

Session	Energy Efficiency in Glass Production
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Chair	Tolga Uysal



Revolutionizing Glass Furnace Operations with AI-Enhanced AMETEK LAND Image Pro Software combined with NIRB- 2K Thermal Imaging

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Biography

Philippe Kerbois, Global Industry Manager – Glass – AMETEK Land Philippe has extensive sales and project management experience from working in the steel, glass and automotive industries including Rockwell Automation and ABB where he was specifically involved in major robot-based factory automation projects.

Having worked at AMETEK Land since 2012, Philippe initially managed the sales of infrared temperature measurement solutions into line builders and glass, steel furnace OEMs, now he works very closely with the global glass market and is actively promoting the award-winning Near Infrared Borescope (NIR-B) Glass thermal imaging solution including LSP-HD line scanning systems for optimisation of glass furnaces and float lines.

Abstract

Glass furnace operations demand precise temperature control, efficient energy utilization, and rigorous quality assurance to maintain production efficiency and meet environmental standards.

This paper introduces an innovative AI module integrated with AMETEK LAND Image Pro software, enhancing its thermal imaging capabilities with advanced analytics and manual decision support. The proposed module leverages machine learning and computer vision to optimize furnace performance, improve glass quality, and enable predictive maintenance. Through real-world data and simulations, we demonstrate how the AI module achieves energy efficiency, defect reduction, and operational cost savings. This advancement represents a paradigm shift in glass manufacturing, aligning with Industry 4.0 principles.

