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MPS 2011

BELVEDERE HOTEL, CLUJ-NAPOCA, ROMANIA

PROGRAM

Tuesday / Marți, 17 May 2011

16⁰⁰-19⁰⁰ Registration open* / Deschidere înregistrare*

19⁰⁰ -23⁰⁰ Welcome cocktail / Cocktail de bun venit – Sponsor

Location: Belvedere Hotel



Wednesday / Miercuri, 18 May 2011

09⁰⁰ - 09⁴⁵ Opening Ceremony / Festivitate de deschidere

09⁴⁵ - 10⁰⁰ Coffee break / Pauza de cafea

10⁰⁰ - 11⁰⁰ Company presentations / Prezentari de firme

11⁰⁰ - 12⁴⁵ Sessions / Lucrări pe secțiuni

13⁰⁰ - 15⁰⁰ Lunch / Pauza de masa

15⁰⁰ - 17⁰⁰ Sessions / Lucrări pe secțiuni

Thursday / Joi, 19 May 2011

09⁰⁰ - 11⁰⁰ Sessions / Lucrări pe secțiuni

11⁰⁰ - 11¹⁵ Coffee break / Pauza de cafea

11¹⁵ - 13¹⁵ Sessions / Lucrări pe secțiuni

13¹⁵ - 15⁰⁰ Lunch / Pauza de masa

15⁰⁰ - 17⁰⁰ Sessions / Lucrări pe secțiuni

19⁰⁰ - 23⁰⁰ Conference Banquet / Cina festiva – Sponsor

Location: Da Vinci Restaurant



Friday / Vineri, 20 May 2011

10⁰⁰ - 11⁴⁵ Sessions / Lucrari pe sectiuni

11⁴⁵ - 12⁰⁰ Coffee break / Pauza de cafea

12⁰⁰ - 13³⁰ Session / Lucrari pe sectiuni

13³⁰ - 14⁰⁰ Closing ceremony / Festivitate de închidere

*Registration will be open also on 18th and 19th of May / Înregistrarea este posibilă și în zilele de 18 și 19 Mai 2011



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Wednesday / Miercuri, 18 May 2011

10⁰⁰ – 11⁰⁰

COMPANY PRESENTATIONS



Cross-sector strategy - key factor for Electrogrup's development
Interconectivitatea industriilor, factor cheie in dezvoltarea Electrogrup

Presenter: ANA-MARIA COSTIN

11⁰⁰ – 12⁴⁵

SMART GRIDS 1

Chair: **Mircea CHINDRIS, Constantin MATEA**

1. ENE, T., MATEA, C., NICULAE, L., **Real Time Monitoring System Enabling Technology for SMART GRID**
2. MILICI, L. D., BOUTERS, A., FLORE, W., MILICI, M. R., OLARIU, E., IRIMIA, D., **Design a Monitoring System for Solar Panels Using Virtual Instrumentation**
3. MILICI, L. D., MILICI, M. R., KEERSEBILCK, P., BOUTERS, A., FLORE, W., UNGUREANU, C., **Design a Guidance System for Solar Panels Using Virtual Instrumentation**
4. GECAN, C. O., CHINDRIȘ, M., BINDIU, R., POP, G.V., **Energy Management of a Hybrid PV/Fuel Cell DC Microgrid**
5. TOMOIAGĂ, B., CHINDRIȘ, M., **A Challenge in the Operation of Distribution Smart Grids: The Global Optimization**
6. SABOU, D., TIRNOVAN, R., STEFANESCU, S., **Considerations Regarding the Choosing of Battery Types for Energy Storage in an Isolated Microgrid**
7. STEFANESCU, S., MARTINEAC, C., **Essential Steps in Designing Grid-Connected Photovoltaic Systems**

ELECTROMAGNETIC COMPATIBILITY 1

Chair: **Calin MUNTEANU, Andreas SUMPER**

1. BAJOVIĆ, VERA, DJURIĆ, NIKOLA, HERCEG, DEJANA, **Serbian Program of Systematic Testing of Non-ionizing Radiation in the Environment**
2. DJURIĆ, N., PRŠA, M., KASAŠ-LAŽETIĆ, KAROLINA, **Serbian System for Remote Monitoring of Electromagnetic Fields**
3. SUMPER, A., VILLAFÁFILA-ROBLES, R., BOIX-ARAGONÉS, O., BERGAS-JANE, J., SUDRIÀ-ANDREU, A., **Assessment of the Impact of Existing High Voltage Lines in Urban Areas**
4. MARINESCU, A., DUMBRAVA, I., PADURARU, N., IONESCU, H., **A broadband step-up Current Transformer for Calibration of Shunts, CTs and Linear Couplers between 40 Hz and 10 kHz**
5. CZUMBIL, L., MICU, D. D., CHRISTOFORIDIS, G., CECLAN, A., ȘTEȚ, DENISA, **Hybrid Method for Induced AC Voltages Determination**
6. HEBEDEAN, CLAUDIA, MUNTEANU, C., RACASAN, ADINA, **A Method of EPC Cancellation for Integrated EMI Filters**
7. POP, D. D., TIRNOVAN, R., NEAMȚ, L., VAIDA, T., **Optimal Design of a Cylindrical Magnetic Shield Against Electromagnetic Interferences**

SMART GRIDS 2

Chair: Ioan VADAN, Corneliu TOADER

1. IFTIME, C. M., GUȘĂ, M. D., BENIUGĂ, C. R., **Reactive Power Compensation for Grid-Connected Wind Farms that Use Induction Generators and Pitch Control Systems**
2. NEMES, C., ISTRATE, M., **Overview of Optimal Wind Turbine Selecting**
3. RUSU, I., **Wind Turbine – A New Technology for Increasing the Energy Efficiency by Means of Air Masses Sectioning and Deflection**
4. ISOC, T., BOBEAN, CRINA, PAVEL, VALENTINA, LEACH, FLORINA, VĂDAN, I., **Battery Charger for a Small Wind Power Generation System**
5. SOREA, N., NIȚAN, I., UNGUREANU, C., MANDICI, L., CERNOMAZU, D., **Contributions Regarding the Solar Engines Based on Thermo-Magneto-Mechanical Conversion Realized at “Ștefan cel Mare” University of Suceava**
6. ILIȘIU, DOINA, ȘERBĂNESCU, IONELA, **Compliance Tests with Connection Conditions for Dispatchable Wind Farms**
7. ILIȘIU, DOINA, **Connection Technical Requirements for Classical and Renewable Unit are the Same?**
8. Demean, ANDREA, TOPA, V., MUNTEANU, C., **Optimization of a Large Wind Farm MV Cable Network, depending on Types of Generators**

GENERAL ELECTROTECHNICS 1

Chair: Vasile TOPA, Gilbert DE MEY

1. DE MEY, G., WIECEK, B., **Residential Photovoltaic Installations: Situation in Belgium**
2. PRŠA, M., KASAŠ-LAŽETIĆ, KAROLINA, DJURIĆ, N., VUKOBRATOVIĆ, B., **Why Resistance Coefficient, R'_s/R'_e , as a Function of $\sqrt{f/R'_e}$?**
3. NIKOLOPOULOU, T., BOIER, A., ANDREOU, G.T., CHATZIATHANASIOU, V., KADI, S., **Thermal Modeling of a Buried Single Phase Low Voltage Cable**
4. KISS, L., DIVÉNYI, D., RAISZ, D., ZERÉNYI, J., **Field Test Process after Commissioning a New Exciter System**
5. DUMITRIU, LUCIA, IORDACHE, M., MANDACHE, L., SIRBU, IOANA-GABRIELA, DUMITRESCU, IULIA, **SPICE-like Models for Nonlinear Capacitors**
6. PURCAR, M., TOPA, V., MUNTEANU, C., AVRAM, AL., CHERECHES, R., GRINDEI, LAURA, **Numerical Modeling of the Electrode Shape Change in Electrochemical Machining**
7. MAN, L. M., SIMION, E., MAN, E., **Electrical Modeling of Storage Floor Heating Systems**
8. FĂRCAS, C., CRET, RODICA, DARABANT, LAURA, CREȚU, MIHAELA, **Effective Permittivity Of Polymeric Composites: Numerical Modeling And Simulation**



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Thursday / Joi, 19 May 2011

9⁰⁰ – 11⁰⁰

TRANSMISSION SYSTEMS

Chair: Traian FAGARASAN, Ciprian BUD

1. ARDELEAN, I., MATEESCU, ELENA, MĂRGINEAN, D., FLOREA, G., **Increasing the Transport Capacity of O.H.L. by Reconductoring**
2. BALASIU, F., MORARU, GH., **Teleprotection Systems for 220 kV OHL with Three Ends**
3. BARBULESCU, C., GRIGORAS, G., CARTINA, G., ROTARU, FL., **A Study Based on Clustering Techniques Regarding Accidental Events from the South-East of the Transport System from Romania**
4. HAZI, A., **The Analysis of System States using Decision Trees**
5. MIREA, C., **Alarm Processing Using an Expert System at the Power Dispatch Level**
6. MIRON, AL., GAL, S. AL., NEDELCU, I., BOBRIC, CRENGUTA E., POPA, C., **The Improving of Control and Protection System Performances of Power Grid Using the Synchrophasor Measurements**
7. UNGUREANU, P., **Opportunity for Romanian Power Grid to Follow the Targets of World Energy Council for 2050: Water for Energy**

DISTRIBUTION SYSTEMS 1

Chair: Virgil MAIER, Dan APETREI

1. APETREI, D., POSTOLACHE, P., SILVAȘ, I., FEDERENCIUC, D., **DSO's Node Measurements Organized in UMA for Power Systems**
2. MERDAN, E., BUDA, C., CHIS, S., KOHUT, ST., LENDECKZI, G., **The Implementation of Scada System within FDEE Electrica Distribuție Transilvania Nord**
3. NEAGU, B., GEORGESCU, GH., GUȘĂ, M. D., **Mathematical Methods for Technical Active Power and Energy Loss Evaluation in Operation Using Typical Load Profiles of the Consumers from Repartition Systems**
4. BROJBOIU, MARIA, BALASOIU, TATIANA, DIGA, S.M., **Concerning the Results of Non Destructive Testing of Casting Parts from Construction of HV Circuit Breakers**
5. ADAM, M., BARABOI, A., PANCU, C. M., ANDRUȘCĂ, M., **System for Monitoring and Diagnostics of the Electrical Equipment**
6. MUREȘAN, C., ZAHARIA, V. D., DRĂGAN, F., **Integrating DLMS/COSEM o OPC DA Platform**
7. ZAHARIA, V. D., MUREȘAN, C., DRĂGAN, F., **Electrical Parameters Remote Monitoring, Using PLC and OPC Platform**
8. MUREȘAN, P. D., MAIER, V., **Electrical Lines Parameters for Energy Audit**

11¹⁵ – 13¹⁵

ANALYSIS AND SIMULATION 1

Chair: Andrei CZIKER, Ilie ARDELEAN

1. ARDELEANU, M., MANDACHE, L., MARINESCU, A., **Limitations in Loss Factor Evaluation at Damped AC Voltage Testing of Electric Cables**
2. BARBULESCU, C., ARDELEAN, I., KILYENI, ST., **Maximum OHL Reconductoring Efficiency within Large Scale Power Systems**
3. BROJBOIU, MARIA, IVANOV, VIRGINIA, BALASOIU, DOINITA, **Concerning an Application of an Expert System for Analysis of Circuit Breaker Faults from SF6 High-Voltage Gas Insulated Switchgear (GIS)**
4. CALININ, L.P., ZAIȚEV, D.A., TÎRȘU, M.S., **Application of the Phase Shift Transformer as Frequency Converter**
5. DRAGOMIR, M., ISTRATE, M., GUȘĂ, M., MACHIDON, D. L., **The Influence of the Power Frequency on the Accuracy of Two-End Data Fault Location Algorithm**
6. MACHIDON, D., ISTRATE, M., GUȘĂ, M., DRAGOMIR, M., **Lightning Protection Current Determination Using ATP Simulations and Leader Progression Model**
7. MILICI, MARIANA-RODICA, MILICI, L. D., OLARIU, ELENA-DANIELA, **Modeling of Fuel Cells Operating as Electrolyzer**

DISTRIBUTION SYSTEMS 2

Chair: Sorin PAVEL, Constantin BUDA

1. BUDA, C., DRAGHICIU, D., REIDER, L., NEDELCU, SPERANTA, CHIS, S., KOHUT, ST., ORDEAN, ADELA, **Distribution Management System in Medium Voltage Networks Stage 1 - Cluj-Napoca City**
2. DĂN, A. M., RAISZ, D., **Increasing Reliability of Distribution Networks via Fast Fault Location and Sustained Operation during Single Phase to Ground Faults**
3. DUMITRASCU, D. G., **Synchrophasors Applied for Selective Ground Fault Detection in Medium Voltage Compensated Networks: a New Approach to an Old Problem**
4. GRIGORAS, G., BARBULESCU, C., CARTINA, G., COMANESCU, D., **A Comparative Study Regarding Efficiency of the Hierarchical Clustering Techniques in Typical Load Profiles Determination**
5. HAZI, G., HAZI, A., **Specific Aspects of the MHC Network Connection in Isolated Areas**
6. IEREMIE, V., PENTIUC, R., POPA, C., BERNEA, F., **Electric Traction Substations Study of Urban and Railway**
7. MARTINEAC, CORINA, HEBEDEAN, CLAUDIA, HOPÎRTEAN, M., ȘTEFĂNESCU, S., **Monitoring and Analyzing Power Transformers Case Study for FDEE Transilvania Nord**
8. BALAN, D., **Contribution Regarding the Implementation of Distribution Automation System, Experience in Switching Equipment Operating at S.D.E.E. Tg. Mureș**

Thursday / Joi, 19 May 2011

15⁰⁰ – 17⁰⁰

ANALYSIS AND SIMULATION 2

Chair: **Radu TARNOVAN, Maria BROJBOIU**

1. NEAGU, ALINA, **The Forecast of the Gross Energy Consumption Using Artificial Neural Networks**
2. NEMES, C., COSTANDACHE, N., MUNTEANU, F., **Probabilistic Approach of Generation System Considering the Power Station Reliability**
3. NICOLAE, P. M., NICOLAE, I.D., STĂNESCU, D.G., NICOLAE, M.S., POPA, D.L., **Theoretical and Practical Aspects of Reducing the Power Consumption from a Medium/Low Voltage Substation**
4. ROSCA, I., OGRUTAN, P., ACIU, L. E., LOZNEANU, D., **Low Power Microcontroller based Circuit Breaker**
5. ONET, OANA, TIRNOVAN, R., BREAZ, ELENA, BOTEZAN, A., **Fuzzy Logic Control of DC-DC Converter Used For Regulating of the PEM Fuel Cell Output Voltage**
6. PAVEL, S. GH., TĂMAȘ, A., MAIER, V., BIROU, I., BUDA, C., DRĂGHICIU, D., VERMEȘAN, C., NEDELICU, SPERANȚA, **Cluj Region MV Network Modeling and Applications using Paladin Designbase**
7. POLEC, VICTORIA, MAIER, V., CARAFA, L., **The Analytical Identification of the Graphic or Tabular Functions Using a Labview Programme**
8. POP, G. V., CHINDRIȘ, M., GECAN, C. O., BINDIU, R., **Capacitor Influence on Power Lines Losses under Balance and Unbalance Conditions**

DISTRIBUTION SYSTEMS 3

Chair: **Mircea CHINDRIS, Nicolae GOLOVANOV**

1. REIDER, L., CIOROSLAN, MARIA, **The Impact of the Connection of Wind Turbine Generators to the Distribution Networks**
2. ALBERT, HERMINA, ILIȘIU, DOINA, GOLOVANOV, N., ELEFTERESCU, LUMINITA, MARCU, B., **Considerations on Electric Power Quality within the Electric Transmission Network**
3. RETSINAS, C., PORUMB, R., GOLOVANOV, N., TOADER, C., **Economic Approach for Electric Railway Systems. Case study: Greece**
4. RUSU, I., **Protection Ground Electrodes with Injection of Bentonite Emulsion Under Pressure**
5. PRODAN (DAVID), CRISTINA, POIENAR, NICULINA, OLARIU, ELENA DANIELA, CERNOMAZU, D., **Contributions for the Identification of the Errors to the Connections Making to the Three-Phase Transformers**
6. TOMA, CARMEN, MAIER, V., PAVEL, S. GH., **Protection Variants of the Low Voltage General Panel from the Power Substations**
7. VLAD, C., PAUN, I., CRACIUN, D., **The Usage of Compact Equipment in 110 kV/MV Substations – a Solution belonging to the Durable Development Concept**
8. CURAC, I., DUMITRU, M., TRIFA, V., **Electrical Features Regarding the 5.3 MW/6kV Wood Wastes Cogeneration Plant**



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Friday / Vineri, 20 May 2011

10⁰⁰ – 11⁴⁵

ELECTROMAGNETIC COMPATIBILITY 2

Chairmen: Petre NICOLAE, Carmen STANESCU

1. STANESCU, CARMEN, GAL, S., PISPISIR, S., LISMAN, C., **The TSO's Power Quality and Smart Grids**
2. BLAGU, I., DRAGOSIN, M., STANESCU, D., **The Influence of the Distributed Generation on Power Quality in the Distribution Networks**
3. NICOLAE, I. D., NICOLAE, P.M., **Using Wavelet Transform for the Evaluation of Power Quality in Distorting Regimes**
4. RATA, GABRIELA, RATA, M., POPA, V., BOBRIC, CRENGUTA ELENA, AFANASOV, C., **Study of Power Quality into a Substation and at a Consumer**
5. BELEIU, H. G., MAIER, V., MOLDOVAN, H. A., **Quantitative Arguments for Power Quality Maintenance**
6. CÎRLUGEA, M., FEȘTILĂ, L., SZOLGA, L., HINTEA, S., **Precise Extraction of RMS and Average Values of Signals Using Behavioral Macromodels with Application in DC-DC Converters**
7. POP, T. I., VISAN, GH., MUNTEANU, C., **Management of the Power Substations Remote Control Belonging to the Romanian Power Grid Company**

GENERAL ELECTROTECHNICS 2

Chairmen: Calin MUNTEANU, Sorin DELEANU

1. CARPENTER, D., DELEANU, S., YAREMKO, W., LAU, M., RAHMAN, MD. M., **Parameter Determination of Dual Connection Radial Magnets Permanent Magnet Synchronous Motor by using Analytical Calculation and Standstill Tests**
2. DELEANU, S., CARPENTER, D., LAU, M., RAHMAN, MD. M., GALAN, N., **Identification of Parameters of a Permanent Magnet Synchronous Motor with Radial Magnets and Damper Bar Cage in the Rotor**
3. RATA, M., CERNOMAZU, D., NITAN, I., RATA, GABRIELA, MILICI, D., MILICI, MARIANA, DAVID (PRODAN), CRISTINA, **Research about Vibromotors with Rolling Lamellas**
4. ȘIRBU, IOANA - GABRIELA, MANDACHE, L., DUMITRIU, LUCIA, IORDACHE, M., **DC Shunt Motor Nonlinear Model for Dynamic Simulations**
5. BIROU, I., PAVEL, S., RUSU, C., **Wind Generator with Direct Torque Controlled Permanent Magnet Synchronous Machine**
6. IUDEAN, D., MUNTEANU, R. JR., DRAGOMIRESCU, R., BUZDUGAN, M., **MS-1 N-8811 Permanent Magnet Synchronous Motor Reliability Calculation**
7. RĂCĂȘAN, ADINA, MUNTEANU, C., ȚOPA, V., PĂCURAR, CLAUDIA, HEBEDEAN, CLAUDIA, LUP, S., **Electromagnetic Modelling of the Planar Integrated LC Cells using the Transmission Lines Generalized Model**

12⁰⁰ – 13³⁰

GENERAL ELECTROTECHNICS 3

Chairmen: Sorin PAVEL, Radu PENTIUC

1. LAURIC, SILVIA, PENTIUC, R., IVANOV, N., **Designing a Road Lighting System**
2. TIPA, I., PENTIUC, R., **Designing an Electrical Equipment of Architectural Lighting**
3. FILIP, ADINA, MAIER, V., PAVEL, S. GH., POP, D., **Indoor Lighting Equipment**
4. VASILIU, R. B., CHINDRIȘ, M., GHEORGHE, D.N., **Dedicated Software for the Preselection of Public Lighting Equipments**
5. MARTINEAC, CORINA, HOPÎRTEAN, M., ȘTEFĂNESCU, S., **The Changing Role of Outdoor Lighting with CosmoPolis System**
6. ALBU, H., GROSULEAC, D., BEU, D., POP, F., **The Selection between Up-Lamping and Re-Lighting for an Existing Lighting Installation**

ANALYSIS AND SIMULATION 3

Chair: Virgil MAIER, Andrei CZIKER

1. MAIER, V., PAVEL, S. G., BELEIU, H. G., **Contributions to Harmonics Analysis Using Discrete Fourier Transform**
2. MOLDOVAN, H. A., MAIER, V., MOLDOVAN, A. A., **Diagnosis Power Transformers by Monitoring Electrical Parameters**
3. BINDIU, R., CHINDRIȘ, M., POP, G.V., GECAN, C.O., **Short Term Load Forecasting for an Industrial Consumer in Romania**
4. GHEORGHE, D., CHINDRIȘ, M., CZIKER, A., VASILIU, R. B., **Online Power Systems Harmonics/Interharmonics Analysis**
5. BREAZ, E., TIRNOVAN, R., BOTEZAN, A., ONET, O., **Dynamic Modeling of a Proton Exchange Membrane Fuel Cell Stack for Real Time Simulation**
6. PRAHASE, C. E., MONDOC, B., POP, F., **Electric Energy Consumption Reduction Potential in Romanian Residential Buildings by Photovoltaic System**