

helping you make the most  
of laser technology

### Workshop information



#### Venue

The National Maritime College of Ireland,  
Ringaskiddy, Cork, Ireland.

Tel: +353 (0) 21 497 0600

#### Delegates

Delegates will receive name badges and CDs including slides or notes of presentations. A buffet lunch will also be provided together with refreshments throughout the day. Please advise us of any special dietary needs.

#### Exhibitors

The exhibition will be located near the area where morning refreshments and lunch are served, adjacent to the meeting room. The Centre will be open from 07:45 for exhibitors wishing to set up their tables before registration. Table tops of 80 x 160 cm will be provided, but not backboards.



#### Registration

UK AILU members need only give their names, by phone +44 (0)1235 539595 or email to [events@ailu.org.uk](mailto:events@ailu.org.uk). Otherwise a registration form should be completed and sent to either CAMMS (for Euro charges) OR AILU (to pay in GBP).

#### Contact CAMMS for payments in Euros (€):

**For registration in Euros** please contact the CAMMS office at the CIT (Cork Institute of Technology), Cork, Ireland.

The contact details are: Centre for Advanced Manufacturing & Management Systems (CAMMS), Department of Mechanical & Manufacturing Engineering, Cork Institute of Technology, Rossa Avenue, Cork.

Tel: +353 (0)21 432 6264 Fax: +353 (0)21 454 6468 email: [laser@cit.ie](mailto:laser@cit.ie)

#### Contact AILU for payments in GBP (£):

**For registration in GBP** please contact AILU, 100 Ock St, Abingdon, Oxon, OX14 5DH, UK.

Tel: +44 (0)1235 550499, Fax: +44 (0)1235 550499, Email: [events@ailu.org.uk](mailto:events@ailu.org.uk).

Delegates who are not members of AILU or of a supporting organisation can join the Association before the event and benefit from the significant discounts offered to AILU members. Full details of AILU membership can be found at [www.ailu.org.uk](http://www.ailu.org.uk). You should set up your membership with the AILU office by calling +44 1235 539595.

#### Travel

Cork is well served by an airport, railway network and motorway links. The NMCI is situated 18 km from Cork. A link to the location page on the NMCI website with a map, directions and route planner is provided on the AILU website. There is ample parking at the venue.

#### Accommodation

Links to hotels in Cork are provided on the AILU website. The recommended hotels are: Carrigaline Court Hotel, Carrigaline; Tel: +353 (0)21 485 2100 or the Clarion Hotel, Lapps Quay; Tel: +353 (0)21 422 4900 ([www.clarioncork.com](http://www.clarioncork.com)).

#### Exhibition

The Tabletop exhibition will be held adjacent to the main lecture theatre. To book a tabletop contact the AILU office to pay in GBP (T: +44 (0)1235 539595; E: [courses@ailu.org.uk](mailto:courses@ailu.org.uk)), or CAMMS (T: +353 (0)21 422 6264; E: [laser@cit.ie](mailto:laser@cit.ie)) for Euro charging. Spaces are limited so an early response is recommended.

#### Clinic

A selection of experts will be available for one-to-one technical and/or commercial discussions over most of the lunch period. Places can be reserved by contacting the AILU office or CAMMS at the details above.

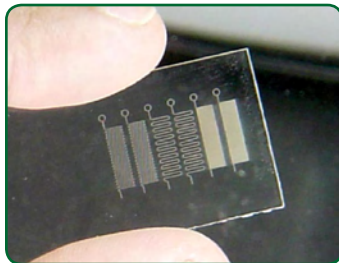
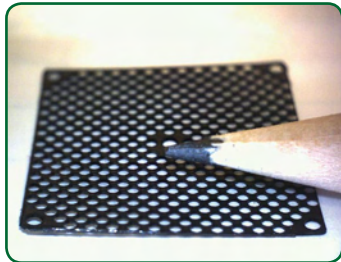
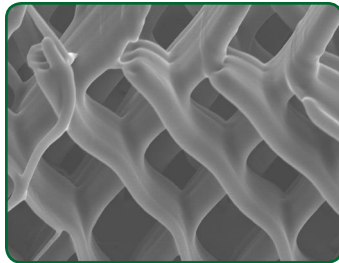
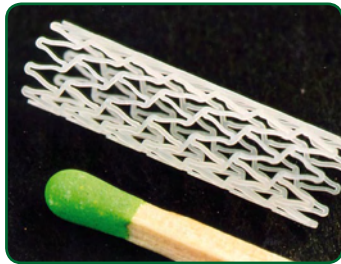
AILU, LaserAge and CAMMS reserves the right to alter the programme or cancel the meeting at short notice and accepts no responsibility for the views expressed by the speakers or delegates.



Technology Workshop

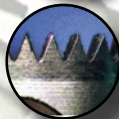
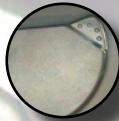
Thursday 22 May 2008  
The National Maritime College of Ireland,  
Cork

## Applications include ...



Images Courtesy of Laser Zentrum Hannover e.V., Buearec Technology, Laser Micromachining Limited, LaserAge Ltd

Opportunities for laser  
micromachining:  
developments  
and applications in the  
medical sector



Presentations, exhibition, clinic & tour

Presentations by internationally recognised experts.

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[www.ailu.org.uk](http://www.ailu.org.uk)

Images Courtesy of Laser Zentrum Hannover e.V., Rofin-Baasel (UK) Ltd, and LASAG AG

## About this workshop

The precision and speed of laser processing make it the ideal tool for manufacturing many medical devices and related items. The workshop will be invaluable for designers and production engineers in the medical sector and to all manufacturers of precision components and assemblies in general.

The use of lasers for materials processing has become increasingly important in the field of medical device manufacture due to their precision, flexibility and ability to work at small scales for the miniaturisation of medical components. Mass-produced components range from medical devices, medical instruments and implants as well as sub-systems. Lasers can be used for many processes, such as circuit fabrication, encapsulation, marking, welding and microhole drilling.

In this meeting, both the commercial use of laser processing technology and research into improving medical device manufacture is addressed. Themes include:

- (i) applications of lasers in medical equipment and device manufacture;
- (ii) production improvement techniques for medical device manufacture; and
- (iii) case studies showing laser techniques and sources developed for the medical sector.

## Pat Forristal Workshop Chair



**Pat Forristal** is Vice President, International Advanced Operations at Stryker Orthopaedics and Chairman of the Irish Medical Devices Association and a Fellow of the Institution of Engineers of Ireland. He has held a number of leadership positions in the Pharmaceutical, Engineering and Medical Devices industries both in Ireland and Internationally.

With Stryker Orthopaedics since 1998, Pat was responsible for the establishment of their first manufacturing operation in Ireland. Under his leadership, as General Manager, the Carrigtohill plant was expanded significantly to its current size.

In his current role as Vice President, International Advanced Operations, Pat has responsibility for Product Innovation, Business & Process Development and Manufacturing Strategy for Stryker's International Orthopaedics facilities in Cork, Limerick and Caen, France.

## Who should attend?

This workshop promises to be a valuable day for anyone with an interest or involvement in medical device manufacture. The wide scope of the workshop should give delegates an excellent overview of the many opportunities that lasers offer to medical applications.

The workshop will be of interest to medical device manufacturers, medical supply companies, laser users, laser source manufacturers and suppliers, laser-based engineering subcontractors and machine integrators, all of whom will find opportunities to benefit from the rapid growth in the medical sector, and enhance their supply chain partnerships.

[www.ailu.org.uk](http://www.ailu.org.uk)

## Programme overview

08:30	Registration and refreshments
09:10	Welcome and Introduction Pat Forristal (Chair)
09:20	KEYNOTE PRESENTATION: <b>Generation of biocompatible 2-D and 3-D structures for medical implants</b> Andreas Ostendorf LZH (DE)
9:55	<b>Production of medical instruments</b> Frank White Stryker Instruments (IRL)
10:20	<b>Laser-assisted manufacturing of medical devices</b> Nadeem Rizvi Laser Micromachining (GB)
10:45	Refreshment break
11:15	<b>Stop on layer laser processing of medical devices</b> David Gillen Blueacre Technology (IRL)
11:40	<b>Laser processing for enhanced biomedical applications</b> Dermot Brabazon Dublin City University (IRL)
12:05	<b>Advances in micromachining: how to apply it to the medical sector</b> Martin Sharp LLEC (GB)
12:30	<b>Lightfactory 2020</b> Tony Flaherty NCLA, Galway (IRL)
12:50-13:50	Lunch & EXHIBITION
13:50	<b>Framework programme 7 and SMEs: Towards Europe</b> Sean Burke Enterprise Ireland (IRL)
14:00	KEYNOTE PRESENTATION: <b>Novel laser processes for functionalization and packaging of medical components</b> Arnold Gilner Fraunhofer, ILT, Aachen (DE)
	<b>INNOVATIONS SESSION</b>
14:35	<b>Ultrafast lasers for medical device manufacture</b> Alan Ferguson Oxford Lasers (GB)
14:45	<b>Cutting, welding and marking case studies for medical instrumentation and implants</b> Jonathan Magee Rofin-Baasel (GB)
14:55	<b>Fine Cutting Head: cuts invisible kerf</b> Jürgen Bock Precitec (DE)
15:05-15:35	Refreshment break
15:35	<b>Laser welding of plastics and its application in the medical sector</b> Birk Plönnigs Jenoptik (DE)
15:45	<b>Medical device and instrument micro welding and cutting with fibre lasers</b> Louise Partridge SPI Lasers (GB)
15:55	<b>AILU / AILU Ireland</b> Leo Sexton LaserAge (IRL) Mike Green AILU (GB)
16:15	<b>AILU's Medical Group</b> Anna O'Neil AILU (GB)
16:25-17:05	<b>TOUR</b>

[www.laserage.ie](http://www.laserage.ie)

## Registration Form

Opportunities for laser micromachining: developments and applications in the medical sector 22 May 2008

## Delegate information

Title First name Surname

Position: .....

Organisation: .....

Address: .....

Post Code: .....

Tel: ..... Fax: .....

E-mail: .....

## Payment options (including lunch)

- Please invoice me
- I wish to pay in advance by:
1. Bank/Euro cheque in £ Sterling or EURO, payable to AILU or CIT, Cork, Ireland.
  2. Visa/Mastercard (billing in GBP):  
Name on Card

Number \_ \_ \_ \_ \_ Exp \_ / \_ \_  
Please debit my account

- I wish to register as a delegate. The applicable rate is:
- GBP 167 or €215 incl. VAT  
I am a member of AILU and/or one of the supporting organisations or in a group of 3 or more:
- IMDA  ABHI  Photonics KTN  Health Technologies KTN  Group ≥ 3
- GBP 45 or €60 incl. VAT  GBP 78 or €100 incl. VAT  
I am a student member of AILU. I am a full time student.
- GBP 230 or €295 incl. VAT
- I wish to register as an exhibitor. Please reserve me a table. The applicable rate is:
- GBP 200 or €300 incl. VAT  
I am a member of AILU or a supporting organisation
- GBP 315 or €400 incl. VAT
- I am registering as a delegate and exhibitor. Please give me a GBP 60 or €75 incl. 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.

## Complete the form and return by fax or post.

AILU, 100 Ock St, Abingdon, Oxon OX14 5DH UK.  
Email: [events@ailu.org.uk](mailto:events@ailu.org.uk) Fax: +44 (0)1235 550499

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Tel. + 353 (0)21 432 6264,

Email: [laser@cit.ie](mailto:laser@cit.ie) Fax: + 353 (0)21 454 6468