

I SPE - PLASTICS e-VOLUTION CONFERENCE

From Bulk Molding to Laser Fabrication

Date: **04 Oct**

Time: **08:30 – 18:00h**

Where: **CC3 Room 3.14**

Description: Integrating Plastics Technology into Additive Manufacturing. The I SPE Plastics e-Volution Conference will offer an ideal platform to host technical discussions on how plastics processors and suppliers can offer solutions to the current additive manufacturing challenges and how 3D printing technology can enrich the manufacturing portfolio of companies. The call for presentations is currently open until June 30th.

Programme

8:30- 9:00 Registration

9:00 -9:30 Keynote Introduction by Dr. Raed Al-Zubi, the President of the Society of Plastics Engineers

09:30-11:00 Materials and Additives for Powder Bed Fusion Technologies

Powder Bed Fusion Technologies begun as the already known Selective Laser Sintering of thermoplastics and by now, the interesting Multijet Fusion technology from the Giant HP has been integrated in this group of technologies. The patents for Selective Laser Sintering have expired and there is an Open SLS initiative where the information for developing Selective Laser Sintering machines are available for all interested. Clearly there is a potential market for those powdered materials even though the technical challenges for their processing remain unsolved to some extent. In this block, several manufacturers of equipment and powdered materials will share their current developments and challenges.

11:00 -11:30 Break for Refreshment

11.30 – 13:00 Materials and Additives for Vat Polymerization, DLP and Material Jetting

The magic world of photosensitive resins is only limited by the imagination of the fortunate chemist and materials developers working on Materials and Additives for Vat Polymerization, DLP and Material Jetting. Coming from pre-polymers of three families of thermoset materials they design chain reactions initiated by a light source to give place to new varieties of materials: Polypropylene-like, ABS-Like, Flexible materials, Wax-Like, Calcinable, Biocompatible, even Voxel to Voxel controlled materials are giving rise to the so called Digital Materials. In this block, we will know some of the most important players of this market that will share their current developments. Also, the main drawback of this family of materials: Aging, will be analyzed and discussed, as well as the OPEN SLA Platform.

13.00- 14:00 Lunch and Networking

14.00- 15:30 Thermoplastics: Current Implementation at Industry and Applications

The real market for 3D Printed parts is still a mystery for many industrials. In this block, important players of the 3D printing value chain will share their success experience about the use of commodities and performance materials as well as the current cases of Applications already implemented at Industry. They will also present the challenges that remain unsolved from the technical point of view, giving rise to ideas and technical discussions. Finally, the target markets that will drive the growth of 3D Printed thermoplastics will be discussed.

15.30- 16:00 Afternoon Refreshments

16.00- 17:30 Photosensitive Resins: Current Implementation at Industry and Applications

Stereolithography was the first 3D printing method ever developed at 1986. Until now it remains as the Champion of the methods in one aspect: Resolution. It ranges from 20 microns at the more affordable technologies and it is approaching the nanometric scale at more recent femto-second laser induced two photon polymerization technologies. This competitive advantage has been the driver of its growth until now and justifies the 50% market share of photosensitive resins among all 3D printing materials during the last years. In this block, important players of the 3D printing value chain will share their success experience about the current cases of applications already implemented at Industry.

17.30-18:00 Summary of the day

18.00 – Networking - Drink Reception for All attendees