



Dates for the diary

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Latest developments in laser welding

19 July 2016

TWI has been at the forefront of the technological development of using lasers for materials processing since the mid-1960s, providing world-class support to many industries, including the automotive, shipbuilding and aerospace sectors.

Description

Laser welding is a versatile welding process, which has found a number of applications in industry; from welding of car bodies and aircraft fuselage panels to the welding of shipbuilding structures. Many variants of laser welding technology are currently used in production processes, with applications covering metals and plastics. TWI has considerable experience in the successful development and qualification of laser welding procedures for a variety of different applications, across numerous industry sectors.

The event will highlight some of the latest developments of laser welding at TWI, from micro-joining of electronics to thick-section structural applications in the energy sectors, and includes live demonstrations on TWI's equipment.

Venue

Granta Centre, TWI Ltd, Granta Park, Cambridge CB21 6AL

This is a free event

Visit our [event website](#) to find out more or for further information please contact choon.kong@twi.co.uk

| Programme | |
|-----------|---|
| 08:45 | Registration and refreshments |
| 09.15 | Welcome 50 years of laser technology and process development at TWI Ltd |
| | Session one: Process development (1) <ul style="list-style-type: none"> • Thick section laser welding • Laser welding for the nuclear industry |
| 10.30 | Q&A |
| 10.45 | Refreshments |
| 11.00 | Session two: Process development (2) <ul style="list-style-type: none"> • Laser welding of lightweight materials for transport applications • Laser micro-joining of electronics and sensors • Laser welding of plastics |
| 12.05 | Q&A |
| 12.20 | Lunch |
| 13.20 | Session three: Quality assurance for laser welding and successful industrial adoption <ul style="list-style-type: none"> • Process monitoring and control during laser welding • NDT of laser welds • Material selection and characterisation of laser welds • Laser welding system, Industrial 4.0 and digital manufacturing • Selection criteria for laser-based equipment |
| 15.00 | Q&A |
| 15.20 | Refreshments |
| 15.40 | Lab tour and demonstration |
| 16.15 | Finish |