

Maria Angeles Montealegre / Itziar Onandia

Etsetar S.A, INZU Group

Topic

Monitoring the EHLA Coating of Brake Discs at High Production Rates

This talk will address the industrialization of EHLA coating of brake discs and its integration into the production line of discs for an automotive OEM. The automotive industry demands precision, quality, robustness, repeatability, and high-speed processing. This presentation will focus on the monitoring systems that guarantee that these requirements are met, highlighting recent advances in monitoring 3 main aspects of the process: powder delivery, melt-pool geometry, and dimensional inspection.

About Maria Angeles Montealegre

She made her PhD in Metallurgical Engineering at the National Center for Metallurgical Research (Madrid-Spain). She currently works as Project Manager, Research at Ikerdune AIE, Inzu Group. She is leading R&D in the areas of laser material processing and surface modification. Her current research interests focus on laser hardening and additive manufacturing, mainly in DED/LP and EHLA. She has authored several papers in technical and scientific journals. In addition, he is a member of the scientific committee of several congresses and a reviewer of the journals included in the JCR.

About Itziar Onandia

R&D Project Manager at Etsetar, Inzu Group since 2020. She's part of the research team dedicated to LP-DED and EHLA technology focused on material and process characterization with technologies that guarantee quality and environmental sustainability. The goal of the research lines is the development of highly efficient processes in additive manufacturing, ensuring <90% of powder deposition efficiency and great knowledge on powder transportation.