PROGRAMME

57th International Foundry Conference Portorož 2017

Wednesday, 13.09.2017

16.30-19.30: **Registration of participants at the Conference reception desk**

17.30: **Bus transfer from Hotel Slovenija to Piran**

18.00: **Reception at the Municipality of Piran**

Thursday, 14.09.2017
Hall Cristoforo Colombo

9.30-9.45: MIRJAM JAN-BLAŽIĆ
President, *Slovenian Foundrymen Society*
The Opening Address and Ceremony of awarding the title: Honorary member of Slovenian foundrymen society

Hall Cristoforo Colombo
Plenary Lectures

9.45-10.15: E. FLENDER, *Bundesverband der Deutschen Giesserei Industrie-BDG, Düsseldorf* (D): **What are successful small and middle size foundries in Europe doing right?**

10.15-10.45: R. DEIKE, *University Duisburg-Essen, Institut of Metal Engineering, Duisburg-Essen* (D): **The importance of the foundry industry in a circular economy**

10.45-11.15: A. KRIŽMAN[1], P. MRVAR[2], M. JAN-BLAŽIČ[3], [1]*University of Maribor*, [2]*University of Ljubljana*, [3]*Slovenian Foundrymen Society* (SI): **Transition to Industry 4.0-challenge and future for Slovenian foundries**

11.15-11.30: **Break**

11.30-12.00: C. HEISELBETZ, *Nemak Europe GmbH* (D): **Challenges E-Drive components - solutions in casting technology**

12.00-12.30: N. ERHARD, *Oskar Frech GmbH + Co. KG* (D): **Future demands on die casting and technical requirements for its profitability**

12.30-13.00: R. DŐPP, *TU Clausthal, Institute for Metallurgy* (D): **Contribution to structure and properties of malleable cast iron**

13.00-15.00: **Lunch Break**

15.00-15.30: J.H. LI[1], P. SCHUMACHER[1,2], [1]*Montanuniversität Leoben,* [2]*Austrian Foundry Research Institute* (A): **Revealing the modification of eutectic Si in Al alloy by advanced electron microscopy**

15.30-16.00: J.P. PIETRAS, R. BÄHR, *Otto von Guericke Universität Magdeburg, Institut für Fertigungstechnik und Qualitätssicherung* (D): **Research activities regarding additive manufacturing techniques of the department of casting and forming technology at Otto von Guericke University Magdeburg**

16.00-16.15: **Break**

16.15-16.45: K. WEIß, C. BAITIANG, *RWP GmbH Germany* (D): **Part design as part of process technique in the age of industry 4.0**

16.45-17.15: P. MRVAR[1], A. KRIŽMAN[2], G. GORŠE[3], M. PETRIČ[1], *[1]University of Ljubljana, Faculty of Natural Sciences and Engineering, Department of Materials and Metallurgy, [2]University of Maribor, [3]LTH Castings d.o.o. (*SI): **Complete planning and master of the complex casting in the technology of high-pressure die-casting**

Thursday evening, 14.09.2017

18.00 : **Dinner on board of boats Portorož and Laho and a boat ride along Slovenian coast and afterwards gathering on the terrace of hotel Riviera**

Friday, 15.09.2017

Section A: Hall Robert Scott
Cast iron and casting technology

9.00-9.20 M. RIEBISCH, B. PUSTAL, A. BŰHRIG-POLACZEK, *Foundry Institute, Universität-RWTH Aachen* (D): **Effect of carbide promoting elements on the microstructure and mechanical properties of solid solution strengthened ductile iron**

9.20-9.40: A. DROLC[1], J. PRISTAVEC[2], *[1]ETA Cerkno d.o.o., [2]Exoterm-IT d.o.o.* (SI): **Optimization of gating system for thin walled grey iron castings in sand moulds**

9.40-10.00: A. KUMP[1], P. E. PERSSON[1], R. ANDERSSON[1], H. SPOOK[1], S. AL JASIM[2], *[1]Novacast Systems AB* (SE), *[2]Kovis Livarna d.o.o.* (SI): **Process manager as a complete metallurgical production tool for guiding and organizing the gray/ductile melt from charge to pouring**

10.00-10.15: **Brake**

10.15-10.35: R. RUDOLF[1,2], M. SHARIQ[1,3], U. FERČEC[4], A. KRIŽMAN[1], P. MAJERIČ[1], *[1]University of Maribor, Faculty of Mechanical Engineering* (SI), *[2]Zlatarna Celje d.o.o.* (SI), *[3]Indian Institute of Technology (ISM) Dhanbad, Jharkhand* (India),*[4]University of Ljubljana, Faculty of Chemistry and Chemical Technology* (SI): **Nanotechnology in metallurgy: state analysis and prediction of development**

10.35-10.55: Ž. POGAČNIK, *Labena d.o.o.* (SI): **News in industrial microscopy**

10.55-11.15: M. BODENBURG, *MAGMA Gießereitechnologie GmbH* (D): **Supporting manufacturing ramp-up and robust processes by means of optimization simulation**

11.15-11.30: **Brake**

11.30-11.50: S. AL JASIM, D. ŽVEGLIČ, A. TEKAVČIČ, S. FEKONJA, *Kovis Livarna d.o.o.* (SI): **Cast iron defects diagnosis and remedies**

11.50-12.10: J. PRISTAVEC[1], M. ARZENŠEK[2], D. ŽVEGLIČ[2], R. ZAGAJŠEK[2], *[1]Exoterm-IT d.o.o., [2]Kovis Livarna d.o.o.* (SI): **Design optimization of brake disk pillars with a goal to attain better compaction of sand cores**

12.10-12.30: B. BETIK, C. WILDING, *Omega Foundry Machinery Ltd* (UK): **Secondary no-bake sand reclamation technology to reduce cost and improve the foundry environment**

12.30-12.45: **Brake**

12.45-13.05: R. DAŃKO, *AGH University of Science and Technology, Faculty of Foundry Engineering, Krakow* (PL): **The state of art and foresight of world casting production, The role of the Faculty of foundry engineering in educating engineers for casting industry**

13.05-13.25: M. KOLBEZEN, B. ČRTALIČ, M. TRAJKOVSKI, *Ferro Črtalič d.o.o.* (SI): **Cleaning of castings with UHP water and abrasive media**

13.25-13.45: F. CAVADINI[1], I. PIŠLAR[2], *[1]Insertec Italia Srl* (I), *[2]Ingas d.o.o.* (SI): **Application of plasma in foundries**

Section B: Hall Roald Amundsen
Non-ferrous alloys

9.00-9.20: I. TODARO[1], R. SQUATRITO[1], S. ESSEL[2], H. ZEIDLER[3], *[1]CIRI-MAM, Interdepartmental Center of Industrial Research, University of Bologna* (I), *[2]IIT, Technion, Israel Institute of Technology, Haifa*,(IS), *[3]Technische Universität Bergakademie Freiberg* (D): **High conductive aluminium metal matrix composites with carbon inserts obtained by casting processes**

9.20-9.40: F. ZUPANIČ, G. LOJEN, T. BONČINA, *University of Maribor, Faculty of Mechanical Engineering* (SI): **Application of a focussed ion beam by characterization of casting Al-alloys**

9.40-10.00: A. MAHMUTOVIĆ[1], S. KASTELIC[1,2], M. PETRIČ[2], V. BUDA[3], P. MRVAR[2], *[1]TC Livarstvo d.o.o., [2]University of Ljubljana, Faculty of natural sciences and engineering, [3]MAHLE Letrika Komen d.o.o.* (SI): **HPDC tool and process design using FEM analysis**

10.00-10.15: **Brake**

10.15-10.35: B. JUNG, A. WEISSBENNER, *Heck + Becker GmbH & Co. KG* (D): **K1 Prototyping - high pressure d**ie **casting prototypes in 12 weeks**

10.35-10.55: M. VONČINA[1], J. MEDVED[1], S. KORES[2], P. XIE[3], A. CZIEGLER[4], P. SCHUMACHER[4], [1]*University of Ljubljana, Faculty of Natural Sciences and Engineering* (SI), [2]*Talum d.d.* (SI), [3]*Center of high Resolution Electron Microscopy, College of Materials Science and Engineering, Hunan University* (China), [4]*Montanuniversität, Chair of Casting Research Leoben* (A): **Effect of Molybdenum and Zirconium on Aluminium Casting Alloys**

10.55-11.15: M. MAILE, *Wollin GmbH* (D): **Minimum quantity spray application**

11.15-11.30: **Brake**

11.30-11.50: Z. ZOVKO BRODARAC[1], D. STANIĆ[2], [1]*University of Zagreb, Faculty of metallurgy,* [2]*CIMOS-P.P.C. Buzet, d.o.o.* (CRO): **Influence of heat treatment on AlSi7Mg (Cu) alloy properties development**

11.50-12.10: N. ŠTRBAC, D. MANASIJEVIĆ, S. MLADENOVIĆ, I. MARKOVIĆ, *University of Belgrade, Technical Faculty in Bor* (SRB): **Investigation of solidification behaviour of the Sn-Zn-(Bi, Sb) ternary alloys**

12.10-12.30: A. GERMAN, *AED Automation GmbH* (D): **Micro spray application for high pressure die casting technology, potential and challenges**

12.30-12.45: **Brake**

12.45-13.05: V. KOLDA[1], B. KALKUNTE[2], [1]*Mecas ESI* (CZ), [2]*ESI Group* (CH): **Usage of the simulation in early stage of HPDC die development process**

13.05-13.25: J. SHI, H. PRIES, E. STAMMEN, K. DILGER, *Institute of Joining and Welding, Technische Universität Braunschweig* (D): **Corrosion and durability of adhesively bonded high- pressure die cast aluminu alloys**

Poster presentations

1. T. BALAŠKO, M. PETRIČ, J. MEDVED, P. MRVAR, *University of Ljubljana, Faculty of natural sciences and engineering* (SI): **Influence of thermal conductivity of different mould materials on solidification of AlSi9Cu3 alloy**

2. M. PETRIČ, S. KASTELIC, A. BRANISELJ, P. MRVAR, *University of Ljubljana, Faculty of natural sciences and engineering* (SI): **Dilatometric analysis of AlSi12 alloy during solidification**

3. B. LESKOVAR, I. NAGLIČ, B. MARKOLI, *University of Ljubljana, Faculty of Natural Sciences and Engineering* (SI): **Controllable formation of quasicrystals in aluminium alloys**

4. F. KOZINA[1], Z. ZOVKO BRODARAC[1], P. MRVAR[2], M. PETRIČ[2], *[1]University of Zagreb Faculty of metallurgy* (CRO), *[2]University of Ljubljana, Faculty of Natural Sciences and Engineering* (SI): **The Al-2.5wt% Mg-0.7wt% Li alloy mechanical properties**

5. D. PIHURA[1], D. MUJAGIĆ[2], D. NOVIĆ[3], *[1]Bosnia Foundrymens' Association, [2]Univerzity of Zenica, Metallurgical institute, [3]Energoinvest* (BIH): **Changing elements contents during pig iron treatment**

6. V. VESELINOVIĆ[1], V. LAZIĆ[2], L. TIHAČEK ŠOJIĆ[2], A. FERČEC[3], R. RUDOLF[4,5], *[1]University of Banja Luka, Medical Faculty* (BIH), *[2]University of Belgrade, High School of Dental Medicine* (SRB), *[3]II. gymnasium Maribor* (SI), *[4]University of Maribor, Faculty of Mechanical Engineering* (SI), *[5]Zlatarna Celje d.o.o.* (SI): **NiTi-based memory shape alloys for orthodontic applications**

7. J. JERMAN, M. ANDREJAŠ, I. PALČIČ, A. SIKOŠEK, A. WEISS, A. LEŠNJAK, *Q Techna d.o.o.* (SI): **Nondestructive testing in the foundry industry**

8. T. PABEL[1], T. PETKOV[1], H. SCHROETTNER[2,3], M. ALBU[3], A. ROSSMANN-PERNER[3], P. SCHUMACHER[1,4], *[1]Austrian Foundry Research Institute, [2]Institute of Electron Microscopy and Nanoanalysis, Graz University of Technology, [3]Graz Centre for Electron Microscopy, [4]University of Leoben* (A): **Effect of trace elements on microstructure and material properties of an aluminium alloy**

9. C. RAONE, F. CECCHETTO, *MotulTech Baraldi* (I): **"On process" thermographic monitoring for traceability and process optimization**

SLOVENIAN FOUNDRYMEN SOCIETY

Chairman of Programme Committee:
Alojz Križman, Prof. PhD

Madam Chair of Organising Committee:
Mirjam Jan-Blažić, MSc