8TH SOUTHERN AFRICA REGIONAL CONFERENCE

14 - 17 NOVEMBER 2017

TUTORIALS

Tuesday, 14 November

Time	Description
09:00 - 09:15	**Welcome and Safety Briefing**
09:15 -10:00	**Overview of regional interconnector development worldwide,** *Jason Mann, FTI Consulting, United Kingdom*
	This tutorial covers the following: driving force for transmission interconnectors, key elements and considerations, overview of key institutional criteria, business case development, implementation vehicle consideration (Utility, Merchant, etc) and examples of successfully existing and new interconnector of different types
10:00 - 10:45	**Key Role players and tool kit to enable successful development of regional interconnectors,** *Jason Mann, FTI Consulting, United Kingdom*
	This tutorial cover role players and tool kit to enable successful development of regional interconnectors. Various topics covered will be role of Regulator, Utilities, Transmission System Operator, Investors etc , what makes the deal, operational considerations and tool kit for critical success factors
10:45 - 11:15	Tea
11:15 - 11:45	**HVDC Technology, Applications and Recent Developments,** *Thomas Magg, South Africa*
	This tutorial cover HVDC Technology which it will have the following topics Line Commutated Converters, Voltage Sourced Converters, Recent Developments, DC Grid and Cigre Activities in HVDC
11:45 – 12:30	**Moisture Measurement in Insulating Fluids and Transformer Insulation,** *Ivanka Atanasova-Hoehlein, SIEMENS, Germany*
	Moisture determination in the insulating liquid is a routine measurement for transformers and related electrical equipment to determine the cellulose insulation humidity condition. Experience shows that effective integration of moisture sensors into on-line diagnostic systems involves the following procedure to obtain a proper moisture profile of a transformer: proper placement of the sensor, gathering an adequate measurement data set and evaluation of the measured data by comparison to historical values. Availability of continuous moisture-in-transformer measurements and its relation to temperature opens up new diagnostic possibilities and approaches in comparison to conventional KF spot measurements. These new developments are discussed in the tutorial.
12:30 – 13:30	Lunch
13:30 - 14:15	**Pollution Test of Naturally Contaminated Insulators,** *Dr Igor Gutman, STRI, Sweden*
	This tutorial covers the results of work of WG D1.44 established at the direct request of CIGRE/IEC after it was considered that there was a lack of standardization with respect to test methods for the quick but reliable evaluation of the flashover performance of naturally polluted external insulation, including ceramic and polymeric insulators at AC and DC. Special time-efficient and cost-effective pollution test methods need to be developed. The presentation concentrates on pollution testing of naturally polluted insulators and the conclusion is that both the Rapid Flashover test (simulating solid layer pollution) and the Quick Flashover test (simulating wet salt fog pollution) can be applied for both ceramic and composite insulators for both AC and DC.
14:30 - 15:15	**Substation Migration to IP Technology ,** *Zwelandile Mbebe , Eskom, South Africa*
	This tutorial covers the work produced by this WG and starts by introducing IP networks including the underlying routing algorithms. IP Implementations scenarios for Operational Technology (OT) services are presented, taking into consideration the Quality of Serves (QoS). Both Wide Area Networks (WANs) and Local Area Networks (LAN) are covered including Ethernet and Internet Protocol/ Multiprotocol Label Switching (IP/MPLS). Covered services include both OT data and OT IP telephone services.
15:15 - 15:45	Tea
15:45 – 16:30	**Substation Migration to IP Technology (continued),** *Zwelandile Mbebe , Eskom, South Africa*
	This tutorial covers the work produced by this WG and starts by introducing IP networks including the underlying routing algorithms. IP Implementations scenarios for Operational Technology (OT) services are presented, taking into consideration the Quality of Serves (QoS). Both Wide Area Networks (WANs) and Local Area Networks (LAN) are covered including Ethernet and Internet Protocol/ Multiprotocol Label Switching (IP/MPLS). Covered services include both OT data and OT IP telephone services.