14th WORLD CONFERENCE IN INVESTMENT CASTING

DRAFT PROGRAM CONFERENCE

ISSUE B

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 Opening for delegates in Congress Centre (Hall Bordeaux)
17:00 Exhibition Opening 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 (Amphithéatre Bordeaux)

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

Simultaneous Sessions

IC Market Review (Amphithèatre Bordeaux)

10:45 Investment Casting World Market Review

International Overview

- Europe: TBD
- America: TBD
- Far East & India: TBD

Ron Williams

11:45 Customer’s Voice

Panel Session (Participants TBD)

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
BUNTrOck 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 Chidar
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  TME (Trimethylolethane) as a new filler for pattern waxes.
Raphael Sallinger
MORSA

16:45  Novel Approaches in Unfilled Pattern Wax Development
H. 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  Process Control Standards for Investment Casting. A Strategic Initiative
       Nip Signh - Carlos Olabe
       ICI-EICF

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

17:15  END OF TECHNICAL SESSION 3

8:00  EXHIBITION CLOSE
Tuesday, April 19, 2016 – Morning

08:30 EXHIBITION OPEN (Hall Bordeaux)

Simultaneous Sessions

Technical Session 4 (Amphithéâtre 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?

Philippe Coulon
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  Possible solutions & future of “automation & Robotics” in every corner of investment casting

Peter Mayo
MAYO ENGINEERING

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 Cost Reduction and Productivity Improvement through Lean Manufacturing. The future driver for global foundries
Viren Joshi
SIGMA ELECTRIC MFG CO PVT

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 A Green Alternative Shell: Virginia Mullite Shell
Nipendra P. Singh / Steven Ashlock
S&A Consulting Group
Kyanite Mining Corporation

15:45 A study on the precision casting with the rapid prototyping pattern process
Cheng-Shun Wang
Material & Electro-Optics Research Division, National Chung-Shan Institute of Science and Technology

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 Casting

16:45 Research on “1+N” Type Digitization Platform for Investment Casting Enterprises

Zhou Jianxin
University of Science & Technology, Wuhan
AVIC Beijing Institute of Aeronautical Materials

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  A First Principles Approach to the Requirements of Casting Factor 1.0 in

Roger Lumley
AWBell Pty Ltd

18:15 Development of Wax Pattern and Dimensional Control  A Case Study

Dr. Hong Zeng
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

14:30 Future requirements of turbocharger wheels, design, function and balance
   TBD

15:00 Developments in wax materials for TW manufacture
   TBD
   Blayson

15:20 Wax pattern and shell formulation for a stable turbocharger wheel casting process
   Grant Bradley
   REMET

15:40 Zircon prime coats for turbocharger wheel manufacture
   Patrick Heghety
   Mineral and chemical service

15:30 EXHIBITION CLOSE

16:00 COFFEE BREAK
Tuesday, April 19, 2016 – Afternoon  Continuation

Turbocharger Seminar

PART 2 (ROOM 342 A)

16:45 Optical measurement techniques for turbocharger wheels  TBC
   Nao Kawakami
   Keyence

17:10 Automated 3D scanning measurement of turbocharger wheels
   Kevin Hawley
   GOM

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

18:00 Alternative alloys for high temperature turbocharger applications
   Tom Sellars
   R&C Ltd

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

18:45 END OF CONFERENCE