



Technical Program UgalMat 2018

Thursday, OCTOBER 11, 2018

Time	Event	Location
14 ⁰⁰ -20 ⁰⁰	Registration and accommodation of guests	Hall D, first floor
16 ⁰⁰ -17 ³⁰	Round Table: Current state and perspectives in materials engineering	AN007
17 ⁰⁰ -20 ⁰⁰	Visual Art Exhibitions: „ Trăiri tridimensionale” artists: Valentin POPA, Adrian VĂDEANU and Paul MIRONOV Art critic: Corneliu STOICA Musical Moments : “Evergreen Duo” Organized by: Prof. dr. Cătălin FETECĂU	Hall D, first floor

Friday, OCTOBER 12, 2018

Time	Event	Location
9 ⁰⁰ -12 ⁰⁰	Registration	Hall D, first floor
9 ⁰⁰ -10 ⁰⁰	<p style="text-align: center;">Opening ceremony</p> Gurau GHEORGHE – Conference Chair Iulian Gabriel BÎRSAN – Rector, Dunarea de Jos” University of Galati Iulian RIPOȘAN – Politehnica University of Bucharest, Romania Ștrul MOISA – Ben-Gurion University of the Negev, Beer-Sheva, Israel Marian BORDEI – Dean, Faculty of Engineering, ”Dunarea de Jos” University of Galati Liviu BOGDAN – Head of Training Department, Arcelor Mittal Galati Razvan BIDOAE – Marine Manager, Bureau Veritas, Galati, Romania	Room D 12
10 ⁰⁰ -13 ⁰⁰	INVITED PLENARY LECTURES	Room D 12
13 ⁰⁰ -14 ⁰⁰	LUNCH	Hall D, first floor
14 ⁰⁰ -15 ⁴⁵	ORAL PRESENTATIONS IN CONCURRENT SECTIONS	Room D11/D12/D13
15 ⁴⁵ -16 ⁰⁰	COFFE BRAKE	Hall D, first floor
16 ⁰⁰ -18 ⁰⁰	ORAL PRESENTATIONS IN CONCURRENT SECTIONS	Room D11/D12/D13
14 ⁰⁰ -19 ³⁰	POSTER SESSION	Hall D, first floor
14 ⁰⁰ -15 ³⁰	Visit at the <i>Museum of History, Culture and Christian Spirituality of the “Low Danube” Region</i> Organizator: Conf. dr. Lucica BALINT	Domneasca Street, no. 111, Galați
20 ⁰⁰ -23 ⁰⁰	Gala Dinner	Galati Centrum Hotel

First Floor, Building D, Room 12, 111 Domnească Street Session Chairs: Prof. dr. Iulian RIPOȘAN	
10⁰⁰-10⁴⁵	Prof. dr. Iulian RIPOȘAN, POLITEHNICA University of Bucharest, Bucharest, Romania Cast Iron – State of the Art and Forecast, Contributions
10⁴⁵-11³⁰	Prof. Dr. Leandru-Gheorghe BUJOREANU , Faculty of Materials Science and Engineering, "Gheorghe Asachi" Technical University of Iași, Romania Development of a new constrained recovery application of FeMnSi-base shape memory alloys
11³⁰-12¹⁵	Prof. Dr. Viorica - Domnica MUȘAT , Faculty of Engineering, "Dunarea de Jos" University of Galati, Romania From ZnO-based 1D and 2D nanostructured materials to devices
12¹⁵-13⁰⁰	Ștrul MOISA, Ben-Gurion University of the Negev, Beer-Sheva, Israel From the Bible (as book) to the Nano-Bible (as chip)

Section I: ADVANCED MATERIALS AND TECHNOLOGIES (TMA 2018)

First Floor, Building D, Room 12, 111 Domnească Street. Session Chairs: Adrian DIMA & Herbei Elena Emanuela	
14⁰⁰-14¹⁵	Adrian DIMA Impactul industriei asupra dezvoltării durabile
14²⁰-14³⁵	Lidia BENEĂ, Nicoleta SIMIONESCU, Anca RAVOIU Corrosion resistance of 304L stainless steel for orthodontic fixed appliances in saliva and different pH solutions from food or drinks
14⁴⁰-14⁵⁵	Anca RĂVOIU, Lidia BENEĂ, Alexandru CHIRIAC Hydrogen peroxide and metabolic albumine. What is the interaction between them? Have sinergetic effect on electrochemical behavior of titanium implant alloy?
15⁰⁰-15¹⁵	Laurentiu MARDARE, Lidia BENEĂ, Stefan Nabi FLORESCU, Danut MIHAILESCU Corrosion behavior in Black Sea water of welded joints processed on EH36 naval steel after bending deformation with root compression
15²⁰-15³⁵	Nicoleta SIMIONESCU, Sara HONDRILĂ, Lidia BENEĂ Corrosion - A major problem in the functioning of the installations: Assessment of copper and brass corrosion resistance in water and chloride content solutions
15⁴⁰-15⁵⁵	Nicoleta SIMIONESCU, Lidia BENEĂ, Anca RAVOIU The effect of commercial juices on the corrosion resistance of 316L stainless steel used for orthodontic applications nanoparticles
16⁰⁰-16¹⁵	Michael FRATITA, Florin POPESCU, Cristina UZUNEANU Fatigue analysis of connecting rod in internal combustion engine
16²⁰-16³⁵	Alina MATEI, Vasilica TUCUREANU, Bianca Cătălina ȚÎNCU, Cătălin Valentin MĂRCULESCU, Tiberiu Alecu BURINARU, Marioara AVRAM Selection of various alloys for aerospace applications
16⁴⁰-16⁵⁵	Ojoc George GHIOCEL, Catalin PIRVU, Simona SANDU, Lorena DELEANU Use of glass fibers for impact protection system. A review
17⁰⁰-17¹⁵	Andreea Elena MUSTEATA, Mihail BOTAN, George PELIN, Lorena DELEANU Evaluation of tensile characteristics for a class of polymeric blends (PP + PA6)
17²⁰-17³⁵	C. I. ALECU, L. JUDELE, M. MOVILA, D. LEPADATU Neural network architecture optimization by analyse the mechanical characteristics of civil engineering materials
17⁴⁰-17⁵⁵	D. I. MORARIU, I. SERBANOIU, M. MIRON, D. LEPADATU Advanced tools for optimization and efficiently monitoring behavior in service stage of buildings using renewable energy
18⁰⁰-18¹⁵	Elisabeta VASILESCU Study of the relationship between the chemical, physical-mechanical and structural characteristics of the sheets and the characteristics of the use of welded pressure-pressure pipes

18 ²⁰ -18 ³⁵	Elisabeta VASILESCU Considerations on the characteristics of steels used in the manufacture of flat products for the manufacture of welded pressure pipes
18 ⁴⁰ -18 ⁵⁵	Carmen-Penelopi PAPADATU, Marian BORDEI, Sorin CIORTAN Effects of the application of a non-conventional treatment in magnetic field on a steel for industrial gearings
19 ⁰⁰ -19 ¹⁵	Carmen-Penelopi PAPADATU, Sorin CIORTAN Aspects regarding the plasticity of the steel subjected to non-conventional treatments

Section II: CASTING, FROM TECHNIQUE RIGORS TO ART (ARTCAST 2018)

First Floor, Building D, Room 11, 111 Domnească Street. Session Chairs: Ion SANDU & Beatrice TUDOR	
14 ⁰⁰ -14 ¹⁵	Maria BOUTIUC (căs. HAULICĂ), Cosmin Tudor IURCOVSCHI, Ion SANDU, Viorica VASILACHE Degradation and deterioration of the parchment used as support for old documents from archives
14 ²⁰ -14 ³⁵	Maria BOUTIUC (căs. HAULICĂ), Ion SANDU, Viorica VASILACHE Study archaeometric characteristics of some ancient scrolls heritage
14 ⁴⁰ -14 ⁵⁵	Dumitru-Eugen COLBU, Ion SANDU, Viorica VASILACHE Study of Tect Extract Influence on Conservability Old Wood Put into the Work
15 ⁰⁰ -15 ¹⁵	Cosmin-Tudor IURCOVSCHI, Silvia PRUTEANU, Ion SANDU, Ovidiu TĂNASĂ, Marius PĂDURARU, Daniel POTOLINCĂ, Ioan Cristinel NEGRU, Dumitru Eugen COLBU Research on the use of ecological solutions for cleaning old icons
15 ²⁰ -15 ³⁵	MĂRCUȘ Maria-Iuliana, VLAD Maria, PANAIT Ana-Maria, MONCEA Andreea, MÎȚIU Mihaela Andreea, MOVILEANU Gelu Chemical and structural characterization of chromium-based pigments extracted from hazardous sludge
15 ⁴⁰ -15 ⁵⁵	Oana FLORESCU, Ion SANDU, Viorica VASILACHE Determining the archaeometric and chemometric characteristics of the old documents. Paper support and writing
16 ⁰⁰ -16 ¹⁵	Cosmin-Tudor IURCOVSCHI, Silvia PRUTEANU, Ion SANDU, Ovidiu TĂNASĂ, Marius PĂDURARU, Daniel POTOLINCĂ, Ioan Cristinel NEGRU, Dumitru Eugen COLBU Stages involved in preserving and restoring old icons
16 ²⁰ -16 ³⁵	Tudor Beatrice Research on obtaining ornamental glass objects by thermoforming
16 ⁴⁰ -16 ⁵⁵	Bogdan MURARIU, Beatrice TUDOR Light Fusible Models Used for Small Dimensions Sculpture Casting

Section III: UGALMat Nano8

First Floor, Building D, Room 13, 111 Domnească Street. Session Chairs: Viorica MUSAT, Simona BOICIUC	
14 ⁰⁰ -14 ³⁰	V. KUNCSEK, G. FILOTI, P. PALADE, G. SCHINTEIE, S. GRECULEASA, A. STANCIU, C. LOCOVEI, A. LECA, F. TOLEA, M. SOFRONIE and M. VALEANU Microstructure and metallurgical phase composition in Fe containing intermetallics by Mössbauer Spectroscopy
14 ⁴⁰ -14 ⁵⁵	Vasile BULBUC, Bogdan PRICOP, Mihai POPA, Elena MIHALACHE, Burak ÖZKAL, Leandru-Gheorghe BUJOREANU Thermomechanical processing effects on the structure and properties of Fe-based SMAS. I. Evolution of phase structure

15 ⁰⁰⁻¹⁵ ₁₅	Mihai POPA, Bogdan PRICOP, Vasile BULBUC, Elena MIHALACHE, Burak ÖZKAL, Leandru-Gheorghe BUJOREANU Thermomechanical processing effects on the structure and properties of Fe-based SMAS. II. Evolution of damping behaviour
15 ²⁰⁻¹⁵ ₃₅	Elena Emanuela HERBEI, Lenuta CRINTEA (CAPATANA), Viorica MUSAT Multifunctional nanomaterials for waste water treatment
15 ⁴⁰⁻¹⁵ ₅₅	Valentin DUMITRAȘCU, Nicoleta SIMIONESCU, Lidia BENEĂ Optimizing the electrochemical parameters to obtain a nanoporous aluminum oxide on 1050 aluminum alloy: A SEM-EDX study
16 ⁰⁰⁻¹⁶ ₁₅	Laurentiu MARDARE, Lidia BENEĂ Corrosion behaviour of two types of naval steel in Black Sea water protected with modified polymeric coating by addition of TiO₂ nanoparticles
16 ²⁰⁻¹⁶ ₃₅	Maria – Roxana MARINESCU, Mărioara AVRĂM, Cătălin PĂRVULESCU, Corneliu VOIȚINCU, Vasilica TUCUREANU, Alina MATEI Considerations regarding the use of SU-8 negative photoresist in microfluidic systems
16 ⁴⁰⁻¹⁶ ₅₅	Elena Ionela CHERECHEȘ, Marius Ionut CHERECHEȘ, Alina Adriana MINEA A study on specific heat of nanoparticle enhanced fluids
17 ⁰⁰⁻¹⁷ ₁₅	Vasilica ȚUCUREANU, Alina MATEI, Marian Cătălin POPESCU, Iuliana MIHALACHE, Cosmin ROMANIȚAN, Andrei AVRĂM, Bianca Cătălina ADIACONIȚĂ, Marioara AVRĂM, Roxana MARINESCU, Cătălin MĂRCULESCU, Tiberiu BURINARU, Daniel MUNTEANU Modification of YAG:Ce phosphor properties by Gd codoping and silanized with APTES
17 ²⁰⁻¹⁷ ₃₅	Simona BOICIUC, Viorica MUSAT Studies and researches regarding the obtaining of multifunctional nanocomposites coatings

POSTER SESSION

First Floor, Hall D, 111 Domnească Street. 14 ⁰⁰⁻¹⁹ ₃₀	
P. 1	Ioana POPESCU, Rodica WENKERT The antimicrobial potential of metallic nanoparticles obtained through chemical and biological routes
P. 2	NGUYEN Thi Hoa, NGUYEN Quang Hoc, GELU Coman, DINH Quang Vinh and TRAN Dinh Cuong THERMODYNAMIC PROPERTIES OF INTERSTITIAL ALLOY FeH WITH BCC STRUCTURE UNDER PRESSURE
P. 3	NGUYEN Thi Hoa, NGUYEN Quang Hoc, GELU Coman, TRAN Dinh Cuong and LE Hong Viet THERMODYNAMIC PROPERTIES OF FCC INTERSTITIAL ALLOY AuSi WITH DEFECTS
P. 4	Carmela GURAU, Gheorghe GURAU, Liviu GURAU Achieving ultra-fine grained microalloyed steel by severe plastic process
P. 5	Lucica BALINT Use of biodegradable sorbents to the decontamination of polluted soils
P. 6	Vasile BAȘLIU, Nicolae DIACONU, Gelu MOVILEANU, Maria VLAD - "Dunarea de Jos" University of Galati Manufacturing and characterization of metal matrix composites with SiC granular particles
P. 7	Marina BUNEA, A. CÎRCIUMARU, I.G. BÎRSAN Thermal analysis of fabric reinforced hybrid epoxy plates
P. 8	Tiberiu Alecu BURINARU, Marioara AVRĂM, Vasilica ȚUCUREANU, Andrei AVRĂM, Bianca ȚINCU, Cătălin MĂRCULESCU, Alina MATEI, Roxana MARINESCU, Marius VOLMER Antibody functionalized magnetic nanoparticles for circulating tumor cells detection and capture using magnetophoresis

P. 9	Nelu CAZACU Oxinitrocarburizing technology in fluidized bed applied to drawing steels
P. 10	Nelu CAZACU Improving the powerful behavior of an experimental model of savonius turbine (s-rotor) with coupled aerodynamic additional blades
P. 11	Nelu CAZACU Load behavior of a wind turbine model with a four-bladed vertical axle coupled periodically aerodynamic
P. 12	Nelu CAZACU Modifying the structure and surface properties of Ti6Al4V alloy by carbonitriding in fluidized bed
P. 13	Andrei CINCU, Mariana BUȘILĂ Coarse-Grain Heat Affected Zone study of the welded X70M steel destined for oil industry
P. 14	Stela CONSTANTINESCU Studies and research on water pollution in galati urban area
P. 15	Stela CONSTANTINESCU Environmental risk assessment at secondary dedusting plant within steel hall
P. 16	Stela CONSTANTINESCU Studies and research on determining the cause of the cracking of X60 pipeline in the expanding operation
P. 17	Stela CONSTANTINESCU Analysis of the propagation of defects generated by the oscillation marks on laminated products
P. 18	Veronica FILIMON, Daniela BORDA, Gheorghe GURĂU, Simona BUTAN, Petru ALEXE, Maricica STOICA Influence of Pressure-Assisted Thermal Processing (PATP) on the thermal behavior of polymer films used as packaging material in the food industry
P. 19	Veronica FILIMON, Daniela BORDA, Gheorghe GURĂU, Simona BUTAN, Petru ALEXE, Maricica STOICA Study on the changes induced by the Pressure-Assisted Thermal Processing (PATP) in polymer films used as packaging by the meat industry
P. 20	Stefan Nabi FLORESCU, Danut MIHAILESCU, Marius Corneliu GHEONEA Macroscopic, microscopic and microdurty vickers HV1 analyzes of MAG-M mechanized deposited welding cords in horizontally position with solid and flux-cored wires
P. 21	Stefan Nabi FLORESCU, Danut MIHAILESCU, Marius Corneliu GHEONEA, Laurențiu MARDARE, Lidia BENEĂ Analysis of corrosion resistance of EH36 and butt welded joints in sea water
P. 22	Marius Corneliu GHEONEA, Stefan Nabi FLORESCU, Danut MIHAILESCU, Laurențiu MARDARE, Lidia BENEĂ Influence of seawater on submerged dry hyperbaric welded joints
P. 23	Marius Corneliu GHEONEA, Danut MIHAILESCU, Stefan Nabi FLORESCU Research on dry hyperbaric underwater mechanized MAG-M welding with ecological cored wire
P. 24	Gheorghe GURAU, Carmela GURAU, Petrica ALEXANDRU, Vasile BASLIU Formation of submicrocrystalline structure in a biodegradable Mg alloy
P. 25	Carmela GURAU, Gheorghe GURAU, F.M BRAZ-FERNANDES Phase transformation and structural study on the severely deformed cooper based shape memory alloy
P. 26	Gheorghe GURAU, Carmela Gurau, Victor KUNCSEK, Felicia TOLEA, V. SAMPATH Structural evolution of the NiTi / NiFeGaCo smart hybrid material during severe plastic deformation
P. 27	Ovidiu DIMA, Ionel PETREA Need for selective collection
P. 28	Ovidiu DIMA, Ionel PETREA For a clean environment, selective collection of waste is a civic duty of each of us
P. 29	Georgian MANOLE , Mariana BUȘILĂ Effect of rolling mode on the morphology and mechanical properties for HS340LA steel
P. 30	Marian-Iulian NEACSU Mathematical modeling and optimization of the thermomecanic treatment process applied to AlZn4.5Mg1Cu alloy

P. 31	Marian-Iulian NEACSU Mathematical model for the optimization of preparation and delivery flows at lbc adjustment steels
P. 32	Florentina POTECASU, Octavian POTECASU The structural analysis of the material resulting from the destruction by explosion of a compressed air cylinder review
P. 33	Florentina POTECASU, Carmen ISTRATE, Octavian POTECASU The influence of vacuum degassing on improving the quality of ship's steels
P. 34	Petrica ALEXANDRU, Tamara RADU, Florentina POTECASU, Gina Genoveva ISTRATE Structural analysis of thin Ni-P layers
P. 35	Tamara RADU Obtaining and characterizing the Zn-Fe coatings
P. 36	Vlad Gabriel VASILESCU, Ion PATRASCU, Earar KAMEL, Elisabeta VASILESCU Considerations on titanium-based alloys used in metal-ceramic restorations
P. 37	Vlad Gabriel VASILESCU, Elisabeta VASILESCU Evolution and characteristics of titanium alloys used in oral implantology restorations
P. 38	Adrian VASILIU Risk assessment and workplace conformity audit, blast-furnace worker, C.S. ARCELORMITTAL Galati
P. 39	Adrian VASILIU Studies on the heat recovery from the agglomeration machine no. 2, S.C. ARCELORMITTAL Galati
P. 40	Luica BALINT Wastewater treatment. Case Study - SEAU BRAILA
P. 41	Lucica BALINT Studies on biodegradable solid waste treatment
P. 42	Violeta SAVA, Iuliana- Monica MUȘUNOIU-NOVETSCHI, Cristian MUNTENIȚĂ, Vasile BRIA, Marina BUNEA, Iulia GRAUR, Iulian Gabriel BÎRSAN Tensile behaviour of glass fiber reinforced resins after having undergone thermal fatigue cycles
P. 43	Elena Emanuela HERBEI, Mariana BUSILA, Alina CANTARAGIU Polarization curves for E36, a and ARMOXT440 steel using Prohesion test
P. 44	Mihaela MARIN, Florin Bogdan MARIN Quantitative image analysis in some iron powder metallurgy materials using computer vision technique
P. 45	Florin Bogdan MARIN, Catalin-Valentin SOLOMON, Mihaela MARIN Bearing failure prediction using audio signal analysis based on SVM algorithms
P. 46	Florin Bogdan MARIN, Mihaela MARIN Image processing technique for paint defect identification
P. 47	Ionel PETREA Proiectarea tehnologiei de turnare pentru reperul "roata"
P. 48	M. MIRON, D. I. MORARIU, I. CUCOS, C. I. ALECU, D. LEPADATU Considerations on using of photovoltaic panels with flexible polymer semiconductor cells
P. 49	I. ANTONESCU, C. I. ALECU, D. LEPADATU Advanced systems for controlling the heat treatment electrical furnaces
P. 50	Laurentiu PICU, Mihaela PICU Comparative study of vibration-absorbing materials to improve the comfort of the crew on a river ship
P. 51	Petrică ALEXANDRU CVD deposition of thin films of Fe, Cr and Ni oxides on glazed ceramic substrate
P. 52	Tamara APARECI (GÎRNEȚ), Irina DĂNĂILĂ (ȚICĂU), Adrian CIRCIUMARU Testing methodology of composite materials, studying the wear behavior of the types of polymers and their properties
P. 53	Irina DĂNĂILĂ (ȚICĂU), Adrian CIRCIUMARU, Tamara APARECI (GÎRNEȚ) Mechanical behavior of mixed composite materials between epoxy resins with epoxy-novolac modified vinilesteric resin
P. 54	Petrica ALEXANDRU Determination of correlation between the composition, rolling parameters and mechanical characteristics of the hot rolled steels

P. 55	Bianca ȚÎNCU, Andrei AVRAM, Marioara AVRAM, Vasilica ȚUCUREANU, Alina MATEI, Cătălin MĂRCULESCU, Tiberiu BURINARU, Florin COMĂNESCU, Marian POPESCU, Ioana DEMETRESCU Graphene post-processing
P. 56	Felicia TOLEA, M. SOFRONIE, B. POPESCU, A.D. CRISAN, M. VALEANU Magnetoelastic properties in polycrystalline Fe-Pd based ferromagnetic shape memory alloys
P. 57	F. TOLEA, P. PALADE, M. SOFRONIE, B. POPESCU, M. VALEANU, V. KUNCSEK Effect of Cr, C, B and Mo substitutions on the structure and magnetic properties of Zr-Co Rare-Earth-free magnetic alloy

Saturday, 21 OCTOBER 13, 2018

Time	Event	Location
8³⁰-9³⁰	Presentation of works, on sections Conclusions, Closure of the works	Faculty of Engineering, 111 Domneasca Street, Building M, Room AN 007
10⁰⁰-12⁰⁰	Short trip by ship on the Danube	Bd. Marii Uniri, Danube promenade, near the "Vega" hotel

organized by
Department of Material Science and Engineering,
Centre of Nanostructures and Functional Materials (CNMF),
Faculty of Engineering,
“Dunarea de Jos” University of Galati, Romania



Sponsori

