

Laser welding - a versatile process for the high performance production of polymeric components

Date : March 15-16, 2011

Location : CRF - FIAT Research Centre, Strada Torino 50, Orbassano (TO), Italy

March 15

- 14:00 Laser sources for the laser welding of polymers **Michael Stark, IPG and Jens Meinschien, Limo**
- 14:40 Laser welding of polymers - State of the art and innovative trends Part I **Andrei Boglea, ILT**
- 15:20 Laser welding of polymers - State of the art and innovative trends Part II **Petri Laakso, VTT**
- 16:00 Break
- 16:20 Plastic laser welding systems: state of the art, limitations, and future trends
Ulrich Gubler, Leister and Mikko Laaksonen, Cencorp
- 17:00 The role and use of laser pigments, absorbers and additives **Sybille Glaser, Treffert**
- 17:40 End of first day
- Transfer to Torino and dinner in the evening

March 16

- 08:45 Visit of FIAT plant
- 10:30 Process control methods based on thermography and pyrometry (thermo-cameras and thermal detectors) **Peter Abels, ILT**
- 11:10 Visual monitoring for part tracking and process control **Jose Angel Gutierrez Olabarria, TECNALIA**
- 12:00 Lunch
- 13:30 Signal analysis method in order to develop a monitoring system **Giuseppe D'Angelo, CRF**
- 14:10 Wireless and powerless sensor: technological aspects and indoor communication techniques
Giuseppe D'Angelo, CRF
- 14:50 Break
- 15:20 Laser applications in the automotive industry **Giorgio Pasquettaz, CRF**
- 16:00 Laser applications in the medical industry **Kim Bager, Coloplast**
- 16:40 Final discussion
- 17:30 End of the workshop