

ABINEE TEC T&D 2002 Latin America

March 20 – Wednesday

Industrial Technologies and their Contribution for Electrical Sector

Auditorium J Seminar 9h00 - 13h00

- 09h00 **Energy Efficiency and Use of Special Steel**
Paulo Ricardo C. Andrade, Acesita – Brazil
- 09h35 **Impacts of Automation in Plants and Substations**
Márcio Schmitt, ABB – Brazil
- 10h10 Debate
- 10h30 **Evolution of Underground Transmission Networks**
Marcelo del Brenna, Pirelli Cavi – Italy
- 11h05 Debate
- 11h20 **Diesel/Gas Thermoelectric Plants**
Gilbert Amengual, General Electric – Brazil
- 11h55 Debate
- 12h10 **Reliability of Electrical Networks**
Carlos Gama, Schneider Electric Alta Tensão – Brazil
- 12h45 Debate
- 13h00 Close

FACTS – Technology Developments and Applications

Auditorium G Panel 9h00 - 12h00

Chair: *Aty Edris, EPRI – USA*

- FACTS Technologies - Solutions for Upgrading Transmission System Infrastructure
Gregory Reed, Mitsubishi Electric – USA
- FACTS Technologies for Improved System Operation
Tyll Heinz, Siemens – Germany
- FACTS Supporting Transmission System Expansion in Latin America
Staffan Rudin, ABB – Brazil
- Selection of Appropriate and Cost-effective Power Electronic Based Reactive Power Solutions for Power System Support
John Loughran, Alstom – United Kingdom
- Generalized Switching Function Model of HVDC, SVC and TCSC Devices
Luiz A. S. Pilotto, CEPEL – Brazil

FACTS

Auditorium G Technical Session 13h30 - 17h30

Chair: *Edson H. Watanabe, UFRJ – Brazil*

- Steady-State Analysis of the Unified Power Flow Controller (UPFC) and its Capability in Modifying the Transmittable Power
USP – Brazil
- A New Control Scheme for a Static Synchronous Series Compensator Based on Instantaneous P-Q Powers Theory
U. F. Juiz de Fora – Brazil
- Selective Active Filter Applied to an Arc Furnace Adjusted to Harmonic Emission Limitation
Universidad de la Republica – Uruguay and UFRJ – Brazil
- A Genetic Algorithm Approach to Coordinate FACTS Based Stabilizers
CINVESTAV – Mexico
- Increasing the Capacity of Long EHV Transmission Lines
U. F. Pernambuco – Brazil
- Engineering Aspects on Series Capacitors for EHV Networks in Brazil
ABB Power Systems - Sweden and ONS - Brazil
- Thyristor Protected Series Capacitors – Part 1: Design Aspects
Siemens - USA and Siemens - Germany
- Thyristor Protected Series Capacitors – Part 2: Control and Protection Concepts
Siemens – Germany

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Protection and Automation

Auditorium E Panel 9h00 - 12h00

Chair: Denis Couri, USP – Brazil

- Symmetrical Components and Protective Relaying
Fernando Calero, Schweitzer Eng. Lab. - USA
- Wide band communication for transmission line relaying
Gerhard Koch, Siemens - Germany
- Fault location in distribution feeders
E. Senger, USP - Brazil
- Optical sensors in high voltage substation
J.P.Vandeleene, Alstom - Brazil
- Fault location algorithm for high voltage transmission lines up to 230 kV
Francisco Reis, SEGdB - Brazil

Protection

Auditorium E Technical Session 13h30 - 17h30

Chair: Paulo K. Maezono, Virtus – Brazil

- ANN-based Routine for Power Transformer Protection
Esc. Eng. São Carlos – Brazil
- Relay and High Speed Transfer Switch Controller Testing with Advanced Digital Real Time Simulator
Electricité de France – France
- New Grounding Transformer Protection Based on Restricted Earth Differential Principle
UTE – Uruguay
- Digital Algorithm for the Protection of the Interconnection, Utility-industry, Operating in Co-generation Systems
SEG do Brasil and USP – Brazil
- A New RBF Neural Network Approach Applied to Detection and Classification of Faults in Transmission Lines
Esc. Eng. São Carlos – Brazil
- Behavior of the Protection System of Extra High Voltage Lines in Faults with Resistance to Ground
UTE – Uruguay
- Performance of High Speed Algorithm for Distance Protection in Transmission
Instituto Mauá de Tecnologia and USP – Brazil
- Selection of Power Fuses for Transformer Protection
S&C Electric Company – USA
- Traveling Wave Fault Location for Radial MV Distribution System: New Method and Experiments
Electricité de France – France
- Retrofitting the 230 kV Protection Line in Operation at the CHESF Power System
Dennys Lellys, Alstom – Brazil

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Distribution Planning

Room I Technical Session 9h00 - 17h30

Chair: Carlos Cesar Barioni Oliveira, USP – Brazil

- A Methodology for Spatial Load Forecasting Automation in Distribution Systems
USP – Brazil
- Network Reconfiguration of Distribution Systems Using Improved Mixed-Integer Hybrid Differential Evolution
National Chung Cheng University – Taiwan
- Planning per Electric Area Focused on the Stratification of the Market
Elektro – Brazil
- Aggregated Methodology for the Evaluation of Technical Losses in Distribution
USP – Brazil
- Probabilistic Methodology for Technical Losses Calculation in Distribution Networks
UNIFACS, Universidade de Salvador – Brazil
- Technical and Economic Analysis for the Reduction of Losses in Distribution Systems
USP and Eletropaulo – Brazil
- Cost Evaluation of the Interruption of Electrical Energy Supply
USP – Brazil
- A Methodology for Investment Planning in Low Voltage Distribution Networks
USP – Brazil
- Cluster Based Network Analysis of Unbalanced Three-phase Distribution Systems
UNICAMP – Brazil
- Graph Chain Representation and Its Advantages for Reconfiguration of Large Distribution Systems
Esc. Eng. São Carlos – Brazil
- Econometric Model for Evaluation of Power Losses in Rural Distribution Systems
Universidad de Los Andes – Colombia
- Management System of Distribution Transformer Loading
Bandeirante Energia and USP – Brazil
- Methodology for Evaluation and Measurement of the Technical, Commercial and Total Distribution Losses
Universidade Mackenzie – Brazil
- Risk-criteria to Apply and Manage Distribution Transformers
USP – Brazil
- Demand Consumption Estimation in Power Distribution Systems Based on Fuzzy Set
U. F. Espírito Santo – Brazil
- Analysis and Discussion on Energy Supply to Non-road Electric Vehicles in Brazil
Universidade do Estado do Rio de Janeiro – Brazil
- Geo-spatial Technology for Electrical Distribution Networks Planning
Grupo Eletricidade de Portugal – Brazil
- Tracking of Frauds in Distribution Feeders
Light, Universidade Fluminense and UFRJ – Brazil
- Load Curve Estimation Using Neural Networks and Fuzzy Set Techniques
Light and UFRJ – Brazil
- Operational and Economic Appraisal of Energized Shield Wire Technology – ESW: The Case Study of ESW Jaru
CERON and ONS – Brazil
- Learning Classifiers on Guard Against Losses in Distribution Networks
UNICAMP – Brazil
- Operation and Application of Step Voltage Regulators on Co-generation Systems
Cooper Power Systems and CPFL – Brazil
- Optimal Capacitor Allocation in Electrical Distribution Systems Using a Genetic Algorithm
U. F. Paraíba – Brazil
- Optimal Capacitor Placement in Radial Distribution Systems Using an Evolution Strategy
U. F. Maranhão – Brazil
- GIS-based Primary Distribution Feeder Reconfiguration
USP – Brazil
- Let's Rethink Negative Reactance Transformer Paralleling
Harlow - USA