





THE FIFTH EDITION OF THE INTERNATIONAL CONFERENCE

"NEW TRENDS IN ENVIRONMENTAL AND MATERIALS ENGINEERING" TEME 2019

23rd-25th of October 2019 Galați, Romania

CONFERENCE PROGRAM

23.10.2019 – WEDNESDAY, 04:00 PM - Registration, Ground Floor, Building M, North Wing (AN), Room AN 007, 111th Domneasca Str.

24.10.2019 – THURSDAY, 08:00 AM - Registration, Opening ceremony and Plenary lectures, Oral session and Poster session (see Annex)

Building D, Floor I, 111th Domneasca Str.

25.10.2019 - FRIDAY, 10:00 AM - Trip on the Danube River

Partners:



"Gheorghe Asachi" Technical University of Iași, Romania



NEW TRENDS IN ENVIRONMENTAL AND MATERIALS ENGINEERING

PROGRAM OF THE FIFTH INTERNATIONAL CONFERENCE "NEW TRENDS IN ENVIRONMENTAL AND MATERIALS ENGINEERING" (TEME) 23-25 October 2019, GALAŢI, ROMANIA

	23.10.2019 – WEDNESDAY	
16 ⁰⁰ -17 ⁰⁰	Registration Ground Floor, Building M, North Wing (AN), Room AN 007, 111 th Domneasca Street	
17^{00} - 18^{30}	Round table with debate on the topic "Challenges at the beginning of teaching and research career within a higher education institution"	
	24.10.2019 – THURSDAY	
	Designation	
08^{00} - 10^{00}	Registration Floor I, Building D (in front of the Cathedral), 111 th Domneasca Street	
1000-1030	Opening ceremony	
	PLENARY LECTURES	
	Floor I, Building D (in front of the Cathedral), Hall D12, 111th Domneasca Street	
	Prof. Dr. Eng. Iulian RIPOSAN, University Politehnica of Bucharest, Romania, Faculty of	
10^{30} - 11^{15}	Material Science and Engineering	
	GRAPHITE DEGENERATION IN THE SURFACE LAYER – NODULAR GRAPHITE VERSUS COMPACTED GRAPHITE IRON CASTINGS	
	Prof. Dr. Eng. Iulian ANTONIAC, University Politehnica of Bucharest, Romania, Faculty of	
$11^{15} - 12^{00}$	Material Science and Engineering	
	NEW TRENDS IN BIODEGRADABLE METALS for MEDICAL DEVICES	
12^{00} - 13^{30}	Lunch break	
	Notre Dame Cafeteria, Building M, North Wing (AN), 111th Domneasca Street	
	ORAL SESSION	
	Floor I, Building D (in front of the Cathedral), Hall D12, 111th Domneasca Street	
	Chairman: Prof. Dr. Eng. Petrica VIZUREANU	
	Maria IGNAT, Cristina COROMELCI, Sidorela VISHKULLI, Elvira MAHU, Valeria HARABAGIU	
13^{30} - 13^{40}	A STEP FORWARD IN THE DEVELOPMENT OF TITANIA PHOTOCATALYST	
	SYNTHESIS: PLASMA-INDUCED POROUS STRUCTURE Nicoleta SIMIONESCU, Lidia BENEA, Anca RAVOIU	
13 ⁴⁰ -13 ⁵⁰	THE INFLUENCE OF DISPERSED CeO ₂ NANOPARTICLES ON THE ELECTRO-	
13 13	CRYSTALLIZATION MECHANISM OF COBALT	
	Lidia BENEA, Diana MOCANU	
13^{50} - 14^{00}	SIGNIFICANCE OF TRIBOCORROSION AND ELECTROCHEMICAL TECHNIQUES	
	FOR CHARACTERIZATION IN BIOMEDICAL ENGINEERING	
	Mihail LUCA, Paul Vivian SION	
14^{00} - 14^{15}	RESEARCHES CONCERNING THE CONFIGURATION OF GEOTEXTILES IN THE	
	IMPLEMENTATION OF REGULATORY WORKS IN THE RIVERBEDS	
	Elvira MAHU, Maria IGNAT, Corneliu COJOCARU, Petrisor SAMOILA, Cristina	
$14^{15} - 14^{30}$	COROMELCI, Valeria HARABAGIU	
	CORRELATION OF MESOPOROUS TITANIA PROPERTIES WITH TITANIUM SOURCES USED IN THE ULTRASOUND SYNTHESIS PROCEDURE	
	Alexandru-Stefan MANEA, Gultekin GOLLER, Dragos ALEXANDRESCU, Baris YAVAS,	
4 420 - 440	Iulian ANTONIAC	
14^{30} - 14^{40}	THE TECHNOLOGY OF OBTAINING THE COMPOSITE BASED ON	
	BIODEGRADABLE MAGNESIUM POWDERS BY SPARK PLASMA SINTERING	





NEW TRENDS IN ENVIRONMENTAL AND MATERIALS ENGINEERING

	Anca RAVOIU, Lidia BENEA, Nicoleta Lucica SIMIONESCU, Alexandru CHIRIAC	
14^{40} - 14^{50}	INFLUENCE OF INFLAMMATORY CONDITIONS ON THE CORROSION	
14 -14		
	BEHAVIOR OF TITANIUM ALLOY IN BUFFERED BIOLOGICAL SOLUTION	
14 ⁵⁰ -15 ⁰⁰	Veaceslav NEAGA, Lidia BENEA	
1450-1500	OVERVIEW OF THE MOST USED ZIRCONIUM-BASED ALLOYS FOR MEDICAL	
	IMPLANTS	
1,500, 1,510	Laurentiu MARDARE, Lidia BENEA, Andrada ALEXANDRU	
15^{00} - 15^{10}	THE ROLE OF BLENDED NANO-TiO ₂ POLYMERIC PRIMER IN THE CORROSION	
	PROTECTION OF MARINE STRUCTURES	
15 ¹⁰ -15 ²⁰	Avram NICOLAE, Mirela SOHACIU, Cătălin GRĂDINARU, Maria NICOLAE	
15.0-1520	THE ECOLOGICAL ESSENCE FOR METALLIC MATERIALS DEGRADATION	
	PROCESSES Dana COPOLOVICI, Corina POPITANU, Dennis IOSIF, Andreea LUPITU, Cristian MOISA,	
15^{20} - 15^{30}	Florentina MUNTEANU, Lucian COPOLOVICI	
	VOLATILE ORGANIC COMPOUNDS IN URBAN ATMOSPHERE OF ARAD,	
	ROMANIA Cristian MOISA, Florentina MUNTEANU, Dana COPOLOVICI, Florin OANCEA,	
15^{30} - 15^{40}	Lucian COPOLOVICI	
	THE PROTECTIVE ROLE OF MUSHROOM EXTRACTS AGAINST PLANTS	
	COLD STRESS Amalia Maria SESCU, Lidia FAVIER, Doina LUTIC, Gabriela CIOBANU, Maria HARJA	
15 ⁴⁰ -15 ⁵⁰	DESTRUCTIVE REMOVAL OF PERSISTENT ORGANIC WATER POLLUTANTS	
1540-1550		
	USING TIO ₂ DOPED WITH NOBLE METALS	
	Lidia FAVIER, Diana COMAN, Andrei Ionut SIMION, Mariana Liliana PACALA,	
15^{50} - 16^{00}	Narcisa VRINCEANU ENHANCED UV LIGHT ASSISTED PHOTOCATALYTIC ELIMINATION OF AN	
	EMERGENT ORGANIC WATER CONTAMINANT	
	Valentina POPA, Danut NISTOR, George SAIZU, Stefan PINTILIE	
16^{00} - 16^{10}	DETERMINATION OF SOIL COMPOSITION OF A TOURIST VILLAGE SITUATED	
	IN DANUBE DELTA AREA	
	Teodora ADAM, Giani ARAMA, Stefan PINTILIE	
16^{10} - 16^{20}	EVALUATION OF AIR QUALITY FROM SFANTU GHEORGHE VILLAGE OF	
	DANUBE DELTA	
16^{20} - 17^{00}	Coffee break	
17^{00} - 18^{30}	POSTER PRESENTATIONS (See Annex 1 – Poster list)	
18^{30} - 19^{00}	CONFERENCE AWARDS	
2000-0000	Gala Dinner	
	Hotel Danube Stars (Dunarea), First Club Restaurant, 13th Domneasca Street	
25.10,2019 – FRIDAY		
08^{30} - 10^{00}	Round table. Conclusions and perspectives	
10^{00} - 12^{00}	Trip on the Danube River	



NEW TRENDS IN ENVIRONMENTAL AND MATERIALS ENGINEERING

POSTER SESSION

P	OSTER PRESENTATIONS - Floor I, Building D (in front of the Cathedral), 111 th Domneasca Street Chairmen: Lect. Dr. Eng. Dragos ACHITEI Lect. Dr. Eng. Spiru PARASCHIV
	Assist. Lect. Dr. Eng. Geanina PINTILIE
P1.	Alaa ABOU HARB, Ion CIUCA, Mohammed ALQASIM FAYEQ, Mihai VASILE CORROSION BEHAVIOR FOR U- BEND SAMPLES OF 304 AUSTENITIC STAINLESS-STEEL JOINTS WHICH WELDED BY TIG IN SALINE SOLUTION
P2.	Adrian C. PUIŢEL, Dan GAVRILESCU, Gabriel D. SUDITU, Mircea T. NECHITA, Georgiana BĂLUȘESCU CORN STALKS – RAW MATERIAL FOR FRACTIONATION TO VALUE ADDED PRODUCTS
P3.	Mariana BUSILĂ, Loredana JUDELE, Alina M. CEOROMILA, Vasile BAȘLIU, Elena E. HERBEI EFFECT OF OXIDE NANOPARTICLES ON MECHANICAL PROPERTIES OF CEMENT MORTAR
P4.	Elena Emanuela HERBEI, Mariana BUŞILĂ HYBRID MATERIALS FOR WATER PURIFICATION
P5.	Stela CONSTANTINESCU ESTIMATION AND SETTING THE RISK LEVEL AT A AGROTOURISTIC PENSION
P6.	Stela CONSTANTINESCU GREEN PLANT ON BIOCOMPOST – REGENERABLE SOURCE OF HEAT, METHANE GAS AND ELECTRICITY
P7.	Stela CONSTANTINESCU IMPLEMENTATION OF A THERMAL ENERGY PRODUCTION SYSTEM AT A THERMAL PLANT IN THE MUNICIPALITY OF GALATI
P8.	Stela CONSTANTINESCU ENVIRONMENTAL RISK ASSESSMENT AT THE SEWAGE TREATMENT PLANT IN BRAILA
P9.	Stela CONSTANTINESCU THE ENVIRONMENTAL IMPACT OF THE SORTING AND COMPOSTED STATION IN GALATI MUNICIPALITY
P10.	Loredana PINTILIE, Elena N. DRĂGOI, Adrian C. PUIŢEL, Mircea T. NECHITA, Gabriel Dan SUDITU INFLUENCE OF INLET AND OUTLET POSITIONS ON THE HYDRODINAMIC PERFORMANCES OF A LAB-SCALE REACTOR
P11.	Maria HARJA, Gabriela Antoaneta APOSTOLESCU, Gabriela LISA, Nicolae APOSTOLESCU, Constantin BACIU, Ramona Elena TATARU – FARMUŞ PROPERTIES OF TETA – POTASSIUM CARBONATE/ BICARBONATE SOLUTIONS IMPORTANT FOR CO ₂ ABSORPTION
P12.	Marius VASILESCU, Mircea DOBRESCU THE IMPORTANCE OF NITROGEN IN HEAT TREATING OF FERROUS AND NON FERROUS METALS AND ALLOYS
P13.	Romica CRETU INVESTIGATION OF SOME ORGANIC POLLUTANTS IMPACT ON PHYSICO-CHEMICAL CHARACTERISTICS OF PLANTLETS
P14.	Beatrice Daniela TUDOR STUDY ON THE IMPACT OF CAR EMISSIONS ON THE ENVIRONMENT, IN GALATI
P15.	Mircea Viorel DRAGAN, Beatrice Daniela TUDOR IMPACT OF NOISE POLLUTION ON THE ENVIRONMENT, FROM AN AREA WITH EXPLOITATION ACTIVITIES, OF HYDROCARBONS
P16.	Petrică VIZUREANU, Mădălina Simona BĂLȚATU, Dragoș Cristian ACHIȚEI, Andrei Victor SANDU ELECTROCHEMICAL BEHAVIOUR OF Ti-Mo ALLOYS FOR MEDICAL APPLICATION
P17.	Lucica BALINT, Gina Genoveva ISTRATE EFFICIENCY OF MUNICIPAL WASTEWATER TREATMENT - CASE STUDY
P18.	Adrian STOICA, Gheorghe STAN INNOVATIVE PLANETARY TRANSMISSIONS
P19.	Gabriela CIOBANU, Maria HARJA HYDROXYAPATITE - CELLULOSE ACETATE BIOCOMPOSITES FOR SYNTHETIC BONE SUBSTITUTES



NEW TRENDS IN ENVIRONMENTAL AND MATERIALS ENGINEERING

	Tamara RADU
P20.	CHARACTERISTICS ANALYSIS OF ENVIRONMENTAL RISK MANAGEMENT
P21.	Tamara RADU
P22.	IMPROVING THE CORROSION RESISTANCE OF GALVANIZED STEEL STRIPS Gheorghe Gurău, Carmela Gurău, Petrică Alexandru, Mihaela Marin, Florin Marin
	IMPROVING PROPERTIES OF A NEW IMPLANTABLE GUM METAL BY COLD ROLLING
P23.	Carmela GURAU, Gheorghe GURAU, Petrică ALEXANDRU, Felicia ȚOLEA
	SEVERE PLASTIC DEFORMATION OF PERMANENT MAGNETIC MATERIALS CoZr BASED ALLOYS Nelu CAZACU
P24.	USE OF TAGUCHI METHODS IN DESIGNING AN EXPERIMENTAL MODEL OF WIND TURBINE WITH AXIAL AXIS WITH CURVED SHEET BLADES
P25.	Nelu CAZACU USE OF TAGUCHI METHODS WHEN DESIGNING AN EXPERIMENTAL MODEL OF WIND TURBINE WITH VERTICAL AXIS OF (SAVONIUS TYPE) WITH SEMISPHERICAL CUPS
P26.	Nelu CAZACU THE INFLUENCE OF THE NUMBER OF LEVELS ON THE BEHAVIOR OF A VERTICAL AXIS
	WIND TURBINE WITH 2 PAIRS OF BLADES AND PERIODIC GAS TURBINE COUPLINGS Nelu CAZACU
P27.	EXPERIMENTAL MODEL OF WIND TURBINE WITH VERTICAL AXIS, MULTI-STOREY AND WITH 2 PAIRS OF BLADES ON LEVEL COUPLED AERODONAMIC
P28.	Dorin EFTIMIE 3D MODELING AND NUMERICAL SIMULATION OF A WATER SOFTENER DEVICE
P29.	Dorin EFTIMIE 3D MODELING OF A RECYCLING EQUIPMENT BY MAGNETIC SEPARATION OF USED SANDBLASTING SAND
P30.	Dorin EFTIMIE OPTIMIZING THE TAKING OF THE SAMPLES FROM THE CONTAMINATED SITES WITH THE AID OF THE DRONES
	Gabriel M. DARABAN, Carmen ZAHARIA, Ramona Elena TATARU – FARMUŞ, Marinela BADEANU, Daniela SUTEU
P31.	VEGETAL EXTRACTS - CHALLENGE FOR PLANT PROTECTION AND SOIL PROTECTION AND FOOD QUALITY ASSURANCE
P32.	Mariana Carmen BURTEA, Luxița RÎŞNOVEANU, Anca ŞERBAN, Monica Esperance COJOCARU, Ana Maria COJOCARU
	STUDY ON THE REMANENCE OF PESTICIDES IN THE SOIL TROPHIC SYSTEM: WATER – SOIL - PLANTS
P33.	Viorel-Laurentiu CARTAS A MATHEMATICAL-PHYSICS ANALYSIS OF THE PERCOLATION PHENOMENON IN THE FRAME OF THE ECOLOGY
P34.	Adrian LEOPA, Anca SERBAN, Mariana Carmen BURTEA, Petru GOJAN STUDY ON THE SLUDGE CAPITALIZATION AS A FERTILIZER FOR ORNAMENTAL GARDEN PLANTS
P35.	Daniela TUFEANU, Adrian IOANA, Augustin SEMENESCU, Dragos MARCU, Diana Cristina LABEŞ MANAGEMENT OF RESEARCH PROJECTS TO INCREASE THE QUALITY
P36.	Marina BUNEA, Mihaela Claudia GOROVEI, Claudia Veronica UNGUREANU, Vasile BRIA FIBER ORIENTATION AND FILLERS EFFECTS ON SPECIFIC HEAT OF FABRIC REINFORCED HYBRID EPOXY COMPOSITES
P37.	Cristina DAMIAN, Ana LEAHU SOME TROPICAL FRUIT BYPRODUCTS AS A SOURCE OF FOOD ADDITIVES
P38.	Cristina DAMIAN EVALUATION OF BIOACTIVE COMPOUNDS, CHEMICAL AND TECHNOLOGICAL PROPERTIES OF BLUEBERRY BYPRODUCTS POWDER
P39.	Mihaela MARIN, Florin Bogdan MARIN ENHANCING THE CORROSION RESISTANCE IN SOME IRON-BASED P/M MATERIALS BY APPLYING A HEAT TREATMENT



NEW TRENDS IN ENVIRONMENTAL AND MATERIALS ENGINEERING

P40.	Mihaela MARIN, Florin Bogdan MARIN
	EFFECT OF THERMAL TREATMENTS ON DIMENSIONAL PRECISION AND MECHANICAL
	PROPERTIES IN SINTERED IRON-BASED P/M MATERIALS
	A. LEAHU, C. GHINEA, C. DAMIAN
P41.	INFLUENCE OF ELICITATION WITH BREWER'S SPENT YEAST ON ANTIOXIDANT ACTIVITY AND TOTAL POLYPHENOLS IN LENS CULINARIS SPROUTS
P42.	Mihaela Claudia GOROVEI, Claudia UNGUREANU, Marina BUNEA, Vasile BRIA THERMAL PROPERTIES OF AMINO ACIDS MODIFIED EPOXIES
	Petronela NECHITA
P43.	ELECTROCOAGULATION TECHNIQUE IN THE TREATMENT OF WASTE WATERS FROM PAPER RECYCLING
	Adrian VASILIU
P44.	SAFETY ENVIRONMENTAL ASSESSMENT IN THE BLAST FURNACE DEPARTMENT
P45.	Adrian VASILIU
145.	LOSS OF HEIGHT PRESSURE, BY GRANULAR LAYERS, ORGANIZED ORES AND COKE
P46.	Mohammed ALQASIM FAYEQ, Ion CIUCA, Bogdan ŞTEFAN VASILE, Alaa ABOU HARB, Roxana TRUSCA THE EFFECT OF DIFFERENT SURFACES ROUGHNESS OF Ti6Al4V ALLOY ON SILVER DOPED HYDROXYAPATITE COATING
	Ionel PETREA
P47.	DESIGN AND SIMULATION OF HEAT-REQUIRED STRUCTURES
	Ionel PETREA
P48.	STRUCTURAL ANALYSIS OF MECHANISMS
D40	Dragos Cristian ACHITEI, Madalina Simona BALTATU, Petrica VIZUREANU, Andrei Victor SANDU
P49.	THE STUDY OF NI-CR COMERCIAL ALLOYS USED LIKE BIOMATERIALS
D50	Florentina POTECAȘU, Petrică ALEXANDRU
P50.	RECYCLING OF BRONZE CHIPS BY POWDER METALLURGY
	Florentina POTECAȘU, Petrică ALEXANDRU
P51.	RESEARCH ON THE INFLUENCE OF MICROALLOYING ON THE TENACITY OF A THERMOMECHANICAL LAMINATED STEEL FOR WELDED PIPES
	Florentina POTECAȘU, Petrică ALEXANDRU
P52.	RESEARCHES ON THE CORROSION BEHAVIOR OF A THERMOMECHANICAL ROLLED STEEL FOR THE MANUFACTURE OF WELDED PIPES
	Manuela C. PERJU, Carmen NEJNERU, Catalin A. TUGUI, Dumitru D. BURDUHOS-NERGIS,
P53.	Dan G. GALUSCA
r 55.	MICROSTRUCTURAL ANALYSIS OF THREE LAYER DEPOSITIONS WITH Ni AND Ti ON
	STEEL USING THE EDS METHOD
	Diana P. BURDUHOS-NERGIŞ, Dumitru D. BURDUHOS-NERGIŞ, Elena MATCOVSCHI,
P54.	Costica BEJINARIU
1011	CHARACTERIZATION OF ZINC AND MANGANESE PHOSPHATE LAYERS DEPOSITED ON
	THE CARBON STEEL SURFACE
P55.	Anca RAVOIU, Lidia BENEA, Alexandru CHIRIAC, Gabriel Bogdan CARP, Daniela BURUIANA
	TOXICITY AND THE USE OF PESTICIDES IN ILLICIT INDOOR CANNABIS PLANTATIONS
P56.	Georgiana GORCIU, Spiru PARASCHIV
	STUDY ON INCREASING ENERGY EFFICIENCY IN RURAL AREAS
P57.	Madalina HOGEA, Cosmin MAMIR, Liviu PRODAN, Stefan PINTILIE
101.	ANALYSIS OF WATER QUALITY FROM A PROTECTED AREA IN THE DANUBE DELTA
	Catalin-Andrei TUGUI, Petrica VIZUREANU, Manuela Cristina PERJU, Diana Petronela BURDUHOS
P58.	MICROSTRUCTURAL ANALYSIS OF MATERIALS USED IN THE CONSTRUCTION OF
	HYDRAULIC TURBINES IN NATIONAL PROTECTED AREAS
P59.	Dragos ALEXANDRESCU, Stefan VOICU, Alexandru-Stefan MANEA, Iulian ANTONIAC
	SOLUTIONS TO PREVENT INFECTIONS IN THE CASE OF THE TITANIUM ALLOYS USED
	FOR OSSEOINTEGRATED EXTREMITY PROSTHESIS





NEW TRENDS IN ENVIRONMENTAL AND MATERIALS ENGINEERING

P60.	Huṭanu Constantin
	NEW MEASUREMENT METHOD FOR VERY THIN SAMPLES WITH VERY HIGH
	ACCURACY CONTROL OF THE LEVEL OF THE EMISSIVE POWER IN MICROWAVE
	ABSORPTION (8.5 - 9.5 GHZ)
P61.	Mihaela MARIN, Florin Bogdan MARIN, Carmela GURAU, Gheorghe GURAU
	EXPERIMENTAL AND PREDICTION OF MICRO HARDNESS PROFILE IN SINTERED
	IRON-BASED MATERIALS BY USING ARTIFICIAL NEURAL NETWORK
P62.	Florin Bogdan MARIN, Mihaela MARIN, Gheorghe GURAU, Carmela GURAU
	MACHINE VISION SYSTEM FOR PLANT CLASSIFICATION USING SVM (SUPPORT
	VECTOR MACHINE) FOR INTELLIGENT SPRAY CONTROL SYSTEM
P63.	Dragos MARCU, Adrian IOANA, Augustin SEMENESCU, Diana TUFEANU, Diana C. LABES,
	Roxana M. SOLEA
	ANALYSIS OF THE EFFICIENCY OF THE PROJECTS WITH EUROPEAN FUNDING