huiwen He
Session B5	B5.1	0082	Singular Value Decomposition-based Dynamic Response Analysis of VSC-MTDC/AC Systems for Renewable Energy Integration	hua ye, Wei Pei, Li Kong, Yao Liu, Yanan Tang
	B5.2	0093	Novel Reclosure Scheme of MMC-HVDC System Based on Characteristic Signal Injection	Ting Wang, Guobing Song, Lei Wu, Wei Han, Guang Shi, Chao Liu
	B5.3	0097	Small-Signal Stability Analysis for the Multi-terminal VSC MVDC Distribution Network; A Review	Patrobers Simiyu, Ai Xin, Girmaw Teshager Bitew, Muhammad Shahzad, Wang Kunyu, Peter Mutegi
	B5.4	0163	A Dual-Loop Supplementary Frequency Control Scheme for Back-to-back VSC-HVDC Interconnecting Asynchronous AC Grids	L Zeng, D Li, W Yao, J Sun, J Wen
	B5.5	0182	A hybrid ultra HVDC system with LCC and cascaded hybrid MMC	R Z Yang, W Xiang, Weixing Lin, Jinyu Wen

Oral Presentation (Session C)



Session C	Oral ID	Paper ID	Title	All authors (first, last)
Session C1	C1.1	0397	Switching Frequency Regulation in Sliding Mode Control for Synchronous Buck Converter	S B Liu, Z Y Feng, Y Cai
	C1.2	0417	Fuzzy Quasi-PRD Control for the Photovoltaic Inverter with LCL Filter	Like Cao, Yongjin Yu, Qingchun Han
	C1.3	0456	The Influence on Energy Conservation of Power System By Introducing UPFC	F Chen, B W Wang, H Q Lu, W W Xu, J Wu, C Y Lu
	C1.4	0496	A multi-hierarchy control strategy in abc coordinate for modular multilevel matrix converter in fractional frequency transmission system	Zhujian Ou, Guangzhu Wang
	C1.5	0517	Loss Reduction Analysis and Control of AC-Voltage-Boosted FBSM MMC by Injecting Second Harmonic Circulating Current	Muchao Xiang, Jiabing Hu, Zhiyuan He
Session C2	C2.1	1002	Research on Temperature Rise of High Current Switchgear in Distribution Power System	Suxiong Cai, Xiaorui Wang, Zhaowei Peng, Zhanqing Yu, Shisen Gao, Zerong Huang,
	C2.2	1005	CLOSING PERFORMANCE OF THOMSON-COIL ACTUATOR FOR 110KV FAST MECHANICAL SWITCH	Yannan Zhou, Yulong Huang, Weijie Wen, Keke Sun, Bo Men, Jibin Zhu
	C2.3	1009	A Review of HVDC Breakers	Yi Wu, Yifei Wu, Fei Yang, Mingzhe Rong, Yang Hu, Qiang Yi
	C2.4	1013	Two Basic Ways to Realize DC Circuit Breakers	Zheng Xu, Huangqing Xiao, Yuzhe Xu

Session C3	C3.1	0668	Impact Analysis of Traction loads on Power Grid Based on Probabilistic Three-Phases Load Flow	Yulong Che, Xiaoru Wang, Xiaoqin Lv, Yi Hu, Longyuan Li, Haoyue Chen
	C3.2	0692	Research on Influencing Factors and Improving Methods of DC Power Distribution System	X S Zhao, K Peng, X H Zhang, J S Liu, Y L Zhao, J J Chen
	C3.3	0728	A service restoration strategy of AC/DC hybrid distribution networks	Chengwei Lou, Lu Zhang, Xiaohui Zhang, Pengwei Cong, Wei Tang, Jun Liang
	C3.4	0758	Control scheme for multi-terminal VSC-based medium-voltage DC distribution networks	Yirun Ji, Zhichang Yuan, Jianfeng Zhao, Yuming Zhao, Yan Li, Guoxiang Li
	C3.5	0760	A general decoupled AC/DC power flow algorithm with MTDC	S Gao, H Ye, Y Du, H Liu
	C3.6	1031	Steady-State Model of Multi-Port Electric Energy Router (EER) and Power Flow Analysis Method of AC/DC Hybrid System Considering Control Strategies	Yu Shen, Fengju Zhu, Chunpeng Zhang, Weiqian Cai, Liqiang Yuan, Kai Li, Zhengming Zhao
Session C4	C4.1	0358	Researches on Reradiation Interference from UHV Power Lines with the LE-PO	B Tang, Y.W Li, H.S Hhuang
	C4.2	0360	Simulation and Analysis of Wind Motor Radar Echo Signal on Geoelectric Background	BO Tang, Peng Feng, Fang Zou
	C4.3	0455	EMI Radiation noise Suppression Technology by inductor current recoil on Boost PFC	Zhou Shen, Yang Zhao, Yan Wei, Jin Yu, Mengxia Zhou, Tao Chen, Jianming Zhu
	C4.4	0612	A simulation of drag reduced conductors based on a new accurate model using FEM	P J Wang, Y C Gao, H W Wang, M Qiao, M Xia, Q Q Li
	C4.5	0618	Modeling of the two-dimensional scattering center of the wind turbine based on FEKO	Bo Tang, Hao Chen, Li Huang, Haobang Liu

Session C5	C5.1	0407	Optimal control of improved LCLL type photovoltaic grid-connected current based on joint control of QPR and PI	liu yumei, zhao qiaoe, Gao ge
	C5.2	0434	RESEARCH AND CONSTRUCTION OF WIDE-AREA SUBSYNCHRONOUS AND SUPERSYNCHRONOUS OSCILLATIONS MONITORING SYSTEM IN ENERGY INFLUX	Yan-Jiang QIU, Xin-yan ZHANG, Chao ZHANG
	C5.3	0516	Risk assessment of demand response considering wind power generation	Min Lei, Shuangye Mo, Wuqing Wei, Yifei Hua, Bolun Zhang
	C5.4	0608	Big Data-driven Research on Power Model Parameters Identification and Wind Resource Utilization Evaluation for Wind Turbine	Z G Li, M Y Liu, N Liu, F Yao, Y L Peng
	C5.5	0615	Research on the strategy of cooperative control between photovoltaic grid-connected and reactive power compensation technology	Z G Li, Y L Peng, F Yao, M Y Liu

Oral Presentation (Session D)



Session ID	Oral ID	Paper ID	Title	All authors (first, last)
Session D1	D1.1	0520	Study on pre-charging process and pre-insertion resistors selection of VSC-HVDC system with different MMC topologies	Lu Yuxin, Huang Ying, Zhao Xiaobin, Xu Dizhen, Guo Long, Qin Kang
	D1.2	0521	Influence of the Clamping Force on the Power Cycling Lifetime Reliability of Press Pack IGBT Sub-module	E P Deng, J W Zhang, Z B Zhao, J Chen, J Y Li, Y Z Huang
	D1.3	0538	An Optimal Reactive Power Control Scheme for Rectifier Station Considering the Coordination Control of Low-voltage Reactor and AC System	Z J Hui, Z G Hao, Y Zhang, H S Zou, X J Yu, Z Y LIU
	D1.4	0552	Study on the radiation of boost PFC under critical working mode of power equipment circuit	Jian Sang, Minghui Sun, Zhuang Wang
	D1.5	0561	Research on the voltage regulation strategy of AC distribution network based on distributed PV grid-connected inverter	Xiangqian Tong, Minghang Zhong, Xiaoqing Zhang, Jun Deng, Zhihua Zhang
Session D2	D2.1	0171	DC fault detection and identification of a four-terminal MMC based DC grid using ANN method	Saizhao Yang, Wang Xiang, Jinyu Wen
	D2.2	0244	Independent-Phase Current Control of a Three-Phase VSC under Unbalanced Operating Conditions	Xianghua Shi, Shaahin Filizadeh
	D2.3	0270	Alternate Arm Modular Multilevel Converter Energy Balancing via Overlap Onset Control	Steven Howell, Haiyue Wang, Shaahin Filizadeh
	D2.4	0320	Diagnostic analysis and protective measures of transient ground potential rise in a 1000 kV UHV Substation	Fubin PANG, Qiangsheng BU, Yu LIU, Yubo YUAN

	D2.5	0353	Research on Substation-area Breaker Failure Protection Based on Principle of Current Differential	Baowei Li, Minghao Wen, Pengfei Lv, Junchao Zheng, Yaxin Su
Session D3	D3.1	0351	COMPARISON OF NATURAL CONTAMINATION ACCUMULATION CHARACTERISTICS BETWEEN COMPOSITE ROD INSULATORS AND STANDARD SUSPENDED INSULATOR	Te Li, Shaohua Wang, Haojun Liu, Yangyong Xu, Yuntu Jiang, Peng Jiang
	D3.2	0394	Impact of Variable DC Reactor on VSC-MTDC Transmission Systems	H Li
	D3.3	0448	Application of tower grounding device equivalent circuit model in the calculation of transmission back-flashover	H F Chen, H S Cai, Y Ni, L Jia, H L Lu, G Liu, L Lan
	D3.4	0483	Study on the reliability of a new kind of ± 1 100 kV DC Voltage Divider under the action of impulse voltage	pu Wu, Long Pang, Ning Yang, Jie Zhang, Xiu Wu
	D3.5	0497	The research of Non-destructive Testing for Aluminium Sheaths of HV Cables Using Ultrasonic Guided Waves	C Junping, J Hang, W Shaohua, Y Yong, Z Luyao, J Peng
Session D4	D4.1	0619	Simulation and analysis of EMP transient electromagnetic effect of aircraft	Chen Chen, Wei Yan, Yang Zhao, Enrong Wang, Chunxiao Fu, Runqing Ma, Jiaming Zhu
	D4.2	0634	Analysis on Structural Parameters and Electrical Performance of DC Deep Well Grounding Electrode	Y Teng, H S Cai, L Jia, G Liu, S M Hu, H L Lu, X S Wen
	D4.3	0661	Comparison and analysis of the fault arc characteristics of flexible DC transmission lines	B T Li, H Q Cui, Y C Liu, B Li
	D4.4	0719	Study on the Aging of Insulators Based on Surface Charge accumulation process	YC gao, PJ wang, S Ma, QQ Li, A Reng, ZR Zhao, ZT Wang
	D4.5	0720	Aging Condition Assessment of Oil-Paper Insulation by using Near Infrared Spectroscopy Detection and Analytical Technique.	Feng Tang, Yin Zhang, Bin Yuan, Yuan Li, Wen-Bo Zhang, Guan-Jun Zhang

Session D5	D5.1	0311	A Review of Oscillations In VSC-HVDC Systems Caused by Control Interactions	Congqi Yin, Xiaorong Xie, Shukai Xu, Changyue Zou
	D5.2	0326	Research on the Design Principle of the Contact Terminals in Large DC Current Loop of ± 800 kV, 10000MW UHVDC Converter Station	Peng Chen, Dongsheng Lu, Liang Ma
	D5.3	0386	Real-time Optimization of Emergency DR and HVDC Power Modulation to Improve Short-term Frequency Stability of the Receiving-end Power Systems	Luping Wang, Xiaorong Xie, Long Peng, Yinghong Hu, Yuan Zhao
	D5.4	0425	Research on Coordinated Reactive Power Control Strategy of Hybrid-HVDC	Ying Huang, Chunhua Li, Tao Liu
	D5.5	0509	Impacts on Operational Characteristics of AC/DC System with Different Grid Integration Modes of Offshore Wind Farm via MMC-based HVDC Transmission	Zhongrui Nie, Libao Shi, Yue Zhao, Yixin Ni

Oral Presentation (Session E)



Session E	Oral ID	Paper ID	Title	All authors (first, last)
Session E1	E1.1	0627	Influence of electric vehicle access mode on the static voltage stability margin and accommodated capacity of the distribution network	Xiangqian Tong, Qiao Ma, Kaiyu Tang, Huakun Liu, Cheng Li
	E1.2	0647	DISTANCE PROTECTION AND FAULT LOCATION OF THE PV POWER PLANTS DISTRIBUTION LINES	E K Mohammedsaeed, M A Abdelwahid, K Jia
	E1.3	0653	Zonotope based quantification of the impact of renewable power generations on hybrid AC/DC distribution system	Jianing Gao, Bei Han, Chenbo Xu, Lijun Zhang, Guojie Li, Keyou Wang
	E1.4	0665	An Available Transfer Capability Analysis Method of AC-DC Power System Based on Security Region	Sicheng Wang, Shan Gao
	E1.5	0700	Optimal Control of Hybrid Energy Storage System Design for Wind Power Balancing	Guannan WU, Jianyuan XU, Jun XU, Yi SONG, Gaole YU, Yuxiao WANG, Xianguo WANG
Session E2	E2.1	0081	A contingency-constrained optimization method for operating urban power grids with flexible switching stations	J Liu, H Z Cheng, Q Xu, Z Lan, P L Zeng, L Z Yao
	E2.2	0130	The WIDE AREA INTER-AREA OSCILLATION CONTROL SYSTEM IN GB ELECTRIC POWER SYSTEM	Deyu Cai, Lei Ding, Xin Zhang, Vladimir Terzija
	E2.3	0153	A Novel Methodology Solving Distribution Network Reconfiguration with Distribution Generation Placement	Zhiyun Gong, Qing Chen, Kongming Sun
	E2.4	0356	Study on the Influence of Transition Resistance and Fault Moment on DC System Commutation Process Caused by Two-Phase Fault of AC System	Jinzhao Song, Yongli Li, Yunke Zhang, Jingqiu Zhang

	E2.5	0469	Distributed Coordination Optimization Control Strategy for Active Distribution Network Based on Combine-Then-Adapt Diffusion Algorithm	L Z Wu, L B Jiang, X H Hao
	E2.6	0545	Research on DC Component Decay Time Constant of 1000 kV AC Filter Circuit Breakers in UHV Converter Station	L Zhenqiang, F Mian, H Ying, Z Zhipeng
Session E3	E3.1	0551	Development of Magnetic-wedge Linear Adjustable Reactor	Ruiyang Guan, Xinlao Wei, Qingguo Chen
	E3.2	0556	A NOVEL PROTECTION METHOD FOR VSC-HVDC TRANSMISSION LINES	L T Jiang, Q Chen, L Wang, P Zhao, Y Zeng, W D Huang
	E3.3	0606	Power cable stresses caused by transmission line faults in next generation VSC-MMC systems	P Tünnerhoff, P Ruffing, R Puffer
	E3.4	0640	Temperature Field Simulation and Ampacity Optimization of 500kV HVDC Cable	Boda Zhou, Yanjie Le, Yalin Fang, Fan Yang, Tao Dai, Lu Sun, Jiapeng Liu, Lekai Zou
	E3.5	1016	Power Module with Large Short Term Current Capability by Using Phase Change Material	Weihua Shao, Li Ran, Huaping Jiang, Debaprasad Kastha, Prabodh. Bajpai, Ruizu Wu, Philip A
Session E4	E4.1	0723	Preliminary study on the structure design of 330kV GIS with three phase in one tank	Wenlong PANG, Xixiu Wu, Shimin CHENG, Shipu WU
	E4.2	0734	Power System Stabilizer PSS4B-W Parameters Optimization and RTDS Test Verification	S Y Guo, S S Zhang, W J Zhu, L Li, H Li
	E4.3	0735	Electric field calculation and grading ring design for 750 kV four circuits transmission line on the same tower with six cross-arms	Feng Huo, Peng Zhang, Yiliang Yu, Qin Liu, Lei Chu, Xuezhong Wang
	E4.4	0737	Study on electric field distribution characteristics of maintenance area when UHV AC transmission line crossing 220 kV tower	Feng Huo, Wei Lu, Zhibin Qiu, Daochun Huang, Congpeng Huang
	E4.5	0738	Study on the breakdown characteristic of conductor-plane gap under vegetation fire condition based on the combustion features	Daochun Huang, Wei Lu, Tao Yao, Peng Li

Session E5	E5.1	0511	Study on overvoltage of hybrid LCC-VSC HVDC transmission	Dizhen Xu, Xiaobin Zhao, Yuxin Lu, Kang Qin, Long Guo
	E5.2	0589	Influence factors and reasonable arrangement of corridor width of 750kV HVAC and ± 800 kV HVDC hybrid transmission lines	Qian Zhang, Yinfei Li, Xuebao Li, Tiebing Lu
	E5.3	0590	Seismic Evaluation of ± 800 kV UHVDC Disconnect Switch by Shake Table Test	J Y Wen, Q Xie
	E5.4	0614	Research on Overvoltage and Minimum Air Clearance on 1000 kV AC Side of Converter Transformer in ± 1100 kV Guquan Converter Station	L Ying, L Zhenqiang, X Liang, W Lei
	E5.5	0616	Research on Optimization of Minimum Air Clearance of 1000 kV UHV AC Substation	L Zhenqiang, X Liang, L Jing, H Huiwen

Oral Presentation (Session F)



Session F	Oral ID	Paper ID	Title	All authors (first, last)
Session F1	F1.1	0586	PARALLEL OPERATION OF VIRTUAL SYNCHRONOUS GENERATORS AND SYNCHRONOUS GENERATORS IN A MICROGRID	X Yan, S Y Altahir, D Li, A S Gadalla
	F1.2	0607	Reliability evaluation and thermal design of medium voltage converter for underwater long-distance high-voltage direct current transmission system	Siyuan Ma, Jinbo Zhao, Cheng Luo, Qiong Chen, Ming Zha, Qiaopo Xiong, Zhiqing Luo, Qing Liu, Lei Cheng, Jie
	F1.3	0638	Multiple Modular DC Transformer for Flexible HVDC Application	Q Sun, B Zhao, Q Song, R Zeng, Y wang
	F1.4	0714	Time-sharing control of multi-inverter-module parallel system for frequency multiplication	ZHANG YANXIAO, LI SHOUZHI, CAO XIAOGE, XU WEI
	F1.5	0730	Coordination Control Strategy for LLCL-Filter Based Grid-tied Inverter with Indirect Sliding Mode Power Control and Virtual Impedance	L Z Wu, T F Liu, X H Hao
	F1.6	0759	Research on the double-loop circulating current suppressing strategy based on nonideal PR controller for modular multilevel converter	C Zhang, H Ye, Y Du, H Liu
	F1.7	0767	A novel seven-level inverter with switched capacitors	X Z Wu, Y X Zhao, F Liu, J D Liu, J Wang, J C Jiang

	F2.1	0040	Transmission congestion management considering energy internet zones' integration	YY Liu, HB Lian, XW Tang, ZQ Shen, JR Li, L Liu
	F2.2	0232	Analysis on SSR Frequency Components by Studying Two-dimensional Modulation of Synchronous Generator's Flux Linkage	Juan Li, Xiaoming Yuan, Meiqing Zhang, Zhihao Liu

Session F2	F2.3	0233	Analysis of the Influence of Dynamic Components of AC / DC Systems on Transient Voltage Stability Based on Energy Function Method	Zhang W Q, Du Z B, Huang C S, Xia C J, Zhang Y
	F2.4	0247	Fast Frequency Response for Effective Frequency Control in Power Systems with Low Inertia	Q Hong, M Nedd, S Norris, I Abdulhadi, M Karimi, V Terzija, B Marshall, K Bell, C Booth
	F2.5	0322	The Improved Travelling Wave Protection for EHV/UHV Transmission Lines	Youyi Li, Jianping Wang, Kai Liu
	F2.6	0346	Assessment Method and Metrics of Power System Resilience after Disasters	Han Zhang, Zhaohong Bie, Gengfeng Li, Yanling Lin
	F2.7	0384	Analysis of Wireless Power Transfer Based on Metamaterial Using Equivalent Circuit	C C Rong, C H Lu, Z Y Hu, X T Huang, X Tao, S M Wang, B Wei, S C Wang, M H Liu

Session F3	F3.1	0438	A Day-ahead Optimal Energy Dispatch Schedule for Integrated Energy System Based on AC/DC Interconnected Infrastructure	Aidong ZENG, Sipeng HAO, Qingshan XU, Yujun LIU, Ling JIANG
	F3.2	0459	Estimation of State-of-Charge Based on Unscented Kalman Particle Filter for Storage Lithium-ion Battery	Shengwei Gao, Mingren Kang, Longnv Li, Xiaoming Liu
	F3.3	0499	Dynamic Interaction between Synchronous Machine and DC-Power-Modulated LCC in Electromechanical Timescale	Jiazuo Hou, Shicong Ma, Xuan Gong, Jiabing Hu
	F3.4	0648	Islanding Detection Method of Distribution Generation System Based on Logistic Regression	Chen H R, Xu J Y, Li H, Chen G Q, Jiang Y Y, Cai S W, Chen J B
	F3.5	0660	A Novel Method of Wireless Power Transfer Identification and Resonance Decoupling Based on Frequency Hopping Communication	Y Li, W H Dong, Z Liu
	F3.6	0726	A Novel Coil Structure with High Power Density in Wireless Power Transfer System	Y Li, L Liu, C Zhang, J T Zhao, Q X Yang
	F3.7	0745	Study on typical transmission sections searching method considering geographical attributes for large power grids	Bing Xue, Jiandong Duan

Session F4	F4.1	0746	Monitoring of the contact state of GIS switch based on infrared sensing technology	C Chen, Z Lei, W Liqiang, L Qi, S Tao, W Wei
	F4.2	0764	Simulation Analysis of Bird Excretion's Falling Trajectory on High Altitude Area	H Q Wang, S H Wang, G H Yang, F C Lv, B Han, X Y Wang
	F4.3	0770	Study on Pollution Flashover Characteristic of Insulators on 500kV AC Transmission Lines in High Altitude Area	Ruiping Huang, Jun Zhou, Yueneng Xu
	F4.4	0837	Effects of Humidity in Variation of DC Corona-generated Space Charge in Rod to Plane Electrode	Xingming Bian, Zichen He, Junyu Zhu, Xinan Pi, Shuwei Wan, Lei Qi
	F4.5	0838	Corona Characteristics of Conductor with TiO ₂ Hydrophilic Film subjected to DC High Voltage	Xingming Bian, Yaoyu Lin, Xinan Pi, Tiebing Lu, Feifei Xu, Haibing Li, Yanxiang Ma
	F4.6	1015	STUDY ON SURFACE ELECTRIC FIELD AND GROUND NOMINAL ELECTRIC FIELD OF HVDC TRANSMISSION LINE ON SLOPE TERRAIN	Chenguang Gao, Yuanqing Liu, Jiangtao Zhao, Xirun Zhang, Wenyu Li, Hui Han, Jingchen Zhang

Session F5	F5.1	0659	Application of UPFC in Fujian 500kV Power Grid	M LI, Z S LIN, W WU, Y LIN, P B JIANG, Z D HU, R YE, Y DU
	F5.2	0691	Application of 500kV UPFC in Suzhou southern power grid	X Wang, H Wang, J Yang, Z Xu, W Sun, C Wu, C Li
	F5.3	0704	Characteristic Investigation of MMC-HVDC System Under Internal AC Bus Fault Conditions	Shuo Ma, Jianyuan Xu, Guannan Wu, Yuxiao Wang, Yi Song, Gaole Yu, Ziyi Liu
	F5.4	0721	Electric field analysis and structure design of the box of bird guard used in 220 kv transmission line	Y J Kuang, Y L Li, Y Q Deng, D C Huang, Z B Qiu
	F5.5	0724	Calculation and control of DC-bias current distribution in AC Power System around a typical ±800 kV DC grounding electrode	Wu Fangjie, Yu Shifeng, Zhao Zheng, Quan Wanlin
	F5.6	0754	Economic dispatch of power system containing UHVDC with direct power purchase by large consumers	H H Qian, Y T Jiang, W Xiang, Y B Li, Y T Hua, Z M Lin, K Wang
	F5.7	0769	Analysis of Power Transmission Limit for VSC-HVDC Feeding Weak Grid.	Aijun Wu, Zhichang Yuan, Hong Rao, Baorong Zhou, Hongxin Li

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PO0001	0004	Development of ± 660 kV DC Transmission Line Arrester	Shanqiang GU, Wei CAO, Shuai WAN, Jiahong CHEN, Jin Tan, Jian WANG, Jun Lv
PO0002	0005	Cascading failure risk assessment in power grid considering the line outage rate	song shuang, zhou weiping, xu peidong, feng jing
PO0003	0006	Development and Application of Lightning Flashover Limited Equipment for 220kV AC Transmission Line	Wei CAO, Shuai WAN, Shanqiang GU, Heng Xu, Jiahong CHEN, Jian WANG, Jun Lv
PO0004	0007	Study on Quick Judgment of Power System Stability Using Improved k-NN and LASSO Method	Dongyu Shi, Fang Tian, Tie Li, Xianbo Meng, Junci Tang, Yanhao Huang, Dai Cui, Yushi Zhang, Hui Zeng
PO0005	0008	A novel pilot protection scheme for transmission line of hybrid HVDC system based on polarity characteristics of current and voltage fault components	Y Wang, B Zhang, S Cheng
PO0006	0009	The overhead transmission line protection scheme for the VSC-based HVDC grids	Y Wang, B Zhang, X Fan
PO0007	0011	Pre-processing Approach for De-noising On-line Oil Chromatography Data Based on Self-adapting Wavelet Analysis	Chunyan GONG, Wei HU, Xiaohong WU, Bin LU, Yiming ZHENG
PO0008	0012	A Novel Optimal Approach for 550kV AC Resin Impregnated Paper (RIP) Oil-SF ₆ Immersed Bushings Design	Shiling Zhang, Qiang Yao
PO0009	0013	Analysis of Application Effect of 220kV UPFC Demonstration Project in Shanghai Grid	Cui Yong, Yu Yinghui, Feng Yuyao, Bao Wei, Guo Qiang, Xie Wei, Jin Minjie
PO0010	0014	SSO of DFIG-Based Wind Farm Integrated by Hybrid Series Compensator	Xinyao Zhu, Qian Zhou, Ningyu Zhang, Zhe Chen, Jingbo Zhao, Meng Jin
PO0011	0015	Analysis on Characteristic of DC Short-Circuit Fault in Multi-Terminal AC/DC Hybrid Distribution Network	X M Qi, W Pei, L Kong, L Y Li, H Xiao, G Niu

PO0012	0016	Novel Method for Restraining 35kV Shunt Reactor Switching Overvoltage--Phase Controlled Breaker	Yiming ZHENG, Bin YU, Wenlin HE, Dong YAN, Xianliang LI, Hua XU
PO0013	0017	Case Based Power Transformer Diagnose Model Using Nonlinear Mapping of Oil Chromatography	Yiming ZHENG, Hui YAO, Jun SHENG, Wenlin HE, Xiang SUN, Wenhao WANG, Jianguang ZHAN
PO0014	0019	Research on Interaction Between Continuous Commutation Failure of UHVDC and AC System Fault	Peng wei, Jiankun liu, Qian zhou, Ningyu zhang
PO0015	0020	Restart Progress of Fault in UHVDC After Blocking	Peng wei, Qian zhou, Jiankun liu, Chenggen wang
PO0016	0021	Fault section locating method and recovery strategy of pole-to-ground fault for MVDC distribution network	Shan He, Guibin Zou, Chenjun Sun, Shiming Liu
PO0017	0024	Pumped energy storage system technology and its AC-DC interface topology, modelling and control analysis: A review	Girmaw Teshager Bitew, Minxiao Han, Patrobers Simiyu, Zmarrak Wali Khan, Luu Kim Tuan
PO0018	0028	Control of a synchronverter-based soft normally open point in a distribution network	R Wu, L Ran, G Weiss, J Yu
PO0019	0031	Probabilistic analysis of payback period for ACDC transmission and distribution asset expansion projects	L Bin, M Shahzad, Q Bing, M U Shoukat, N A M Fahal, P Simiyu, R Islam
PO0020	0035	Calculation method of short-circuit current and voltage considering the interaction of different ports in DC system	Yan Xu, Hui Yang, Jingyan Liu
PO0021	0037	Digitally Controlled Modular Multilevel Converter (MMC) with Improved Predictive Control	M L Zhu, L J Hang, G J Li, H Guo, Y X Xing
PO0022	0038	An improved method of VDCOL to Mitigate the Commutation Failure for Conventional HVDC	Yong CUI, Mingnian LI, Xiu YANG, Dandan ZHAO, Hua HUANG, Danzhen GU
PO0023	0039	A Double-port Network Model with Fault Flag based on Multi-terminal DC System	Yuan Fu, Jingyan Liu, Yan Xu
PO0024	0041	Sub-synchronous resonance mitigation by STATCOM in DFIG-based wind farm connected to series compensated transmission network	B F Gao, Y T Hu
PO0025	0046	Analysis and Assessment Standards of Power Stability of Multi-Send HVDC Systems	Zheling Xu, Zheng Xu, Liang Xiao

PO0026	0048	Start Control of Modular Multilevel Matric Converter Based Fractional Frequency Transmission System	X L Zhang, X F Wang, X L Wang, Q H Huang, J J Fan, Q Zhou
PO0027	0050	Detailed Modeling and Simulations of an All-DC PMSG-based Offshore Wind Farm	TianYu Shi, LiBao Shi, LiangZhong Yao
PO0028	0051	The Effect of Cascade STATCOM on Stabilizing Voltage in HVDC	J Q Li, J Wen, H L Liu, S Y Yu
PO0029	0052	Study on Working Condition of AC Filter Breaker in ± 1100 kV UHVDC System	Zexin ZHAO, Jie GUO, Fang YU, Xuni Rao, Xiaoke Wu
PO0030	0053	Exploration of structural model of energy-internet distribution network	Shanshan Zhao, Xiaohui Song, Yajie Li, Fei Gao, Jianfang Li, Yu Zhang
PO0031	0054	Study of Calculation of Current Induced by Closing-loop Operation in Medium-voltage Distribution Grid	Kaiyu ZHANG, Yuyao FENG, Yinghui YU, Yong CUI, Yun SU
PO0032	0055	CONTROL METHOD FOR PARALLEL INVERTERS WITH ADAPTIVE DROOP COEFFICIENT	Qiaoe Zhao, Lele Zhang, Weiming Zhang, Qiang Zhang
PO0033	0056	A voltage pole-wave protection scheme for multi-terminal DC grid	Zhongrun Xie, Guibin Zou, Lei Gao, Jie Zhang, Houlei Gao
PO0034	0058	Research on Segmented Control of Motor Operating Mechanism for High Voltage Circuit Breaker	Y Feng, H Y Wan, J W Wu, J Lan, Y Deng
PO0035	0059	Study on Characteristics of Wind Power Transmission System with Series Compensation	Yan Li, Yongning Chi, Haiyan Tang, Chao Liu
PO0036	0060	Study on Fault Ride-through of VSC-HVDC Connected with Islanded Wind Farms Based on Forced Short Circuit of AC-side Bus of the VSC Converter	Yan Li, Chao Liu, Xinshou Tian, Zhibing Wang
PO0037	0063	Study on Quick Judgment of Small Signal Stability using CNN	Dongyu Shi, Jianfeng Yan, Bo Gao, Mei Xie, Jinxiu Hou, Gang Li, Zhihong Yu, Ying Lv, Guangming Lu
PO0038	0064	Engineering Practice of Large Scale Millisecond Accurate Load Control System of Jiangsu Power Grid	H M Hu, Q Zhou, N Y Zhang, P Wei, Z F Cui
PO0039	0066	Discussion on infrared accurate temperature measuring technology of composite insulators for overhead lines	R Liu, Q H Shen, H Liu, Y B Duan, Y Zhang, C Zhou

PO0040	0070	Research on detection technology of wire clamp on overhead lines	R Liu, X L Hu, H Zhang, R Jia, Y Zhang, C Zhou
PO0041	0071	DC Line Soft Reclosing Sequence for HVDC Grid based on Hybrid DC Breaker	Xinkai Fan, Baohui Zhang
PO0042	0075	Additional Reactive Power Control and Emergency Control of ± 1100 kV UHVDC System with Hierarchical Connection Mode	Y.X. Xiong, W. Yao, J.Y. Wen
PO0043	0076	Energy Storage-based Control of Multi-terminal DC Grid to Eliminate the Fluctuations of Renewable Energy	J.J. Nan, W. Yao, J.Y. Wen
PO0044	0077	Design and Implementation of the Integrated Experiment Cabinet for Micro Transmission Lines	Hao Li, Yi Lu, Hengxu Zhang, Zewen Zheng
PO0045	0078	Error Assessment Method of Electromechanical-Electromagnetic Hybrid Simulation	Zewen Zheng, Hengxu Zhang, Weijie Zheng, Hao Li
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PO0047	0086	study on operation characteristics of DC transmission system with large scale renewable energy integration	minhui qian, dawei zhao, jin ma, lingzhi zhu, rongrong ju, mei chen
PO0048	0087	Mechanism and Characteristics Analysis of Subsynchronous Oscillation Existing in Grid Integration of DFIG-based Wind Farm with VSC-HVDC System	K Sun, W Yao, J Wen
PO0049	0089	Motor-Generator Pair: A Novel Technology to Transmit Stable and High Quality Power for Power System with High Penetration of Renewable Energy	X Zhang, A N Li, Y Z Huang
PO0050	0090	A Directional Element Using High Frequency Transient Energy in Distribution Network with Distributed Generation	Ran Tao, Guobing Song, Liming Yang, Chenhao Zhang, Wei Han, Guang Shi, Chao Liu
PO0051	0092	Engineering Application Architecture Study on LCC Parallel Multi-Terminal DC Transmission System	Liu Xinyang, Yin Weiyang, Jia Hongjie, Wang Ling
PO0052	0096	Simulation and analysis of ± 1100 kV UHVDC transmission system with hierarchical connection mode based on PSCAD/EMTDC.	Ziyuan Ren, Jiangtao Li, Fang Yu, Jiabin He, Yuhao Liu, Yi Sun
PO0053	0101	Fractional Modeling and Simulation for Single-Phase PWM Rectifier	P F Zhu, Y F Wei, Z Zheng, X W Wang, F J Ma

PO0054	0102	A Steady-State Control Strategy of VSC-HVDC Transmission System Based on Full-order Terminal Sliding Mode Control Method	xuemei zheng
PO0055	0108	Power System Stochastic Transient Stability Assessment Based on Monte Carlo Simulation	Jiayu Liu, Jun Liu, Jie Zhang, Wanliang Fang, Longchu Qu
PO0056	0109	Reliability and Economy Assessment of Offshore Wind Farms	Q Huang, X Wang, J Fan, X Zhang, Y Wang
PO0057	0112	Reliability Assessment of DC Series-Parallel Offshore Wind Farms	H Huang, X Wang, T Qian, Y Li, Y Wang
PO0058	0114	CALCULATION OF MAIN CIRCUIT STEADY STATE PARAMETERS FOR S-MTDC TRANSMISSION SYSTEMS	Shiyu Yu, Jun Wen, Jiaqi Li, Helin Liu
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PO0060	0117	Study on the resonance stability problem of wind power base with MMC-HVDC system	Facai Xing, Shijia Wang, Feng Zhang, Heng Wang, Zheng Xu, Huangqing Xiao
PO0061	0119	Analysis of Resonant Characteristics of Yunnan Power Grid Under Different Operating Modes of AC / DC Hybrid System	H L Liu, J WEN, S Y YU, J Q LI
PO0062	0120	A Bidirectional Solid Current Limiter for HVDC Grids	Jiantao Li, Xiaoming Zheng, Gang Wang, Chao Hong, Yan Chen
PO0063	0123	Related elements method to evaluate power quality of AC-DC converter substation	Ye Yuan, Daming Zhu, Jinxing Jie
PO0064	0126	A Novel Optimal Approach in the EMS of Microgrids Based on Online Forecasts	Die Wang, Gui-quan Han, Su-min Pang, Ming-fei Wang, Guo-hui Han, Xudong Hao, Hang Song, Jun Liu
PO0065	0127	VBR Electromagnetic Transient Fast Simulation Model of Synchronous Machine Based on Time Scale Transformation	Shu-jun Yao, Peng Zhan, Shuo Zhang, Wan-hua Guo
PO0066	0128	A novel fault current-limiting scheme for MMC based flexible HVDC system	Y Y Ma, G B Zou, S L Song, Z J Gao, J B Guo
PO0067	0131	STUDY ON THE ELECTROCHROMIC LABEL FOR HIGH-VOLTAGE EQUIPMENT WITH WO ₃	L N Wang, E W Li, B Song, S L Jian, J C Gao

PO0068	0135	Ablation Characteristics of Air Gap Defects Caused by Partial Discharge in XLPE Cable Termination Insulation	Tao Wenbiao, Hou Shaojian, Wan Li, Ma Zhengguo, Bai Rui, Wang Wei
PO0069	0136	A Modified Electromagnetic Transients Model of Transmission Line Based on Rotation Transformation	Shujun Yao, Shuo Zhang, Peng Zhan, Wenerda Huang
PO0070	0137	The Influence of Temperature on the Growth Characteristics of Water Tree in XLPE Cable	Tao Wenbiao, Song shuyong, Zhang Wei, Bai Rui, Duan Weinan, Wang Wei
PO0071	0138	Development Characteristics of Partial Discharge Channels in the Power Cable Termination	Tao Wenbiao, Hou Shaojian, Wan Li, Wang Jinhao, Zhang Wei, Hao Wei
PO0072	0139	Analysis of the equivalent fault characteristics of DC system and its impact on distance protection based on power-frequency variation	Dongxiao Cai, Haifeng Li, Xinchu Zhu
PO0073	0143	Research for Shielding Effect of 3-Phase Air-Core Reactors in Substation by Using Different Materials	Tao Wenbiao, Wang Jinhao, Ma Zhengguo, Duan Weinan, Wang Wei
PO0074	0144	Interpolation algorithm considering simultaneous solution and instantaneous solution for power electronics electromagnetic transient simulation	H Y Peng, M Liu, Q Mu, L X Sun, X Zhang
PO0075	0145	A Novel Harmonic Compensation Method Using Single-Phase Cascaded H-Bridge Converters	Ruiqi Wang, Wei Xu, Xin Shi, Sun Li, Chao Wang, Weilong Lyu, Jian Liang, Liyang Du
PO0076	0146	Study on Overvoltage Characteristics and Arrester Configuration Strategy for ± 1 100kV HVDC Transmission Lines	Xiaoguang Zhu, Yichen Liu, Junbo Deng, Fang Yu, Jiangtao Li, Jie Guo, Guanjun Zhang
PO0077	0147	Influence of Solid Oxide Fuel Cell on Power System Transient Stability	J Liu, C Su, C Wang, L Zhu, J He
PO0078	0148	Simplified Calculation of Maximum Ground-level Electric Field when Two HVDC Transmission Lines run across at Any Intersection Angle	F Xiao, J Yan, B Zhang, Y Wang
PO0079	0150	Grid-Connected Control Strategy of Modular Multilevel Converter-Battery Energy Storage System Based on VSG	Dan Zhang, JianGuo Jiang, Liang Zhang, ZhongZheng Zhou
PO0080	0151	Alleviating Congestion of Hybrid Urban Grid by VSC-Control and Ac-Line Switching	Qian Xiong, Yong Li, Hai Peng, Youbo Liu, Xi Zhang, Xianglong Liu
PO0081	0154	Improved Sensitivity Analysis Method and Decision Error Discussion for Limiting Short-circuit Current of Power Grid	Shixiong Qi, Xiuli Wang, Shijun Tian, Ruogu Wang

PO0082	0155	Analysis for DC Transmission Line Harmonics Originated from AC Transformer Inrush Current and Improved Method for DC Harmonic Protection	Wenbin Cao, Xinaggen Yin, Xuanwei Qi, Yuxue Wang, Wei Liu, Yuanlin Pan
PO0083	0157	A backward traveling wave variation based protection for transmission line of hybrid HVDC system	Y Wang, B Zhang
PO0084	0159	Rapid Modelling for Flexible DC Distribution Network Considering Droop Control	A Chen, S Yu, D Xie
PO0085	0160	Application of molecular simulation in transformer oil paper insulation	Xiao Xia, Yang Wenyan, Li Linduo, Zhong Tingting, Zhang Xiaolin
PO0086	0161	Efficiency-Optimized Modulation Technique for a Three-Level NPC Inverter	Ning LI, Wanting LI, Hui ZHANG, Ping YANG
PO0087	0162	The study of frequency domain dielectric properties of vegetable oil and mineral oil transformer	Li Linduo, Ren Qiaolin, Xiao Sa, Yang Wenyan, Xiong Wei, Fu Boqiao
PO0088	0164	CHARACTERISTICS OF ELECTROSTATIC DISCHARGES BETWEEN METALLIC OBJECTS IN ION FLOW FIELD UNDER HVDC LINE	Xueshan Li, Donglai Wang, Tiebing Lu
PO0089	0166	Applicability Analysis of Traveling Wave Protection for Hybrid HVDC System	Shaojie Cheng, Yanting Wang, Baohui Zhang, Hongyue Ma
PO0090	0168	Coordinating Voltage Regulation for AC-DC Hybrid Distribution Network with Multiple Solid State Transformers	Xianglong Liu, Youbo Liu, Junyong Liu, Xi Zhang
PO0091	0170	Comparative Research of Harmonic Suppression Algorithm of Three - level NPC Converter	Ning LI, Tong GAO, Hui ZHANG, Ping YANG
PO0092	0173	Unidirectional DC-DC autotransformer based on MMC and diode bridges for HVDC application	Meng Zhou, Wang Xiang, Wenping Zuo, Weixing Lin, Jinyu Wen, Zhujun Xie
PO0093	0174	A Subjective-Objective Methodology on Selection of Power Quality Compensation Technology in AC-DC Network with Electrified Railways	Yizheng Xu, Weijie Zheng, Dechao Xu, Xing Zhang
PO0094	0176	Research of independent DC electric field sensor with wireles power supply circuit	J Z When, Z Q Yu, C Zhang, Y Mou, Y S Huang, Z M Zhen
PO0095	0177	Real-time price responding method in distribution network based on smart loads.	YX Chen, G Ma, Y Wang

PO0096	0179	microgrid tie-line power fluctuation mitigation with virtual energy storage	sun yushu, tang xisheng, sun xiaozhe, jia dongqiang, zhang guowei
PO0097	0180	An adaptive VDCOL Control Strategy for Recovery of UHVDC Separating Pole Connection System	S J Yao, W E D Huang, W B Hao, W H Guo
PO0098	0181	Integrated control strategy for smooth switching of pv and battery-storage microgrid based on operation state tracking	LI Yang, GAO Song, SHI Wenhui, HE Guoqing, Wang ZhengPing
PO0099	0184	DYNAMIC MODELING AND LONG-TERM SIMULATION OF ULTRA CAPACITOR-TYPE ESS INTEGRATION IN POWER GRID	Y N Tang, H Ye, Y Liu, W Pei, L Kong
PO0100	0185	<i>Reactive power optimization of distribution network with distributed generation based on genetic and immune algorithm</i>	W B Hao, B N Liu, S J Yao, W H Guo, W E D Huang
PO0101	0186	A General Active Stabilizer for Coordinated Control of Low Voltage Multi-Terminal AC/DC Hybrid System	Wei Deng, Wei Pei, Luyang Li, Li Kong
PO0102	0187	Study on the method of fault set for AC/DC system operation considering wind power	H L HAN, T HUANG, S Q QIAN, X Y XU, N CHEN, D W ZHAO
PO0103	0190	A Bilayer Game Strategy of Regional Integrated Energy System Under Multi-agent Incomplete Information	Ran Hao, Qian Ai, Yuchao Zhu, Ziqing Jiang
PO0104	0191	<i>Characteristics of Sub-synchronous Interactions Among D-PMSG-Based Wind Turbines</i>	Yuming Liu, Long Wang, Haishun Sun, Biyue Huang
PO0105	0192	A Fault Diagnosis Method of Power Transformer	Wei Wang, Tianzheng Wang
PO0106	0193	Comparison of The Characteristics of Three Kinds of HVDC Systems with ABB, SIMENS and Cigre Benchmark	Zou Jian, Huang Hua, Cui Yong, Jin Minjie, Gu Danzhen, Dong Mingrui, Zeng Jian
PO0107	0194	Transient Stability Analysis of Wind-thermal Bundled System Based on Virtual Inertia Control	S J Yao, W H Guo, W E D Huang, H T Xu, E M Bian
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PO0109	0206	Analysis of Control Interaction between D-PMSGs Based Wind Farm and SVC	Yahao Chen, Biyue Huang, Haishun Sun, Long Wang

PO0110	0208	De-risking Transient Stability of AC/DC Power Systems Based on ESS Integration	L Z Yao, F B Wu, G Qiu, J Y Liu, Y B Liu, H F Cui, B Y Sang, J L Ye
PO0111	0210	Study on Characteristics and Impacting Factors of Oscillation of Wind Farms Integration via an MMC-Based HVDC System	X Wang, X B Hu, H Liu, H B Lan, S Q Sheng, L L Wu
PO0112	0218	Modeling and simulation of Yidu-Huaxin HVDC transmission system based on PSCAD	Zou Jian, Huang Hua, Cui Yong, Jin Minjie, Gu Danzhen, Zeng Jian, Dong Mingrui
PO0113	0219	Design and Implementation of MMC Simulation System in Heterogeneous FPGA-CPU Platform	X F Li, Q Mu, X Zhang, Y X Xiang, Q Li, G H He
PO0114	0221	Exploration of FPGA-Based Electromagnetic Transient Real-time Simulation System Design Using High Level Synthesis	Q Li, Y X Xiang, Q Mu, X Zhang, X F Li, G H He
PO0115	0222	an assessment method for identification of electrical connectivity and thermal stability of power grid	Yao-Yu Xu, Liang-Shu Li, Shuang-Zan Ren, Yuan Li, Ning Liu, Guan-Jun Zhang
PO0116	0223	The research of electromagnetic transient parallel simulation optimization based on GPU	Shujun Yao, Shuo Zhang, Wanhua Guo
PO0117	0226	Inrush Current Method of Transformer Based on Wavelet Packet and Neural Network	Wei Wang, Lin Yan, Tao Jin, Hong Liu, Fan Hu, Dongxun Wu
PO0118	0227	A Novel Control Strategy of Grid-Connected Photovoltaic Power Supply for Frequency Regulation	B D Yang, X T Wang, D Xie, Y F Guo
PO0119	0229	Online Monitoring of High Voltage Switchgear Installation	Wei Wang
PO0120	0231	Cooperated control strategy of generator re-dispatching and multi-HVDC modulation after Ultra HVDC Block	Wang Yuling, Shao Dejun, Xu Youping, Shen Xuhui, Duan Chengjin, Wang Yicong, Sun Haishun
PO0121	0234	Adaptability Analysis of Energy Differential Protection for Long - distance Transmission Line	Zhehong Chen, Guobing Song, Jianfeng Fu
PO0122	0236	A Bilayer Interaction Strategy for Air-conditioning Load Aggregators Considering Market-based Demand Response	Yuchao Zhu, Jianxue Wang, Dongmeng Tian, Chunxiao Sun
PO0123	0237	A Single-end Electrical Parameters Based Whole-Line Quick-Action Protection Scheme for Distribution Lines	Kun Jiang, Guobing Song, Lei Wu

PO0124	0239	Ion flow characteristic under UHVDC transmission line at high altitude	Y Mou, Z Q Yu, M Li, X R Wang, X Yang, G H Li
PO0125	0241	An Improved Scheme of Active Power Differential Protection for Transmission Line	Yangyang He, Nengling Tai, Houlei Gao, Xiaodong Zheng
PO0126	0245	Detailed Quantitative Comparison of Modular Multilevel Converter Modelling Methods	Deyang Guo, M.H. Rahman, G.P. Adam, Lie Xu, Abdullah Emhemed, Graeme Burt, Yash Audichya
PO0127	0246	FREQUENCY REGULATION PARTICIPATION OF OFFSHORE WIND FARM INTEGRATED BY DIODE-RECTIFIER HVDC SYSTEM	Lijun Xie, Liangzhong Yao, Yan Li, Lie Xu, Zhibing wang, Chunxia Wei, Fan Cheng
PO0128	0248	Harmonic Analysis of AC Bus Voltage in Converter Station Based on Time-frequency Transformation	Zhao Dan-dan, Huang Hua, Liu Jun-hua, Zhao Wen-bin, Jin Heng, Zhang Jia-min, Huang Hua-wei
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PO0130	0253	A Novel Correction Control Approach for AC/DC Hybrid Network Considering PQ Decoupling Property	Yi Lin, Meng Li, Zhi-nan Qi, Liu-qing Qiu, Yong-hua Zhang
PO0131	0254	Research on Application of FDNE based on RTDS and Comparison Analysis of Fault Transient of Shanghai Sijing AC-HVDC Hybrid Power Grid	Zou Xiaofeng, Yang Shihao, Zhou Desheng, Song Jie
PO0132	0255	A Coordination Control of Medium-voltage Hybrid AC/DC Distribution	Yini Xu, Zhangliang Zhai, Xiaoning Kang, Mingda Guo, Xiuda Ma
PO0133	0256	An online dynamic voltage stability assessment method of AC/DC power systems	Y B Wang, K Li, G H Zhang, J J Su, J P Xie, J L Li
PO0134	0257	Estimating Lower Probability Bound of Power System's Capability to Fully Accommodate Variable Wind Generation	Bin Liu, Bingxu Zhai, Mengchen Liu, Feng Liu, Haibo Lan
PO0135	0258	Dielectric Characteristics of the ± 800 kV UHVDC Wall Bushing with SF6 Gas Insulation	Shiling Zhang
PO0136	0259	Research on Sensorless Control of PMSM for DC-Microgrid Flywheel Energy Storage Based on EKF	Dan Zhang, JianGuo Jiang
PO0137	0261	Effect of phase-locked loop on transient performance of wind turbine generator under voltage phase jump	Chao Liu, Xinshou Tian, Kai Chen, Yuanyuan Su, Yan Li

PO0138	0262	STUDY ON THE FAULT RIDE THROUGH CRITICAL ELEMENTS AND COORDINATED CONTROL OF DFIG'S CONVERTERS	B Tang, Y Chi, X Tian, Y Li
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PO0140	0266	Simulation Research on the Low Voltage Ride Through Module of Wind Turbines in Renewable Energy Integration	HUANG Ruanming, GUO Mingxing, ZHANG Mengyao, Fei Fei, ZHU Hang, ZHU Miao
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PO0143	0271	FPGA IMPLEMENTATION OF IMPEDANCE-COMPENSATED PHASE-LOCKED LOOP FOR HVDC CONVERTERS	Yue Yi, Ajinai Ajinai, Aniruddha Gole
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PO0179	0341	QUICK RECOVERY CONTROL STRATEGY FOR ZHOU SHAN VSC-MTDC	Qian CHEN, Yi LU, Peng QIU, Jiazhao XUAN, Feng XU, Haihong YU, Jiayi WU, Kai TONG

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PO0208	0395	Analysis of High Frequency Interference Characteristics of UHVDC Converters	C Ying, Z Xu, C Luo
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PO0215	0406	Startup Scheme for Converter Station of MMC-HVDC Based on Single-Clamp Sub-module Using in Grid Black Start	Chaoliang WANG, WenTao LV, Yi LU, Feng XU, Peng QIU
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PO0219	0414	Operating Overvoltage Simulation Research of $\pm 800kV$ UHVDC Transmission Converter DC Yard Caused by Typical Grounding Fault	Hao Zhang, Yapei Liu, Lei Yu, Bo Zhang, Zhijun Wang
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PO0228	0431	A novel coordinated control strategy of urban DC distribution system for large-scale loads reduction	C Yang, X Meng, S Feng, L Xu
PO0229	0432	Theoretical study and experimental analysis of electrostatic discharge immunity in AC/DC transmission equipment	Minghui Sun, Yang Zhao, Wei Yan
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PO0234	0444	Transient overvoltage on overhead metal return lines of ± 500 kV MMC-HVDC grid	Huiwen He, Xiaolan Li, Ying Lou, Lei Wang, Peihong Zhou
PO0235	0445	Research on a Novel Fault Current Limiting Circuit Breaker in Medium Voltage DC Power System of Ship	Jingnan Zhang, Jing Han, Nanqiu Li
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PO0238	0451	Study on the electric field effect at the interface of the semi-conductive layer of high voltage cable	Shuo Yang, Pulong Geng, Jiancheng Song
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PO0256	0498	On-site Partial Discharge Test Technology of Converter Transformer	Wei Wang
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PO0258	0501	Calculation and Protection on the Lightning Intruding Waves of 550kV GIS Substation	Sui Dongpeng, Huang Fucun, Chi Danyi, Wang Yanan, Kang Jiyang, Zhao Dan
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PO0449	1035	PARAMETER IDENTIFICATION OF DC BLACK-BOX ARC MODEL USING NONLINEAR LEAST SQUARES	Kyu-Hoon Park, Ho-Yun Lee, Mansoor Asif, Bang-Wook Lee
PO0450	1036	Transient Characteristics Analysis of the Line Fault on DC Side of the DC Distribution System	Chi Zhang, Jie Zeng ,Wei Zhang,Wei Zhao, Qi Xu,Ning Xie,Xingyu Pei, Zongbao Guo, Dawei Yao, Lu Qu