ADDIT3D

PROGRAMA

THURSDAY 06/06/2024

09:30 - 13:50 Accreditation desk opening hours

Conference room of Hall 4 (BEC)

Remember that you have the option of registering for the conferences through the website and/or at the accreditation desk in Hall 4 during the event. Until then, get your accreditation in advance by clicking on the following link.

10:00 - 10:10 Welcome and Opening of Additive Talks

Participants: BEC and ADDIMAT

10:15 - 10:45 KEYNOTE OPENING: Building Additive Manufacturing Competency: Lessons Learned from Teaching 10,000 Professionals

Haden Quinlan - Senior Program Manager - MIT (Massachusetts Institute of Technology)

In this talk, we will cover MIT's approach to teaching additive manufacturing skills to difference audiences. We will review common themes of AM instruction - and, where appropriate, challenge the common wisdom. We will explore specific case studies of MIT programs and student populations, as well as discuss how to relate AM training efforts back to organizational competency in AM.

Haden Quinlan

10:50 - 11:10 GE Aerospace/Additive's perspective on the industrialisation of Additive Manufacturing: certification of aeronautical parts (stability, repeatability, production scale-up) and latest

developments in laser productivity and PointMelt in EBM

José Greses - Emea Sales Leader - GE Additive (MAQUINSER)

The talk will present GE Aerospace's industrial developments in Additive Manufacturing for its aeronautical turbines over the last decade, as well as the developments based on GE Additive's AM technologies that will be applied to the next generation of turbines. Of all these developments, we will focus on explaining how to increase productivity, reducing cost per part, within the same platform by increasing laser power in combination with 3D optics and the new Point Melt fusion strategy for Electron Beam Melting (EBM) technology. The "Point Melt" (GE Additive patent) in EBM, for the first time in additive metal manufacturing, makes it possible produce without the need of supports or a baseplate in any orientation, achieving isotropic mechanical properties and constant roughnesses. All these advantages allow a very significant cost reduction per part by dispensing with manual or very complicated post-processing, as well as a control of the microstructure of the molten material in a totally new way, which opens up new possibilities with metals that are difficult to weld (such as MAR247 nickel base alloys for high turbine temperatures, or high hardness steels (70HRC) for high wear applications)

 José Greses

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11:15 - 12:05 Success stories of additive manufacturing of industrial parts in key sectors

- Aerospace sector. Miguel Ampudia - R&D and Metallurgy manager - AENIUM
- Heavy industry sector. Paula Rodríguez - ARCELORMITTAL
- Automotive/industrial sector.
- Railway sector. Alejandro Serrano - Product Designer. Head of the Additive Manufacturing Centre at BMI Madrid - AITIIP

Paula Rodríguez

 Miguel Ampudia

 Alejandro Serrano

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12:05 - 12:25 Coffee Break

SPONSORED BY:

Air Liquide

12:25 - 12:45 Additive Manufacturing & Powder Metallurgy - An R&D excursion at Air Liquide

Fabian van Rossum *- ALTEC Manager South West Europe -* ***Air Liquide***

Quentin Mandou *- R&D Engineer -* ***Air Liquide***

Industrial gases have a very important role in many Powder Metallurgy and Additive Manufacturing processes. In this session, Air Liquide will highlight some R&D projects and excursions in these domains and contribution to the powder production and Additive Manufacturing ecosystem. It has the ambition to develop innovative gas applications and solutions which improve productivity, efficiency, product quality and sustainability. This exposition will illustrate three specific examples of R&D projects at Air Liquide: PBF-L gas shield homogeneity & part quality as a matter of gas flow characterization, WAAM productivity with inter pass waiting time reduction by cryogenic gas cooling and metal powder atomization by Arc-Spray Process.

Quentin Mandou

Fabian van Rossum

12:50 - 13:10 Keynote: The SIEMENS perspective of the industrialization of AM: Digital Twins and Artificial Intelligence applied to AM

Sebastian Hartmann - Digital Twin for Additive Manufacturing PhD Candidate - Siemens & TUM (Technical University of Munich)

Sebastian will present the future path for Siemens in the AM industry, covering applications of Digital Twins and Artificial Intelligence from projects with leading partners in industry and academia.

Specific focus will be placed on how the associated costs, one of the major barriers hindering the widespread adoption of AM, can be reduced by combining the real and digital worlds in the AM industry.

Multiple examples will be examined on how the process data from real AM systems can be utilized to increase part quality, reduce lead time, and improve our understanding of AM processes.

 Sebastian Hartmann

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13:15 - 14:00 Round table on the future of additive manufacturing

Industry experts will share their strategies for industrialising and scaling up AM technologies, giving their strategic vision and explaining how they are addressing the challenges and barriers they are encountering in this process.

Participants:

- Agustín García - Manager - SICNOVA
- Estibaliz Azaceta - Business Developer - OPTIMUS3D
- Marc Gardon - EMEA Applications Manager - RENISHAW
- Martín Sáez - Office Manager BU Iberia - MATERIALISE

Moderates:

- Aitzol Lamikiz - Deputy Director - Centre for Advanced Manufacturing in Aeronautics (CFAA)

 Aitzol Lamikiz

 Estibaliz Azaceta

 Agustín García

 Martín Sáez

 Marc Gardon

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14:00 - 14:10 BIEMH TALKS closing

**** Preliminary programme subject to change***