14th WORLD CONFERENCE IN INVESTMENT CASTING

DRAFT CONFERENCE PROGRAMME

ISSUE E

PROGRAM SUBJECT TO CHANGES
PROGRAM AGENDA

Venue: Le Palais des Congrès de Paris - Niveau 3 Bordeaux
2 place de la Porte Maillot 75017 Paris

Sunday, April 17, 2016

17:00 Registration Opens for delegates in Congress Centre (Hall Bordeaux)
17:00 Exhibition Opens and pre-view (Hall Bordeaux)
18:30 Reception to delegates and exhibitors (Hall Bordeaux)

Monday, April 18, 2016

08:00 Registration Opening for delegates in Congress Centre (Hall Bordeaux)

Plenary Session - (Amphithèatre Bordeaux)

08:30 Welcome and World Conference Opening (ICI, JFS, EICF)
08:45 Welcome to Paris by Dignitary (TBC)
09:05 Key Note Speech (TBC)
09:50 Conference General Information
10:00 EXHIBITION OPENs (Hall Bordeaux)
10:00 COFFEE BREAK
Monday, April 18, 2016 – Continuation

Simultaneous Sessions

IC Market Review (Amphithèatre Bordeaux)

10:45 Investment Casting World Market Review

International Overview
Europe TBC
America TBC
Far East & India TBC

Ron Williams

11:45 Customer's Voice

Panel Session (Participants TBC)

12:45 LUNCH BREAK

Technical Session 1 – Shell Systems (Room 342 A)

10:45 Engineered ceramic solutions based on fused and sintered mineral products
Dr. Thomas Krumrei
CARRD GmbH

11:15 Research on the Influence of Wind Velocity, Temperature, Humidity and Drying Time on the Effectiveness of Drying and the Corresponding Relationship with the Strength of the Back-up Layers in the Investment Casting Process
Chen Yahui
DONGYING GIAYOUNG PRECISION METAL CO.

11:45 Shell Materials and Casting Methods to Minimize Alpha Case Formation
Thomas Branscomb
BUNTOCK INDUSTRIES

12:15 Influence of multi-layer ceramic mould state on casts quality in investment casting of jet engine critical components
Michal Kwiatkowski
AGH UNIVERSITY OF SCIENCE AND TECHNOLOGY CRACOW / RZESZOW UNIVERSITY OF TECHNOLOGY

12:45 LUNCH BREAK
Monday, April 18, 2016 – Afternoon - Continuation

Simultaneous Sessions

Technical Session 2  Process Innovation (Amphithèatre Bordeaux)

Part 1

13:45 Efficiency of Lost Wax Shell Drying by Microwave
   Norio Chida
   JAPAN HIGH COMM CO, LTD
   SAITAMA INDUSTRIAL TECHNOLOGY CENTER

14:15 Single Crystal Solidification with Enhanced Microstructure: Development and Optimization of the Fluidized Carbon Bed Cooling Process
   Dipl.-Ing. Matthias Hofmeister
   UNIVERSITY OF ERLANGEN-NUERNBERG

14:45 New approach in use of Microwave Technology in Investment Casting (Dewaxing)
   Richard Gould
   CASTINGS TECHNOLOGY INTERNATIONAL PROCESS TECHNOLOGY EUROPE

15:15 COFFEE BREAK

Part 2

15:45 Case study: Using 3D Printed Patterns to reduce Time-to-market, Cost and Design Limitations
   Kevin Zaras
   DSM Somos

16:15 New Technology to Manufacture DS/SC Parts. Parallel Heating and Cooling System for Bridgman furnace
   Ulrich Betz
   ALD Vacuum Technologies GmbH

16:45 Novel Approaches in Unfilled Pattern Wax Development
   Al Kaulius & Harvey Fielder
   PARAMELT

17:15 END OF TECHNICAL SESSION 2

18:00 EXHIBITION CLOSE
Monday, April 18, 2016 – Afternoon - Continuation

Simultaneous Sessions

Technical Session 3 - Management
(Room 342 A)

Part 1 - Innovative Management Practices

13:45 Bridging The Skills Gap

Julie Marquee
KEY PROCESS INNOVATIONS

14:15 Cost Reduction and Productivity Improvement through Lean Manufacturing. The future driver for global foundries

Viren Joshi
SIGMA ELECTRIC MFG CO PVT

14:45 Boosting your results in Product Development CRITICAL CHAIN PROJECT MANAGEMENT

Manuel Castro
CMG CONSULTING GROUP

15:15 COFFEE BREAK

Part 2 – Sustainability Management Practices

15:45 Sustainable Investment Casting

H. Mehrabi
Manufacturing and Materials Department
CRANFIELD UNIVERSITY

16:15 Progress Report on reclamation and reuse of Shell ceramics in Investment Casting

Victor Okhuysen
CAL POLY POMONA UNIVERSITY

16:45 A Green Alternative Shell: Virginia Mullite Shell

Nipendra P. Singh / Steven Ashlock
S&A CONSULTING GROUP
KYANITE MINING CORPORATION

17:15 END OF TECHNICAL SESSION 3

18:00 EXHIBITION CLOSE
Tuesday, April 19, 2016 – Morning

08:30 EXHIBITION OPEN (Hall Bordeaux)

Simultaneous Sessions

Technical Session 4  
(Amphithèatre Bordeaux)

Additive Manufacturing in Investment Casting

08:30 Lithography-based Ceramic Manufacturing of Complex and Precise Ceramic Casting Cores for Investment Casting Applications  
P. Schneider  
LITHOZ

09:00 Challenges and opportunities for modern IC foundries in industrial development with regard to potentials of Additive Manufacturing  
Andreas Ivacic  
FEINGUSS BLANK GMBH

09:30 A Comparison of Additive Manufacturing Technologies Used to Create Investment Casting Patterns.  
Tom Mueller  
VOXELJET

10:00 COFFEE BREAK

Technical Session 5  
(Room 342 A)

Key advanced materiel for the Investment Casting

08:30 CM Advance in Cast Ni-Base super Alloys  
K. Harris  
CANON MUSKEGON

09:00 The ceramic core for investment casting: ingredient or strategic component?  
Jean-Paul Detroyes, Didier Dumont  
AVIGNON CERAMIC

09:30 Crystalline silica free solutions for small/intricate investment castings  
Scot Graddick  
IMERYS – CARRD

10:00 COFFEE BREAK
Tuesday, April 19, 2016 – Continuation

Simultaneous Sessions

(Amphithéatre Bordeaux)

Technical Session 6 – The Smart Foundry

10:45 Advanced Process Injection Controls overcome common wax defects, opening opportunity to automate even low volume jobs.

Aaron Phipps
MPI

11:15 Improvement activity of automation process

Shuhei Hosoda
HITACHI METAL PRECISION LTD.

11:45 A New Approach To Investment Casting

Apurva Oza
MODTECH

12:15 Innovations in Equipment & Processes / Advance in Smart production & control

Jim Byrne
VA TECHNOLOGY

12:45 LUNCH BREAK
Tuesday, April 19, 2016 – Continuation

Simultaneous Sessions

(Room 342 A)

Technical Session 7 – Process Control

10:45 Research of Investment Casting Shrinkage Rate of One Complex Thin-Wall Component
   SHI Cheng-long
   BAIMTEC MATERIAL CO LTD
   BEIJING AVIC
   BEIJING INSTITUTE OF AERONAUTICAL MATERIALS

11:15 Evaluating Spalling Factors through Measuring Intercoat Adhesion
   Mark Bijvoet
   RANSOM & RANDOLPH

11:45 Process Control Standards for Investment Casting. A Strategic Initiative
   Nip Singh – Joseph Fritz - Carlos Olabe
   ICI- EICF

12:15 Examination about Standardization of Viscosity for Investment castings wax
   Yukio Nasu
   IC TECHNICAL COMMITTEE
   JAPAN FOUNDRY SOCIETY

12:45 LUNCH BREAK
Tuesday, April 19, 2016 – Afternoon  Continuation

Plenary Session 2 (Amphithèatre Bordeaux)

13:45 Presentation of the IC Life Time Achievement Award
14:00 Transfer of EICF Chairmanship Ceremony
14:10 Announcement of next WCIC

Simultaneous Sessions vs Turbocharger Seminar

(Amphithèatre Bordeaux)

Technical Session 8 – Product & Process Technical Solutions

14:15 A recent development in pattern wax formulation – Is there a new paradigm?
   Grant Bradley
   REMET

14:45 Effects and Analysis of Thermal Stresses on Large Induction Furnace Refractory Linings for Molten Metal Applications
   P. Geers
   BLASCH PRECISION CERAMIC

15:15 Zircon and zirconia, value-adding materials for the global investment casting industry. Future supply, quality landscape and emergent trends
   Chris Barrington
   ZIRCON INDUSTRY ASSOCIATION

15:45 A study on the precision casting with the rapid prototyping pattern process
   Nai-Kuang Tang
   CASTING TECHNOLOGY
   SECTION METAL PROCESSING R&D DEPARTMENT
   METAL INDUSTRIES RESEARCH & DEVELOPMENT CENTRE

15:30 EXHIBITION CLOSE

16:15 COFFEE BREAK
Tuesday, April 19, 2016 – Afternoon  Continuation

Simultaneous Sessions vs Turbocharger Seminar

(Amphithèatre Bordeaux)

Technical Session 9 – CA Process Modelling supporting IC

16:45 A First Principles Approach to the Requirements of Casting Factor 1.0 in
Roger Lumley
AWBELL PTY LTD

17:15 Process Simulation to support Casting of Co-Cr Superalloy Dental Blocks using Vacuum Centrifugal-Investment Casting Process
F. Duygu Garip
NEV VAKUMLU HASSAS DÖKÜM
CALCOM ESI
RMC ENGINEERING

17:45 Research on “1+N” Type Digitization Platform for Investment Casting Enterprises
Zhou Jianxin
UNIVERSITY OF SCIENCE & TECHNOLOGY, WUHAN
AVIC BEIJING INSTITUTE OF AERONAUTICAL MATERIALS

18:15 Development of Wax Pattern and Dimensional Control   A Case Study
Dr. Zeng Hong
DONGFANG TURBINE CO LTD

18:45 END OF CONFERENCE
Tuesday, April 19, 2016 – Afternoon  Continuation

Turbocharger Seminar

PART 1 (ROOM 342 A)

14:15 Opening Address and Turbocharger turbine wheel casting market review
   Dr. Steve Leyland
   EICF

14:25 Future requirements of turbocharger wheels, design, function and balance
   TBC

14:45 Advanced wax pattern materials for turbo wheel manufacture
   Phil Hancock
   BLAYSON

15:05 Wax pattern and shell formulation for a stable turbocharger wheel casting process
   Grant Bradley
   REMET

15:25 Thermal expansion of ceramic shell: a key for dimensional accuracy in turbo-
   charger production
   Scot Graddick, Thomas Krumrei
   IMERYS

15:45 Zircon prime coats for turbocharger wheel manufacture
   Patrick Hegarty
   MINERAL & CHEMICAL SERVICES LTD

15:30 EXHIBITION CLOSE

16:05 COFFEE BREAK
Tuesday, April 19, 2016 – Afternoon  Continuation

Turbocharger Seminar

PART 2

(ROOM 342 A)

16:45 Optical measurement techniques for turbocharger wheels
   Nao Kawakami
   KEYENCE

17:10 Automated 3D scanning measurement of turbocharger wheels
   Stephanie Adolf
   GOM

17:35 New Ideas and technologies for high volume investment casting
   Michael Kugelgen
   MK TECHNOLOGY

18:00 Alloy selection for high temperature turbocharger applications
   Tom Sellers
   R&C

18:25 Open forum panel discussion of turbocharger wheel manufacture
   Dr. Steve Leyland
   EICF

18:45 END OF CONFERENCE