

AIMENLASER

VIII Workshop on Processing Materials with Laser Technology

November is Laser Technology month at the AIMEN Technological Centre.

On **16-17 November**, the AIMEN Technological Centre is hosting the **VIII Workshop on Processing Materials with Laser Technology**.

The eighth laser workshop organised by AIMEN will represent an international meeting point for experts that research and develop laser technologies, systems suppliers and companies that have included this technology in their productive processes or are considering doing so.

Aim

The aim of this workshop is to introduce the latest advances in laser technology as well as the exchange of experiences among companies that are already using laser technology in their productive processes.

Targeted at

Industrial sector companies. Industrial Managers, in engineering, production, welding, quality and R&D; researchers and technologists from Universities, R&D Centres; Technological Institutes and Companies.

Venue

AIMEN Technological Centre - Headquarters
C/ Relva 27 A - Torneiros - 36410 O Porriño (Pontevedra) (ES)
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aimen@aimen.es

Date and timetable

16 November, from 9 a.m. to 5 p.m.

17 November, from 9 a.m. to 2 p.m.

Registration

To book your place you must send the registration form, properly filled in. AIMEN will confirm your booking by e-mail. Once your registration has been confirmed, you must send a payment receipt by e-mail prior to 3 p.m. on 15 November 2011, to the following e-mail address: formación@aimen.es

Limited capacity.

There will be simultaneous translation English / Spanish

www.aimen.es/jornadalaser2011

Wednesday, 16 November 2011

08:45 to 09:00 Registration

09:00 to 09:20

Opening Ceremony by Joaquín Vázquez - AIMEN Technological Centre and Flavio Gregory - PRIMA POWER IBERICA S.L.

Session 1 Laser Sources and Systems

09:20 to 09:40

CO2 lasers vs fibre lasers

Daniel Torrens - ROFIN BAASEL ESPAÑA, S.L.U.

09:40 to 10:00

Industrial diode lasers for material processing

Michael Nagel - Laserline GmbH

10:00 to 10:20

Laser Surface Micro-Texturing: keys for industrialization

Ms. Nerea Otero - AIMEN Technological Centre

10:20 to 10:40

Advantages of fibre lasers in 3D metal cutting supported by a "beam in motion (BIM)" beam delivery system

D. Martin Griebe - Jenoptik Automatisierungstechnik GmbH

10:40 to 11:00

Laser processing in 3-D using a solid-state laser

Johannes Buehrle - TRUMPF Maquinaria S.A.

11:00 to 11:30 Coffee Break

11:30 to 11:50

Integration of beam monitoring within Industrial laser material processing

Harald Schwede - PRIMES GmbH

11:50 to 12:10

Modularity and flexibility – customized laser processing heads enter industrial and scientific applications

Markus Kogel-Hollacher - Precitec KG

12:10 to 12:30

Development of an FPGA-based laser recharge control system

Luis Mato - AIMEN Technological Centre

12:30 to 12:50

Gas quality in laser cutting

David de Vicente López - PRAXAIR ESPAÑA, S.L.

12:50 to 13:10

Ultrafast lasers for advanced industrial applications

Eric Mottay - AMPLITUDE SYSTEMES

13:10 to 13:30

Ultrafast laser with high energy and high average power for industrial micromachining: Comparison PS-FS

John López - ALPhANOV Centre Technologique Optique & Lasers

13:30 to 15:00 Lunch Time

Session 2 Automotive Sector Panel

15:00 to 15:20

Resistance spot welding gun meets fiber laser - an alternative to remote welding

Klaus Krastel - IPG Laser GmbH

15:20 to 15:40

Evolution of laser cutting in hot stamping

To be confirmed - PRIMA POWER IBERICA S.L.

15:40 to 16:00

New Technologies of laser treatment applied to hot stamping.

Michael García - GESTAMP R&D

D16:00 to 16:20

Laser welds inspection with EMAT technology for automotive industry

Chakir M'rabet - INNERSPERC Technologies Europe

16:20 to 16:40

Economic operating balance of a laser industrial solution versus resistance welding in the automotive environment

Fernando Fernández - PEUGEOT CITROËN Automóviles España, S.A.

16:40 to 17:00

Laser micro-machining with short and ultrashort pulses in the manufacturing processes: Applications in the mould setting and vehicle sector.

Iban Quintana - Fundacion Tekniker

Session 3 Multi - Sector Panel

15:00 to 15:20

Laser welding of wind turbine transmitting elements

Fidel Zubiri - LORTEK

15:20 to 15:40

Using laser welding technology to manufacture metal equipment for the commercial sector

Ricardo Veira - Hydracorte S.L.

15:40 to 16:00

Potential of laser peening without protective cover on metallic biomaterials

Sandra Barriuso - CENIM - CSIC

16:00 to 16:20

Laser-deposited metal-ceramic protective layers

J. M. Amado - University of A Coruña

16:20 to 16:40

Characterisation of Stellite 6 Industrial Coatings obtained through Laser Cladding

Raimond Franch- Talleres Mecanizados Comas, S.L.U.

16:40 to 17:00

Fast generation of 3D paths for laser cladding repair using a 6 DOF robot.

Javier Lamas - Technology Research Centre (University of A Coruña)

20:00 Visit to a typical winery + dinner

Thursday, 17 November 2011

08:45 a 09:00 Registration

Session 4 New Processes and Others

09:00 a 09:20

Development of mathematical modelling tools for processing complex surfaces using laser

Aitzol Lamikiz - University of País Vasco UPV/EHU

De 09:20 a 09:40

Gauge block interferometric calibration at the university of Vigo/LOMG

Benito Vázquez - University of Vigo

09:40 a 10:00

A proposed method to study geometrical tolerance limits on hybrid laser welding

Javier Lamas - Lulea Tekniska Universitet.

10:00 a 10:20

Irradiation effects in picosecond laser in fibre - reinforced polymer processing

Aldara Pan - Ideko IK4

10:20 a 10:40

Fourier transform analysis in fluid dynamics for industrial cutting processes

Francisco Rodríguez - AIMEN Technological Centre

10:40 a 11:00

Laser processing, synthesis and nanostructuring of materials for photonic technologies

Javier Solís - Laser Processing Group, Instituto de Óptica, CSIC

11:00 a 11:30 **Coffee Break**

11:30 a 12:10

Laser cleaning of metal surfaces: Physical fundamentals and practical applications

Vadim P. Veiko, Dr. Sci., Professor (Guest Speaker)

12:10 a 12:30

The potential of high power lasers in nuclear decommissioning

Chris Allen - TWI

12:30 a 12:50

"IN SITU" XPS studies of laser induced surface cleaning and nitridation of Ti

Ms Ruth Lahoz - Instituto de Ciencia de Materiales de Aragón (CSIC)

12:50 a 13:10

Local laser-processing of silicon for latest generation solar cells

Pablo Romero - AIMEN Technological Centre

13:10 a 13:30

Material contribution in variable-width thin walls

Jordi Figueras - Ideko IK4

13:30 a 13:50

Microprocessing with ultrashort pulse laser: processes and equipment

Ms Estrella Fernández - Instituto Tecnológico de Óptica, Color e Imagen (AIDO)

13:50 a 14:00 **Close**

14:00 a 15:00 **Lunch Time**

AIMEN2011 JORNADAS
ASOCIADOS A LA INNOVACIÓN

Sponsorships:



Collaborator:



Organizers:



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16 - 17 november, 2011
AIMEN Technological Center
O Porriño

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