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ADVANCE PROGRAM LAM® 2014

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ADVANCE PROGRAM



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Laser Additive Manufacturing Solutions!

- Applications from Powder Bed to Powder Fed
- Digital Manufacturing for Aviation, Health Care & Energy
- Real Examples from Job Shops
- Powders
- Service Suppliers
- Additive Manufacturing around the World



LASER ADDITIVE MANUFACTURING
WORKSHOP

March 12-13, 2014

Hilton® Houston North • Houston, TX USA

Presented by:



**Laser Institute
of America**
Laser Applications and Safety

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LAM® General Chair Welcome

Jim Sears, GE Global Research Center, Niskayuna, NY

You spoke, and we listened. For the sixth annual Laser Additive Manufacturing (LAM®) Workshop, to be held again in Houston for the convenience of the oil and gas industry, we followed the advice of prior attendees and shaped a program that gives you from-the-trenches examples of how manufacturers large and small are using LAM to improve their businesses.

While powder-fed processes have grown steadily since LAM's inception six years ago, we add focus this year on the significant progress being made toward industrialization of the powder-bed approach.

Powder-bed technology has really taken off, especially in the aviation and energy sectors – and you will learn exactly how those processes are evolving during the two-day program of LAM 2014. All the major engine and airframe manufacturers have some stake in the field, as do the major players in power generation.

But we don't want to hear just from the big names in the industry, especially since most of the integrators of AM technology are small companies. We have invited service providers to tell their stories and answer the pressing questions: Why did you decide to invest in this technology, and what do you see as your markets?

As always, LAM will keep you abreast of the major developments in additive and digital production of metal-based applications, particularly as the technology advances to larger components, multiple lasers and more robust process monitoring and control. Thank you for joining us at this unique event, which cuts through the hype and lets you connect with the top names in the field and get nuts-and-bolts information on employing LAM most profitably.

...learn about the latest products and meet industry representatives who are working in the laser additive manufacturing field...

Who Should Attend?

- Manufacturing Engineers and Managers
- Process/R&D Engineers
- Applications Engineers
- Construction Engineers
- Precision Parts Specialists
- OEMs
- System Integrators
- Anyone interested in laser cladding, sintering or rapid manufacturing

Industries Represented:

- Oil and Gas Industries
- Aerospace
- Agriculture
- Automotive
- Military
- Powder Production
- Marine
- On- and Off-Highway Transportation
- Power Generation
- Construction/Steel
- Hardfacing
- Bio-Medical
- Tooling, Dies and Molds

PROGRAM COMMITTEE:

Milan Brandt, RMIT University

Jim Cann, Rofin-Sinar, Inc.

Paul Denney, Lincoln Electric Company

John Hunter, Carpenter Powder Products

Thierry Marchione, Caterpillar, Inc.

Tim Morris, EOS of North America, Inc.

Wayne Penn, Alabama Laser

Steve Roy, Hayden Laser Services

Bill Shiner, IPG Photonics Corporation

CONFERENCE AGENDA LAM® 2014

Day 1 Focus: Laser Powder Bed		Wednesday, March 12, 2014 [Day 1]*
Plenary Session		Session Chair: Jim Sears, <i>GE Global Research Center</i> Presenter: Todd Rockstroh, <i>GE Aviation</i>
Session #1: State-of-the-Art in Additive Manufacturing		Session Chair: Richard Grylls, <i>Optomec</i> Presenter: Maximilian Schniedenharn, <i>ILT Aachen</i>
Session #2: International Activities		Session Chair: Ingomar Kelbassa, <i>RWTH Aachen University</i> Presenter: Federico Sciammarella, <i>Northern Illinois University</i> Presenter: Martin Leary, <i>RMIT University</i> Presenter: Ingomar Kelbassa, <i>RWTH Aachen University</i>
Session #3: Industry Overviews		Session Chair: Tim Morris, <i>EOS of North America, Inc.</i> Presenter: Attila Szabo, <i>GE Power & Water</i>
Session #4: Additive Manufacturing Service Suppliers		Session Chair: Henner Schöneborn, <i>SLM Solutions GmbH</i> Presenter: Alexander Bonke, <i>Fruth Innovative Technology</i> Presenter: Bruce Colter, <i>Linear Mold and Engineering</i> Presenter: Eric Faierson, <i>Quad City Manufacturing Laboratory</i>
Day 2 Focus: Laser Powder Fed		Thursday, March 13, 2014 [Day 2]*
Plenary Session		Session Chair: Jim Sears, <i>GE Global Research Center</i> Presenter: David Keicher, <i>Sandia National Laboratories</i>
Session #5: International Activities		Session Chair: Milan Brandt, <i>RMIT University</i> Presenter: Milan Brandt, <i>RMIT University</i> Presenter: Ingomar Kelbassa, <i>RWTH Aachen University</i> Presenter: Frank Brueckner, <i>Fraunhofer IWS</i>
Session #6: Maintenance, Repair and Overhaul [MRO]		Session Chair: Richard P. Martukanitz, <i>ARL, The Penn State University</i> Presenter: Kenneth Meinert, <i>ARL - The Penn State University</i> Presenter: Eric Brown, <i>US Army - Benét Laboratories</i>
Session #7: Applications and Service Suppliers		Session Chair: Thierry Marchione, <i>Caterpillar, Inc.</i> Presenter: Nick Wald, <i>RPM Innovations, Inc.</i> Presenter: Jelmer Brugman, <i>Hornet Laser Cladding</i> Presenter: Douglas Hamre, <i>Apollo-Clad Laser Cladding</i> Presenter: Didier Boisselier, <i>IREPA LASER</i>
Session #8: Powder		Session Chair: John Hunter, <i>Carpenter Powder Products</i> Presenter: Shawn Kelly, <i>EWI</i> Co-Presenters: Ben Fulcher, <i>Harvest Technologies</i> Presenter: Dave Novotnak, <i>Carpenter Powder Products</i> Presenter: Ben Ferrar, <i>LPW Technology</i>

* Program subject to change



LAM® 2014 GENERAL INFORMATION

Hotel Accommodations: Hilton® Houston North Hotel

12400 Greenspoint Drive
Houston, TX 77060
Phone: +1.281.875.2222
Fax: +1.281.875.1652

Reservation: Special discount rates are available for workshop attendees and guests at the **Hilton Houston North Hotel**. Please call +1.281.875.2222 and identify yourself as a LAM Workshop attendee to receive a discounted rate of \$135 per night. For more information, please visit: www.lia.org/conferences/lam/hotel_information.

Hotel reservation deadline: Monday, February 24, 2014.

Contact LIA for all your laser application and safety needs at 1.800.34.LASER, +1.407.380.1553 or www.lia.org.

REGISTER EARLY & SAVE!

Receive early bird pricing & save time onsite by registering today!

There are three ways you can register:

- ① Register online at www.lia.org/lam.
- ② Mail or fax in the registration form.
- ③ Call the LIA Office at +1.407.380.1553.

Registration

All registrations include admission to the Technical Sessions, Networking Luncheons and Exhibitor Reception.

LAM Onsite Registration Desk Hours

Wednesday, March 12th: 7:00am - 5:00pm
Thursday, March 13th: 7:30am - 12:00pm

Exhibit Hours

Wednesday, March 12th: 10:00am - 5:00pm
Thursday, March 13th: 7:30am - 3:30pm

Exhibitor Reception

Wednesday, March 12th: 5:00pm - 6:30pm

Networking Luncheons

Network with your peers and share ideas.
Lunch is included with each registration.

Special Needs

If you have any special needs that we can address to make your participation more enjoyable, please contact LIA by Phone: +1.407.380.1553 or email lam@lia.org

EXHIBITOR RECEPTION: The Exhibitor Reception gives exhibitors and workshop attendees the opportunity to discuss equipment and applications in a relaxed setting. After completion of the technical sessions, come share product ideas with your colleagues and suppliers. Limited space is still available! For more information on participating as an exhibitor, contact Andrew Morrison at amorrison@lia.org or call +1.407.380.1553.

LAM® 2014 Sponsors

The Laser Institute of America would like to thank the following sponsors:

Sponsor Committee Chair: Bill Shiner - IPG Photonics Corporation



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