

2004

## TABLE OF CONTENTS

## Session I

## Reliability of the Electricity System

Electrical Protection Device For Metallic Structures Used In Explosive Atmospheres

Mihaela PARAIAN, Emilian GHICIOI, Florin PAUN, Iosif LINGVAY

The Dynamic Relations Inside The State Vector Components – A Criterion For Technical Systems Reliability And Risk Evaluation

Dumitru IVAS, Florin MUNTEANU, Ciprian NEMES

Algorithme Pour La D termination Des  quipements Critiques D un R seau  lectrique

Mircea CHINDRIS, Bogdan TOMOIAGA

A Non-Linear Model Of The Expertons  Method Applied To Power Equipment Maintenance

Miltiade CARLAN, Codruta BENDEA, Horia GOIA, Liliana Claudia CARLAN

Aspects Regarding The Diagnosis Of High Voltage Switchers

Gabriel V. BENDEA, Ionel BOJA, Ion MANEA, Serban BUNDA, Daniel ALBUT

Optimum Reliability Of Production Capacity Of Power System In The Phase Of Preparation And Design

Hilmo SEHOVIC, Smajo BISANOVIC

High Reliability Digital Control System s  

Costica NITU, Gabriel COSTACHE, Alex. DUMITRASCU

Contributions To Some Performant Ground Plates Conception And Realisation  

Iosif LINGVAY, Calin HOMAN, Dorin ISOC, Carmen LINGVAY, Sandor MESZAROS, Jozsef SZILAGYI, Adrian-Bogdan SPANU, Julia KOVACS

Contributions To Maintenance And Reliability Increase Of Some Medium Voltage Underground Power Lines From Cluj-Napoca City   Romania  

Iosif LINGVAY, Calin HOMAN, Dorin ISOC

Probabilistic Characterization Of Restoration Times For A Large Real Distribution System  

Enrico CARPANETO , Gianfranco CHICCO, Radu PORUMB

## Session II

## Renewable Resources and New Technologies

Increasing The Energetic-Exergetic Efficiency For The Heat Generation And Consumption In A Company

Aneta HAZI, Gheorghe HAZI

Impact Of Renewable Energy Resource On The Management Of Power Systems

Sonia LEVA , Fernando IANNONE, George Cristian , Dario ZANINELLI

Assessment Of Grid Connected Wind Turbines To Maximise The Energy Production

Gianfranco CHICCO, Roberto NAPOLI , Filippo SPERTINO

Considerations On The Wood Waste Burning In Biomass Plants

Lucia VARGA, Gabriela BADEA

Predictions On PV Technology Development In The Light Of Kyoto Protocol

Eva BARLA, Gabriela BADEA

## Session III

## Transmission and Distribution Systems

Oscillation Behaviour Of The Enlarged European Power System  
 Marcus KURTH

Digital Protective Blocks For Medium-Voltage Networks With Isolated Neutral-Point  
 Dumitru TOADER, Ștefan HARAGUS, Ioan DIACONU, Ioan Dorin HATEGAN,  
 Vladimir HRISTEA, Nicolae PINTE

Symmetrical Components Of The Currents From A Low Voltage Network In A Sinusoidal Working Conditions  
 Cornel TOADER, Petru POSTOLACHE, Florentin BATRINU, Radu PORUMB, C. VLAD,  
 A. APOSTOLESCU

DGFLOW: A Software For Energy Flow Analysis Of Distribution Systems With Distributed Generation  
 Enrico CARPANETO, Gianfranco CHICCO, Maurizio DE DONNO, Roberto NAPOLI

Representation Of Synchronous Generator In Positive Sequence Network For The Calculation Of Sustained Short-Circuit  
 Current With Asymmetrical Faults  
 Vasile DUSA, Petru GHEJU, Ilona BUCATARIU

Session IV  
 Sustainability Assessment of Energy Supply Options

Emissions Generated By The Use Of Waste Oils From The Food Industry As Alternative Fuel For Diesel Engines  
 Winfried RUSS, Martin RAUBER, Ioana IONEL, Roland MEYER-PITTOFF

Technical Solutions For Mitigating Adverse Impacts On The Environment Implemented At Deva Thermal Power Plant  
 Victor VAIDA, Laurean MANEA

An Application Of A Global Simulation Model To The Study Of The CO<sub>2</sub> Greenhouse Effect.128  
 Costica NITU, K.Ya. KONDRATYEV, V. F. KRAPIVIN

Energy Choices And Vulnerability Of Nations  
 Helmut BURKHARDT

Consideration On The Reduction Of SO<sub>2</sub> Emissions In Large Combustion Installations135  
 Lucia VARGA, Ioana IONEL, Corneliu UNGUREANU, Aristica BABUCEA

Session V  
 Aspects of Energy Markets

Modeling Prices On Electricity Spot Markets Using A Multi-Agent Simulation  
 Edgard GNANSOUNOU, Jun DONG

Principles Of Electric Power Systems Defence Plans In Market Environment  
 N. I. VOROPAI, D. N. EFIMOV

Investment And Development Of Russia's Electric Power Industry At Transition To A Competitive Market  
 N. I. VOROPAI, V. V. TRUFANOV, G. I. SHEVELEVA

Minimize Of Hourly Cost By Gradual Penalty Tax  
 Mircea NEMES, Doru PAUNESCU, Gheorghe VUC