

**XXIII International Conference on
Electromagnetic Disturbances
EMD'2015**

PROGRAM

Białystok, September 9 - 11, 2015

Wednesday, 9 September 2015

REGISTRATION OF THE PARTICIPANTS

9.00 – 10.00

OPENING

10.00 – 10.15

Session 1

10.15 – 11.15

Measurements and simulation of disturbances – Part A

Session chairman - Saulius Gudžius

1. KARNAS Grzegorz, MASŁOWSKI Grzegorz, BARAŃSKI Piotr, SOBOLEWSKI Konrad
THE TIME AND TIME-FREQUENCY DOMAIN ANALYSIS OF LIGHTNING ELECTRIC FIELD SIGNATURES OBTAINED IN THE TLF-MF FREQUENCY RANGE AND COLLECTED DURING SUMMER THUNDERSTORMS IN THE SUBCARPATHIAN REGION OF POLAND IN 2014
POLAND
2. KARWOWSKI Andrzej, NOGA Artur, TOPA Tomasz
COMPUTATIONALLY EFFICIENT TECHNIQUE FOR WIDEBAND ANALYSIS OF LIGHTNING PROTECTION SYSTEMS
POLAND
3. SLÍŽIK Jozef, HARTĀNSKÝ René, SMIEŠKO Viktor, ŠROBA Lukáš
MEASUREMENT OF THE THREE VECTOR COMPONENTS OF THE ELECTRIC FIELD INTENSITY WITH PROPOSED ELECTROMAGNETIC FIELD PROBE MEASURED IN THE NEAR-FIELD REGION
SLOVAKIA

Coffee break

11.15 – 11.30

Session 2

11.30 – 12.50

EMD in power systems, power quality

Session chairman - Roma Rinkevičienė

1. GUDŽIUS Saulius, MARKEVIČIUS Linas, MORKVĖNAS Alfonsas, ILIOITIENĖ Ugnė, MARUŠAUSKAS Vaidotas, TIČKA Vidmantas
ANALYSIS OF THE PRINCIPLES OF FAULT IDENTIFICATION BY TRANSIENT CHARACTERISTICS
LITHUANIA
2. MORKVĖNAS Alfonsas, GUDŽIUS Saulius, SAKAUSKAITĖ Dovilė, TIČKA Vidmantas, KĘSTUTIS Jasiūnas
INVESTIGATION OF THE LEVEL OF SWITCHING OVERVOLTAGES IN THE DIAGRAM OF SHUNT REACTOR
LITHUANIA
3. OMEJE Osita U., OKAFOR Frank N.
INVESTIGATING THE EFFECTS OF VOLTAGE DISTORTION ON TIME-VARYING HARMONIC CURRENT INJECTION
NIGERIA
4. PITRĖNAS Aurelijus, RINKEVIČIENĖ Roma, PETROVAS Andrius
ANALYSIS OF ELECTROMAGNETIC DISTURBANCES IN THE SIX-PHASE CONVERTER
LITHUANIA

LUNCH

12.50 – 13.40

Visiting of High Voltage Laboratory

13.40 – 14.00

Session 3

14.00 – 15.40

Disturbances in electronic equipment EMD in control and measurement systems

Session chairman - Juozapas Arvydas Virbalis

1. JAŃCZAK Dariusz, HOLICZER Andrzej
DATA PROCESSING OF ENCODER SIGNAL IN PRESENCE OF ELECTROMAGNETIC DISTURBANCES
POLAND
2. MARSALKA Lukas
THE DIELECTRIC CONSTANT EFFECT TO THE RESONANCE IN ELECTROMAGNETIC FIELD
SLOVAKIA
3. NIKOŁAJEW Adam
A DETERMINATION OF THE LINEAR SYSTEM'S CHARACTERISTICS BY MEANS OF $\Sigma\Delta$ UNDERSAMPLING
POLAND
4. ROMAŠKEVIČIUS Olegas, MARČIULIONIS Povilas, PAKĖNAS Valdas, VIRBALIS Juozapas Arvydas
COMPARISON OF TWO POLE AND FOUR POLE TECHNOLOGICAL INDUCTORS OF ROTATING MAGNETIC FIELD
LITHUANIA
5. SWIERCZ Ewa
ANALYSIS OF IMAGE RESOLUTION AND SYSTEM REQUIREMENTS IN DOPPLER RADAR TOMOGRAPHY
POLAND

Coffee break

15.40 – 16.00

Session 4

16.00 – 17.40

Lightning and overvoltage protection Grounding and equipotential bonding

Session chairman - Grzegorz Masłowski

1. LO PIPARO G.B., KISIELEWICZ T., MAZZETTI C., FIAMINGO F.
INFLUENCE OF GROUNDING CONDITIONS ON APPARATUS PROTECTION BY MEANS OF SPD
ITALY/POLAND
2. MAKSIMOWICZ Tomasz, ZIELENKIEWICZ Mirosław
LIGHTNING PROTECTION ZONES CREATED BY TRACTION CONSTRUCTION OF RAILWAYS
POLAND
3. SUL Przemysław, KUCA Bolesław, FLISOWSKI Zdobysław, MAZZETTI Carlo
FACTORS AFFECTING THE ASSESSMENT OF THE SELECTIVITY OF LIGHTNING IMPACT FOR DIMENSIONING THE AREAS PROTECTED BY AIR TERMINALS
POLAND/ITALY
4. TARIMER İlhan, KALENDER Osman, EGE Yavuz, YÜZER Erşan Ömer
PROPOSITIONS ON LIGHTNING PROTECTION OF A 1 KW ALTERNATOR DESIGNED FOR A WIND TURBINE
TURKEY

5. WOJTAS Stanisław
INFLUENCE OF SPAN LENGTH AND IMPULSE FRONT TIME ON EARTHING MEASUREMENT ACCURACY FOR
POWER LINE TOWERS
POLAND

Banquet
19.00 – 22.00

Thursday, 10 September 2015

Session 5
8.20 – 9.20

EMD in wire and radio communication

Session chairman - Giennadij Czawka

1. HANADA Eisuke, KUDOU Takato
THE INTRODUCTION OF WIRELESS COMMUNICATION TECHNOLOGY TO THE CLINICAL MEDICINE SETTING:
PROBLEMS AND SOLUTIONS
JAPAN
2. SOKOLOV Stanislav A.
ESTIMATION OF LIGHTNING INFLUENCE UPON DIELECTRIC OPTICAL FIBER CABLES
RUSSIA
3. ZANKIEWICZ Andrzej
SUSCEPTIBILITY OF THE IEEE 802.11N NETWORKS TO ADJACENT-CHANNEL INTERFERENCE IN THE 5GHZ BAND
POLAND

Session 5 A
8.20 – 9.40

Poster session*

1. ANDRADE F., COSTA E., ARAÚJO J., BARROS R., FERREIRA T., AGRA J., XAVIER C.
EVALUATION OF MECHANICAL CRITERIA APPLIED TO THE TRANSFORMERS WINDINGS
BRAZIL
2. ILIOITIENĖ Ugnė, GUDŽIUS Saulius, MILIŪNĖ Renata, MORKVĖNAS Alfonsas, VALATKA Povilas
EXPERIMENTAL INVESTIGATION OF THE SHORT DURATION VOLTAGE DISTURBANCES INFLUENCE ON THE
PARTIAL DISCHARGE CHARACTERISTICS
LITHUANIA
3. JAŃCZAK Dariusz
MAXIMUM LIKELIHOOD ESTIMATION IN PRESENCE OF DISTURBANCES IN NONLINEAR MEASUREMENT CHANNEL
POLAND
4. KONOPKO Krzysztof
A MASSIVELY PARALLEL ALGORITHM FOR ESTIMATION AND GENERATION OF RANDOM SIGNALS WITH
ARBITRARY PROBABILITY DENSITY FUNCTION
POLAND
5. KONSTANTINAVIČIŪTĖ Inga, CHRISTAUSKAS Česlovas, GUDŽIUS Saulius, ILIOITIENĖ Ugnė,
MORKVĖNAS Alfonsas
EFFICIENCY ANALYSIS OF SMART DISTRIBUTION NETWORK
LITHUANIA
6. NIKOŁAJEW Adam
EFFECT OF FREQUENCY FLUCTUATIONS ON THE UNDERSAMPLING OF PERIODICAL SIGNALS
POLAND

7. ROMAŠKEVIČIUS Olegas, MARČIULIONIS Povilas, PAKĖNAS Valdas, VIRBALIS Juozapas Arvydas
NON-UNIFORMITY OF TECHNOLOGICAL INDUCTOR MAGNETIC FIELD ROTATION VELOCITY
LITHUANIA
8. WIATER Jarosław
LIGHTNING INDUCED VENTRICULAR FIBRILLATION RISK FOR TOURISTS
POLAND

* - Space of A1 dimension will be provided for each poster presentation in the session as well as basic mounting facilities.

Coffee break

9.20 – 9.40

Session 6

9.40 – 11.00

Sources of electromagnetic disturbances

Session chairman - Andrzej Karwowski

1. DRAS Marek, KAŁUSKI Marek, SZAFRAŃSKA Monika
INTRODUCTION TO HIGH POWER MICROWAVE AS A SOURCE OF DISTURBANCES
POLAND
2. MASŁOWSKI Grzegorz, ZIEMBA Robert
MODELING OF ELECTROMAGNETIC DISTURBANCES IN THE LIGHTNING PROTECTION SYSTEM OF THE RESIDENTIAL BUILDING
POLAND
3. MICHALAK Marek, SZAFRAŃSKA Monika
DISTURBANCES GENERATED BY LOCOMOTIVES IN UNDERGROUND MINES
POLAND
4. SOBOLEWSKI Konrad, ŁASICA Andrzej
MEASUREMENTS OF ELECTRIC DISTURBANCES IN LOW VOLTAGE INSTALLATIONS INSIDE ROOMS NEAR THE HIGH VOLTAGE LABORATORY
POLAND

Session 6 A

9.40 – 11.00

Poster session*

1. ANISEROWICZ Karol
DISPERSION EFFECT IN INDUCTIVELY LOADED ANTENNA THEORY MODEL OF A LIGHTNING RETURN STROKE
POLAND
2. CZAWKA Giennadij
SCATTERING MATRICES OF MULTI-PORT RADIO DEVICES
POLAND
3. GARBARUK Marek, LITWIŃCZUK Norbert
SHORT-TIME FOURIER TRANSFORM OF ULTRAWIDEBAND PULSES
POLAND
4. GRISHIN Yury P.
PROBABILITY DENSITY FUNCTIONS OF SIGNALS AT THE OUTPUT OF A RECEIVER WITH AGC
POLAND
5. HARTĀNSKÝ René
SPECTRUM ANALYSIS OF THE GENERAL DIGITAL SIGNALS
SLOVAKIA

6. SADOWSKI Maciej, HOLICZER Andrzej, MALINOWSKI Grzegorz
ELECTROMAGNETIC DISTURBANCES IN INDUSTRIAL WELDING PROCESSES
POLAND
 7. SADOWSKI Maciej, ZANKIEWICZ Andrzej
SUSCEPTIBILITY OF LTE ODFMA RECEIVER TO MULTIPATH CHANNEL AND CO-CHANNEL INTERFERENCE
POLAND
 8. SIECZKAREK Krzysztof, MAĆKOWIAK Adam, ŚWIĄTEK Agnieszka
IMPACT OF ANTENNA HEIGHT AND TILT ON MEASUREMENTS ABOVE 1GHZ IN THE ANECHOIC CHAMBERS
POLAND
- * - Space of A1 dimension will be provided for each poster presentation in the session as well as basic mounting facilities.

Coffee break

11.00 – 11.20

Session 7

11.20 – 12.00

Presentations of companies

Session chairman - Karol Aniserowicz

1. KAŁMUCKI Marcin, KOHUT Radosław; ELKO-BIS Systemy Odgromowe Sp. z o.o.
PRZYKŁADY WYKORZYSTANIA NARZĘDZI INFORMATYCZNYCH PRZY PROJEKTOWANIU INSTALACJI ODGROMOWYCH / EXAMPLES OF USAGE OF COMPUTER TOOLS IN LIGHTNING PROTECTION SYSTEM DESIGN
POLAND
2. MODRYKAMIEN Grzegorz; AMETEK CTS Germany GmbH
PRESENTATION OF THE COMPANY
GERMANY

LUNCH

12.00 – 13.00

Excursion

14.00 – 22.30

Friday, 11 September 2015

Session 8

9.00 – 10.20

EMD standards and testing

Session chairman - Bernd Jaekel

1. HALLON Jozef, BITTERA Mikuláš, KOVÁČ Karol
THE SHIELDED CHAMBER INTERFACE FOR EMC TESTS
SLOVAKIA
2. JAEKEL Bernd W.
CURRENT DEVELOPMENTS IN THE IMMUNITY STANDARDS OF THE IEC 61000 SERIES
GERMANY
3. KACZMAREK Andrzej, POZAŃSKI Przemysław
CONDUCTED SUSCEPTIBILITY MEASUREMENT ACCORDING PCS-08 AND PCS-09 PROCEDURE OF NO-06-
A500:2012 STANDARD EXAMPLE'S OF MEASUREMENT FOR NATIONAL SECURITY AND DEFENSE
POLAND
4. MIKUŠ Peter, HARŤANSKÝ René, SMIEŠKO Viktor
THE PROPOSAL OF THE LABORATORIES FOR RADAR LEVEL GAUGES CALIBRATION
SLOVAKIA

Coffee break

10.20 – 10.40

Session 9

10.40 – 12.20

Measurements and simulation of disturbances – Part B

Session chairman - Yury P. Grishin

1. BAHADORZADEH Mehdi, BOLANDPOUR Hossain, ALIAKBARZADEH Reza
CIRCUIT MODEL ANALYSIS OF A HEXAGONAL SHAPES METAMATERIAL ABSORBER
IRAN
2. CHABER Bartosz, STARZYŃSKI Jacek
NUMERICAL MODELS OF RADIATING LINES FOR RADIATED SUSCEPTIBILITY TESTS
POLAND
3. KALUNTA Felix O., OKAFOR Frank N.
FREQUENCY DOMAIN ANALYSIS OF SERIES RESONANCE IN POWER DISTRIBUTION NETWORKS
NIGERIA
4. RAZAVI Ehsan, ROYAEI Javad, BAHADORZADEH Mehdi
ANALYSIS AND CONTROL THE HIGH FREQUENCY ELECTROMAGNETIC INTERFERENCES AND CROSSTALK IN
MICROSTRIP PRINTED CIRCUITS BOARD
IRAN
5. RUSIECKI Andrzej, ANISEROWICZ Karol
MODELING OF DIFFERENT INTERNAL ARRANGEMENTS OF SLOTTED ENCLOSURES USING METALLIC STIRRER
FOR EVALUATION OF SHIELDING EFFECTIVENESS
POLAND

CLOSING CEREMONY

12.20 – 12.30

LUNCH

12.30 – 13.30