LASER VISION APPLICATIONS IN WELDING AUTOMATION

with reference to recent developments in multipass welding for monopile fabrication

by Dr Bob Beattie, Director, Oxford Sensors Ltd

This presentation will begin by reviewing laser vision applications in welding automation including robot and mechanised systems. It will describe a few projects in detail, including recent work on monopile fabrication.

With current interest in AI, 3D modelling and the use of digital twins, the talk will also cover future opportunities in the application of advanced computer systems, including AI, in welding.

Bob Beattie has worked in computer vision in welding for over 25 years, following a PhD in AI from Edinburgh University. He has wide-ranging experience in welding automation, including robot welding, pipe mills, nuclear applications and in monopile construction for offshore wind. To complement a strong theoretical background, he has installed systems in many countries with a view to understanding the detailed practical requirements of different welding environments.

Wednesday 11th March 2026

Refreshments from 5:30 p.m. Presentation at 6:00 p.m.

Buffet at 7:15 p.m.

The York Room, Lancaster Hall Hotel, 35 Craven Terrace, London W2 3EL.

Underground and rail: Lancaster Gate (5 mins walk) Paddington (10 mins walk)

Please register for either online or in-person attendance.
(You need not enrol for in-person attendance but it helps for organising the catering)
https://theweldinginstitute.com/events