

Final full papers accepted

Secretariat of CIGRE Colloquium on Rotating Electrical Machines

June 15th, 2011

| Full Paper Number | Abstract Number | Author | Title | Country | Company | Remark |
|-------------------|-----------------|---|---|-------------------|--|---------------|
| FP01 | 1 | Dan Zlatanovici | Guide for on-line monitoring of turbo-generators | Romania | Energy Research and Modernization Institute | Oral, Invited |
| FP02 | 2 | Tang Renyuan, An Zhongliang Tong Wenming | Overview of Permanent Magnet Wind Generators in China | China | Shenyang University of Technology | Oral, Invited |
| FP03 | 3 | Sun Yutian, Qingfei Gao | The Design and Operation of 700MW Class Totally Air-Cooled Hydroelectric Generators | China | Harbin Research Institute of Large Electrical Machinery | Oral |
| FP04 | 65 | Luis Díez-Maroto, F.FERNÁNDEZ-BER NAL, Luis Rouco, L. SIGRIST, K. CHAN | Impact of Auxiliaries Response on the Voltage Ride Through Capability of Synchronous Generator Power Plants | Spain | Universidad Pontificia Comillas | Oral |
| FP05 | 6 | G.C. STONE , J. KAPLER, J. STEIN | Experience with the Turbine Generator Life Cycle Management Process | 1-Canada 2-USA | 1-Qualitrol-Iris Power 2-EPRI | Oral |
| FP06 | 7 | Yu.F. Antonov1, Ya.B. Danilevich1, Li Weili2 | 2G HTS WIND TURBINE GENERATORS | Russia | 1-Institute of Silicate Chemistry of Russian Academy of Sciences 2- Harbin University of Science and Technology | Oral |
| FP07 | 8 | Yasunori Satake, Kenichi Hattori, KazuhikoTakahashi | Temperature of turbo-generator stator strands | Japan | Hitachi, Ltd. | Oral |
| FP08 | 9 | William Moore | Generator Stator Bar Deterioration due to Vibration Sparking and Partial Discharge | USA | National Electric Coil | Oral |
| FP09 | 10 | Hudon, C., Chaaban, M. , Bélanger, S., Torriano, F. , Merkhouf, A | Detailed On-Site Measurements to Validate Generator Numerical Modeling | Canada | Institut de Recherche d'Hydro-Québec (IREQ) | Oral |
| FP10 | 11 | Yu.F. Antonov | BRUSHLESS EXCITATION SYSTEM 2G HTS WIND TURBINE GENERATOR BASED ON TOPOLOGICAL GENERATOR (FLUX PUMP) | Russia | Institute of Silicate Chemistry of Russian Academy of Sciences | Oral |
| FP11 | 12 | WangTingshan Hu Jianbo Wei Yanfei | Technical Characteristics of 1100MW Nuclear Power Generator Designed by Shanghai Generator Works | China | Shanghai Electric Power Generation Equipment CO., Ltd | Oral |
| FP12 | 14 | He Jian-hua, Chen Chang-lin, Duo Lin, | Improvement and Optimization of Vibration and Noise Performance of Unit 15~18 for Right Bank | China | Dongfang Electric Machinery Company Limited | Oral |

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| | | Zhang Tian-peng | Power Station of TGP | | | |
| FP13 | 15 | A.Semba, M.Sugiyama, T.Sano, K. Hosokawa, M.Toyota | Refurbishment Model of Turbine Generator in Nuclear Power Plant | Japan | Hitachi, Ltd. | Oral |
| FP14 | 17 | Fu Qiang, Man Yuguang, Lu Chunlian, He Xin | Environment Simulation Test on Stator Coil for 1000MW Hydro-Generator | China | Harbin Research Institute of Large Electric Machinery | Oral |
| FP15 | 18 | Lu Chunlian, Man Yuguang | The Development of Insulation Materials in Harbin Electric Machinery Company Limited | China | Harbin Institute of Large Electric Machinery | Oral |
| FP16 | 19 | Li Guifen, Sun Yutian, Fan Jisong | The Simulation study of Subsynchronous Oscillation for Thyristor Controlled Series Compensation Transmission System of a Power Plant | China | Harbin Institute of Large Electric Machinery | Oral |
| FP17 | 20 | Shen liang wei1, Jiao xiao xia2 | The developing road of HEC Turbine generator | China | 1-Harbin Institute of Large Electrical Machinery 2-Harbin Electric Machinery Company Limited | Oral |
| FP18 | 21 | H. Zhu1, D. Kung1, M. Colwell1, S. Cherukupalli2 | Experience With Acoustic Emission Monitoring Of Stator Winding Delaminations During Thermal Cycling Testing | Canada | 1-Powertech Labs Inc. 2- BC Hydro | Oral |
| FP19 | 22 | Toru Kubo, Hideyuki Hachiya | Recent Technologies for Hydro Generators and Generator-Motors | Japan | Toshiba corporation | Oral |
| FP20 | 23 | F. Neumayer, F. Ramsauer, M. Himmelreich, G. Kastner | Methods for Fixation of the Rotor Winding Overhang of Large Asynchronous Hydrogenerators | AUSTRIA | Andritz Hydro | Oral |
| FP21 | 24 | Zhang Zhengping | A Novel Online Diagnosing Technique of Rotor Turn-to-Turn Short Circuit of Large Turbine Generator | China | Power Science Institute of Guangdong Power Grid | Oral |
| FP22 | 25 | Sun Liang1, Hu Haitao1, Gao Junguo1, Zhang Xiaohong1, Yuan Xiaohong2, Hu Chunxiu2 | Calculation of Electric Field and Design of Internal Shielding Structure for Conductor in Stator Bar of 1000MW Turbo-Generator | China | 1-College of Electrical & Electronic Engineering, Harbin University of Science and Technology 2-Harbin Institute of large electric machine insulation research department | Oral |

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| FP23 | 26 | Xie Xiaorong 1,Zhang Xiaojin1, Dong Xiaoliang 2,Li Guoqing2 | Nonlinearity of Torsional Damping and its Effect on SSR Characteristics of Turbine-Generators | China | 1-State Key Laboratory of Control and Simulation of Power Systems and Generation Equipments, Department of Electrical Engineering, Tsinghua University 2-Northeast Dianli University | Oral |
| FP24 | 27 | Wang Xitian, Yang Xue, Chen Chen | Effect of Automatic Reclosing on the Torsional Fatigue Life Expenditure of Turbine-Generator Shafts | China | Dept. of Electrical Engineering, Shanghai Jiao Tong University | Oral |
| FP25 | 28 | H.Sako, Y.Kaneda, S.Tomita, K.Mio, K.Suzuki | On-line PD Monitoring System with Microstrip Antenna for Rotating Machines | Japan | Mitsubishi Electric Corporation | Oral |
| FP26 | 29 | Lei Xiangfu, Yang Guowei Li Chunlin, Wang Buyao,Li Suping | The Development of 5MW Off-shore Direct-drive wind turbine generator | China | Xiangtan Electric Manufacturing Corporation Ltd. | Oral |
| FP27 | 30 | Tang Renyuan, Tong Wenming, An Zhongliang | Design of Permanent Magnet Wind Generators with Fractional Slot Concentrated Winding | China | Shenyang University of Technology | Oral |
| FP28 | 31 | Liao Yigang Hou Xiaoquan Zhou Guanghou | Simulation Test and Research on Evaporative Cooling of Hydrogenerator for TGP (Underground) | China | Dongfang Electric Machinery Company Limited | Oral |
| FP29 | 33 | Chaaban M. , Leduc J., Hudon C., Merkouf A., Torriano F.,Morissette J.F | Thermal analysis of Large Hydro-Generator based on a multi-physic approach | Canada | Hydro-Québec, IREQ | Oral |
| FP30 | 35 | Sun Shumin1, Du jinhua2 Deliang Liang2 | Modeling and Simulation of Direct-coupled Permanent Magnet Wind Generators System with Maximum Power Point Tracking Control Using Simplorer | China | 1-shandon Electro power research institute 2-School of Electrical Engineering Xi'an Jiaotong University | Oral |
| FP31 | 36 | Wang Jinsong1, Bai Kai1, Guo Jiayang1, Mei Zhigang1, Song Peng1,Wu Yuhui1 ,Bai Yamin1Zen Fang2, Sun Weiben2 | Detection and Evaluation of Corona Defects on Generator Stator Winding Overhangs | China | 1-North China Electric Power Research Institute 2-China Datang Corporation | Poster |
| FP32 | 38 | Chen Fujia, Wang Hongyu,Tang Jianeng | Research on Low-voltage Ride-through Technology of grid-connected Doubly-Fed Wind Power Generation System | China | North China Electric Power University | Poster |
| FP33 | 39 | Xing Xuhui,Wang | The test analysis of the 600MW generator stator bar | China | Beijing Beizhong Steam Turbine Generator Co., Ltd | Poster |

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| | | Yunshan,Zhuge Wenbing,Li Zhi | temperature measure | | | |
| FP34 | 41 | SunYuguang1,HaoLiangLiang1,Wang,Xiangheng1, Sun Yutian2 | Simulation Research on Inter-turn Short Circuits of Field Windings in Synchronous Machines | China | 1-Tsinghua University 2-Harbin Research Institute of Large Electrical Machinery | Poster |
| FP35 | 42 | Sun Shumin, Wen Ding, Liang Deliang | Study on Maximum Power Point Tracking Control for Switched Reluctance Generator Used in Wind Power Generation | China | Shandong Electric Power Research Institute | Poster |
| FP36 | 43 | Song Peng1, Xie Xiaorong2,Zeng Fang3,Liang Yanjun3,Gao Xun4,Bai Kai1,Liu Ping1 | Sensitive analysis on Electrical Parameters of Generators to Sub-synchronous Resonance | China | 1-North China Electric Power Research Institute Co., Ltd 2- Tsinghua University 3- Datang International Power Generation Co., Ltd 4-North China Grid Co., Ltd | Poster |
| FP37 | 44 | Ning Yuquan | Design and Research of 10MW Large Wind Turbine Generator | China | The Huazhong Univ.of Sci.& Tech | Poster |
| FP38 | 45 | Mei Zhigang,Bai kai, Wang Jinsong, Wu Yuhui,Bai Yamin | Key Points of the On-site Operation and Interpretation On Off-line Partial Discharge Test of Generator Stator Windings | China | 1-North China Electric Power Research Institute Co. Ltd. | Poster |
| FP39 | 46 | NI Zhiying | On-line Monitoring Necessity and Urgency for the Vibration of Stator End Winding of Suizhong Power 800MW Generator | China | Shenhua Guohua Suizhong Power Generation Co.,Ltd | Poster |
| FP40 | 47 | R.Zlatanovici, D.Zlatanovici, C.Cicirone,S.Dumitrescu | The conditional diagrams between the electric generator and the electric grid to which it is connected | Romania | ICEMENERG Bucharest | Poster |
| FP41 | 48 | Li Dingzhong | The choices of cooling modes of giant hydro generators | China | China Hydropower Engineering Consulting Group Co. | Poster |
| FP42 | 50 | Hu Lei 1, Hu xiao-hong1, Yuan jianhua1, Liang Xubiao1, Xian Zhelong1,Hu Xiaohong2 Yuan yi-chao2 | Resistance analysis on the Gap-pickup diagonal flow passage in Turbo-generator Rotors | China | 1-Shanghai Electric Power Generation Group 2-University of Shanghai for Science and Technology | Poster |
| FP43 | 51 | Thomas Klamt1,YANG Zhongguo2 | Design and Performance Test of 23kV Stator Bars for the Largest Air Cooled Hydro Generator in Xiang Jia Ba | 1China 2Switzerland | 1- ALSTOM Hydro (Switzerland) Ltd 2-Tianjin ALSTOM Hydro Power Co., Ltd | Poster |

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| FP44 | 52 | Zhong Houhong, Xian Zhelong , Zhao Wei, Liang Xubiao, Liu Minghui | Negative Sequence Eddy Current Field Analysis and Temperature Calculations of 1100MW Turbo-generator With 3D Finite Element Methods | China | Shanghai Electric Power Generation Equipment Co., Ltd | Poster |
| FP45 | 54 | J.POLAK1, A.ELEZ 1, J.STUDIR1, N.BULAIC1,M.SASI C2 | Methods for inter-coil short circuit detection in excitation winding coils of turbo generator in operation and in standstill condition | Croatia | 1-Institut za elektrotehniku d.d 2-IRIS Power LP | Poster |
| FP46 | 56 | Sun Yutian, Zhang Chunli | Study on electromagnetic design of special brushless exciter used for synchronous motors | China | Harbin Research Institute of Large Electrical Machinery | Poster |
| FP47 | 57 | Cui Yibo Ruan Ling | Study on Internal Cooling Water Quality and Coils Corrosion of Large Generators | China | High Voltage Department of Hubei Electric Power Testing and Research Institute | Poster |
| FP48 | 58 | ChenYang Wei Wei | Thermal cycle testing of form-wound stator bars for large indirectly air-cooled hydro-generator | China | Harbin Research Institute Of Large Electrical Machinery | Poster |
| FP49 | 59 | Zou Jibin Zhao Bo | Asymmetry of Windings Inductance in High-Torque Low-Speed Multi-Unit Permanent Magnet Synchronous Motor | China | Harbin Institute of Technology | Poster |
| FP50 | 60 | Zheng Wei,Chang Fujie, Ji Han, Liu Quan , Jiao Shaohua, Zhang Tao | Study And Application Of Mitigation And Protection Technology To SSR/SSO | China | Beijing Sifang Automation Co.,Ltd. | Poster |
| FP51 | 61 | Zheng Wei, Wang Xiaofeng, Wang Yingying, Liu Quan,Wang Shanshan, Jiao Shaohua, | Study On Asynchronous Self-excitation And Its Protection Measures In Generator | China | Beijing Sifang Automation Co.,Ltd. | Poster |
| FP52 | 63 | Sun Yang1, Liang Yanping1, Sun Yutian2 | Research on Transposition Methods of The Stator bars For 1000MW Hydro-generator | China | 1-Harbin University of Science and Technology 2-Harbin Institute of Large Electrical Machinery | Poster |
| FP53 | 64 | Yang Mo, Ge Baojun | Study of Quasi-synchronization Grid Connected of 1000MW Hydro-generator | China | Harbin University of Science and Technology | Poster |