

# The 12<sup>th</sup> IET International Conference on AC and DC Power Transmission



**Poster Session on Saturday, 28 May 2016**

**Zhonghua Hall 2 (1<sup>st</sup> floor) 09:30 --- 17:30**

Poster ID (Paper ID)	Title	Author(s)
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Session A Recent important projects		
<b>PO001 (0028)</b>	Research on Reactive Voltage Characteristics and Control Strategy of Offshore Wind Farm	LI Yan, WEI Linjun, CHI Yongning, LIU Chao, ZHANG Zhankui
<b>PO002 (0038)</b>	A Novel Method for Preventing Mal-Operation of the Zero-sequence Directional Component	H Y Xu, Z F Fan, G B Song, X H Huang, W Huang
<b>PO003 (0043)</b>	Surface and interface charge behaviour in multi-layer oil–paper insulation under DC voltage application	B X Du, J Li, X X Kong, J G Zhang
<b>PO004 (0053)</b>	Mechanism Analysis and Control Measures of Wind Turbine Generators Tripping caused by HVDC Contingencies	Jingzhe Tu, Jian Zhang, Shicong Ma, Mingsong Liu, Jun Yi, Xuzhi Luo, Qing He
<b>PO005 (0054)</b>	Anti-interference Measures and Discharge Location for UHVDC Converter Transformer Partial Discharge Test	Wei Jiang, Liang He
<b>PO006 (0224)</b>	Data analysis of electromagnetic environment of UHVDC transmission lines	Z Q Yu, Y Fu, R Zeng, F Tian, M Li, L Liu, R H Li, Z Y Gao
<b>PO007 (0085)</b>	Study on Frequency Oscillation Controlling Strategies for Islanded Operation Mode of HVDC Transmission Systems	Y Liwen, W Yuhong
<b>PO008 (0092)</b>	Investigation on simulation method of gaps discharge characteristic under fire conditions	Tian Wu, Kai Liu, Ting Liu, Bin Xiao, Yong Peng, Ziming Su
<b>PO009 (0100)</b>	Review of three types of oscillations in wind farms with other power system components	Hao Jiang, Hui Liu, Linlin Wu, Yunhong Li, Haojing Wang
<b>PO010 (0136)</b>	Optimal Redundancy Configuration Method of Wave-shaping Circuits and Director Switches in Hybrid Multi-level Converters	C Zhao, Y Xu, J Xu, P Zhao

<b>PO011 (0146)</b>	Study and Application on the Starting Test Technology for Series Transformer of UPFC Project	Peng Li, Yuting Wang, Haosheng Huang, Xiangping Kong, Lei Gao
<b>PO072 (0211)</b>	Protection Method and Coordination with DC Circuit Breaker in DC Distribution Power Grid	Z Q Yu, T Zhu, R Zeng, G Lyu, Z Y Chen, X Y Zhang
<b>PO073 (0212)</b>	Simulation on Transient Characteristics of Medium Voltage DC Distribution System	T Zhu, Z Q Zhan, R Zeng, G Lyu, Z Y Chen, X Y Zhang
<b>Session B</b> <b>Future innovation and international projects</b>		
<b>PO023 (0003)</b>	Impact of Fault Current Limiters on VSC-HVDC DC Protection	B Chang, O Cwikowski, X Pei, M Barnes, R Shuttleworth, A.C Smith
<b>PO024 (0044)</b>	Maturity assessment in large scale power system based on damping torque analysis	Yi Ge, Yue He, Zhen Jian Xie, Haifeng Wang, Bixing Ren
<b>PO025 (0047)</b>	A new scheme for connecting a VSC-MTDC to an AC power system	Q Fu, W Du, C Chen, H F Wang, S Q Bu
<b>PO026 (0048)</b>	Dynamic interactions between a VSC-MTDC and an AC power system - a comparative study of vector and power synchronizing control	Q Fu, W Du, C Chen, H F Wang, L L Fan
<b>PO027 (0063)</b>	The Optimal State Number Selection of Wind Power Series Generated Through MCMC Method	S Z Xu, X M Ai, J M Li, J K Fang, L F Xia, J Y Wen
<b>PO028 (0129)</b>	Network Topology of Urban Grid Considering N-1-1 Criterion	Qiqi Zhang, Gang Shentu, Yuyao Feng, Yun Su
<b>PO029 (0147)</b>	A Shunt Type Power Flow Controller for Meshed DC Grids.	F Xu, H H Yu, Y Lu, P Qiu, K Tong, J Z Xuan, Q Chen, X M Huang, B L Lou
<b>PO067 (0082)</b>	Microwave reflection method for composite insulator internal defect detection	Hongwei Mei, Jie Chen, Xiangyun Fu, Liming Wang, Zhicheng Guan
<b>Session C</b> <b>Real implications and applications</b>		
<b>PO036 (0010)</b>	Reliability analysis and redundancy protection of a new busbar differential protection method in a smart substation	Feng Liu, Mostafa Kheshti, Wen Sen Wang, Fengyuan Qiu, Ming Lei
<b>PO037 (0021)</b>	Electromechanical-electromagnetic hybrid modelling of $\pm 800$ kV Jinsu UHVDC based on real-time digital simulation device	Peng Wei, Qian Zhou, Jian kun Liu, Cheng gen Wang, Ning yu Zhang

<b>PO038 (0022)</b>	Analysis on Submodule Monitoring Strategy of Nan’ao Multi-terminal VSC-HVDC transmission System	Daqing Fan, Xiaoyan He, Xuesi Gao, Dongpeng Wang
<b>PO039 (0026)</b>	Research on Routine Test of Thyristor Level with TCU in HVDC Converter Valve	Ke Yue, Longchen Liu, Dezhi Kong, Shaobin Li, Lei Pang, Qiaogen Zhang
<b>PO040 (0029)</b>	Analysis of Power Flow Control Capability of a Unified Power Flow Controller installed in a Real Chinese Power Network	B X Ren, H Cai, W J Du, H F Wang, L L Fan
<b>PO041 (0030)</b>	Dynamic Performance of a Vector-current Controlled Unified Power Flow Controller Installed in a Real Chinese Power Network	B X Ren, H F Li, W J Du, Z Chen, H F Wang, S Q Bu
<b>PO042 (0031)</b>	Wind-thermal-bundled Power Transmission by AC/DC System and Coordinated Control - A Review	H W Xiao, W J Du, Y T Song, Q Wang, J Ding, D Z Chen, H F Wang, S Q Bu
<b>PO043 (0032)</b>	Coordinated damping control of phase angle controlled and vector controlled UPFC – a comparative study	Y Zhang, H F Li, W J Du, Z Chen, H F Wang, S Q Bu
<b>PO044 (0033)</b>	Control interactions between the HVDC and UPFC by use of the RGA	X F Wang, L Yang, W J Du, H F Wang, L L Fan
<b>PO045 (0034)</b>	Dynamic interactions of multiple functions of a power-angle controlled and vector-current controlled UPFC	X F Wang, H F Li, W J Du, H F Wang, S Q Bu
<b>PO046 (0035)</b>	Damping torque comparison and analysis of UPFC based on phase angle control and vector control	J P Zhang, X Wang, W J Du, H F Wang, L L Fan
<b>PO047 (0037)</b>	A practical algorithm for UPFC project location based on DC power flow	J Chen, J K Liu, Q Zhou, N Y Zhang, X Y Zhu, H Y AN
<b>PO048 (0046)</b>	Prototype Design and Experimental Verification of an Isolated Modular DC/DC Converter System	Yi Zhang, Zhongxu Wang, Binbin Li, Dianguo Xu
<b>PO049 (0057)</b>	The influence of the 500kV insulating aerial device on minimum approach distance in live working	kai liu, ting liu, pan tang, binglin zhou
<b>PO069 (0203)</b>	The study on sympathetic inrush current of converter transformers in HVDC system and its identification method	Kanjun Zhang, Xuanwei Qi, Shiyun Zhang, Wenbin Cao, Fan Yang, Xianggen Yin
<b>PO070 (0205)</b>	The study on CT saturation caused by the circulating current in the delta-winding of converter transformer and its impact on the protection in HVDC system	Kanjun Zhang, Xuanwei Qi, Xianggen Yin, Kun Chen, Wei Hu, Shiyun Zhang

<b>Poster Session on Sunday, 29 May 2016</b>		
<b>09:30 --- 17:30</b>		
<b>Session A</b>		
<b>Recent important projects</b>		
<b>PO012 (0150)</b>	Fault ride-through strategy for fully rated converter wind turbines connected to the grid via MMC-HVDC transmission	Y Yu, Z Xu, T An
<b>PO013 (0153)</b>	HVDC Modulation Principle and Supplementary Controller Design Method of Non-Parallel AC/DC System	X Guo, Y Lv, W Li, B Li, Q Lv, Z Xu
<b>PO014 (0165)</b>	Study on bird damage risk region of $\pm 400$ kV DC transmission line	Ruiying Huang, Daochun Huang, Jun Zhou, Yunjian Ding, Zhiyong Dong, Jiangjun Ruan
<b>PO015 (0169)</b>	Research Overview of Sub-Synchronous Oscillation in DFIG-Based Wind Farms Connected to Grid	M L Zhang, H T Liu, X B Wang
<b>PO016 (0170)</b>	A protection scheme based on polarity comparison for VSC-MTDC grids	Q Feng, G B Zou, C H Xu, H L Gao, Y Y Ma
<b>PO017 (0183)</b>	Research on Optimized Coordinated AGC-AVC Control Strategy With the Background of UHV	J Qian, W Y Zhang, X Z Liu, X Y Liu, G T Xiang
<b>PO018 (0189)</b>	The Influence Factors of Pin Corrosion Rate of Disc Suspension Type Porcelain and Glass Insulators on UHVDC Transmission Lines	L Luo, Z Li, Z Hou, W Li, J A Cui, H Y Ding, L M Wang, Z C Guan
<b>PO019 (0192)</b>	A control strategy of STATCOM for suppressing subsynchronous oscillation	Shijia Wang, Zheng Xu, Xinbao Wang
<b>PO020 (0198)</b>	Study on the influence factors of power transformer DC magnetic bias	Wenjie Xu, Yongcong Wu, Fangjie Wu, Xiaolin Shen, Jiangjun Ruan
<b>PO021 (0201)</b>	Experimental Study on minimum approach distances and complex gaps for Helicopter Live-Line Work on 1000kV Transmission Line	Yong Peng, Ting Liu, Ziming Su, Kai Liu, Bin Xiao, Tian Wu, Pan Tang, Xinglie Lei
<b>PO022 (0206)</b>	Overview about the Discharge Performance of Air Gaps with the Presence of the Dust Particles	Chang Liu, Yujian Ding, Fangcheng Lv
<b>Session B</b>		
<b>Future innovation and international projects</b>		
<b>PO030 (0152)</b>	A novel three-phase parallel power factor correction	Qian CHEN, Hai Hong YU, Yi LU, Peng QIU, Kai TONG, Jia Zhuo XUAN, Feng XU, Xiao Ming HUANG

<b>PO031 (0155)</b>	A medium voltage hybrid AC/DC distribution network and its economic evaluation	Lu Zhang, Wei Tang, Jun Liang, Gen Li, Yongxiang Cai, Tao Yan
<b>PO032 (0180)</b>	Research Overview of optimization of multi-source and energy Storage in microgrid	Peng Zhang, Haitao Liu, Sipeng Hao, Minglu Zhang, Shuang Lu
<b>PO033 (0194)</b>	Investigation of Black Start Capability of LCC HVDC System with Controllable Capacitors	Y Xue, C Yang, X P Zhang
<b>PO034 (0208)</b>	Research on the Topology and Control Strategy of Bidirectional DC-DC Converter used in the Power Electronic Transformer	Lin Li, Lin Zhang, Haijun Liu
<b>PO035 (0216)</b>	Adaptive Damping Control Strategy of Virtual Synchronous Generator for Frequency Oscillation Suppression	T W Zheng, L J Chen, R Wang, C L Li, S W Mei
<b>PO068 (0207)</b>	Research on DC Electric Field measurement considering ion flow near HVDC transmission line	Zhanqing Yu, Kaitian Huang, Rong Zeng, Zhiye Gao, Min Li, Lei Liu, Bin Lou, Qing Ma, Zheyao Wang, Bo Zhang, Jinliang He
<b>Session C</b> <b>Real implications and applications</b>		
<b>PO051 (0071)</b>	Sub-module Fault Analysis and Faulty-Tolerant Control Strategy for Modular Multilevel Converter	Z.H Lu, Z.M Chen, Y.F Gong, J. Cao, H.F Wang
<b>PO052 (0076)</b>	Coordinated Scheme for Automatic Voltage Control of DC Distribution System	Xiaoning Kang, Xiuda Ma, Hao Wang, Xuze Zhang, Chao Zhang, Shuai Jiang, Xiaoyun Qu
<b>PO053 (0138)</b>	Simulation and Analysis of Power Cable Harmonic Loss and Temperature Rise	Chenyong Li, Jie Chen, Libin Hu, Jingying Cao
<b>PO054 (0148)</b>	Power Equipment State Diagnosis Based on Multi-source Monitoring Data Mining	Yiming ZHENG, Xiang SUN
<b>PO055 (0154)</b>	Fault diagnosis model of power transformer based on improved grey relation method with combined weight	Tusongjiang kari, Wensheng Gao, Guojun Lu, Yong Wang, Le Luan, Li Liang, xu Xiaotong
<b>PO056 (0158)</b>	Research on Detection of Lightning Protection Facilities in Gas Station	X X Li, L L Xing, S Yan, Y Z Zhang, X W Wang, H W Mei, L M Wang

<b>PO057 (0164)</b>	Study on the Application of Conductor De-icing Technology for DC Transmission Line	Jun Lu, Ming Liang, Quan Hu, Huaneng Wu, Jing Xie
<b>PO058 (0166)</b>	A novel control strategy of VSC-HVDC for offshore platforms	S Q Lu, Z Xu
<b>PO059 (0172)</b>	Automatic suppression of single-phase arcing fault in AC distribution systems	B Zhang, Q Yang, W X Sima, M Yang, J Q Ran
<b>PO060 (0178)</b>	Novel Method and apparatus for wireless power transmission in a seawater environment	Huan GAO, Nianhua ZHANG, Gongshu LEI, Hongxi XUE
<b>PO061 (0184)</b>	Study on Brillouin Scattering Based OPGW Equivalent Icing Thickness Conversion	QIN Zhao-yu, PAN Zhe-zhe, SHI Hui-xuan, CHEN Yong, WANG Long-hua, LIU Xiao-bo
<b>PO062 (0190)</b>	A novel on-load de-icing method for distribution lines	S F Yu, Y B Gao, Y Z Hu, Z Y Zheng, D F Ke
<b>PO063 (0209)</b>	Study on Transient modelling and simulation of Fiber Optic Current Transformer	Hongxing Wang, Yuanpeng Guan
<b>PO064 (0210)</b>	Temperature error suppression and compensation technology of the fiber optic current transformer	Hongxing Wang, Yuanpeng Guan, Zhifang Xu, Weidong Liu
<b>PO065 (0219)</b>	Wide-band model of HVDC converter transformer and its application on fault analysis.	Yunchao WANG, Zhanqing YU, Jun HU, Jinliang HE, Shuiming CHEN
<b>PO066 (0090)</b>	Study on Reverse Recovery Characteristics of Thyristors Used in HVDC Converter Valve	W F Li, D Z Kong, K Yue, S B Li, Q G Zhang, X D Liu, L Pang, W Sun, J Peng, K Wang, X Y Tan
<b>PO071 (0221)</b>	Low frequency resonance analysis of 1100kV HVDC system	Yunchao WANG, Zhanqing YU, Jun HU, Jinliang HE, Shuiming CHEN
<b>PO050 (0062)</b>	Parameter Designing of DC Reactor for MMC-HVDC	Zheng XIN, Dengjiang XING, Jinlong WU, Li ZHANG, Shumin SUN, Xianwei WANG