



CONFERENCE ON MATERIAL SCIENCE & ENGINEERING
MAY 19-21, 2016, GALATI, ROMANIA

Technical Program UgalMat 2016

Thursday, May 19, 2016

Time	Event	Location
14 ⁰⁰ -20 ⁰⁰	Registration and accommodation of guests	Hall D, first floor

Friday, May 20, 2016

Time	Event	Location
9 ⁰⁰ -12 ⁰⁰	Registration	Hall D, first floor
9 ³⁰ -10 ⁰⁰	<p>Opening Ceremony</p> <p>Viorica MUȘAT – Conference Chair Iulian Gabriel BÎRSAN – Rector, "Dunarea de Jos" University of Galati Ionel BORȘ – Country Manager, Arcelor Mittal Galati Rodrigo MARTINS – New University of Lisbon, Portugal Iulian RIPOȘAN – Politehnica University of Bucharest, Romania Wolfgang SAND – Universität Duisburg-Essen, Germany Ștrul MOISA – Ben-Gurion University of the Negev, Beer-Sheva, Israel Marian BORDEI – Dean, Faculty of Engineering, "Dunarea de Jos" University of Galati</p>	D 12
14 ³⁰ -15 ³⁰	Visit at the <i>Museum of History, Culture and Christian Spirituality of the "Low Danube" Region</i>	141 Domneasca Street, Galați
14 ³⁰ -19 ⁰⁰	<p>Visual Art Exhibitions:</p> <ul style="list-style-type: none"> • <i>Photography</i> • <i>Metal sculpture</i> • <i>Handmade art objects - "Spring colors"</i> 	Hall D
20 ⁰⁰ -23 ⁰⁰	Gala Dinner	Hotel <i>Galati Centrum</i>

PLENARY ACTIVITY, Room D 12

First Floor, Building D, Room 12, 111 Domnească Street Session Chairs: Magda LAKATOS–VARSANYI, Lidia BENEÀ	
10⁰⁰-10²⁵	Rodrigo FERRÃO DE PAIVA MARTINS - New University of Lisbon, Portugal The front edge of materials societal challenges
10³⁰-10⁵⁵	Magda LAKATOS – VARSANYI - Bay Zoltán Nonprofit Ltd. for Applied Research Engineering Division (BAY-ENG), Budapest, Hungary Electrochemistry in Nanotechnology
11⁰⁰-11²⁵	Iulian RIPOSAN - Politehnica University of Bucharest, Romania Sulphur, key element in graphite formation in irons, [S in cast irons, friend or enemy? Demystifying the Role of S in Cast Irons]
11³⁰-11⁵⁵	Wolfgang SAND - Universität Duisburg-Essen, Germany Extracellular polymeric substances mediate biocorrosion / bioleaching
12⁰⁰ -12³⁰	MORNING BREAK, Hall D first floor
First Floor, Building D, Room 12, 111 Domnească Street. Session Chairs: Rodrigo FERRÃO DE PAIVA MARTINS, Iulian RIPOSAN	
12³⁰-12⁵⁵	Avram NICOLAE - Politehnica University of Bucharest, Bucharest, Romania The ecotechnologies, major route of durable-sustainable development, in the metal materials industry
13⁰⁰-13²⁵	Daniel MUNTEANU- Transilvania University of Brasov – Romania DLC tribological coatings with embedded piezoelectric thin-film sensor
13³⁰-13⁵⁵	Ştrul MOISA, Ben-Gurion University of the Negev, Beer-Sheva, Israel From the Bible (as book) to the Nano-Bible (as chip)
14⁰⁰-14²⁰	Alina Adriana MINEA - Technical University “Gheorghe Asachi” from Iasi A review on thermophysical properties for water based nanofluids and their hybrids
14²⁰-15²⁰	LUNCH, Hall D first floor

ORAL PRESENTATIONS

Section I: ADVANCED MATERIALS AND TECHNOLOGIES (TMA 2016)

First Floor, Building D, Room 12, 111 Domnească Street. Session Chairs: Maria NICOLAE, Maria VLAD	
15²⁰-15³⁵	Laurentiu Mardare, Lidia Benea - "Dunarea de Jos" University of Galati The corrosion behavior of naval steel covered with polymeric paints in seawater
15⁴⁰-15⁵⁵	Dumitrascu Valentin Marian, Lidia Benea - "Dunarea de Jos" University of Galati Enhancing corrosion properties of aluminium anodic formed oxide layer by sealling process
16⁰⁰-16¹⁵	Ilenuța SEVERIN, Maria VLAD - "Dunarea de Jos" University of Galati Properties of alkali activated ground granulated blast furnace slag based geopolymers
16²⁰-16³⁵	Băitanu Doru Dumitru, Achitei Dragos Cristian, Minciuna Mirabela Georgiana - Technical University “Gheorghe Asachi” from Iasi The aluminisation in powder technology for AISI 304 steel
16⁴⁰-16⁵⁵	Moldoveanu Mădălina Georgiana ¹ *, Simionescu Tudor Mihai ¹ , Minea Alina Adriana ¹ And Dima Adrian ¹ - Technical University “Gheorghe Asachi” from Iasi Analytical Technique for Estimating the Thermophysical Properties of Hybrid Nanofluids

17⁰⁰-17¹⁵	Marin Florin Bogdan, Potecasu Florentina, Marin Mihaela, Petrica Alexandru - "Dunarea de Jos" University of Galati Automatic grain size determination in microstructures using computer vision algorithm based on SVM
17²⁰-17³⁵	Muna Noori, Hazim Faleh, Mihai Chisamera, Gigel Neagu, Florin Stefanescu, and Eduard Marius Stefan - University Politehnica of Bucharest, Romania Properties of AL-SiCp composites (review)
17⁴⁰-17⁵⁵	Hazim Faleh, Muna Noori, Florin Stefanescu, Gigel Neagu, and Eduard Marius Stefan - University Politehnica of Bucharest, Romania Graphite particles composites (review)
18⁰⁰-18¹⁵	Costel Durduc (Roibu), Elena Drugescu - "Dunarea de Jos" University of Galati Optimization of chemical composition for pressure vessel steel grade P460NL2
18²⁰-18³⁵	Ionescu Stefania Mita, Nechita Petronela - "Dunarea de Jos" University of Galati Thermo-insulating panels based on composite structures from vegetal fibres and polymeric matrix
18⁴⁰-18⁵⁵	Tonita (Corcotoi) Vasilica Viorica, Maria Vlad, Severin Ilenuta, Andrei Berbecaru - "Dunarea de Jos" University of Galati Chemical and mineralogical composition influence of steelworks dust on agglomerate quality
19⁰⁰-19¹⁵	Elena Scutelnicu, Carmen Catalina Rusu, Bogdan Georgescu, Octavian Mircea, Melat Bormambet - "Dunarea de Jos" University of Galati Mechanical Behaviour of Welded Joints Achieved by Multi-Wire Submerged Arc Welding
19¹⁵-19³⁰	Alexandru Mircea Nicolau, Elisabeta Vasilescu, Vlad Gabriel Vasilescu, M. Neacsu - "Dunarea de Jos" University of Galati Experimental study on the stability level assessment of mini-implants for orthodontic anchorages

Section II: CASTING, FROM TECHNIQUE RIGORS TO ART (ARTCAST 2016)

First Floor, Building D, Room 11, 111 Domnească Street. Session Chairs: George Sorin PURCARU, Cătălin FETECĂU	
15²⁰-15⁴⁰	Irina VILCIU - Universitatea Ecologica din Bucuresti Stainless steel - product of jewelry art
15⁴⁰-16¹⁵	Strul MOISA - Ben-Gurion University of the Negev, Beer-Sheva, Israel Solomon's Temple: a hypothesis for the technological process reconstitution of the "Sea of copper"
16¹⁵-16³⁰	Ana DONIGA - "Dunarea de Jos" University of Galati Spring colors - exhibition of handmade art objects
16³⁵-17⁰⁰	George Sorin PURCARU - Universitatea de Arte George Enescu Iași Materials in sculpture
17⁰⁰-17²⁵	Olga Pintilie ¹ , Marius Zaharia ^{2,*} , Adelina Cosma ² , Alina Butnaru ³ , Manuela Murariu ⁴ , Gabi Drochioiu ² , Ion Sandu ^{1,5*} - ¹ , ² , ³ Al. I. Cuza University of Iași, ⁴ Petru Poni Institute of Macromolecular Chemistry, ⁵ ARHEOINVEST Interdisciplinary Platform, Laboratory of Scientific Investigation and Conservation of Cultural Heritage, Al. I. Cuza University of Iasi Effect of heavy metals on the germination of wheat seeds: enzymatic assay
17³⁰-17⁵⁰	Beatrice Tudor, Anisoara Ciocan - "Dunarea de Jos" University of Galati Achieving of the decorative glass objects by thermoforming
17⁵⁵-18²⁰	Gheorghe Buluc - Technical University "Gheorghe Asachi" from Iasi Iulia Florea, Romeo Chelariu, Ioan Carcea Microstructure and wear resistance of FeNiCrMnCu high entropy alloy
18²⁰-18⁴⁵	Beatrice Tudor ¹ , Bogdan Florea ² , Elena Paraschiv ³⁻¹ - ¹ Universitatea Dunarea de Jos Galati, ² Politehnica University Bucureti, ³ Colegiul National de Arta Dinu Lipati Bucuresti Bronze into the art casting

Section III: UGALMat Nano6

First Floor, Building D, Room 13, 111 Domnească Street. Session Chairs: Viorica MUSAT, Gheorghe GURAU	
15²⁰-15⁴⁵	Lidia Benea - "Dunarea de Jos" University of Galati Electrochemical techniques applied to surface modifications of materials to improve the properties for industrial and medical applications
15⁵⁰-16¹⁵	Eliza Danaila, Lidia Benea - "Dunarea de Jos" University of Galati Tribocorrosion issues in industrial and biomedical applications of materials
16²⁰-16⁴⁵	Herbei Elena Emanuela ^a , Michael Jank ^b , Susanne Oertel ^b , Laurentiu Frangu ^c , Viorica Musat ^a a, c-"Dunarea de Jos" University of Galati, Domneasca Street, 47, RO-800008, Galati, Romania, b-Fraunhofer Institute for Integrated Systems and Device Technology IISB, Erlangen, Germany The influence of electrodes deposition on the interface and dielectric characteristics of polymer gate for thin films transistors
16⁵⁰-17¹⁵	Constantin Spanu ^a , Viorel Panaite ^{*a,b} , Viorica Musat ^a , Florentina Potecasu ^a - ^a - "Dunarea de Jos" University of Galati, ^b - Bureau Veritas Romania Controle International Galati, Surface microhardness and friction coefficient of epoxy coating modified with metal oxide nanoparticles
17²⁰-17⁴⁵	Viorica Muşat, Mariana (Buşilă) Ibănescu, Dana Tutunaru ² , Florentina Potecaşu- "Dunarea de Jos" University of Galati Fe-doped ZnO nanoparticles: structural, morphological, antibacterial and photocatalytic characterization
17⁵⁰-18³⁵	Liana Anicai, Stefania Costovici, Aurora Petica, Danut Balan, Marius Enachescu - University Politehnica of Bucharest, Romania Comparative investigation of HER on NiMo alloy coatings electrodeposited from aqueous and DES based electrolytes
18⁴⁰-19⁰⁰	Stefania Costovici, Liana Anicai, Teodor Visan - University Politehnica of Bucharest, Romania The influence of additives on the cu electrodeposition involving deep eutectic solvents

POSTER SESSION

Section I: ADVANCED MATERIALS AND TECHNOLOGIES (TMA 2016)

First Floor, Hall D, 111 Domnească Street.	
2016-1	Anisoara Ciocan, Beatrice Tudor - "Dunarea de Jos" University of Galati Effect of secondary vacuum treatment on performance characteristics of A516 Grade 65 carbon steel
2016-2	Ionel Iacob, Ionel Chirica; Elena-Felicia Beznea - "Dunarea de Jos" University of Galati Fatigue Life Estimation of a Layered Composite Plate
2016-3	Bogdan Ionut Lupu, Elena-Felicia Beznea, Ionel Chirica - "Dunarea de Jos" University of Galati Buckling and ultimate strength assessment of ship hull layered composite panels
2016-4	Papadatu Carmen Penelopi - "Dunarea de Jos" University of Galati Improvement of the properties through the modeling and optimization of the cooling regimes applied to a laminated steel
2016-5	Papadatu Carmen Penelopi, Bordei Marian - "Dunarea de Jos" University of Galati Experiment and prediction model regarding the behavior of the nitrided layer during a wear process
2016-6	Luigi Mistodie, Carmen Catalina Rusu, Elena Scutelnicu - "Dunarea de Jos" University of Galati Study on anti-corrosive coating of welded pipelines
2016-7	Laurentiu Ardeleanu, Constantin Bratu, Ioan Marginean - University Politehnica of Bucharest Effects of salt treatment and casting process for aluminum alloy used in fabrication of metal moulds

2016-8	Florentina Rotaru (Paraschiv), Ionel Chirica, Elena- Felicia Beznea- "Dunarea de Jos" University of Galati Influence of the honeycomb geometry on the sandwich composite plate behavior
2016-9	Basliu Vasile, Vlad Maria, Gelu Movileanu - "Dunarea de Jos" University of Galati Possibilities of obtaining composite materials with technological role by incorporating granular particles in metal matrix
2016-10	Neacșu M.I., Dobrovici S. - "Dunarea de Jos" University of Galati Mathematical modeling and optimization of carbonitridings fluidized steel OLC 25
2016-11	Neacșu M.I., Dobrovici S. - "Dunarea de Jos" University of Galati Influence on the content of carbon layer depth carbonitrides fluidized steels OLC 15, OLC25 and OLC45
2016-12	Neacșu M.I., Dobrovici S. - "Dunarea de Jos" University of Galati Influence of technological parameters of carbonitridings fluidized parts on surface hardness carbonitride
2016-13	Marcus Maria-Iuliana ^a , Vlad Maria ^b , Mîtiu Mihaela Andreea ^a - "Dunarea de Jos" University of Galati Influence of different galvanic sludge types on the extraction efficiency of chromium ions
2016-14	Gheorghe Gurau, C. Gurau, F. Tolea, M. Valeanu, V. Sampath, L.G. Bujoreanu - "Dunarea de Jos" University of Galati Effect of severe plastic deformation on the structure and magnetic behaviour of an Fe-Mn-Si shape memory alloy
2016-15	Gheorghe Gurau, C. Gurau, M. Banu, L.G. Bujoreanu - "Dunarea de Jos" University of Galati Microstructural evolution in ultrafine grained FeMnSiCr shape memory alloy modules
2016-16	Tamara Radu - "Dunarea de Jos" University of Galati Treatment of the wastewater from the metallic coatings process
2016-17	E.M. Stefan, I. Stefan, M. Chisamera - University Politehnica of Bucharest, Romania Thermal analysis of CaBa-inoculated grey cast iron
2016-18	Florentina Potecasu ^a Octavian Potecasu ^a , Francisco Manuel Braz Fernandes ^b , Petrică Alexandru ^a , Alexandru Alexa ^a - a- "Dunarea de Jos" University of Galati, b- New University of Lisbon, Portugal Obtaining and characterization of Ni-Ti alloys processed through powder metallurgy
2016-19	Florentina Potecasu, Octavian Potecasu, Mihaela Marin, Florin Bogdan Marin, Florica Chicos- "Dunarea de Jos" University of Galati The influence of the deformation degree on the mechanical properties and microstructure of the blanks obtained by tube and wire drawing
2016-20	Ionescu Stefania Mita, Nechita Petronela- "Dunarea de Jos" University of Galati Thermo-insulating panels based on composite structures from vegetal fibres and polymeric matrix
2016-21	Lucica Balint, Gina-Genoveva Istrate- "Dunarea de Jos" University of Galati Thermic treatment effect on the electroless layers characteristics of NI-P-AL2O3 composites
2016-22	Adrian Presura, Ionel Chirica, Elena-Felicia Beznea -"Dunarea de Jos" University of Galati Behavior analysis of a ship structure made out of composite materials
2016-23	Carmen Catalina Rusu, Luigi Renato Mistodie, Elena Scutelnicu - "Dunarea de Jos" University of Galati Modular multi-process welding system used for HSLA materials joining
2016-24	Maria Baciu ¹ , Elena-Raluca Baciu ^{2*} , Ramona Cimpoșu ¹ , Irina Gradinaru ² Study on Ni-Cr-Mo dental alloy subjected to electrocorrosion in artificial saliva
2016-25	Florentina Potecasu, Mihaela Marin, Octavian Potecasu, Florin Bogdan Marin-"Dunarea de Jos" University of Galati Influence of the iron oxide phases in steam oxidation on the mechanical properties and abrasive wear of sintered iron materials
2016-26	Mihaela Marin, Florentina Potecasu, Octavian Potecasu, Florin Bogdan Marin-"Dunarea de Jos" University of Galati Influence of the pore characteristics on microstructure, mechanical properties and abrasive wear of sintered iron-based alloys subjected to a thermochemical treatment
2016-27	Petrica-Eduard Chirila, Ionel Chirica, Elena-Felicia Beznea, George Solomon -"Dunarea de Jos" University of Galati Damping properties of magnetorheological elastomers
2016-28	Razvan Rosculet, Catalin Fetecau, Felicia Stan, Tapu Costel -"Dunarea de Jos" University of Galati "Using of 3D printing by the criminologists for facial reconstruction operations"

2016-29	Alexandru Petrica, Boiciuc Simona -"Dunarea de Jos" University of Galati Construction and characterization of a planar magnetron sputtering source
2016-30	Alexandru Petrica, Boiciuc Simona -"Dunarea de Jos" University of Galati The selection and characterization of absorbing coating to laser surface quenching of high-speed steel
2016-31	Marin Florin Bogdan, Potecasu Florentina, Marin Mihaela, Petrica Alexandru -"Dunarea de Jos" University of Galati Automatic grain size determination in microstructures using computer vision algorithm based on SVM
2016-32	Potecasu Octavian, Marin Florin Bogdan -"Dunarea de Jos" University of Galati Design of Automatic Vision-based Inspection System for empty bottles
2016-33	Potecasu Octavian, Alexandra Bucur, Marin Florin Bogdan -"Dunarea de Jos" University of Galati Virtual interactive prototyping based on FBS approach
2016-34	Marin Florin Bogdan, Petrea Ionel, Madalin Deacu -"Dunarea de Jos" University of Galati Computer vision algorithm for collision detection in case of industrial environment
2016-35	Mihaela Marin, Octavian Potecasu, Florentina Potecasu, Alexandru Petrica -"Dunarea de Jos" University of Galati Research regarding the effect of fluidized- bed carburizing on microstructure and wear behavior of sintered alloys
2016-36	Florentina Potecasu, Marin Florin Bogdan, Octavian Potecasu, Mihaela Marin -"Dunarea de Jos" University of Galati Image analysis software for porosity measurements in some powder metallurgy alloys
2016-37	Mihaela Marin, Florentina Potecasu, Tamara Radu -"Dunarea de Jos" University of Galati Corrosion protection of some iron based materials obtained by powder metallurgy
2016-38	Anca-Ionela Istrate, Florin Nastase, Iuliana Mihalache, Florin Comanescu, Raluca Gavrilă, Bogdan Bită, Mihai Danila, Vasilica Tucureanu- National Institute for Research and Development in Microtechnologies (IMT - Bucharest), Bucharest, Romania Calcium doped ZnO thin films by sol-gel for applications in microelectronics
2016-39	Cristian Banacu ¹ , Bianca Georgiana Olaru ² - ¹ Bucharest University of Economic Studies, Romania, ² University of Agronomic Sciences and Veterinary Medicine, Bucharest, Romania The eco-efficiency of recycling the organic waste for agriculture purposes
2016-40	Nelu Cazacu - "Dunarea de Jos" University of Galati Behavior of an experimental model of vertical axis wind turbine (vawt), having a pair of hemispherical cup-shaped blade and centrifugal variable overlapping controlled
2016-41	Nelu Cazacu- "Dunarea de Jos" University of Galati Fluidized bed nitrocarburizing applied to ASTM A537 HSLA steel after pulse laser hardening
2016-42	Nelu Cazacu- "Dunarea de Jos" University of Galati Behavior under low wind speeds for a model of vertical axis wind turbine, biomimetic inspired by the seeds of <i>ailanthus altissima</i>
2016-43	Liviu Gurau, Carmela Gurau -"Dunarea de Jos" University of Galati Design of microalloyed steel for wind turbine towers and influence of chemical composition on microstructure and mechanical properties
2016-44	Stela Constantinescu - "Dunarea de Jos" University of Galati Investigation elastic mechanical properties of tin thin films
2016-45	Stela Constantinescu - "Dunarea de Jos" University of Galati The protective niobium carbide coatings obtained by CVD method
2016-46	Claudia Dragna, Adrian Ioana, Nicolae Constantin, Massimo Polifroni, Lucian Păunescu - Politehnica University Bucuresti Modeling and optimisation of electric arc furnace (EAF) dedusting system
2016-47	Papadatu Carmen Penelopi, Marian Bordei - "Dunarea de Jos" University of Galati Modeling and optimization of the cooling regimes applied to a laminated steel for elements of metal structures subjected to small requests
2016-48	Adrian Vasiliu, Simion Ioan Balint -"Dunarea de Jos" University of Galati Influence of CaO addition on mineralogy of iron ore sinter
2016-49	Stefan Dragomir, Adrian Vasiliu -"Dunarea de Jos" University of Galati A new vision on integrate system for waste management

Section III: UGALMat Nano6

NANOTECHNOLOGIES AND FUNCTIONALS MATERIALS

2016-50	Vlad Gabriel Vasilescu, Elisabeta Vasilescu - "Dunarea de Jos" University of Galati High biocompatibility alloys used in oral implants
2016-51	Laurentia Andrei, Marius Vasie, Ana Cristescu, Bogdan Cristescu -"Dunarea de Jos" University of Galati Alternative and Additive Manufacturing for the Noncircular Gears Prototypes
2016-52	Lavinia Tofan ^a , Rodica Wenkert ^b , Carmen Padurarua ^a – ^a , ^c “Gheorghe Asachi” Technical University of Iasi, Romania, ^b Soroka University Medical Center, Beer-Sheva, Israel Applicability of natural hemp fibers as sorbent for Ni(II) ions from aqueous solutions
2016-53	Relu-Marian Dumitru, Florin Stefanescu, Gigel Neagu, Alexandru Ploscaru University Politehnica of Bucharest Properties and applications of hybrid metal matrix composites aluminium-alumina-graphite
2016-54	Alexandru Ploscaru, Florin Stefanescu, Gigel Neagu, Relu-Marian Dumitru - University Politehnica of Bucharest Modelling of particles distribution in the liquid aluminium-alumina composites
2016-55	Abdelghani Boucheham , Ahcene Karaali, Yassmina Keriti - Université des Frères Mentouri - Constantine, Algérie Effect of thermal oxidation temperature on the corrosion behavior of Ti6Al4V alloys for dental application
2016-56	Abdelghani Boucheham , Ahcene Karaali, Amar Manseri - Université des Frères Mentouri - Constantine, Algérie Elaboration of titania nanotubes on Ti6Al4V substrate by electrochemical anodization for dental application
2016-57	Tamara Radu - "Dunarea de Jos" University of Galati Obtaining of the Ni-P coatings on steel strips

Saturday, 21 May 21, 2016

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
9³⁰-11³⁰	Short trip by ship on the Danube	Bd. Marii Uniri, Danube promenade, near the "Vega" hotel

organized by

**Department of Material Science and Engineering,
Faculty of Engineering,
"Dunarea de Jos" University of Galati, Romania**

