

The Second National Conference OptoTech 2011

Application of Optoelectronic Measuring and Monitoring Methods in Romanian Power Grid

8 - 9 June 2011, Calimanesti Caciulata, Romania

SESSION I

I.1 PASSIVE FIBER-OPTIC SENSOR FOR THE MEASUREMENT OF MECHANICAL DISPLACEMENT AND LONG-TERM CRACK MONITORING

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I.2 NEW DEVELOPMENTS OF FIBRE OPTIC THERMOMETERS FOR DIRECT TRANSFORMER WINDING TEMPERATURE MEASUREMENT

Michal MAZANEC - SAFIBRA, Czech Republic

I.3 FIBRE OPTIC SENSORS FOR POWER INDUSTRY

Michal MAZANEC - SAFIBRA, Czech Republic

I.4. DESIGNING SECURE NETWORKS FOR SUBSTATION AUTOMATION AND CONTROL SYSTEMS

Sorin NICULESCU, Ion MERFU, Ionel PANĂ, Valeria ANGHELINA

National Power Grid Company, „Transelectrica” & Co.

Transmission Branch Craiova – Control Center

I.5. MONITORING OF POWER TRANSFORMER BUSHINGS WITH THE INTEGRATION OF OPTICAL SUPPORT IN THE MEASURING CIRCUITS

Dumitru SACERDOȚIANU, Iulian HUREZEANU*, Andrei MARINESCU*, Ion PATRU*, Victor
OPREA*, Ion PURCARU***

**ICMET, Craiova,*

***SC VIG IMPEX SRL, Craiova, România*

I.6. REVIEW OF WORLDWIDE ACHIEVEMENTS AND TRENDS ON OPTICAL CURRENT AND VOLTAGE MEASURING TRANSFORMERS USE

Hermina ALBERT¹, Traian ENE², Nicolae GOLOVANOV³;

Cristina STOICOF², Luminita ELEFTERESCU¹

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SESSION II

II.1 ADVANTAGES OF USING THE FIBER OPTIC SENSORS FOR DETERMINING WINDING TEMPERATURE OF POWER TRANSFORMER UNITS

Traian ENE, Traian CHIULAN – C.N. Transelectrica SA - Technical Coordination and Engineering Direction

II.2 EXPERIMENTS FOR APPLYING THE DIRECT MEASUREMENT OF WINDING TEMPERATURE TO POWER TRANSFORMERS

Andrei MARINESCU, Gheorghe OPRAN, Mircea TEODORESCU – ICMET Craiova

II.3 200 A, 24 KV CURRENT TRANSFORMER WITH OPTICAL TRANSMISSION AND FREQUENCY MODULATION

*Andrei MARINESCU, , Marinel POPESCU, Alexandru MANTA, Nicolae PĂDURARU – ICMET Craiova
Virgil LICHIARDOPOL, Doru DUMITRESCU, Traian ENE – C.N. Transelectrica SA*

II.4 CONTINUOUS MEASUREMENT OF AXIAL FORCES IN POWER TRANSFORMERS BY OPTOELECTRONIC MEANS

Andrei MARINESCU, Gheorghe OPRAN, Mircea TEODORESCU, Ion DINU, Luminița TAȘCĂU – ICMET Craiova

II.5 DC AND AC DRIVES USED FOR VESSEL'S PROPULSION

*Serghei RADU *, Gheorghe SAMOILESCU ***

**Barklav Crewing Company, Constanta,*

***Mircea cel Bătrân Naval Academy, Constanta, Romania*

II.6 TECHNICAL SOLUTIONS FOR ADJUSTING THE OUTPUT OF NON-CONVENTIONAL CURRENT AND VOLTAGE TRANSDUCERS TO INSTALLATION REQUIREMENTS OF MEDIUM AND HIGH VOLTAGE MEASURE AND PROTECTION

Florin VELEA, Marcel NICOLA - ICMET Craiova

II.7 ELECTROMAGNETIC COMPATIBILITY ASPECTS RELATED TO UNCONVENTIONAL INSTRUMENT TRANSFORMERS

Sorin COATU – "Politehnica" University - Bucharest

Andrei MARINESCU – ICMET Craiova,

Dan Cristian RUCINSCHI – "Politehnica" University - Bucharest

II.8 HIGH ACCURACY, COMBINED MEASURING NON CONVENTIONAL CURRENT-VOLTAGE TRANSFORMERS FOR ENERGY METERING (NCVT)

Nicolae PĂDURARU ; Andrei MARINESCU; Ionel DUMBRAVĂ; Marinel POPESCU, Despina ROMAN` - ICMET Craiova

II.9 NON CONVENTIONAL CURRENT MEASURING TRANSFORMER (MT) FOR PROTECTION (NCTP)

Andrei MARINESCU, Nicolae PĂDURARU, Despina ROMAN, Ionel DUMBRAVĂ, Horia IONESCU, Daniel TRUȚĂ – ICMET Craiova

II.10 UNCONVENTIONAL TRANSFORMERS USED IN TRANSMISSION NETWORK

Adrian RUSU¹⁾, Dorin CRISTESCU²⁾, Daniel BALACI¹⁾

¹⁾ C.N. Transelectrica SA, ²⁾ UPB

SESSION III

III.1 APPLICATIONS OF THE FIBER OPTICS IN THE MONITORING OF THE DAM AND ELECTRICAL STATION OF HYDRO

Marcel NICOLA, Florin VELEA - ICMET Craiova

III.2 BANDWIDTH OF AN OPTOELECTRONIC, HYBRID CURRENT INSTRUMENT TRANSFORMER

*Marinel POPESCU, Horia IONESCU, Alexandru IONESCU,
Ionel DUMBRAVĂ, Mircea TEODORESCU, Mircea BORUZ
- ICMET Craiova*

III.3 SOME PRACTICAL CONSIDERATIONS ON EMI FILTERS

Mircea BUZDUGAN, Horia BĂLAN - Technical University from Cluj-Napoca

III.4 ABOUT THE CALCULATION OF THE LOSS BUDGET IN A SYSTEM FOR DETECTING THE PARTIAL DISCHARGES FROM HIGH VOLTAGE EQUIPMENT

Maria BROJBOIU - University from Craiova, Electrical Engineering Faculty

III.5 MODERN SOLUTIONS ON THE VIBRATION FAULT DIAGNOSIS OF THE ELECTRICAL MACHINES STATORS

Horia BĂLAN, Mircea BUZDUGAN, Ioan VADAN, Aurel BOTEZAN - Technical University from Cluj-Napoca

ROUND TABLE

– PROSPECTS OF OPTOELECTRONIC METHODS APPLICATION IN ROMANIAN NATIONAL POWER GRID MODERNIZATION WITHIN THE CONTEXT OF IMPLEMENTING THE SMART GRID CONCEPT

Moderators: Ion MERFU, Andrei MARINESCU