

INFORMATION

Venue

Parque Tecnológico São José dos Campos
Avenida Doutor Altino Bondensan,
500 – Distrito de Eugênio de Melo
São José dos Campos – SP, CEP 12247-016, Brazil

A workshop for

Specialists and executives from manufacturing and R&D departments interested in welding technologies, additive manufacturing as well as international collaboration

Admission

The workshop languages are Portuguese and English. Admission to the event is free, but early registration is required due to limited number of participants.

Please send your registration to

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ORGANIZERS

Fraunhofer IPK

The Fraunhofer Institute for Production Systems and Design Technology IPK is placed in Berlin, Germany. With its distinctive IT competence, it offers system solutions, individual technologies and services for digitally integrated production. Fraunhofer IPK provides comprehensive support to companies along the entire value chain: from product development, planning and control of machines and systems, including technologies for parts manufacturing, to comprehensive automation and management of factory operations. The institute also transfers production engineering solutions to areas of application outside industry, such as traffic and safety. As an institute of the Fraunhofer-Gesellschaft, IPK tailors its work to fit the needs and requirements of its customers and partners. It develops forward-looking novel solutions and modernizes, optimizes and extends existing technologies and applications. In all its endeavors, Fraunhofer IPK seeks to harmonize economic considerations with the imperatives of resource efficiency, sustainability, and environmental compatibility. Apart from contract research, the institute also conducts precompetitive research projects to develop innovative concepts for tomorrow's production, working closely with its partners to transform the basic innovations thus delivered into marketable products.

ITA

The Technological Institute of Aeronautics (ITA) offers research and education in distinct engineering fields, including aerospace, aeronautical, civil, mechanical, computer and electronics engineering. It is located inside the Department of Aerospace Science & Technology (DCTA), which is considered one of the biggest research centers in Latin America. ITA was responsible for some major achievements in Brazil in the last 60 years, including the foundation of the Brazilian aeronautical industry (EMBRAER), the development of the Automotive Ethanol Program as well as the enhancement of the telecommunications industry (Telebrás).

DWIH São Paulo

The German Centre for Research and Innovation – São Paulo (DWIH São Paulo) was created in 2009 by the German Federal Foreign Office (AA), in cooperation with the Ministry of Education and Research (BMBF) as part of the internationalization policy of the two ministries. The goal is to increase the visibility in Brazil of Germany as a scientific and technological center and foster synergy and exchange between German and Brazilian scientific institutions – particularly in São Paulo, the largest center of German industry outside German



Fraunhofer Institute for Production
Systems and Design Technology IPK

18. April 2023

1st International Industry
Workshop on Welding
Technologies and
Additive Manufacturing

In cooperation with



PROGRAM

1st International Industry Workshop on Welding Technologies and Additive Manufacturing is an initiative of the Fraunhofer Institute for Production Systems and Design Technology IPK in Berlin, Germany and the German Centre for Research and Innovation (DWIH) in São Paulo as well as the Technological Institute of Aeronautics (ITA) in São José dos Campos, Brazil. This workshop aims to foster R&D partnerships and strategic cooperation between academia and industry in global markets.

The workshop intends to present the latest international technology trends for the Brazilian industry in the fields of welding technologies and additive manufacturing, and also to demonstrate practical project examples and success stories in terms of international initiatives. The main objective of this event is to promote a discussion about strategic technological topics in order to identify opportunities and trigger joint RD&I projects (Brazil-Germany). Among the speakers from both countries are representatives from industry and academia as well as specialists on funding and incentive programs for R&D activities.

We are looking forward to welcoming you at the 1st International Industry Workshop on Welding Technologies and Additive Manufacturing and to discussing business opportunities with you.

TUESDAY, 18. APRIL 2023

09:00 Welcome and Introduction

Dr.-Ing. David Domingos, Fraunhofer IPK
Prof. Dr. Anderson Correia, ITA

09:10 Introduction to the DWIH São Paulo

Dr. Daniela Theuer, DWIH São Paulo

09:20 Development of the Production Chain of Metallic Components by Additive Manufacturing – NPOP

Gustavo Reis, Fraunhofer IPK
Dr. Mario Boccalini, IPT
Prof. Dr. Anderson Borille, ITA

Panel 1: Efficient Welding for Heavy Industries

Chair: Luis Albano

09:50 Highly Productive Laser and Arc Welding for Industrial Thick-sheet Applications

Dr.-Ing. Max Biegler, Fraunhofer IPK

10:10 Challenges to Increase Productivity in Heavy Industries Welding

Saul Fernando de Carvalho Filho, DELP

10:30 Influence of Nb on Wear Resistance of Consumables for Welding Overlay Application

Eduardo Cannizza, CBMM
Erico França, CBMM

10:50 Cold Wire Laser Welding for Structural Components

Vitor Chacon Anelli, IPG Photonics

11:10 Questions and Discussions

11:40 Coffee Break

Panel 2: Resilient AM Processes for Repair and Spare Parts

Chair: Prof. Dr. Anderson Borille

12:10 Adaptive Repair Process Chains via L-DED

Vinzenz Müller, Fraunhofer IPK

12:30 Wire Arc Additive Manufacturing: Opportunities and Challenges in Printing Large Components

Júlio Cezar de Alvarenga Pires, SENAI CIT

12:50 Steel Wires for Welding and WAAM

Jeremias Silva, Belgo Arames

13:10 Additive Manufacturing in High Pressure Die Casting

Marcelo Lima, STIHL

13:30 Questions and discussions

14:00 Lunch Break

Panel 3: Thin Sheet Welding for Transportation

Chair: Dr. Arnaldo Camarão

15:00 Maximizing Productivity and Quality in Laser Welding: Cases of Successful Application

Mairon Marques, Powermig

15:20 Trends for Welding in Commercial Vehicles Structures

Sami Simão, Maxion Structural Components

15:40 Processing-induced Residual Stresses in AHSS Weld Spots

Prof. Dr. Tiago Colombo, ITA/FATEC

16:00 Questions and Discussions

16:30 Closing Words

Prof. Dr. Ronnie Rego

16:40 End of Event