

# CHEMICAL ENGINEERING & 3D PRINTING

7 September 2018  
Paris - France

## COME & PARTICIPATE

Come and participate in this novel event: 1-day dedicated to scientific development and to 'hot' topics within the boundaries of Chemical Engineering.

## DEVELOP your NETWORK

Network with researchers, industrialists and suppliers.

## REGISTER on line

Registration fees : 180 €  
Registration fees for SFGP members : 150 €  
*Lunch and breaks included*

[Click here to register](http://www.sfgp.asso.fr)

## CONTACT ORGANIZER

Martine.Poux@ensiacet.fr

## LISTEN & INTERACT

Listen to the invited speakers and interact in discussions related to 3D printing, a new chemical engineering challenge.

## EASY ACCESS LOCATION

Espace Bellechasse  
18, rue de Bellechasse  
75007 Paris - France

Metro - Line12 stop: Solferino  
Rer C - stop: Musée d'Orsay  
Bus: N°24-63-68-69-73-83-84-94

- 3D printing offers a new and large field of exciting applications to the process industries.

- Chemical engineering is involved at multiple levels as the printer could be considered as a mini-plant, central to the preparation of raw materials, which require special properties; the design of the printer (considering energy, pollutants, recycle, gas emission capture...); in the determination of the optimal operating conditions.

- 3D printing offers the possibility of manufacturing products and objects (*eq. heat exchanger, miniaturized reactors, impellers, packing elements...*) with innovative and special designs that cannot be easily made with current manufacturing techniques.

All of these aspects will be dealt with during the 1st European Forum on New Technologies.

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## PROGRAM

8:45 • 9:00	<b>Welcome</b>	Hermann Feise, EFCE President, François Nicol, SFGP President
9:00 • 9:15	<b>Introduction</b>	J-Marc Le Lann, past-EFCE Scientific President, INP-ENSIACET, Toulouse - France
9:15 • 9:35	<b>Chemical Engineering for the conception of 3D printers</b>	<b>Powder Bed Additive Manufacturing and Factory of the Future</b> Frédéric Verlon EOS France - Electro Optical Systems S.A.S, Champagne-Au-Mont-d'Or - France
9:35 • 9:55		<b>Safety issues pertaining to additive manufacturing: general considerations and early learnings from the PALOMA project</b> Guy Marlair INERIS, Verneuil-en-Halatte - France
9:55 • 10:15		To be confirmed
10:15 • 10:30		<b>Discussion</b> on Chemical Engineering for the conception of 3D printers
10:30 • 11:00		<i>Coffee break</i>
11:00 • 11:20	<b>Chemical Engineering for the end-use of additive manufactured objects</b>	<b>PRINTCR3DIT EU project: Process Intensification through Adaptable Catalytic Reactors made by 3D Printing</b> Carlos Grande SINTEF Industry, Oslo - Norway
11:20 • 11:40		<b>Innovative reactors for H<sub>2</sub>-SMR process intensification</b> Raphaël Faure Air Liquide - Research & Development, Jouy en Josas – France
11:40 • 12:00		<b>3D Printed microfluidics: development and challenges</b> Armando A.V. Razonale University of Pisa, Dip. di Ingegneria Civile e Industriale, Pisa - Italy
12:00 • 12:20		<b>Discussion</b> on Chemical Engineering for the end-use of manufactured objects
12:30 • 13:45		<i>Lunch</i>
14:00 • 14:20	<b>Chemical Engineering for manufactured products in pharmaceuticals</b>	<b>Personalised 3D Printed Medicines: from bench to market</b> Dolores R. Serrano School of Pharmacy, Universidad Complutense de Madrid, Madrid - Spain
14:20 • 14:40		<b>The use of 3D printing in pharmaceutical product and process development</b> Frantisek Stepanek Department of Chemical Engineering, University of Chemistry and Technology, Prague - Czech Republic
14:40 • 15:00		<b>Discussion</b> on Chemical Engineering for manufactured products in pharmaceuticals
15:00 • 15:20	<b>Chem Eng for the formulation of materials</b>	<b>Concepts of particle mechanics in SLS of non-metallic materials</b> Massimo Poletto Department of Industrial Engineering, University of Salerno, Fisciano - Italy
15:20 • 16:00	<b>Chem Eng for the implementation of 3D printers into the 4.0 factory</b>	<b>Advanced materials and applications in additive manufacturing</b> Gülây Bozoklu-Claudel Stratasys
16:00 • 16:20		<b>Software Solutions for Digital AM Process Chains</b> Omar Fergani, Christof Kiener Siemens, Berlin – Germany
16:20 • 16:50		<b>Discussion</b> on Chemical Engineering for implementation of 3D printers into the 4.0 factory
16:50 • 17:30		<i>Cocktail</i>