

“POLITEHNICA” UNIVERSITY OF TIMIȘOARA  
Faculty of Electrical and Power Engineering  
Electrical Power Engineering Department

S.C. ELECTRICA S.A.  
Electricity Distribution and Supply  
Subsidiary Company ELECTRICA BANAT  
Subsidiary for Maintenance and Energy  
Services ELECTRICA BANAT  
TIMIȘOARA

C.N.T.E.E. TRANSELECTRICA S.A.  
Transmission Branch  
TIMIȘOARA

IEEE ROMANIAN SECTION

## A 5-a CONFERINȚĂ INTERNAȚIONALĂ DE ELECTROENERGETICĂ

## THE 5<sup>th</sup> INTERNATIONAL POWER SYSTEMS CONFERENCE

**PSC 2003**

**November 6-7, 2003  
TIMIȘOARA, ROMÂNIA**

**FINAL PROGRAM**

## GENERAL INFORMATION

### 1. VENUE, ACCOMMODATION

*The Conference site* will be the Faculty of Electrical and Power Engineering, 2 V. Parvan bd. (across the Bega river, behind the Metropolitan Cathedral, at 500 m from the centre of the city).

*The hotels* are in walking distance from the Conference site (see the map).

*The registration desk* will be open on November 5, from 14<sup>00</sup>-20<sup>00</sup> and on November 6 and 7, from 8<sup>00</sup>-18<sup>00</sup>. Conference materials will be available at the registration desk. The members of the Organising Committee will try to provide the participants with any kind of information concerning the Conference, as well as accommodation.

### 2. WORKING LANGUAGE

The working languages of the Conference will be English and Romanian. Translation will be available.

### 3. INFORMATION PACK

On arrival at the conference registration desk all participants will receive a conference portfolio, which includes a badge, the Conference Proceedings and information on the conference program.

### 4. PAPERS AND PRESENTATIONS

The Conference Proceedings comprise 92 papers, representing contributions from Bosnia and Herzegovina, Canada, Germany, Hungary, Israel, Moldavia, Romania and Serbia.

The approximate duration of each presentation is 10 minutes and 5 minutes for discussions.

### 5. CONFERENCE DINNER

The official dinner has been arranged for Thursday, November 6, at 20<sup>00</sup>, at Continental Hotel.

### 6. LOCATION AND TRAVEL

Timișoara can be easily reached by direct trains from Bucharest (Romania) and Budapest (Hungary) or via these important towns. Timișoara can be also reached by plane, from Bucharest, Frankfurt am Main, Düsseldorf, Vienna, Roma, Verona, Bologna, Treviso. The International Airport Timișoara is situated 8 km south from the centre of the city.

Public transportation in Timișoara is organised by tram and bus. Tickets can be bought at some of the tram and bus stations or at the registration desk. The City Centre and the hotels are in walking distance from the Conference site.

### 7. VISA, CURRENCY AND EXCHANGE

European citizens do not need a visa. We suggest checking with the Romanian Embassy or Consulate about regulations concerning your nationality.

The Romanian monetary unit is LEU (ROL). The official rate, on October 31, was: 1 USD = 33.901 ROL, 1 EUR = 39.456 ROL. Money can be changed in the centre of the city, either at banks (open from 9 to 13), or at Exchange offices (open from 9 h to 13).

## HONOUR COMMITTEE

Iulian IANCU	- Secretary of State, Ministry of Economy and Trade
Horia CIOCÂRLIE	- Prefect of Timiș County
Petru ANDEA	- Deputy in the Romanian Parliament, Secretary of the Commission for Education, Science, Youth and Sport with the Chamber of Deputies
Ion LUNGU	- President of the National Energy Regulatory Authority
Silviu Lucian BOGHIU	- Director General S.C. ELECTRICA S.A.
Jean CONSTANTINESCU	- Director General C.N.T.E.E. TRANSELECTRICA S.A.
Toma DORDEA	- Member of the Romanian Academy
Gheorghe CIUHANDU	- Mayor of Timișoara
Ioan CARȚIȘ	- Rector of the "Politehnica" University of Timișoara
Ioan DIACONU	- Director General S.C. SMART S.A.
Octavian LOHAN	- Director of the National Power Control - Operational Unit, C.N.T.E.E. TRANSELECTRICA S.A.
Zonel H. VASILIU	- Director S.C. ELECTRICA S.A.
Constantin CHIVULESCU	- President of the Administration Board, ELECTRICA BANAT
Corneliu STAN	- Director S.C. ELECTRICA S.A.

## ORGANISING COMMITTEE

### **SC ELECTRICA SA, ELECTRICA BANAT Timișoara**

Livius MILEA	Ileana RUS
Gabriel CIUCAȘU	Ioana DONDERA
Mirela ȘIRIAN	Ionel BAGIU
Viorel DAN	Aniko BLEJAN
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### **CNTEE TRANSELECTRICA SA, Transmission Branch Timișoara**

Nicolae CHIOSA	Nastasia VORNIC
Florinel STURZA	Horia POENARU
Ilie ARDELEAN	Lenuța MIHAILU

### **EXPOTIM Timișoara**

Vladimir CULEA	Mariana NICOARĂ
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### **"POLITEHNICA" UNIVERSITY Timișoara**

Dumitru TOADER	Gheorghe VUC
Flavius Dan ȘURIANU	Flaviu Mihai FRIGURĂ-ILIASA
Ștefan KILYENI	Gabriel LIMBEAN
Adrian PANĂ	Petru BÎCA
Ilona BUCATARIU	Filip LUPEA
Mihai MOGA	Marius GROZA
Doru VĂȚĂU	Valentina ȘTEF
Voichița COMAN	Rodica PREDOI
Ioan BORLEA	Constantin BĂRBULESCU

# TIMETABLE AND SITE

## Wednesday, November 5

- 14<sup>00</sup> - 20<sup>00</sup> Registration** - Continental Hotel  
- Faculty of Electrical and Power Engineering
- 20<sup>00</sup> Cocktail** - Continental Hotel

## Thursday, November 6

- 8<sup>00</sup> - 10<sup>00</sup> Registration** - Faculty of Electrical and Power Engineering
- 9<sup>00</sup> Exhibition opening** - Faculty of Electrical and Power Engineering
- 10<sup>00</sup> - 11<sup>00</sup> Official opening** - Faculty of Electrical and Power Engineering  
Room "Plautius Andronescu"
- 11<sup>00</sup> - 11<sup>30</sup> Coffee break** - Hall of the Faculty
- 11<sup>30</sup> - 13<sup>30</sup> Plenary Session** - Room "Plautius Andronescu"
- 13<sup>30</sup> - 14<sup>30</sup> Lunch** - Hall of the Mechanical Engineering Faculty
- 14<sup>30</sup> - 16<sup>30</sup> Session A1: *Power Systems*** - Room A
- Session B1: *Electric Energy Generation, Utilisation, Transmission and Distribution*** - Room B
- Session C1: *Electric Equipment, Electrotechnical Materials and High Voltage Technique*** - Room C
- Session D1: *Round Tables*** - Room D, E
- 16<sup>30</sup> - 17<sup>00</sup> Coffee break** - Hall of the Faculty
- 17<sup>00</sup> - 19<sup>00</sup> Session A2: *Power Systems*** - Room A
- Session B2: *Electric Energy Generation, Utilisation, Transmission and Distribution*** - Room B
- Session C2: *Electric Equipment, Electrotechnical Materials and High Voltage Technique*** - Room C
- Session D2: *Round Tables*** - Room D, E
- 20<sup>00</sup> Conference dinner** - Continental Hotel

## Friday, November 7

- 9<sup>00</sup> - 11<sup>00</sup> Session A3: *Power Systems*** - Room A
- Session B3: *Electric Energy Generation, Utilisation, Transmission and Distribution*** - Room B
- Session C3: *Electric Equipment, Electrotechnical Materials and High Voltage Technique*** - Room C
- Session D3: *Round Tables*** - Room D, E
- 11<sup>00</sup> - 11<sup>30</sup> Coffee break** - Hall of the Faculty
- 11<sup>30</sup> - 13<sup>30</sup> Session A4: *Power Systems*** - Room A
- Session B4: *Electric Energy Generation, Utilisation, Transmission and Distribution*** - Room B
- Session C4: *Electric Equipment, Electrotechnical Materials and High Voltage Technique*** - Room C
- Session D4: *Round Tables*** - Room D, E
- 14<sup>00</sup> - 15<sup>00</sup> Lunch** - Continental Hotel
- 15<sup>00</sup> - 19<sup>00</sup> Technical visit** - 400 kV Arad Transformer Station  
- 110 kV Dumbrăvița Transformer Station

## CONFERENCE ROOMS

- Room A - A 108 (A building, 2<sup>nd</sup> floor)
- Room B - A 223 (A building, 3<sup>rd</sup> floor)
- Room C - A 216 (A building, 3<sup>rd</sup> floor)
- Room D - C 004 (C building, 1<sup>st</sup> floor)
- Room E - C 120 (C building, 2<sup>nd</sup> floor)

## PLENARY SESSION

Thursday, November 6, 11<sup>30</sup> - 13<sup>30</sup>  
Room "Plautius Andronescu"

István BERTA, István Zsolt BERTA,

*EMC and Information Security in Power Engineering*

Gheorghe CÂRȚINĂ

*Artificial Intelligence techniques in power system optimization*

Ciprian DIACONU, Gheorghe VIȘAN, Ileana SLĂNICEANU

*The Implementation of a Modern Maintenance Concept for Transmission Grid*

Mircea EREMIA, Constantin BULAC

*Voltage Stability and the Use of FACTS Devices in Increasing Electrical Power Systems Performances*

Toma LASZLO

*50 Years Ago: Transition of the Local Power System of Timișoara to Normalized Voltage and Frequency*

Mircea NEMEȘ

*Progressive Penalty Taxes in the Management of the Electrical Power Systems Congestion*

Victor VAIDA

*The Modernisation of Power Generation Units as a Means of Improving Operation Efficiency and Reliability*

## SESSION 1

Thursday, November 6, 14<sup>30</sup> - 16<sup>30</sup>

**Session A1: Power Systems**

**- Room A**

**Chairman: Prof.dr.ing. Mircea NEMEȘ**

Oğuzhan CEYLAN, Hasan DAĞ

*A Modified and Faster Algorithm to Determine Nash Equilibrium in a Bilateral Electricity Market*

Gheorghe CÂRȚINĂ, Gheorghe GRIGORAȘ, Ovidiu DUMITRESCU

*An Optimal Strategies in Deregulated Markets*

Gheorghe GRIGORAȘ, Gheorghe CÂRȚINĂ

*Deregulated Market Simulation in Educational Process*

Lucian TOMA, Mircea EREMIA, Constantin BULAC

*Aspects of Ancillary Services*

Dan PREOȚESCU, Hermina ALBERT

*Aspects of Risk Management for the Companies Participating on the Electricity Market*

Anton VLĂDESCU, Floarea BREAZU, Otilia MARIN, Oltița VELCESCU, Gheorghe VALCEREANU

*The Influence of the Units Availability on the Romanian Electricity Market*

Anton VLĂDESCU, Floarea BREAZU, Otilia MARIN, Oltița VELCESCU, Gheorghe VALCEREANU

*The Role of the Power Plants Operation Simulation for the Portfolio Contracts Establishment on the Romanian Electricity Market*

Mircea NEMEȘ

*Components of Marginal Costs for Power Systems*

**Session B1: Electric Energy Generation, Transmission, Distribution and Utilisation**

**- Room B**

**Chairman: Prof.dr.ing. Adrian BUTA**

Hermina ALBERT, Luminița ELEFTERESCU, Valentin RĂȘCANU,

Claudiu PĂUN, Dan PĂUN, Nicolae GOLOVANOV

*Harmonic and Unbalance Disturbances Monitoring*

R. I. MATICA L. M. MATICA

*The Fluctuating Power, an Indication about Non-Symmetry in a Three-Phase System for Alimentation With Electric Energy*

Adrian BUTA, Adrian PANĂ, Eugen TICULA  
*Application of the State Variables Method in the Analysis of the Distribution Networks Containing Filtering-Compensation Devices*

Eugen TICULA, Gabriel LIMBEAN, Alexandru JUDE, Nicolae CIOBANU  
*Using the Steady State of Harmonic Polluted Network in Order to Determinate the Harmonic Impedance*

Marius CORNOIU, Gabriel LIMBEAN, Eugen TICULA, Petru EHEGARTNER  
*Practical Criterion for Identification of The Harmonic Resonance Conditions in the Harmonic Polluted Networks*

Radojka KRNETA, Miroslav BJEKIC, Snezana DRAGICEVIC  
*Review of Building Energy Simulation Process*

M. L. GOIA, N. COROIU  
*Unconventional Solution For Low Power Single-Phase Consumer Supply*

**Session C1: Electric Equipment, Electrotechnical Materials and High Voltage Technique - Room C**

**Chairman: Prof.dr.ing. Alexandru VASILIEVICI**

Angela ANTONIU, Mihai ANTOIU, Cristian FOȘALĂU, Liviu MATEI, Florin ARHON  
*Researches Regarding the Electrostatic Charge in Electronic Industry's Working Rooms*

Mihai ANTONIU, Rodica ALEXANDRESCU, Liviu MATEI, Eduard ANTONIU, Florin TARHON  
*A Rain Gauge With Optical Fibre Data Transmission*

Petar VUKELJA, Radomir NAUMOV, Jovan MRVIĆ, Dejan HRVIĆ  
*Experimental Investigations and Calculations of Overvoltages in 6 kV Cable Networks of Lignite Open - Pit Mines*

Gheorghe MĂGUREANU  
*Ground Electric Field Characteristics and Measurement Problems*

Eugen IANCU, Mihai MIRCEA  
*Fault Detection and Isolation in Dynamic Systems*

Ion GOȘEA, F. IACOBESCU  
*About Current Passing of the Superconductive Current Limitator*

Ion GOȘEA  
*The Magnetic Circuit Analysis of the Superconductive Inductive Current Limitator*

Adrian MARINCU, Marian GRECONICI  
*The Electromagnetic Field Around a High Voltage 110 kV Electrical Overhead Lines and the Influence on the Biological Systems*

**SESSION 2**

**Thursday, November 6, 17<sup>00</sup> - 19<sup>00</sup>**

**Session A2: Power Systems**

**- Room A**

**Chairman: Prof.dr.ing. Mihai MOGA**

Daniel BĂLAN, Octavian VĂJOI, Ștefan CRIȘAN  
*Achievement and Perspectives Regarding Effective Guidance System by Controller of S.D.F.E.E. Mureș Power Installation*

Silvia-Maria DIGĂ, Cristian BRATU  
*Calcul Automatique de la Protection Différentielle Longitudinale d'un Transformateur à Enroulement Tertiaire*

Ștefan PREITL, Radu-Emil PRECUP, Ștefan KILYENI  
*Design Methods for Fuzzy Controllers with Dynamics for Synchronous Generators Voltage Control*

Iuliu DELESEGA  
*Presence of the Programmable Logic Devices In Power Engineering*

Constantin STOIAN, Stefan CALUGARU, Petre COMBEI  
*The Automatisation System of Distribution in S.C. Electrica S.A. Oltenia*

P. CHIONCEL, C. CHIONCEL  
*Improvement of a Voltage Automatic Regulation System for Hydrogenerators*

Mihai MOGA, Filip LUPEA, Petru BÎCA  
*Status Quo and Prospects in Protection and Local Control Systems of the Electrical Substations*

**Session B2: Electric Energy Generation, Transmission, Distribution and Utilisation - Room B**

**Chairman: Prof.dr.ing. Vasile DUȘA**

Slobodan BOGDANOVIC, Dragos NOVAC, Ioan BLEIER, Vladimir MILOSAVLJEVIC, Veljko VIDAKOVIC  
*Comparison of Generator Efficiency by Measuring Losses in Cooling Air and in Cooling Water*

Ioniță DĂESCU, Vasile PLEȘCA, Mihaela PLEȘCA, Cristian PURECE, Viorel RUNCAN, Dorin PUȘCAȘ, Teodor ȘERAN  
*Low Power Hydroelectric Power Plant, Integrally Controlled by Computer-Based Technique*

Constantin LIUBA  
*The Hydropower Plant Ruienii as Provider of Technological Services for the National Power System*

- V. BERZAN, Iu. SAINSUS  
*Some Aspects of a Problem of Discrete Accumulation and Conversion of Electrical Energy in Republic Moldova*
- Emilian VALEA, Aurel MATEI, Mihai JĂDĂNEANȚ  
*The Heat Exchangers Sizes Decrease by Improvement Heat Transfer Surfaces*
- Adrian MAGDA, Ioana IONEL, Paul Dan OPRIȘA STĂNESCU  
*Increasing the Power Plant Efficiency by Using Low Temperature Heat Energy*
- Gabriel V. BENDEA, Codruța C. BENDEA  
*Reliability Optimization of Thermal Power Plants Using the Redundancy Optimal Allocation at the Self-Service Units Level*
- Valeriu IFTIME, Flaviu FRIGURĂ, Flavius Dan ȘURIANU, Doru VĂTĂU  
*A Few Intelligent Measuring Solutions and Management Systems Applied to Heating Distribution Networks*

**Session C2: Electric Equipment, Electrotechnical Materials and High Voltage Technique - Room C**

**Chairman: Prof.dr.ing. Lucian MOLDOVAN**

- M. ADAM, A. BARABOI, C. PANCU  
*Stored Energy of the Acting Mechanism and the Performances of the Circuit-Breakers*
- C. PANCU, A. BARABOI, M. ADAM, C. DONCIU  
*PC Sound Card in the Contact Resistance's Estimation*
- Mircea ISTRATE, Alexandru MANTA, Horia IONESCU, Marcel GRIGOR, Dan ISTRATE  
*Coaxial Shunts Range for High Currents*
- Alexandru VASILIEVICI, A.S. HUIDAN  
*Electric Ignition Systems for Gas Engine Driven Compressors. Actual Tendencies*
- George CURCANU, Corneliu CHICIU, Constantin ILINCA, Mihai CONSTANTINOV  
*Influence of Internal Arc on Surge Arresters Stress at Short - Circuit Current Passing*
- Ion MANEA, Eugen IONESCU, Dumitru IRIMIA, Mihai NESTOR, Marian FLOREA, Florea TRANDAFIR  
*Modern Methods to Diagnose the Oleo-Pneumatic Operating Mechanisms Type MOP*
- M. I. PORȚEANU  
*Increase of Noise Immunity in TTL Logic Devices Used for Equipment of Power Stations and Substations*

**SESSION 3**

**Friday, November 7, 9<sup>00</sup> - 11<sup>00</sup>**

**Session A3: Power Systems**

**- Room A**

**Chairman: Prof.dr.ing. Ștefan KILYENI**

- Bucur LUȘTREA, Ioan BORLEA  
*Application of Model Based Diagnosis for Steady State Power Systems Operation. Theory and Basic Concepts*
- Bucur LUȘTREA, Ioan BORLEA  
*Application of Model Based Diagnosis for Steady State Power Systems Operation. Implementation Aspects*
- Ioan BORLEA, Bucur LUȘTREA  
*Application of Model Based Diagnosis for Steady State Power Systems Operation. Program Description*
- Ioan BORLEA, Bucur LUȘTREA  
*Application of Model Based Diagnosis for Steady State Power Systems Operation: Test Results*
- Machado FERREIRA, Dias PINTO, Maciel BARBOSA  
*Power Generation Limits Assessment of a Multimachine Power Network Using a Hybrid Transient Stability Method*
- Lajos KISS, József ZERÉNYI  
*Local Frequency, the Most Important Time Function Characterizing of the Electric Power System Dynamic Performance*
- Mihai CHIRIȚĂ, Constantin-Vasile COSTESCU, Florian GABOR  
*Méthode pour le Calcul des Circulations des Puissances dans les Réseaux Electriques*

**Session B3: Electric Energy Generation, Transmission, Distribution and Utilisation - Room B**

**Chairman: Conf.dr.ing. Adrian PANĂ**

- Constantin STOIAN, Lucian RUSU, Ștefan CĂLUGĂRU  
*Influence of the Length to the Distribution Capacity of the Low Voltage Overhead Lines*
- C. TOADER, P POPTOLACHE, B. NICOARĂ, I. SILVAS, C. VLAD, A. APOSTOLESCU  
*Power, Active Electric Energy Losses Calculation at a Low Voltage Distribution Line with Equidistant Distributed Loads*

- S. POPOVIC, J. ZIVANIC, D. POPOV, D. SRETENOVIC  
*Influence of Nonlinear Soil on the Impulse Impedance of a Long Linear Ground*
- Maria VINȚAN, Mihai BOGDAN  
*A Practical Method for Evaluating Ground Fault Current Distribution on Overhead Transmission Lines*
- Alexandru VASILIEVICI, Constantin POSOIU, Dorel STĂNESCU  
*Technological Power Losses in Transmission Network*
- Ioan C. POPA  
*Modélisation du Régime Thermique de Court-Circuit des Conducteurs Aériens*
- Vasile DUȘA, Petru GHEJU  
*Some Considerations about the Analytical Expressions Of Symmetrical and Asymmetrical Short-Circuit Currents*

**Session C3: Electric Equipment, Electrotechnical Materials and High Voltage Technique - Room C**

**Chairman: Conf.dr.ing. Viorel TITIHĂZAN**

- L. BĂJAN, T. IONICĂ, V. COROBAN  
*Turn On Transients of Transformer on No-Load*
- T. IONICĂ, L. BĂJAN, M. SVOBODA, V. GIURGIU  
*Overvoltages Study on Transformer Turn-Of*
- Gleb DRĂGAN  
*The Influence of Skin Effect and of Impulse Corona Discharge on Impulse Waves*
- Marcel ISTRATE, Mircea GUȘĂ, Claudiu BUCĂ, Andrei PATRICIU  
*Didactical Software Dedicated to Overhead Lines' Behaviour Analysis on Lightning Overvoltages*
- Flavius Dan ȘURIANU, Doru VĂTĂU, Flaviu Mihai FRIGURĂ-ILIASA  
*Protection Against Overvoltages of Low Voltage Electric Apparatus and Equipment - A Users' Priority*
- M. TÎRȘU  
*Mathematical Modeling of Transients From Partial Discharges in a Stator Winding*
- Viorel TITIHĂZAN, Gabriel Nicolae POPA, Mariana Doina TITIHĂZAN  
*Modeling and Experimental Determinations in High Voltage Laboratory About Corona Effect Losses*

**SESSION 4**

**Friday, November 7, 11<sup>30</sup> - 13<sup>30</sup>**

**Session A4: Power Systems**

**- Room A**

**Chairman: Prof.dr.ing. Bucur LUȘTREA**

- Ion BORȘAN  
*There is a Price of Electricity Supply Reliability?*
- Dieter METZ, Denisa RUȘINARU, Ion MIRCEA  
*Necessity of Training SCADA Systems and Their Effects on the Power Systems in Deregulated Energy Markets*
- Gheorghe CÂRȚINĂ, Virgil ALEXANDRESCU, Gheorghe GRIGORAȘ  
*An Interior-Point Method to Solve Optimal Unit Commitment Problems*
- Corneliu VELICESCU  
*The Marginal and the Production Costs of Power System Estimation*
- Gheorghe RADOVEANU, Simona OPREA  
*Bidding and Contracting of the Net Transfer Capacity on the National Power System Interconnection Lines*
- Eugen COCA  
*Digital Power Line Communications - The Challenges Ahead*
- Eugen COCA  
*A New Leased Line Modem Interface Circuit Protection*
- Alexandru VASILIEVICI, Dorel STĂNESCU  
*Internet Technologies Are Speeding up GIS Implementation Reliability*

**Session B4: Electric Energy Generation, Transmission, Distribution and Utilisation - Room B**

**Chairman: Prof.dr.ing. Corneliu VELICESCU**

- I. FELEA, N. COROIU, FI. POPENȚIU-VLĂDICESCU  
*Consideration Regarding the Maintenance Management with "k from n" Structures Type*
- Dumitru TOADER, Ștefan HĂRĂGUȘ, Ioan HAȚEGAN  
*BHT-10a: A Zero-Sequence Voltage Digital Protective Block for Medium-Voltage Networks with Isolated Neutral-Point*
- Liviu Nicolae MODRAN, Beriliu ILIE, Francisc TÖRÖK, Lizeta POPESCU  
*Reactive Power Control via PWM Converter*

Alexandru VASILIEVICI, Florin BĂLAȘIU, Gheorghe MORARU  
*Protection and Control Equipment for Transformer of Electrical Substation*

Rita DRAGAN, Andrei GUSTI, Mărioara ITOAFA  
*Simulator Software for Two Interconnected Electrical Substations, Meant to Increase the Electric Power Transmission Efficiency*

Vasile DUȘA, Petru GHEJU, Ilona BUCATARIU, Adrian BUTA, Nicolae CHIOSA  
*Considerations Concerning the Auxiliaries Supplying of the Electric Transmission Networks Substations from Tertiary Windings of Autotransformers 200 MVA*

Alexandru VASILIEVICI, Colceriu MIRCEA, Dorel STĂNESCU  
*Digital Equipment Used in Earth Compensated Networks for Automatic ASC Tuning and Selective Earth Fault Detection*

### **Session C4: Electric Equipment, Electrotechnical Materials and High Voltage Technique - Room C**

**Chairman: Prof.dr.ing. Iuliu DELESEGA**

Mihai BOGDAN, Maria VINȚAN  
*Experimental Measurement of the Time Constant of a Thermistor*

Mico GACANOVIC, Ljubisa GOLUBOVIC  
*Work Simulation of the New Passive Apparatus for Controlled Elimination of Electrostatic Charges*

Aleksa M. MARICIC, Nebojsa S. MITROVIC, Branka A. JORDOVIC, Miroslav SPASOJEVIC  
*The Influence of the Changes of Free Electron Density On Electrical and Magnetic Properties of  $Co_{70}Fe_5Si_{10}B_{15}$  Amorphous Alloy*

Christiana BĂRBULESCU, Gabriel ROMAȘCU  
*Improving The Safety Performance of Power Grid Equipment and Installations Using Informational Feedback*

Maria BROJBOIU, Traian-Titi ȘERBAN, Mihnea Ștefan LEOVEANU  
*Concerning the Implementation of the Electro-Optical Sensors for Voltage Measurement in Distribution Stations*

Traian-Titi ȘERBAN, Maria BROJBOIU  
*Trends and Perspectives in the Development of a New Generation of Current Sensors for High Voltage Stations*

Vasile TĂBACARU, Cezar CRISTIAN  
*Consideration on Fire Suppression System in Substations Surfaces*

## **ROUND TABLES**

**Thursday, November 6**

ETA 2U AUTOMATIZĂRI INDUSTRIALE Timișoara <i>Remote Controls of the Reclosers Using GPRS Systems</i>	14 <sup>30</sup> - 15 <sup>30</sup> Room E
ELECTRICOM București <i>Ways of Increasing the Electrical Power System Reliability</i>	14 <sup>30</sup> - 15 <sup>30</sup> Room D
ETA 2U AUTOMATIZĂRI INDUSTRIALE Timișoara <i>DLP Technology Video Wall Systems For Dispatching Units</i>	15 <sup>30</sup> - 16 <sup>30</sup> Room E
EXIMPROD GRUP Buzău <i>Compact Medium Voltage Overhead Transformer Substations</i>	15 <sup>30</sup> - 16 <sup>30</sup> Room D
EEE Timișoara <i>Updated Equipment for Testing Medium and Low Voltage Devices and Automation and Protection Devices</i>	17 <sup>00</sup> - 18 <sup>00</sup> Room D
ADREM INVEST București <i>The Using of the Reclosers in Romanian Medium Voltage Networks</i>	17 <sup>00</sup> - 18 <sup>00</sup> Room D

**Friday, November 7**

ENERGETICA Review <i>The National Electrical Power System Management According to the Energy Market: Conditions to Be Met for Connection and Interconnected Operation with NEPS, with Regional Structures and with UCTE</i>	9 <sup>00</sup> - 11 <sup>00</sup> Room E
ENERGETICA Review <i>The National Electrical Power System Management According to the Energy Market: Conditions to Be Met for Connection and Interconnected Operation with NEPS, with Regional Structures and with UCTE</i>	11 <sup>30</sup> - 13 <sup>30</sup> Room E



## **S P O N S O R S**

**AEM LUXTEN LIGHTING CO TIMIȘOARA**  
**ELECTROECHIPAMENT INDUSTRIAL REȘIȚA**  
**CONS ELECTRIFICAREA INDUSTRIAL T TIMIȘOARA**  
**CONFORT SA**  
**ELECTROMONTAJ TIMIȘOARA**  
**ABB SRL BUCUREȘTI**  
**ETA 2U**  
**3 M**  
**ADREM INVEST BUCUREȘTI**  
**ARC BRAȘOV**  
**ELECTRO SISTEM BAIA MARE**  
**EEE TIMIȘOARA**

## **EXHIBITOR COMPANIES**

**AEM LUXTEN LIGHTING CO TIMIȘOARA**  
**ADREM INVEST BUCUREȘTI**  
**ABB ROMETRICS SRL TIMIȘOARA**  
**ARC BRAȘOV**  
**CNTEE TRANSELECTRICA SA**  
**CNTEE TRANSELECTRICA SA - FILIALA SMART SA**  
**EEE SA TIMIȘOARA**  
**ELECTROMONTAJ SA FABRICA DE CLEME ȘI ARMĂTURI CÂMPINA**  
**EXIMPROD GRUP SA BUZĂU**  
**ELECTRO SISTEM BAIA MARE**  
**ELECTROECHIPAMENT INDUSTRIAL SRL REȘIȚA**  
**ELECTRICA SA**  
**ELECTRICA SA - DISE**  
**ELECTRICOM BUCUREȘTI**  
**ETA AUTOMATIZĂRI INDUSTRIALE TIMIȘOARA**  
**GERKON ELECTRO SRL MIERCUREA CIUC**  
**PIRELLI ROMANIA SRL SLATINA**  
**RECOMPLAST SRL BUZĂU**  
**ROMBAL TIM SRL TIMIȘOARA**