

I SPE - PLASTICS e-VOLUTION CONFERENCE

From Extrusion to Fused Filament Fabrication

Date: **05 Oct**

Time: **09:00 – 17:30h**

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

09.00 -09.30 Keynote Speech

09.30- 11.00 The Wide Market of Filaments

Fused Filament Fabrication is the most promising technology to drive massive implementation of 3D printing. Since the advent of the RepRap Project at 2011 the number of installed 3D Printers has been increasingly growing as their price decreases and the 3D printing awareness goes massive. Since this technology can be described as a kind of micro extrusion, virtually any thermoplastic-based resin can be processed. In this block, the main players of the market present their families of products, ranging from commodities to high performance thermoplastics like Polyether– Ether-Ketone (PEEK).

11.00-11.30 Break for Refreshment & Networking

11.30-13.00 Additives and Compounding for Fused Filament Fabrication

3D Printing (FFF) as a new processing technology shows its own quality and reliability requirements. One of them is the anisotropy exhibited by the 3D printed parts and other intrinsic behavior to monitor of this technology is the interlayer adhesion. In this block the main additives providers, extruder manufacturers, custom materials manufacturers and final users will share their experience with the use of this new family of materials that can also be known as digital materials.

13.00-14.00 Lunch and Networking

14.00-15.30 Fused Filament Fabrication: Reliability, Bulk Testing and Simulation

Much has been said about 3D Printing and Additive Manufacturing Standardization. A specific ASTM committee (F42) has been working about this subject and still the fruits are to come.

Last update: 26/06/2017

Reliability, standardization of testing methods and computer simulation should go hand by hand in development to ensure an increasing reliability of 3D Printing as an industrial manufacturing method. In this block, some important research works will be presented as well as an overview of the most common methods currently used for simulation and quality assurance at Fused Filament Fabrication

15.30-16.00 Afternoon Refreshments

16.00-17.30 Composites for FFF: Advanced Manufacturing Applications

Graphene, Carbon fiber, Kevlar, Glass beads, Glass fiber are some of the used reinforcement materials for current composites applied at advanced manufacturing: Aerospace, Automotive, Sports and Leisure applications. Those materials are also being introduced to Fused Filament Fabrication. In this block some current material manufacturers, machine manufacturers and final users will share their vision of the current development and challenges of this important segment of materials.

17.30 Summary of the day