

XVII International Conference on Electromagnetic Disturbances

EMD'2007

PROGRAMME

Białystok, September 19 – 21, 2007

19 September 2007

REGISTRATION OF THE PARTICIPANTS

9.00 – 10.30

OPENING

10.30 -11.00

Section 1

11.00 – 12.30

Measurements and simulation of disturbances

Part 1

Section chairman - Yury Grishin

1. **Kawamata K., Minegishi S., Haga A., Fujiwara O.:**
MEASUREMENT OF TRANSITION DURATION AND BREAKDOWN FIELD DUE TO LOW VOLTAGE
ESD USING 12GHz EXPERIMENTAL SYSTEM
Japan
2. **Taka Y., Kagawa Y., Fujiwara O.:**
MEASUREMENT OF DISCHARGE CURRENTS THROUGH FINGERTIP FROM CHARGED HUMAN
BODY
Japan
3. **Łoboda M., Betz H. D., Oettinger W. P., Schmidt K.:**
LINET – THE NEW LIGHTNING DETECTION NETWORK IN POLAND
Poland/Germany
4. **Bechet P., Mitran R., Pop O., Bouleanu I.:**
MEASURING ADJACENT CHANNEL POWER FOR TACTICAL SIGNALS
Romania
5. **Niechcial F.:**
UPDATE ON EFT/BURST TESTING - THE REVISION OF IEC 61000-4-4
Germany

LUNCH

12.30 – 13.30

Section 2

13.30 – 15.00

EMD in wire and radio communication

Section chairman - Karol Aniserowicz

1. **Harada Y., Taguchi K., Shimoshio Y.:**
CROSSTALK ANALYSIS OF DIFFERENT LENGTH PARALLEL CONDUCTOR IN HOMOGENEOUS
MEDIUM
Japan
2. **Neagu A. M., Palade T., Bechet P., Hangan A.:**
METHODS TO REDUCE THE ACI LEVEL IN THE GSM SYSTEM
Romania
3. **Suzuki Y., Masugi M.:**
ADAPTIVE NOISE FILTER BASED ON OUTPUT SIGNAL DELAY CONTROL SCHEME FOR
PREVENTION OF ELECTROMAGNETIC INTERFERENCE PROBLEMS
Japan

4. **Zankiewicz A.:**
INFLUENCE OF ADJACENT-CHANNEL INTERFERENCE ON THE THROUGHPUT OF 2.4GHZ WLAN NETWORK
Poland
5. **Garbaruk M.:**
COMPUTER SIMULATION OF ULTRA-WIDEBAND ANTENNAS FOR RADIOCOMMUNICATION SYSTEMS
Poland
6. **Czawka G.:**
BROADBAND ANTENNA ARRAYS WITH PHASE AND FREQUENCY CHANNEL MULTIPLEXING
Poland

Section 3 15.15 – 16.15

Sources of electromagnetic disturbances EMD in power systems

Section chairman - Roma Rinkevicienė

1. **Dymarkowski K., Namiotko R., Obrochta W.:**
NAVAL SYSTEMS' ELECTROMAGNETIC DISTURBANCES ON SHIPS
Poland
2. **Katsivelis P.S., Fotis G. P., Gonos I. F., Stathopoulos I. A.:**
A NEW METHOD TO DESIGN A CIRCUIT FOR THE ELECTROSTATIC DISCHARGE CURRENT
Greece
3. **Marčiulionis P., Žebrauskas S.:**
ELECTRIC FORCE OF UNIPOLAR CORONA DISCHARGE CAUSING THE ION-INDUCED WIND
Lithuania
4. **Krajewski W.:**
BEM MODELLING OF 3D EDDY-CURRENT EFFECTS IN THE CONTEXT OF EMD PROBLEMS IN POWER INSTALLATIONS
Poland

Section 4 16.30 – 18.00

Measurements and simulation of disturbances Part 2

Section chairman - Kazimieras Maceika

1. **Baskys A., Rinkeviciene R., Petrovas A.:**
OVERVOLTAGE LIMITATION IN VARIABLE SPEED DRIVE WITH INVERTER
Lithuania
2. **Karaliunas B.:**
SIMULATION OF ARC INDUCTION MOTOR MAGNETIC FIELD
Lithuania
3. **Łuszcz J.:**
OVER-VOLTAGE STUDIES IN INVERTER FED INDUCTION MOTOR DRIVES
Poland
4. **Koźłataj J.:**
CAPACITIVE-SENSOR INTERFACES SENSITIVE TO ELECTROMAGNETIC INTERFERENCES
Poland
5. **Gečys S., Smolskas P., Žmunidas M.:**
INDUCTION MOTOR WITH SOLID FERROMAGNETIC CAGE WINDING ROTOR FOR BOREHOLE INVESTIGATING DEVICES
Lithuania
6. **Sowa A. W.:**
LIGHTNING SURGES AT THE PORTS OF EQUIPMENT IN LOCAL AREA NETWORKS
Poland

Poster section

14.00 – 17.00

1. **Grishin Y.:**
MEASUREMENT DATA PROCESSING ROBUST WITH RESPECT TO THE PULSE INTERFERENCES
Poland
2. **Sergeeva N.G., Ogloblina O.F.:**
MEASUREMENT OF THE PARAMETERS OF THE HIGH-LATITUDE IONOSPHERE BY A PARTIAL REFLECTION RADAR
Russia
3. **Pocius R. V., Montvilas G.:**
THE APPROXIMATE ESTIMATION OF EMF INTENSITY IN THE NEAR VICINITY OF BASE STATIONS BY PLANNING MOBILE NETWORKS
Lithuania
4. **Sadowski M.**
SOFTWARE FOR SYNTHESIS RADIATION CHARACTERISTICS OF LINEAR ANTENNA ARRAYS
Poland
5. **Rusiecki A.:**
NEAR-FIELD AND FAR-FIELD ESTIMATION OF SAFETY ZONE IN THE VICINITY OF GSM CIRCULAR ANTENNA ARRAY
Poland
6. **Garbaruk M.:**
PULSE MODULATION OF ULTRA-WIDEBAND SIGNALS – SOFTWARE FOR MATLAB
Poland
7. **Bajorek J.:**
LEMP SIMULATIONS IN TRANSMISSION LINES WITH CORONA
Poland
8. **Matkevicius E., Radzevicius L.:**
THE RESEARCH OF THE LIM CAUSED ELECTROMAGNETIC DISTURBANCE DEPENDANCE ON ITS CHARACTERISTICS AND VELOCITY
Lithuania
9. **Larkina V.I.:**
ELECTROMAGNETIC LOW FREQUENCY EMISSION DISTURBANCE AS A MEANS OF ENVIRONMENT DIAGNOSTIC
Russia
10. **Deveikis T., Nevardauskas E. V.:**
THE CORRECTION PROBLEMS FOR ON SHORE LOCATED WIND STATION POWER PRODUCTION FORECASTING
Lithuania
11. **Strugar V.:**
POWER QUALITY INDICES MEASUREMENT IN REAL DISTRIBUTION NETWORK
Montenegro
12. **Kořataj J.:**
AN ULTRA-LOW POWER, WIRELESS SENSOR NETWORK IN HARSH INDUSTRIAL ENVIRONMENTS WITH UNPREDICTABLE ELECTROMAGNETIC INTERFERENCES
Poland
13. **Klementavičius A.:**
FUTURE APPROACH TO MOMENTARY INTERRUPTIONS IN DISTRIBUTION NETWORKS
Lithuania

Banquet

19.30 – 22.00

20 September 2007

Section 5

9.00 – 10.30

High voltage equipment reliability at EMD

Section chairman - Linas Andronis Markevičius

1. **Gudžius S., Jonaitis A., Markevičius L. A., Morkvėnas A., Markevičius L.:**
THE SPOTTING RELIABILITY OF THE TRANSIENT PROCESSES DURING ONE PHASE TO GROUND FAULT
Lithuania
2. **Gudžius S., Markevičius L. A., Morkvėnas A., Navickas A., Stanionienė R., Rožanskas A.:**
THE INFLUENCE OF THE OVERVOLTAGES ON THE RELIABILITY OF THE 110 KV POWER LINE WITH CABLE INSERTION
Lithuania
3. **Linkeviciute B., Navickas A., Svinkunas G.:**
INTELLIGENT SYSTEMS FOR POWER TRANSFORMERS MONITORING
Lithuania
4. **Markevičius L. A., Navickas A., Daunoras J., Tička V.:**
THE PECULIARITIES OF INSULATION COORDINATION IN POWER NETWORK WITH OVERVOLTAGE ARRESTERS
Lithuania
5. **Markevicius L. A., Siozinys V.:**
THE IDENTIFICATION OF VOLTAGE MEASUREMENT TRANSFORMERS FREQUENCY CHARACTERISTICS FOR ELECTROMAGNETIC PROCESSES INVESTIGATION
Lithuania

Section 6

10.45 – 12.00

Grounding, equipotential bonding and shielding techniques

Section chairman - Marek Łoboda

1. **Gonos I. F., Kontargyri V. T., Stathopoulos I. A., Moronis A. X., Sakarellos A. P., Kolliopoulos N. I.:**
DETERMINATION OF TWO LAYER EARTH STRUCTURE PARAMETERS
Greece
2. **Woliński K., Wiater J.:**
GROUND POTENTIAL RISE MEASUREMENTS DURING LIGHTNING ON THE HIGH VOLTAGE SUBSTATION
Poland
3. **Wojtas S., Wołoszyk M., Galewski M.:**
MEASUREMENT ACCURACY EVALUATION OF TRANSMISSION LINE EARTHINGS BY IMPULSE TESTS
Poland
4. **Aniserowicz K.:**
ANALYSIS OF LEMP FIELD INSIDE LPS IN THE CASE OF INDIRECT LIGHTNING STRIKE
Poland

LUNCH

12.00 – 13.00

Section 7

13.00 – 15.00

Lightning and overvoltage protection

Section chairman - Zdobysław Flisowski

1. **Markowska R.:**
LIGHTNING THREAT AS A RESULT OF POTENTIAL DIFFERENCES IN A TELECOMMUNICATION CENTRE DURING DIRECT STRIKE TO THE TOWER
Poland
2. **Gulyás A., Németh B., Kiss I., Berta I.:**
PLANNING AND EVALUATION OF PREVENTIVE LIGHTNING PROTECTION
Hungary
3. **Krasowski D.M.:**
INVESTIGATION OF THE COORDINATION OF PROTECTION MEASURES FOR COMPUTER SYSTEMS ACCORDING TO THE LPZ CONCEPT
Poland
4. **Maceika K.:**
LIGHTNING STRIKE PROTECTION FOR AIRCRAFT
Lithuania
5. **Mazzetti C., Marzinotto M., Kuca B., Flisowski Z.:**
SOME CONSIDERATIONS ON THE EQUIVALENT AREA EVALUATION FOR DOWNWARD AND UPWARD FLASHES TO THE STRUCTURE
Italy/Poland
6. **Sobolewski K.:**
INVESTIGATIONS OF VOLTAGES INDUCED IN CIRCUITRY LOOPS
Poland
7. **Masłowski G., Rakov A. V.:**
DUALITY OF LUMPED- AND DISTRIBUTED-SOURCE LIGHTNING RETURN-STROKE MODELS
Poland

Poster section

10.00 – 14.00

1. **Wiater J.:**
FLAGSTAFF AS AN AIR-TERMINATION ROD MEASUREMENTS RESULTS
Poland
2. **Mujić A., Suljanović N., Murko V., Štagoj A.:**
INTEGRATED POWER AND DATA MODULAR SPD AT THE UNIVERSAL BASE
Bosnia and Herzegovina/Slovenia
Poland
3. **Sowa A. W, Wiater J.:**
EFFECTS OF LIGHTNING SURGES ON FIRE PROTECTION SYSTEM
Poland
4. **Aniserowicz K., Zielenkiewicz M.:**
COMPARISON OF VOLUMES PROTECTED BY VERTICAL LIGHTNING RODS ACCORDING TO POLISH, LITHUANIAN AND IEC STANDARDS
Poland
5. **Zhang Y., Chen B., Xing H., Tian C.:**
RESEARCH OF OVER-VOLTAGE SUPPRESSION IN UHV BASED ON THE MAGNETICALLY CONTROLLED REACTOR
China
6. **Wiater J.:**
DETERMINATION AN EQUIVALENT GROUND STRUCTURE MODEL ON THE HIGH VOLTAGE SUBSTATION
Poland
7. **Hari Baskhar S., Gopalakrishnan C.:**
ANALYSIS OF EMC PROBLEMS DUE TO EDDY CURRENTS USING FEM
India

8. **Ogrutan P., Aciu L.-E., Nicolae G.:**
A SPICE MODEL TO EVALUATE SHIELDING EFFECTIVENESS OF CONDUCTIVE MATERIALS
Romania

Pleasure-trip
16.30 – 22.00

21 September 2007

Section 8
9.00 – 10.15

EMD in electronic, control and measurement systems

Section chairman - Juozapas Arvydas Virbalis

1. **Daunoras J., Lukočius R., Virbalis J.A.:**
OPTIMAL TRANSFER OF SENSORS SIGNALS IN PRESENCE OF ELECTROMAGNETIC
DISTURBANCES
Lithuania
2. **Katutis R., Virbalis J. A.:**
FILTRATION OF ELECTROMAGNETIC FLOW METER SIGNAL BY WAVELET FILTERS
Lithuania
3. **Poska A. J., Rinkevicienė R.:**
LINEAR DRIVES FOR SWITCHING DEVICE APPARATUS
Lithuania
4. **Holiczer W., Holiczer A.:**
APPLICATION OF NONLINEAR ESTIMATION METHOD IN A FLAME PHOTOMETER AS THE WAY
TO THE METROLOGICAL PARAMETERS ENHANCEMENT
Poland
5. **Nikołajew A.:**
PROPAGATION OF EXTERNAL ELECTROMAGNETIC WAVES IN OPTICAL FIBERS
Poland

Section 9
10.30 – 11.45

Measurement and simulation of disturbances
Part 3

Section chairman - Andrzej W. Sowa

1. **Marcinkevičius A. J., Jasonis V.:**
INVESTIGATION OF THE OVERVOLTAGES IN THE FAST TRACK-AND-HOLD CIRCUITS
Lithuania
2. **Rydlichowski P., Bandurski W.:**
MODELING OF A NEW PLANAR LOWPASS FILTERS FOR INTEGRATED POWER ELECTRONICS
MODULES
Poland

3. **Šimkevičius T., Lapė R. J.:**
HARMONICS OF THE CURRENTS AND MAGNETIC FLUXES OF THE THREE-PHASE CORE-TYPE DELTA-WYE AND WYE-DELTA CONNECTED TRANSFORMER ON NO-LOAD OPERATION
Lithuania
4. **Aniserowicz K., Leszczyński M., Maksimowicz T.:**
RESULTS OF APPLICATION OF DIFFERENT COMPUTER CODES FOR FREQUENCY-DOMAIN ANALYSIS OF LEMP FIELD INSIDE LPS
Poland
5. **Walendziuk W.:**
THE PARALLEL ALGORITHMS OF THE 3D SPACE DECOMPOSITION IN THE FINITE-DIFFERENCE TIME-DOMAIN METHOD
Poland

Poster section

9.00 – 11.30

1. **Holiczer A.:**
NONLINEAR ESTIMATION METHOD USED FOR DISTURBANCES SUPPRESSION IN MEASUREMENT SYSTEMS
Poland
2. **Nikołajew A.:**
THE EFFECT OF ELECTROMAGNETIC DISTURBANCES ON THE SIGNAL IN OPTICAL FIBERS
Poland
3. **Walendziuk W.:**
PARALLEL TECHNIQUES FOR SOLVING MAXWELL'S CURL EQUATIONS WITH FDTD METHOD
Poland
4. **Markowska R.:**
INFLUENCE OF THIN-WIRE MODEL PARAMETERS ON THE ACCURACY OF CALCULATIONS IN HIFREQ
Poland
5. **Bukšnaitis J., Gečys S.:**
ANALYSIS OF MAGNETOMOTIVE FORCE OF SINGLE-PHASE AND THREE-PHASE WINDINGS OF ROTATING ELECTRIC MACHINES
Lithuania
6. **Bahadorzadeh M., Naser Moghaddasi M., Sadeghzadeh R.A.:**
IMPLEMENTATION OF AN EFFICIENT HYBRID METHOD FOR THE ANALYSIS OF INTERFERENCE IN HIGH FREQUENCY CIRCUITS
Iran

LUNCH

12.00 – 13.00