

About this meeting

This meeting is the second day of a two day meeting being held at the Daresbury Laboratory organised by the Northwest Laser Engineering Consortium. The first day forms the Micro / Nano workshop held annually by the Association of Laser Users (AILU). The AILU meeting is intended to focus more on industrial developments of laser processing in the Micro and Nano - Engineering sectors.

This second day meeting is an opportunity to promote research being carried out at, and in conjunction with, North Western Universities in the area of "industrial photonics" and that will have an impact in manufacturing and the economy in the medium term.

Who should attend?

Academics, Industrialists and agencies will have the chance to hear about leading developments being undertaken at Universities here in the North West. There will be plenty of opportunity to network and meet people with similar interests. It will also provide an excellent opportunity to meet leading academics from the Universities and managers from associated research and knowledge exchange centres

What is "Industrial Photonics"

Photonics has become a byword in the 21st Century. Over the last decade it has become clear that many important new technologies depend on photonics at their heart. And yet what is covered under the heading of photonics is not always clear. This has not prevented governments understanding the importance of photonics, and its profile as a "key sector" by government departments and other agencies has risen greatly. Industrial photonics is a subsector and covers photonics applications that are particularly relevant in industrial applications. Laser processing in manufacturing is a key example, however gas sensing, imaging and other applications are strongly overlapping areas.

Photonics in the North West

In the North Western region of the UK, the regional development agency has conducted a mapping project to better understand the importance of photonics as sector in the regional economy. In parallel the North West Photonics Association (NWPA) has been formed and is a constituent organisation of the government funded Photonics KTN. The Northwest Development Agency has also recognised the importance of funding in this sector, and the Northwest Laser Engineering Consortium (NWPA) is an example of this, funded under the Northwest Science Fund.

Daresbury Laboratory has been the home of the world renowned Synchrotron Radiation Source (SRS) run by the STFC. Other facilities include the Medium Energy Ion Scattering Facility and the National Centre for Electron Spectroscopy and Surface Analysis. The tour after the presentations will include the SRS.



Delegates

Registration and presentations will take place in the Merrison lecture theatre on the ground floor of 'A' block. On the day the delegates will receive a name badge, essential notes for the day, together with a CD of key slides or presentation notes. A buffet lunch (including vegetarian options) will also be provided together with refreshments throughout the day. Please advise us of any special dietary needs.

Exhibitors

The exhibition, together with lunch and mid-morning and afternoon refreshment breaks, will take place in the reception building ('B' block) atrium, a short walk from the Merrison Lecture Theatre. The Atrium on the first floor; it can be accessed by lift or stairs. Table tops of 910 x 1820 mm will be provided and poster boards on request.

Some single phase power will be available throughout the exhibition area. The area will be open from 08.00 for exhibitors wishing to set up their tables before registration. Earlier entry can be arranged on request.

Registration

Please complete the attached registration form or email the following for a registration form:

Martin Sharp uklaser@liv.ac.uk

Stewart Mackay s.mackay1@salford.ac.uk

Delegates and exhibitors who are AILU members need only phone or email their names to the AILU office;

AILU members and members of supporting organizations for this event receive a registration discount.

Travel

Daresbury Laboratory address:

Keckwick Lane, Daresbury, Warrington WA4 4AD

Daresbury Laboratory is 5 miles south west of Warrington and 5 miles east of Runcorn, both of which are well served by train. It is located 1 mile down the A56 from junction 11 of the M56 motorway, which connects to the national motorway network via the M6 (6 miles east). Manchester International Airport is approximately 30 minutes away by car. There is a link to directions and maps on the AILU web site events page.

Accommodation

There are a number of 4-star and budget hotels in the area, but all require transport to the laboratory. A list with web links is provided on the AILU website events page (www.ailu.org.uk)

DEVELOPMENTS IN INDUSTRIAL PHOTONICS

Daresbury Laboratory
Thursday 5th June 2008

*The second of a two day meeting
organised by the Northwest Laser
Engineering Consortium of the
Universities of Liverpool and
Manchester*

*In conjunction with the North West
Photonics Association the meeting
presents a selection of industrial
photonics applications from North
West Universities.*

Organised by:



Supported by:



8.45 – 9.15	Coffee in Atrium
9.20 – 9.30	Welcome to Meeting Prof. Ken Watkins, NWLEC, University of Liverpool
9.30 – 9.50	Welcome to Daresbury Prof. Colin Whitehouse (Director, Daresbury Laboratory)
9.50 – 10.10	Optical Trapping for Engineering Applications Dr. Stewart Edwardson, NWLEC, University of Liverpool
10.10 – 10.30	Picosecond Fibre Laser Applications Dr John Clowes, Fianium Ltd., and Dr. Paul French, LLEC, University of Liverpool
10.30 – 10.50	Field Enhancement for Sub- wavelength Processing Dr. Zengbo Wang, NWLEC, University of Manchester
10.50 – 11.15	Coffee Break
11.15 – 11.35	Metamaterials from Concept to Application Prof. Allan Boardman, University of Salford and Chairman NWPA
11.35 – 11.55	Free Electron Laser & THz Radiation Prof. Peter Weightman, University of Liverpool
11.55 – 12.15	Industrial Free Electron Lasers Prof. Ahmed Al-Shamma'a, Liverpool John Moores University

North West Photonics Association

The North West Photonics Association was set up by Prof. Allan Boardman of the University of Salford to represent the North West region of England in the UKCPO (UK Consortium for Photonics and Optics). UKCPO is the lead organisation running the TSB funded Photonics KTN, NWPA aims to promote the important Photonics sector, both in industry and academia, throughout the North West, and to assist its rising membership in achieving economic and sustainable growth.

12.15 – 3.20	Lunch in Atrium
13.20 – 13.40	Mid IR Lasers & Gas Sensing Applications Prof Tony Krier, Lancaster University
13.40 – 14.00	Refractive Index Modification using Femtosecond Lasers Mr. Dun Liu, NWLEC, University of Liverpool
14.00 - 14.20	Fibre Sensors Dr Patricia Scully, PSI, University of Manchester
14.20 – 14.50	Tea Break
14.50 – 15.10	Developments in Photovoltaics Prof Wendy Flavell, PSI, University of Manchester
15.10 - 15.30	Solgel Coating using laser point of process Mr. Graham Downhill, Attiger Ltd.
15.30 – 15.50	Laser generated Nanoparticles Mr Sohaib Khan, NWLEC, University of Manchester
15.50 – 16.00	Close, Prof Lin Li, NWLEC, University of Manchester
16.00 – 16.45	Tour of Daresbury Facilities

NWLEC



The North West Laser Engineering Consortium aims to position the North West as the leading region for laser engineering. NWLEC brings together Liverpool and Manchester universities to undertake research and develop laser capabilities in micro and nano applications for the benefit of UK industry. The NWLEC consortium facilitates the pooling of talent and resources of the two university groups, thereby enabling them to continue to be the UK's largest academic players in laser processing research.

Registration Form

Developments in Industrial Photonics
5 June 2008

Delegate information

Title First name Surname
Position:
Organisation:
Address:
Post Code:
Tel:.....Fax:.....
E-mail:.....

Payment options

- Please invoice me
- I wish to pay in advance by Bank cheque in £ Sterling payable to The University of Liverpool
- I wish to register as a delegate. The applicable rate is:
 - GBP 90.00 incl. VAT (GBP45.00 if delegate at AILU meeting, 4th June 2008)
 I am a member of AILU and/or one of the supporting organisations:
 - Photonics KTN Display and lighting KTN Institute of Physics
 - NWLEC WOF NWPA
 - GBP 70.00 incl. VAT (GBP35.00 if delegate at AILU meeting, 4th June 2008)
 I am unemployed or retired. I am a full time student.
 - GBP 25.00 incl. VAT (GBP10.00 if delegate at AILU meeting, 4th June 2008)
- I wish to register as an exhibitor. Please reserve me a table.
 - The applicable rate is:
 - GBP 75.00 incl. VAT (GBP35.00 if exhibitor at AILU meeting, 4th June 2008)
 I am a member of AILU or one the supporting organisations ticked above.
 - GBP 50.00 incl. VAT (GBP25.00 if exhibitor at AILU meeting, 4th June 2008)
 I wish to register as a delegate and exhibitor.
 - Please give me a GBP 50 inc VAT discount on the total fee.

Signed: Date:.....

Cancellations will be accepted up to 1 week before the event; otherwise the full fee may be charged.