

## PROGRAM / PROGRAMME

Sreda/ **Wednesday, 11. 09. 2013**

- 16.30-19.00: Prijava udeležencev na recepciji posvetovanja /  
**Registration of participants at the Conference reception desk**
- 17.30:  
Transfer pred Hotelom Slovenija za Piran  
**Bus transfer from Hotel Slovenija to Piran**
- 18.00: Sprejem na občini Piran /  
**Reception at the Municipality of Piran**

Četrtek / **Thursday, 12. 09. 2012 Dvorana/Hall Cristoforo Colombo**

- 9.30-9.45: MIRJAM JAN-BLAŽIČ  
predsednica / **President, Društvo livarjev Slovenije**  
Otvoritveni nagovor / **The Opening Address**

**Dvorana/Hall Cristoforo Colombo**  
**Plenarna predavanja / Plenary Lectures**

- 9.45-10.15: C.WILHELM, *Bundesverband der Deutschen Gießerei-Industrie (D)*:  
**Future prospect for Foundry Technology / Perspektive livarskih tehnologij**
- 10.15-10.45: A. BÜHRIG-POLACZEK, *Giesserei- Institut, RWTH Aachen (D)*:  
**Metallurgy, Solidification Parameters and Microstructure of Cast Al-Alloys**  
/ Metalurgija, strjevalni parametri in mikrostruktura Al-livnih zlitin
- 10.45-11.15: A.KRIŽMAN \*, M.DEBELAK\*\*, M.JAN-BLAŽIČ\*\*\*, \**Univerza v Mariboru*, \*\**Gospodarska zbornica Slovenije*, \*\*\* *Društvo livarjev Slovenije(SI)*:**Slovenian foundry industry in the year 2012 and possibilities for structural changes** / Slovensko livarstvo v letu 2012 in možnosti strukturnih sprememb
- 11.15-11.30: **Odmor /Break**
- 11.30-12.00: P.SCHUMACHER, J. LI, F.HOFER *Montanuniversität Leoben , Austrian Foundry Research Institut Leoben( A)* : **Novel insights into kinetics of refined as cast microstructures in Al alloys** / Nova dognanja v kinetiki udrobnjevanja mikrostruktur Al zlitin v ulitem stanju

12.00-12.30: G. HUBER , M.B. DJURDJEVIC , *Nemak Linz GmbH,Linz(A)*:

**Determination of Rigidity Temperature for AlSi-cast alloys using Thermal Analysis** / Opredelitev temperature dendritne trdnosti AlSi-livnih zlitin s pomočjo termične analize

12.30-13.00: P. MRVAR\*, M. STEINACHER\*, F. ZUPANIČ\*\*, A.KRIŽMAN\*\* (SI) :

*\*Univerza v Ljubljani, Naravoslovnotehniška fakulteta, Oddelek za materiale in metalurgijo, \*\*Univerza v Mariboru, Fakulteta za strojništvo: **Cast Mg-composites with ceramic reinforcement*** / Liti Mg-kompoziti s keramično utrjevalno fazo

13.00-15.00 : **Odmor za kosilo** / Lunch Break

15.00-15.30: M.HORAČEK , *Brno University of Technology, Departement of Foundry Engineering,Brno (CZ)*: **Latest research activities at the Brno university of**

**technology related to the investment casting process** / Zadnje raziskovalne aktivnosti na področju precizijskega litja na Tehnološki univerzi v Brnu

15.30-16.00: K.WEISS, *RWP GmbH (D)*: **Precision casting by simulation supported mould design** / Natančno litje s simulacijsko podprtimi modeli ulitkov

16.00-16.15: **Odmor** / Break

16.15-16.45: G. FEGYVERNEKI, M. TORKAR, *University of Miskolc (H)*: **The examination of the strength properties on the vehicle industry castings produced from Al-Si foundry alloys** / Preiskava lastnosti trdnosti avtomobilskih industrijskih ulitkov iz Al-Si zlitin.

16.45-17.15: J.HAGENAUER, *HAGI GmbH (A)*: **Comparative analysis of the use of energy in pressure and gravity die casting to produce casting** / Primerjalna analiza porabe energije za izdelavo ulitkov s tlačnim in gravitacijskim kokilnim litjem

**Četrtek zvečer/ Thursday evening, 12. 09. 2013**

18.00 : Večerja na ladjah Portorož in Laho z vožnjo po slovenskem morju.  
Dinner on board of boats Portorož and Laho and a boat ride along Slovenian coast.

Petek / Friday, 13.9 2013

Sekcija A / **Section A:**

Dvorana / **Hall:** Robert Scott

Železove zlitine in livarska tehnologija / **Cast iron and casting technology**

9.00-9.20: P. MALINOVSKI, J. S. SUCHY, *AGH University of Science and Technology, Krakov (PL)* : **Data Exploration With Simulation DB** / Proučevanje podatkov z DB simulacijo

9.20-9.40: J.ROUČKA , *Brno University of Technology (CZ)*: **Affection of Crystallisation of Nickel Based Turbocharger Rotors** / Strjevanje turbinsko polnjenih rotorjev iz nikljevih zlitin

9.40-10.00: J.TROJAN, *DISA ( DK)*: **High-efficient production of larger cast iron castings such as stove and municipality parts, and larger automotive casting** / Učinkovita izdelava večjih ulitkov iz sive litine na primeru ulitkov za peči ,komunalno in transportna vozila

10.00-10.15: Odmor / **Brake**

10.15-10.35: S. HELLFEIER, B. TONN, *TU Clausthal (D)*: **Efficient Methods for Cast Iron Design- Advantages of DoE and Thermodynamic Calculations** / Učinkovite metode za načrtovanje ulitkov iz skupine sivih litin-Prednosti DoE in termodinamičnih izračunov

10.35-10.55: T. ROY , *Texmaco Rail & Engineering Limited, Steel Foundry Division, Belgharia, Kolkata (India)*: **Analysis of casting defects in foundry by computerized simulations (CAE)- a new approach along with some industrial case studies** / Analiza livarskih napak v livarni z računalniško simulacijo ( CAE)- nov dosežek in primeri industrijskih študij

10.55-11.15 : J. PRISTAVEC, Z. KRANJČIĆ , *EXOTERM-IT, Kranj (SI)*: **Developing and optimizing the methoding of ductile iron casting with a computer simulation** / Razvoj in optimizacija tehnologije litja nodularne litine z uporabo računalniške simulacije

11.15-11.30: Odmor / **Brake**

- 11.30-11.50: G. SUTRADHAR , *Jadavpur University* (India): **Modern Foundry sand control: few important observations in Indian Perspective** / Sodobna kontrola peščene mešanice v livarni: nekaj pomembnih opažanj iz Indije
- 11.50-12.10: F. UNKIĆ, G. G. GOJSEVIĆ, D. ŽVEGLIČ, B. DIKIĆ, *Faculty of Metallurgy, University of Zagreb* (HR): **Properties of Low-Alloyed Ni-Mo-Cu Ausferritic Nodular Graphite Cast Iron** / Lastnosti nizko legirane Ni-Mo-Cu poboljšane feritne sive litine s kroglastim grafitom
- 12.10-12.30: D. REINHARD , *TU Clausthal* (D): **Malleable Cast Iron an efficient Ductile Fe-C-Si-Material** / Temprana litina – učinkovit duktilen Fe-C-Si material
- 12.30-12.45: Odmor / **Brake**
- 12.45-13.05: B. ČRTALIČ , *FerroČrtalič d.o.o* (SI): **Automatic and robotic surface treatment solutions in foundry industry with new technologies by FerroECOBlast** / Avtomatske in robotske rešitve površinske obdelave v livarstvu z najnovejšimi tehnologijami podjetja FerroCOBlast
- 13.05-13.25: B.ČUK, *ETA Cerkno d.o.o.* (SI) : **Estimation of costs for production of castings with software package** / Ocena stroškov izdelave ulitkov s pomočjo standardne programske opreme
- 13.25-13.45: M. FILIĆ , *SES group d.o.o.* ( SI): **Efective industrial LED lighting** / Učinkovita industrijska LED razsvetljava

Sekcija B / **Section B:**  
Dvorana/ **Hall: Roald Amundsen**  
Neželezne zlitine / **Non-ferrous alloys**

- 9.00-9.20: A. BEROŠ, I.BULJETA, A.GRADINČIĆ & M.SUŠIĆ : **The model of active experiment including pencils theory to asses the state of bentonite mold before casting of cast iron** / Model aktivnega eksperimenta z uporabo teorije svežnjev za oceno stanja bentonitne forme pred ulivanjem sive litine

9.20-9.40: V. KEVORKIJAN , *Impol r in R d.o.o.* ( SI): **Modelling of recycling friendly wrought aluminium alloys** / Modeliranje reciklaže gnetnih aluminijevih zlitin

9.40-10.00: M. VONČINA, L. JERINA, P. MRVAR, J. MEDVED, *Naravoslovnotehniška Fakulteta, Univerza v Ljubljani* (SI): **Sorting optimization of secondary aluminium** / Optimizacija razvrščanja sekundarnih surovin na osnovi aluminija

10.00-10.15: Odmor / **Brake**

10.15-10.35: R. RUDOLF<sup>1,2</sup>, J. FERČEC<sup>1</sup>, <sup>1</sup>*University of Maribor, Faculty of Mechanical Engineering* (SI), <sup>2</sup>*Zlatarna Celje d.d.* (SI): **Nickel–titanium alloy for orthodontic arch-wire: Manufacture, functional properties and biocompatibility** / Ni-Ti zlitine za ortofonske žice: Izdelava, funkcionalne lastnosti in biokompatibilnost

10.35-10.55: M. PETRIČ<sup>1</sup>, J. MEDVED<sup>1</sup>, P. MRVAR<sup>1</sup>, A. KRIŽMAN<sup>2</sup>,  
<sup>1</sup>*Naravoslovnotehniška fakulteta, Univerza v Ljubljani* (SI) , <sup>2</sup>*Univerza v Mariboru* (SI): **Electrical resistivity measurements of Al-Si alloys** / Meritve električne upornosti Al-Si zlitin

10.55-11.15: Y. TUREN, *Karabuk University, Faculty of technology, Department of Metal Casting, Karabuk* (TR): **Effect of Sn Addition and Cooling Rate on Microstructure and Mechanical Properties of AZ91 Alloy** / Učinek dodatka Sn in stopnje hlajenja na mikrostrukturo in mehanske lastnosti ulizkov iz AZ91 zlitine.

11.15-11.30: Odmor / **Brake**

11.30-11.50: J. DUL, Z. LESKO , *University of Miskolc , Miskolc* (H): **Effect of melt composition and wall thickness of the high pressure die casts' structure and mechanical properties** / Vpliv sestave taline in debeline stene ulitka na strukturo in mehanske lastnosti tlačno ulitega stanja

11.50-12.10: K. DILGER, H. PREIS, S. MUELLER, *Institute of Joining and Welding Braunschweig (D)*: **Enhancing the Design Process of Cooling Systems for Die-Casting Dies** / Izboljšave pri načrtovanju hladilnega sistema v orodjih za kokilno litje

12.10-12.30: T. MUHIČ, G. PODLIPNIK, *LTH Castings d.o.o., Škofja Loka (SI)*: **Three Dimensional Joining of Cast Parts With Cold Welding Technique (FSW)** / Tridimenzionalno spajanje ulitih delov z varjenjem v hladnem s pritiskom (FSW)

12.30-12.45: **Odmor / Brake**

12.45-13.05: Z. Z. BRODARAC, D. STANIĆ, K. TERZIĆ, *Faculty of Metallurgy, University of Zagreb (HR)*: **Microstructural features comparison of thermally treated AlSi8Cu3 and AlSi7Mg alloys** / Primerjava med mikrostrukturnimi značilnostmi toplotno obdelanih zlitin AlSi9Cu3 in AlSi7Mg

13.05-13.25: M. KOVAČ, *Hidria Rotomatika d.o.o., Spodnja Idrija (SI)*: **Simulation of the internal stress in HPDC part** / Simulacija notranjih napetosti na izdelku tlačnega litja

13.25-13.45: S. KASTELIC<sup>1</sup>, B. TALJAT<sup>1</sup>, G. KLANČNIK<sup>1</sup>,  
<sup>1</sup> Institut for Foundry and Heat Treatment, Ljubljana (SI): **Heat treatment of big HPDC tool**  
Toplotna obdelava velikega orodja za tlačno litje

#### Posterske predstavitve / Poster presentations

1. U. KOVAČEC, V. KEVORKIJAN, A. ROBIČ, M. JELEN, *IMPOL d. d., Slovenska Bistrica (SI)*: **Development and restrictions of continuous casting technology for production the Al tapes** / Razvoj tehnologije kontinuiranega litja aluminijevih trakov in njene omejitve

2. B. KOSEC, Z. KRANJC, B. KARPE, D. GOGIĆ, *Naravoslovnotehniška fakulteta, Univerza v Ljubljani (SI)*: **Temperature calibration of the chamber furnaces for heat - treatment of aluminium alloys castings for automotive industry** / Temperaturno umerjanje komornih peči za toplotno obdelavo ulitkov iz aluminijevih zlitin za avtomobilsko industrijo

3. A. MAHMUTOVIĆ<sup>1</sup>, D. KRMPOTIĆ<sup>2</sup>, M.PETRIČ<sup>3</sup>, P.MRVAR<sup>3</sup>, <sup>1</sup>*TC Livarstvo, Teslova 30, 1000 Ljubljana (SI)*, <sup>2</sup>*RSmetali, Zbor Narodne garde 6, 33000 Virovitica (HR)*, <sup>3</sup>*University of Ljubljana, Faculty of Natural Sciences and Engineering, Aškerčeva cesta 12, 1000 Ljubljana (SI)*: **Influence of local cooling rate on directional solidification of nodular graphite cast iron** / Vpliv lokalne ohlajevalne hitrosti na usmjereno strjevanje sive litine s kroglastim grafitom
4. A. KUMP<sup>1</sup>, B. OBREHT<sup>2</sup>, J.NIKOLAŠ<sup>2</sup>, G. GOJSEVIĆ<sup>3</sup>, P. MRVAR<sup>4</sup>, <sup>1</sup>*TC Livarstvo, Teslova 30, 1000 Ljubljana (SI)*, <sup>2</sup>*Cimos TAM Ai, d.o.o., Perhavčeva ulica 21, 2000 Maribor (SI)*, <sup>3</sup>*Elkem AS, Radnička cesta 27, 10000 Zagreb (HR)*, <sup>4</sup>*University of Ljubljana, Faculty of Natural Sciences and Engineering, Aškerčeva cesta 12, 1000 Ljubljana (SI)*: **Control of nucleating potential with a dynamic inoculation of cast iron with lamellar graphite** / Obvladovanje nukleacijskega potenciala z dinamičnim cepljenjem sive litine z lamelnim grafitom
5. D. PIHURA<sup>1</sup>, D. MUJAGIĆ<sup>2</sup>, D. NOVIĆ<sup>3</sup>, <sup>1</sup>*Bosnia Foundrymen`s Association, Zenica (BIH)*, <sup>2</sup>*Metallurgical Institute Kemal Kapetanović, Zenica (BIH)*, <sup>3</sup>*Energoinvest, Sarajevo (BIH)*: **Reactions in cast irons under the influence of thermodynamic parameters of elements** / Reakcije v železovih litinah pod vplivom termodinamičnih parametrov elementov
6. M. ZEYVELI, *Karabuk University, Faculty of technology, Karabuk (TR)*: **The effects of aging and cutting parameters on surface roughness of AZ91 Magnesium alloys** / Učinek staranja in parametrov odrezavanja na hrapavost ulitkov iz Mg zlitine AZ91
7. M. UNAL, *Karabuk University, Faculty of technology, Department of Metal Casting, Karabuk (TR)*: **Effects of solidification rate and Bi Additions on the Microstructure and Mechanical Properties of As-cast AM60 Magnesium Alloys** / Učinek stopnje strjevanja in Bi dodatkov na mikrostrukturo in mehanične lastnosti ulitkov iz Mg zlitine AM60
8. MONIKA TOKÁR<sup>1</sup>, JENŐ DÚL<sup>1</sup>, GYÖRGY FEGYVERNEKI<sup>1</sup>, VALÉRIA MERTINGER<sup>2</sup>, <sup>1</sup>*University of Miskolc, Metallurgical and Foundry Engineering Institute*, <sup>2</sup>*University of Miskolc, Physical Metallurgy, Metalforming and Nanotechnology Institut (H)*: **Analysis of the intermetallic compounds in Al-Si foundry alloy** / Analiza intermetalnih spojin v ulitkih iz AL-Si zlitine

