



**INTERNATIONAL
CONFERENCE**
UgalMat 2014
the VIth edition



PROGRAM OF THE VIth EDITION OF INTERNATIONAL CONFERENCE

UgalMat 2014

29 - 30 May 2014, GALAȚI, ROMANIA
Conference Program

29.05.2014 – THURSDAY	
08 ⁰⁰ -09 ⁰⁰	<i>Registration</i> Room AULA MAGNA - Floor I, Building AE, Strada Domnească nr. 111
09 ⁰⁰ -09 ³⁰	<i>Opening ceremony</i>
09 ³⁰ -10 ³⁰	<i>Awarding the title of Honorary Professor for</i> Prof. Dr. Eng. Avram NICOLAE, “Politehnica“ University of Bucuresti
PLENARY LECTURES	
10 ³⁰ -11 ¹⁰	Avram NICOLAE, Andrei BERBECARU, Andra PREDESCU, George COMAN METALLIC MATERIALS ENGINEERING - SCIENTIFIC BRANCH OF SUSTAINABLE CO-DEVELOPMENT
11 ¹⁰ -11 ⁵⁰	Iulian RIPOSAN, Valentin UTA, Mihail FIRICAN, Stelian STAN, Mihai CHISAMERA, Rodney NARO, David WILLIAMS WORLD CRISIS OF RARE EARTH – IMPACT ON DUCTILE IRON PRODUCTION
11 ⁵⁰ -12 ³⁰	Ștrul MOISA BIBLICAL METALS - INDICATOR OF VALUE, STATISTICAL ELEMENT, METAPHOR SUPPORT
12 ³⁰ -14 ⁰⁰	<i>Lunch break</i>
PLENARY LECTURES	
Room D12 - Floor I, Building D Chaired by Iulian RIPOSAN and Daniel MUNTEANU	
14 ⁰⁰ -14 ³⁰	Oleg FULGA, Maria FULGA METALOCERAMICA DE LA TEHNICA, LA ARTA
14 ³⁰ -14 ⁴⁰	Radu Francisc COTERLICI, Virgil GEAMĂN SUSTAINABLE COMPOSITES BASED ON ECO-FRIENDLY NATURAL FIBRES
14 ⁴⁰ -14 ⁵⁰	Mihai Alin POP, Virgil GEAMĂN, Irinel RADOMIR, Radu Francisc COTERLICI BENDING TEST EVALUATION OF POLYMERIC BASED COMPOSITES REINFORCED WITH FIBER GLASS DUE TO NATURAL AGEING
14 ⁵⁰ -15 ⁰⁰	Bogdan PRICOP, N. M. LOHAN, F. BORZA, N. LUPU, M.-G. SURU, E. MIHALACHE, R.I. COMĂNECI, L.-G. BUJOREANU STRUCTURAL CHANGES ASSOCIATED WITH THE PSEUDOELASTIC RESPONSE OF Fe-BASE SHAPE MEMORY ALLOYS
15 ⁰⁰ -15 ¹⁰	Elena MIHALACHE, Monica-Nicoleta LOHAN, Bogdan PRICOP, Leandru-Gheorghe BUJOREANU, Marius-Gabriel SURU COMPARATIVE CHARACTERISTICS OF MARTENSITE AND BAINITE IN CU-BASED SMAS
15 ¹⁰ -15 ²⁰	Mariana (BUSILA) IBANESCU, Dana TUTUNARU, Viorica MUSAT ANTIMICROBIAL PROPERTIES OF SEMICONDUCTIVE OXIDE NANOPARTICLES. FROM FUNDAMENTAL TO APPLICATIONS
15 ²⁰ -15 ³⁰	Mariana (BUȘILĂ) IBĂNESCU, Viorica MUȘAT SYNTHESIS AND OPTICAL AND ANTIMICROBIAL CHARACTERIZATION OF Fe-DOPED ZnO NANOPARTICLES



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15 ³⁰ -15 ⁴⁰	Eugen VELICHI THE INFLUENCE OF SOME PLUNDERING COLEOPTERANS BELONGING TO THE COCCINELIDAE FAMILY (COCCINELLA SEPTEMPUNCTATA L., HYPPODAMIA TREDECIMPUNCTATA L.), UPON THE EVOLUTION DYNAMICS OF THE PEST CEROSYPHA (APHIS) GOSYPHII GLOV. – CUCUMBER LOUSE – ON WATER MELON AND MELONS UNDER ZERO TREATMENT WITH INSECTICIDES
15 ⁴⁰ -15 ⁵⁰	Geanina Laurentia TIRON, Nicoleta SIMIONESCU, Alecsandra MOCANU, Stefan BALȚĂ INFLUENCE OF NANOPARTICLES ON THE MEMBRANE PROPERTIES
15 ⁵⁰ -16 ⁰⁰	Lidia BENEĂ, Eliza DĂNĂILĂ, Pierre PONTTHIAUX, Jean-Pierre CELIS IMPACT OF MATERIAL DEGRADATION ON SOCIETY, ENVIRONMENT AND HEALTH
16 ⁰⁰ -16 ¹⁰	Eliza Mardare DĂNĂILĂ, Lidia BENEĂ CHALLENGES IN CORROSION PROTECTION USING EXTRACT INHIBITORS
16 ¹⁰ -16 ²⁰	Sorin - Bogdan BAȘA, Lidia BENEĂ TRIBOCORROSION - NEWS INSIDE OF MATERIAL DEGRADATION IN SPECIFIC ENVIRONMENTS
16 ²⁰ -16 ³⁰	Virgil GEAMĂN, Irinel RADOMIR, Mihai Alin POP THIXOFORMING TECHNIQUE APPLIED TO DURALUMIN ALLOY AlCu4MgMn
16 ³⁰ -16 ⁴⁰	Ana DONIGA, Gheorghe FLOREA, Elisabeta VASILESCU STAINED - FANTASY AND COLOR
16 ⁴⁰ -16 ⁵⁰	Petrica HAGIOGLU ORTHODOX CHRISTIAN OBJECTS AND ARCHIEREIC BADGES MADE FROM METALLIC MATERIALS
16 ⁵⁰ -17 ⁰⁰	Cristina IORDACHE, Maria VLAD, Flaviu GOSTIN, Anett GEBERT, Jürgen ECKERT CORROSION BEHAVIOR OF COPPER BASE MATERIALS FOR MEDICAL DEVICES DESTINATION IN CONTACT WITH SIMULATED UTERINE FLUID
17 ⁰⁰ -18 ⁰⁰	POSTER PRESENTATION
18 ⁰⁰ -18 ²⁰	Mihaela PICU SORTING NODULAR GRAPHITE CAST IRON FROM THE LAMELLAR GRAPHITE CAST IRON USING ULTRASONIC TRANSPARENCY
18 ²⁰ -18 ³⁰	Iulian BOUNEGRU, Lidia BENEĂ, Eliza DĂNĂILĂ, Alexandru CHIRIAC IMPROVING BIOCOMPATIBILITY OF CO-CR ALLOY USED IN DENTISTRY BY SURFACE MODIFICATION WITH ELECTROCHEMICAL METHODS
18 ³⁰ -18 ⁴⁰	Ilenuta SEVERIN, Maria VLAD, Gelu MOVILEANU CHARACTERIZATION OF RED MUD RESULTED ON ALKALINE BAYER PROCESS FOR THE ALUMINA PRODUCTION IN ORDER TO BE USED FOR GEOPOLYMERS SYNTHESIS
18 ⁴⁰ -18 ⁵⁰	Marian NEACȘU, Doru HANGANU MATHEMATICAL MODELING ANALYTICAL PROCESS ROLLING HEAVY PLATES
18 ⁵⁰ -19 ⁰⁰	Doru HANGANU, Marian NEACȘU MATHEMATICAL MODELING OF THE HEAT TREATMENT PROCESS APPLIED TO AN Al-Si ALLOY SYSTEM AND DEVELOPING GUI PROPERTIES PREDICTION
20 ⁰⁰ -24 ⁰⁰	<i>Gala dinner – PANORAMIC Saloon, IXth floor, Galati Hotel, 12-13, Domneasca Street</i>
30.05.2014 – FRIDAY	
08 ³⁰ -10 ⁰⁰	<i>Round table. Conclusions and perspectives</i>
10 ⁰⁰ -12 ⁰⁰	<i>Trip on the Danube River</i>



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POSTER PRESENTATION

No.	POSTERS
P1.	Beatrice TUDOR, Anisoara CIOCAN OBTAINING OF DECORATIVE ACCESSORIES USING COMPLEX TECHNIQUES AND FORGING OPERATIONS
P2.	Daniel MUNTEANU, Luminița PĂRV ESTABLISHING THE ROLLING - FRICTION COEFFICIENT, FOR DIFFERENT CONTACTS BETWEEN BALLS AND THERMOCHEMICAL TREATED STEEL ROLLING PATHS
P3.	Mihaela MARIN, Florentina POTECAȘU, Petrică ALEXANDRU, Octavian POTECAȘU, Elena DRUGESCU WEAR BEHAVIOR OF GAS CARBURIZING ON POWDER METALLURGY ALLOYS
P4.	Stefan Ion-CUZA, M. C. FIRICAN, I. RIPOSAN EFFECTS OF OXYGEN AND SULPHUR BEARING INOCULANT ENHANCER ON THE CHILL SENSITIVENESS OF IN-MOULD INOCULATED GREY IRON
P5.	Mihail Ciprian FIRICAN, I. C. STEFAN, I. RIPOSAN SMALL ADDITION EFFECTS OF AN OXY-SULPHIDE INOCULANT ENHANCER OVER AN IN-MOULD CA-BASED FESI INOCULATED COMPACTED GRAPHITE CAST IRON
P6.	Denisa Elena ANCA, Elena PANCIU, Mihai CHISAMERA THE INFLUENCE OF DIFFERENT COATINGS ON THE GRAPHIT DEGENERATION IN THE SUPERFICIAL LAYER OF THE IRON CASTINGS
P7.	Anisoara CIOCAN, Beatrice TUDOR BEHAVIOUR OF CONSUMERS ON THE MOBILE PHONES MANAGEMENT IN ROMANIA
P8.	Stela CONSTANTINESCU ELASTIC MODULUS OF COATINGS BY PENDULUM IMPACT TEST
P9.	Stela CONSTANTINESCU THE RESIDUAL STRESS AND TRIBOLOGY BEHAVIOUR OF TICX COATING DEPOSITED BY NPCVD METHOD
P10.	Lucica ORAC, Vera GRECHANYUC, Stela CONSTANTINESCU COMPOSITE MATERIALS Cu-Zr-Y-Mo OBTAINED BY ELECTRON-BEAM TECHNOLOGY
P11.	Carmela GURĂU, Gheorghe GURĂU, Leandru BUJOREANU CONE SHAPED NANOSTRUCTURED OF IRON BASE MEMORY ALLOY
P12.	Leandru-Gheorghe BUJOREANU MANUFACTURING STEPS AND FUNCTIONING PARTICULARITIES OF SOME EXPERIMENTAL APPLICATIONS OF SHAPE MEMORY ALLOYS
P13.	Mirela AGAPIE, Béla VARGA THE STRUCTURE OF EUTECTOID ZN-AL BASED ALLOY DIRECTIONAL SOLIDIFIED
P14.	Carmen-Penelopi PAPADATU INDUSTRIAL AND ECONOMIC DEVELOPMENTS IN THE BALKAN COUNTRIES AFTER INTEGRATION IN EUROPEAN UNION (E.U.)
P15.	Vasile BĂLAN, Marian BORDEI NUMERICAL MODELING OF BALLISTIC PHENOMENA
P16.	Carmen-Penelopi PAPADATU THE EVOLUTION OF THE CHARACTERISTICS OF MECHANICAL RESISTANCE FOR THE NITRO-CARBURRIZED TREATED STEEL, AFTER THERMO-MAGNETIC TREATMENT
P17.	Florentina POTECAȘU, Mihaela MARIN, Octavian POTECAȘU, Elena DRUGESCU INFLUENCE OF POROSITY ON MECHANICAL PROPERTIES OF POWDER METALLURGY ALLOYS
P18.	Mirabela Georgiana MINCIUNĂ, Petrică VIZUREANU, Dragoș Cristian ACHIȚEI OBTAINING AND TENSILE STRENGTH STUDY FOR NON-NOBLE ALLOYS BASED COBALT



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P19.	Adrian VASILIU, Simion BALINT RESEARCH ON THE INFLUENCE OF IRON ORES SIZE DISTRIBUTION ON THE RESISTANCE OF AGGLOMERATES
P20.	Octavian POTECASU, Florin Bogdan MARIN MINING DATA FROM CFD SIMULATIONS USING SUPORT VECTOR MACHINE LEARNING
P21.	Nicoleta SIMIONESCU, Alecandra MOCANU, Stefan PINTILIE, Geanina Laurentia TIRON, Stefan BALȚĂ INFLUENCE FACTORS OF THE MANUFACTURING PROCESS ON THE PERMEATION PROPERTIES OF PSF NANOFILTRATION MEMBRANES
P22.	Adrian VASILIU, Simion BALINT NEW MATERIALS AND METHODS FOR REPAIRING MASONRY OF COKE OVEN BATTERY
P23.	Liliana Georgeta POPESCU RESEARCH REGARDING THE WEAR LEVEL FOR A NEW CONSTRUCTIVE SOLUTION OF A CUTTING TOOL
P24.	Rossen RADEV, Marieta TANOEVA, Emil YANKOV FLOW STRESS CURVES OF ULTRA-FINE GRAINED 6082 ALUMINUM ALLOY
P25.	Rodica WENKERT, Carmen PADURARU, Lavinia TOFAN REMOVAL OF NI (II) FROM AQUEOUS SOLUTION USING A NOVEL IMPREGNATED SORBENT
P26.	Marius MUNTEANU, Ion SANDU, Viorica VASILACHE, Raluca A. CRISTACHE STUDY OF ARCHEOMETRIC CHARACTERISTICS OF AN OLD ICON, PAINTED ON A WOODEN PANEL
P27.	Ioana HUȚANU, Liliana NICA, Ion SANDU THE ACTION OF METALS ON THE ICONS PAINTED ON WOOD
P28.	Liliana NICA, Ioana HUȚANU, Ion SANDU METAL SYSTEMS USED IN OLD WOOD CONSOLIDATION
P29.	Olga PINTILIE, Marius ZAHARIA, Lucia TUDORACHI, Sabina BANCILA, Gabi DROCHIOIU, Ion SANDU EMPHASIZING THE EFFECTS OF HEAVY METALS ON PLANTS THROUGH RELEASED AMINO ACIDS
P30.	Olga PINTILIE, Marius ZAHARIA, Lucia TUDORACHI, Sabina BANCILA, Gabi DROCHIOIU, Ion SANDU EFFECT OF HEAVY METALS ON THE GERMINATION OF WHEAT SEEDS
P31.	Silvia PRUTEANU, Ion SANDU, Viorica VASILACHE CRITICAL STUDY ON THE EFFECTS OF LASER PYROLYSIS CLEANING FOR OLD ICONS
P32.	Adrian IOANA, Nicolae CONSTANTIN, Anda PREDA, Liviu Marian BEȘEA ABOUT ELECTRICAL STEELS MAKING OPTIMIZATION
P33.	Adrian IOANA, Anda PREDA, Liviu Marian BEȘEA EAF'S ECOLOGICAL ASPECTS AND SOLUTIONS
P34.	Bogdan FLOREA, Marius VASILESCU, Cristian DOBRESU, Vasile MIREA MODERNIZATION OF EASILY FUSIBLE INJECTED MODELS PROCESS
P35.	Ovidiu DIMA, Petrică ALEXANDRU, Gheorghe GURĂU, Vlad Gabriel VASILESCU STUDIES AND RESEARCH ON TREATMENT OF TITANIUM ALLOYS
P36.	Stefan DRAGOMIR, Marian BORDEI USE OF UNCONVENTIONAL MATERIALS TO OBTAIN PIECES IN THE ART CAST DOMAIN
P37.	Simona BOICIUC RESEARCH ON ABRASIVE WEAR BEHAVIOUR OF LASER CLADDING LAYERS WITH ALUMINUM BRONZE POWDERS
P38.	Tamara RADU, Anisoara CIOCAN BEHAVIOR OF COLD ROLLING EMULSIONS IN THE OBTAINING PROCESS OF STEEL STRIPS



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P39.	Georgeta DRAGOMIR, Marian BORDEI, Stefan DRAGOMIR RESEARCH ON THE WORK PLACE SECURITY AND ENVIRONMENTAL FACTOR THAT ARE AFFECTED BY LATHE WORK.
P40.	Elisabeta VASILESCU EXPERIMENTAL RESEARCHES CONCERNING THE BEHAVIOR OF SOME STEELS HEATING DURING HOT METALLURGICAL PROCESSING
P41.	Vlad Gabriel VASILESCU, Ion PATRASCU, Elisabeta VASILESCU STUDIES AND RESEARCH REGARDING THE INFLUENCE OF METALLURGICAL PROCESSING ON THE STRUCTURE AND PROPERTIES OF SOME TITANIUM BASED ALLOYS USED IN DENTISTRY
P42.	Tamara RADU, Anisoara CIOCAN, Gina Genoveva ISTRATE CORROSION BEHAVIOR OF ZINC ALLOYS LAYERS
P43.	Gheorghe FLOREA, Ana DONIGA, Beatrice TUDOR, Laurentiu PARASCHIV ORNAMENTAL BELLS
P44.	Petre Stelian NITA ASPECTS OF ART AND TECHNOLOGY IN MANUFACTURE OF SOME DECORATIVE CASTINGS FOR WOODEN STYLE FURNITURE.
P45.	Petre Stelian NITA, Nelu CAZACU ANALYSIS OF A MEDIEVAL KNIGHT SWORD
P46.	Rossen RADEV , Marieta TANOEVA, Emil YANKOV FLOW STRESS CURVES OF ULTRA-FINE GRAINED 6082 ALUMINUM ALLOY
P47.	Anisoara CIOCAN, Florentina POTECASU, Tamara RADU CORRELATION BETWEEN THE PROPERTIES OF OLD SLAGS AND THE RECYCLING SOLUTIONS
P48.	Gheorghe FLOREA, Beatrice TUDOR, Elena PARASCHIV NUDE, PERFECTION OF NATURE OR IMAGINATION
P49.	Vasilica -Viorica TONIȚĂ (CORCOȚOI), Maria VLAD STUDY OF PHYSICO-CHEMICAL PROPERTIES OF SIDERURGICAL DUSTS AND SLUDGE USED IN THE AGGLOMERATION PROCESS
P50.	Lucica BALINT, Maria VLAD CORROSIVE EFFECT OF COLD-ROLLING EMULSION ON STEEL STRIPS ACCORDING TO THE DEGREE OF CONTAMINATION
P51.	Nelu CAZACU, Sorin DOBROVICI, Adolf BĂCLEA INCREASING LONG/RADIUS RAPPORT FOR FLUIDIZED BED HEAT TREATED PARTS BY USING AFBT
P52.	Nelu CAZACU, Nicolae BADEA VAWT EXPERIMENTAL MODEL SAVONIUS TYPE WITH FOUR BLADE / LEVEL AND AERODYNAMIC COUPLING FOR OPPOSITE BLADES
P53.	Nelu CAZACU, Bogdan Silviu VRABIE SURFACE HARDENING FOR SELECTED AREAS USING PULSED LASER AND FOLOWED BY FLUIDIZED BED NITROCARBURIZING, APPLIED ON A537 STEEL SAMPLES
P54.	Nelu CAZACU, Catalin Bogdan LUCACI EXPERIMENTAL MODEL TYPE SAVONIUS VERTICAL AXIS WIND TURBINE WITH PERIODIC COUPLING ADJACENT VERTICAL BLADES ON EACH LEVEL
P55.	Nelu CAZACU, Catalin Bogdan LUCACI INFLUENCE OF THE NUMBER OF LEVELS, OVER THE UNLOAD PERFORMANCE FOR SAVONIUS VAWT WITH PERIODICALLY COUPLED PAIRS OF BLADE
P56.	Nelu CAZACU, Ioana CIOMAGA INFLUENCE OF USE BLADE AIRFOIL ON THE BEHAVIOR OF AN VAWT-SASVONIUS EXPERIMENTAL MODEL
P57.	Nelu CAZACU, Bogdan Silviu VRABIE EXPERIMENTAL MODEL FOR A SAVONIUS VERTICAL AXIS WIND TURBINE, HAVING TWO DIFFERENT PAIRS OF BLADES ON LEVEL



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P59.	Nelu CAZACU, Marius FOTACHE WINDS INFLUENCE ON THE BEHAVIOUR OF A EXPERIMENTAL MODEL OF WIND TURBINE THAT USES THE MAGNUS EFFECT
P60.	Nelu CAZACU, Florin PALADE BEHAVIOR OF SMALL WIND SPEEDS OF A EXPERIMENTAL VAWT MODEL WITH SPHERICAL CORE
P61.	Mircea Viorel DRAGAN RECYCLING OF MATERIALS FROM METALLURGY AND CONSTRUCTION
P62.	Mircea Viorel DRAGAN RECYCLING OF CELLULOSIC WASTE IN THE ENERGY SECTOR
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P64.	Vasile BAŞLIU RESEARCH ON THE USE OF AQUEOUS SISTEMS AT MODELING INTERFACE PROCESESS ON DEVELOPING STEELS