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Metallurgical Education



THEMATIC WORKSHOP

„New Trends in Metallic Materials Processing” Second Edition

Bucharest, 21-22 March 2019

University POLITEHNICA of Bucharest, Materials Science and Engineering Faculty,
Materials Processing and Ecometallurgy Department
Romanian Forging Association
Romanian Foundry Association

In the eighteenth century, on January 23, 1729, the first School of Mining and Ferrous Metallurgy was founded in Oravița. Thereby, for celebrating 290 years of metallurgical education in Romania, we are pleased to organize and invite you to participate in the second edition of the thematic workshop „New Trends in Metallic Materials Processing”, event which will be hosted by University POLITEHNICA of Bucharest, on 21 and 22 March 2019.

Language of the event – Romanian and English.

Location:

University POLITEHNICA of Bucharest
UPB Library / Conference Center
(Biblioteca Centrală UPB), Room S 3.1 - 3rd floor
313 Splaiul Independenței St., Sector 6, 060042
Bucharest, Romania
<http://www.upb.ro/>

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Secretary:

Iuliana STAN (UPB)
Irina Varvara BALKAN (UPB)

WORKSHOP PROGRAM

Thursday, 21 March 2019	
08:30-09:30	Participants registration
09:30-10:00	Workshop opening speech <i>University POLITEHNICA of Bucharest, Nicolae ȘERBAN</i> 290 years of metallurgical education <i>University POLITEHNICA of Bucharest, Constantin Stelian STAN</i>
10:00-10:30	In 2017 worldwide casting production grew by 5.3% when compared to the previous year <i>University POLITEHNICA of Bucharest, Iulian RIPOȘAN, Constantin Stelian STAN</i>
10:30-11:00	New materials and technologies in an accelerated innovation process <i>Hüttenes-Albertus Group Germany, Ion Alexandru BĂCANU</i>
11:00-11:30	Coffee break / Poster session
11:30-12:00	QForm Extrusion simulation software <i>QFX Simulations Ltd. Russia, QForm Group, Paul MORDVINTSEV</i>
12:00-13:00	The usage and integration of material data in the metal working industry <i>Key to Metals AG Switzerland, Iulia BĂTRÂNEANU, Jerome CAILLEUX</i>
13:00-13:30	Tenaris company presentation and the available opportunities - internship, scholarships, jobs <i>TENARIS SILCOTUB Zalău, Anda IONESCU, Gabriela PETRE, George PETRE</i>
13:30-15:00	Coffee break / Poster session
15:00-15:30	Extrusion – magic and technique <i>VIMETCO EXTRUSION Slatina, Florin ANDREI, Silvia Andreea COSTEA</i>
15:30-16:00	Considerations regarding the presence of "Hot-shaping engineering of metallic materials" specialization within the university structures in Romania <i>Technical University of Cluj-Napoca, Vasile Filip SOPORAN, Tiberiu LEHENE, Viorica SAMUILĂ, Sanda PĂDUREȚU</i>
16:00-16:30	Physico-mechanical, chemical and metallographic testing laboratory from VILMAR: RENAR / ISO 17025 accredited activity areas <i>VILMAR Groupe Genoyer Râmnicu Vâlcea, Adriana PREDA, Adrian DICO</i>
16:30-17:00	26 years of experience in the supply of instrumentation, machinery and equipment for materials science and engineering – history and new trends in this field <i>LABORATOR DINAMIC Ltd. Bucharest, Ioan DINA</i>
17:00-17:30	Poster session
18:30	Gala dinner – Ambiance Hotel Restaurant <i>303 Splaiul Independenței St., Sector 6, 060042, Bucharest, Romania</i> http://ambiance-hotel.ro/en/restaurant/
Friday, 22 March 2019	
09:00-09:30	The status of casting industry in the 21st century <i>Romanian Foundry Association, Ioan CARCEA, Carmen DUMITRU, Ali Memor MUSLEDIN</i>
09:30-10:00	QForm Metal Forming simulation software <i>QFX Simulations Ltd. Russia, QForm Group, Paul MORDVINTSEV</i>
10:00-10:30	Open and close die forging practical cases <i>SpaceCAD Ltd. Bulgaria, Atanas YORDANOV</i>
10:30-11:00	Top Metrology solutions for metallic materials processing <i>TOP Metrology Ltd. Bucharest, Roxana ȘTEFAN, Andrei GHERASE, Liviu PREDA</i>

11:00-11:30	Coffee break / Poster session
11:30-12:00	Expert program for design in foundry <i>Hüttenes-Albertus Romania Ltd., Tiberiu HOBLEA</i>
12:00-12:30	Delta Aluminium company presentation <i>Delta Aluminium Slatina, Sedat ENIS, Marian VLADU, Marian TURCIN</i>
12:30-13:00	Examination of small diameter tubes, of austenitic and plated materials using Phased Array transducers with DMA Dual Matrix <i>Namicon Testing Ltd. Otopeni, Octav TEODORESCU</i>
13:00-13:30	Sargon Invest products and services presentation <i>Sargon Invest Ltd. Bucharest, Dan COVACI</i>
13:30-15:00	Coffee break / Poster session
15:00-15:30	Properties improvement of TNTZ alloys by advanced thermo-mechanical processing <i>University POLITEHNICA of Bucharest, Vasile Dănuț COJOCARU, Doina RĂDUCANU, Ion CINCA, Nicolae ȘERBAN, Mariana Lucia ANGELESCU, Elisabeta Mirela COJOCARU</i>
15:30-16:00	Metallic biomaterials deformability <i>University POLITEHNICA of Bucharest, Brândușa GHIBAN</i>
16:00-16:15	Extrusion and heat treatment of a new biodegradable Mg-2.7Zn-1Ca-0.6Zr alloy: processing and characterization (microstructure, mechanical properties) <i>University POLITEHNICA of Bucharest, Nicolae ȘERBAN, Doina RĂDUCANU, Vasile Dănuț COJOCARU, Ion CINCA, Mariana Lucia ANGELESCU, Elisabeta Mirela COJOCARU</i>
16:15-16:30	Brief considerations regarding the current status of forgings industry <i>Romanian Forging Association, Nicolae ȘERBAN, Ion BĂDOI</i>
16:30-17:00	Workshop closing. Discussions.

Parallel poster session

P01	Using 3D printing technology in models manufacturing for the casting industry <i>Mihai AXINTE, Romeu CHELARIU, Ioan CARCEA („Gheorghe Asachi” Technical University of Iași)</i>
P02	Precipitation of different phases in UNS S32760 F55 Super Duplex Stainless Steel (SDSS) during hot deformation <i>Elisabeta Mirela COJOCARU¹, Doina RĂDUCANU¹, Mariana Lucia ANGELESCU¹, Nicolae ȘERBAN¹, Adrian Nicolae VINTILĂ², Ion CINCA¹ (¹University POLITEHNICA of Bucharest, ²Forja ROTEC Ltd. Buzău)</i>
P03	Control of Carbides to Graphite Transition in Grey Cast Irons <i>Elena Loredana NEACȘU, Iulian RIPOȘAN, Constantin Stelian STAN (University POLITEHNICA of Bucharest)</i>
P04	Microstructure analysis of a ($\alpha + \beta$) titanium alloy (Ti-Al-Sn-Zr-Mo) during thermomechanical processing <i>Mohammed Hayder ALLUAIBI, Saleh Sabah ALTURAIHI, Nicolae ȘERBAN, Elisabeta Mirela COJOCARU, Ion CINCA (University POLITEHNICA of Bucharest)</i>
P05	Macrostructure in the Unidirectional Solidification of Aluminium <i>Iuliana STAN, Florin ȘTEFĂNESCU, Gigel NEAGU (University POLITEHNICA of Bucharest)</i>
P06	Investigation of temperature effect on microstructure of Super Duplex Stainless Steel F55 during hot deformation <i>Saleh Sabah ALTURAIHI, Mohammed Hayder ALLUAIBI, Mariana Lucia ANGELESCU, Elisabeta Mirela COJOCARU, Doina RĂDUCANU (University POLITEHNICA of Bucharest)</i>

P07	SiC - Cast Iron Matrix Composite <i>Iulian RIPOȘAN, Constantin Stelian STAN, Mihai CHIȘAMERA (University POLITEHNICA of Bucharest)</i>
P08	Short duration solution treatment effects on σ-phase precipitation in UNS S32760 F55 Super Duplex Stainless Steel (SDSS) <i>Elisabeta Mirela COJOCARU¹, Doina RĂDUCANU¹, Mariana Lucia ANGELESCU¹, Nicolae ȘERBAN¹, Adrian Nicolae VINTILĂ², Ion CINCA¹ (¹University POLITEHNICA of Bucharest, ²Forja ROTEC Ltd. Buzău)</i>
P09	Control of Inoculation Effects in Ductile Cast Irons <i>Ana Maria COJOCARU, Iulian RIPOȘAN, Constantin Stelian STAN (University POLITEHNICA of Bucharest)</i>
P10	Aluminium alloys used for radiators in the automotive industry <i>Brândușa GHIBAN¹, Claudia (NATRA) LAZĂR² (¹University POLITEHNICA of Bucharest, ²ALRO S.A. Slatina)</i>
P11	Solidification Control by a Dual Technique <i>Constantin Stelian STAN, Mihai CHIȘAMERA, Iulian RIPOȘAN, Iuliana STAN (University POLITEHNICA of Bucharest)</i>
P12	Structural changes of INCONEL 718 after plastic deformation <i>Brândușa GHIBAN¹, Mădălin Constantin GURAGATA² (¹University POLITEHNICA of Bucharest, ²ARVA Metals & Steels Ltd.)</i>
P13	Studies and researches on cast iron inoculation. Case Study: Identifying and removing defects in the engine mount part <i>Florin PREDA^{1,2} (¹University POLITEHNICA of Bucharest, ²ALRO S.A. Slatina)</i>
P14	Cast metallic composites with high wear resistance <i>Florin ȘTEFĂNESCU, Gigel NEAGU, Iuliana STAN (University POLITEHNICA of Bucharest)</i>
P15	Mechanical vibration of melted aluminium alloys and its consequences on microstructural evolution after casting and forging <i>Irina Varvara BALKAN, Nicolae ȘERBAN, Vasile Dănuț COJOCARU (University POLITEHNICA of Bucharest)</i>
P16	Contribution on Graphite Formation in Cast Irons <i>Iulian RIPOȘAN, Mihai CHIȘAMERA, Constantin Stelian STAN (University POLITEHNICA of Bucharest)</i>
P17	Physical modelling of mechanical stirring to introduction of alumina particles into aluminium melt <i>Mircea FILIP, Florin ȘTEFĂNESCU, Gigel NEAGU, Eduard ȘTEFAN (University POLITEHNICA of Bucharest)</i>
P18	The benefits of SPD/ECAP as a preliminary treatment of billets in the fabrication of flat ultrastrength aluminium products <i>Nicolae ȘERBAN, Vasile Dănuț COJOCARU, Doina RĂDUCANU, Ion CINCA (University POLITEHNICA of Bucharest)</i>
P19	Graphite Morphology in Mg – Treated Iron <i>Denisa ANCA, Mihai CHIȘAMERA (University POLITEHNICA of Bucharest)</i>
P20	Severe plastic deformation - an efficient tool for microstructural and mechanical properties control in metallic materials <i>Nicolae ȘERBAN, Vasile Dănuț COJOCARU, Mariana Lucia ANGELESCU, Elisabeta Mirela COJOCARU (University POLITEHNICA of Bucharest)</i>
P21	Investigations on hypoeutectic grey cast irons inoculated with Lanthanum and Barium <i>Eduard ȘTEFAN (University POLITEHNICA of Bucharest)</i>

Participating companies

ATFR (Romanian Forging Association), ATTR (Romanian Foundry Association), QFX Simulations Ltd. Russia - QForm Group, Hüttenes-Albertus Group Germany, Transmetal Ltd. Gheorgheni, Tenaris Silcotub Zalău, Struers GmbH Romania, Global Source M.R.K. Braşov, ARVA Metals & Steels Ltd., SARGON INVEST Ltd., ZIROM Titanium S.A. Giurgiu, TEMCO - Tehno Electro Medical Company Ltd., Forja ROTEC Ltd. Buzău, Romanian Automotive Register R.A., Dynamic Instruments Ltd., Forja NEPTUN Ltd. Băicoi, LIXLAND Ltd. Piteşti, LAROMET S.A., ALPROF S.A. Năvodari, Vimetco Extrusion Ltd. Slatina, Delta Aluminium Ltd. Slatina, Hüttenes-Albertus Romania Ltd., NAMICON Testing Ltd., TOP Metrology Ltd., R&D Consulting and Services Ltd., LAROMET METAL S.A., LABORATOR DINAMIC Ltd., Key to Metals AG Switzerland, UPRUC-CTR S.A. Făgăraş, SpaceCAD Ltd. Bulgaria, Sartorom Impex Ltd., COMPACT M.O.M. TECH Ltd. Piteşti, HAUSLER COM Ltd. Braşov, Vimetco ALRO S.A. Slatina, TURBOMECANICA S.A., VILMAR Groupe Genoyer S.A. Râmnicu Vâlcea.



Participating universities

UPB (University POLITEHNICA of Bucharest), UTCN (Technical University of Cluj-Napoca), TUIASI („Gheorghe Asachi” Technical University of Iași), UniTBv (TRANSILVANIA University of Brașov).



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