

# 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)
<b>Session A Recent important projects</b>		
<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 (0065)</b>	The influence of UHV hybrid reactive compensation and its stray capacitances on the interrupting characteristics of circuit breaker at out-of-phase fault.	R Li, H Liu, J Lou, B Li, T LV, W Li, H Liu
<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>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>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>PO050 (0062)</b>	Parameter Designing of DC Reactor for MMC-HVDC	Zheng XIN, Dengjiang XING, Jinlong WU, Li ZHANG, Shumin SUN, Xianwei WANG

**Poster Session on Sunday, 29 May 2016,  
09:30 --- 17:30**

**Session A**

**Recent important projects**

<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

**Session B**

**Future innovation and international projects**

<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>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