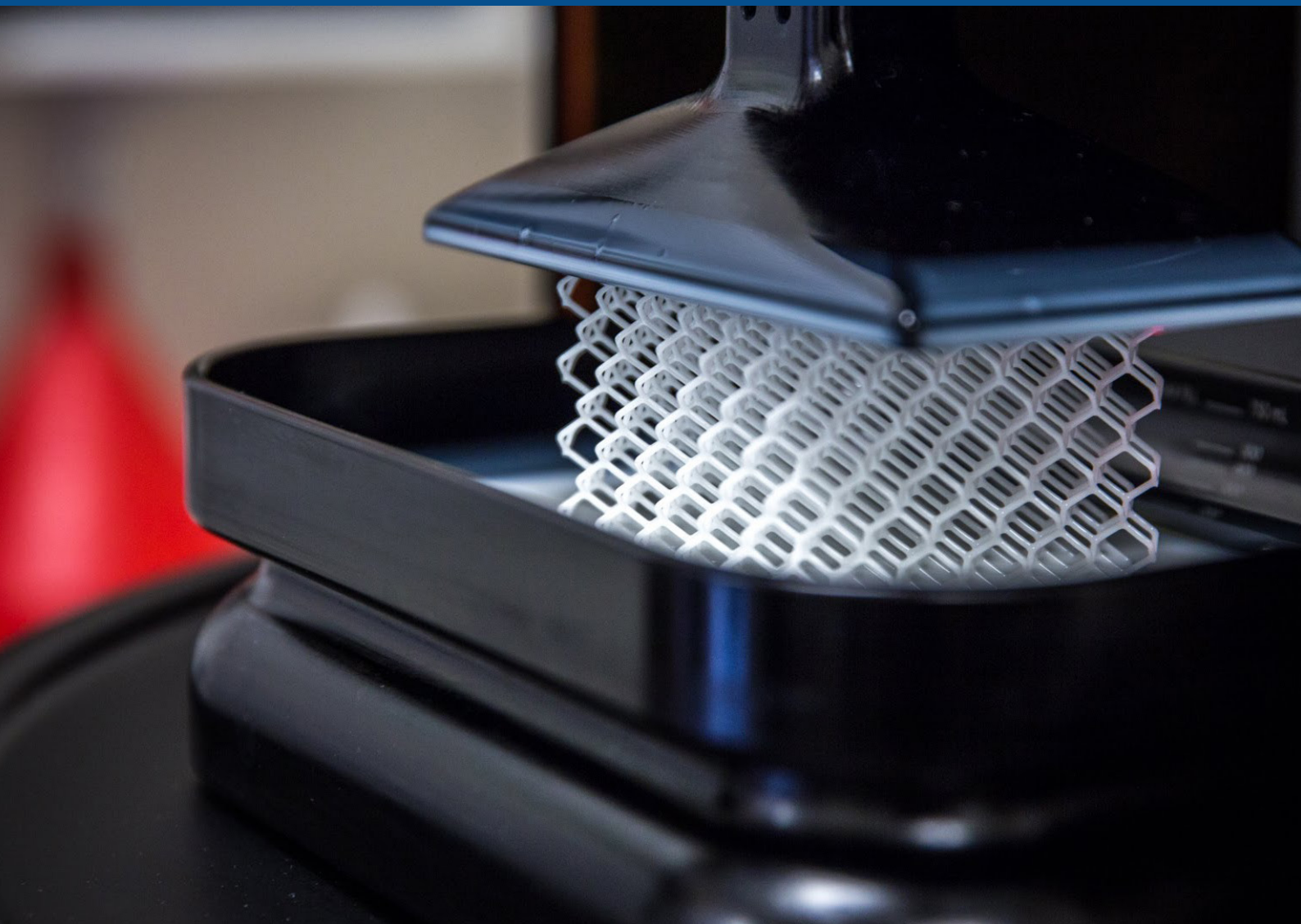


2<sup>nd</sup> International Conference on

# 3D PRINTING TECHNOLOGY AND INNOVATIONS

March 19-20, 2018 | London, UK



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conference**series.com** 09:00-09:25

# Opening Ceremony

## Keynote Forum

- 09:25-09:30 **Introduction**  
**Title: What is inside AM fabricated parts? the nature of residual stresses and shape distortion**  
 09:30-10:10 **Alexander V Manzhirov**, Ishlinsky Institute for Problems in Mechanics - RAS, Russia
- 10:10-10:50 **Title: Iodonium based photoinitiators: Towards simplified photocurable formulations**  
**Frederic Dumur**, Aix Marseille University, France

## Group photo

Networking and Refreshments Break 10:50-11:05 @ Breakout Area

- 11:05-11:45 **Title: Robocasting of dense ceramic parts**  
**Gremillard Laurent**, MATEIS (UMR CNRS 5510), France

**Sessions: Advances in 3D Printing & Additive Manufacturing Technology | Innovations in 3D Printing | Design for 3D Printing | 3D Printing Materials | Benefits of 3D Printing and Technology | Future Technology in 3D Printing | Challenges in 3D Printing | 3D printing in Biomaterials | Clinical applications of 3D Printing Innovations | Applications of 3D Printing in healthcare & medicine**  
**Session Chair: Alexander V. Manzhirov**, Ishlinsky Institute for Problems in Mechanics - RAS, Russia  
**Session Co-Chair: Lin Li**, The University of Manchester, UK

## Session Introduction

- 11:45-12:05 **Title: Cost reduction activity**  
**Yasunori Ota**, Value Engineering Trainer, Japan
- 12:05-12:25 **Title: 3D printer applications for developing robotics**  
**Ikuo Yamamoto**, Nagasaki University, Japan
- 12:25-12:45 **Title: Functionally graded materials obtained by additive manufacturing technology**  
**Devi K Kalla**, Metropolitan State University of Denver, USA

## Lunch Break 12:45-13:40 @ RBG

- 13:40-14:00 **Title: The fabrication of grinding wheels with 3-dimensional controllable abrasives arrangement using Stereolithography Apparatus method**  
**Xipeng Xu**, Huaqiao University, China
- 14:00-14:20 **Title: How far we can go to print a jet engine? The beauty of a 3D printed micro jet engine**  
**Pinlian Han**, South University Of Science And Technology, China
- 14:20-14:40 **Title: Yield stress agent for silicone 3D printing**  
**Edwin Joffrey Courtial**, ICBMS, Claude Bernard University Lyon 1, France
- 14:40-15:00 **Title: Research progress in additive manufacturing of ceramics and some related applications**  
**Jia Min Wu**, Huazhong University of Science and Technology, China
- 15:00-15:20 **Title: Two-photon polymerization: A femtosecond laser-based technology for additive manufacturing in life sciences and microoptics**  
**Sonke Steenhusen**, Fraunhofer Institute for Silicate Research ISC, Germany
- 15:20-15:40 **Title: 3D Printing and nanocomposite gels as a new challenge in tissue repair and regeneration**  
**Teresa Russo**, National Research Council, Italy
- 15:40-16:00 **Title: Additive manufacturing of metal-ceramic metamaterials for RF communications**  
**Daniel S Engstrom**, Loughborough University, UK

## Networking and Refreshments Break 16:00-16:15@ Breakout Area

- 16:15-16:35** Title: **Biologically active and mechanically improved composite core-shell hydrogel for 3D bioprinting**  
J Yang, University of Nottingham, UK
- 16:35-16:55** Title: **Design principles for structural components and functional devices**  
Frank Schubert, Chemnitz University of Technology, Germany
- 16:55-17:15** Title: **Discrete element simulation of radial heat transfer in powder bed of 3D printing**  
Yuanqiang Tan, Huaqiao University, China
- 17:15-17:35** Title: **Implementation of entry-level bioprinters for biotechnological applications**  
Josefine Morgenstern, Karlsruhe Institute of Technology (KIT), Germany
- 17:35-17:55** Title: **Modern methods of additive manufacturing for biomedical products**  
Patrycja Szymczyk, Wroclaw University of Science & Technology, Poland
- 17:55-18:15** Title: **The Application of 3D printing in micro AD biogas technology**  
Guy Blanch, LEAP Micro AD Ltd, UK

## Panel Discussion

## Day 2 March 20, 2018

### Hall - Bleriot 1

### Keynote Forum

- 08:30-09:10** Title: **Heat and mass flows in laser metal deposition additive manufacturing**  
Lin Li, The University of Manchester, UK
- 09:10-09:50** Title: **New generation of the cutting tools when the AM (Additive Manufacturing) technology is used**  
Miroslav Zetek, University of West Bohemia, Czech Republic

**Sessions: 3D Printing Technology Impact on Manufacturing Industry | 3D Image Processing and Visualization | 3D printing technology and innovations | Metal 3D Printing | Polymers in 3d printing | 3D Bio printing | Lasers in 3D Printing in Manufacturing Industry | 3D Printing of Supply Chain Management | Tissue and Organ Printing**

**Session Chair: Lin Li, The University of Manchester, UK**

**Session Co-Chair: Alexander V Manzhurov, Ishlinsky Institute for Problems in Mechanics - RAS, Russia**

## Session Introduction

- 09:50-10:10** Title: **Advanced materials and technologies in aviation industry**  
Tomasz Kurzynowski, Wroclaw University of Science & Technology, Poland
- 10:10-10:30** Title: **Selective laser melting of a new medium manganese steel alloy for automotive industry**  
Bernd Schob, Chemnitz University of Technology, Germany
- 10:30-10:50** Title: **Selective laser melting of a new tailored aluminium alloy (SilmaAl® AlSi7Mg0.6) for aerospace industry**  
Camilo Zopp, Chemnitz University of Technology, Germany
- 10:50-11:10** Title: **How our noses could change if we lived on Mars Transhumanist speculations**  
Marta Flisykowska, Academy of Fine Arts, Poland

## Networking and Refreshments Break 11:10-11:20 @ Breakout Area

### Special Session on Multiscale Additive Manufacturing 11:20-13:30

- 11:20-12:00** Title: **Multiscale additive manufacturing**  
Geoffrey Mitchell, CDRSP-IPL, Portugal
- 12:00-12:30** Title: **Multiscale additive manufacturing for tissue engineering**  
Nuno Alves, CDRSP-IPL, Portugal
- 12:30-13:00** Title: **Multiscale additive manufacturing for aerospace and tooling applications**  
Artur Mateus, CDRSP-IPL, Portugal

**13:00-13:30** Title: **Biomanufacturing at multiple scales**  
Wenhui Song, UCL Centre for Nanotechnology and Regenerative Medicine, UK

**Lunch Break 13:30-14:10 @ RBG**

**YRF Presentations**

**14:10-14:25** Title: **Investigation on the effect of processing parameters on 3D printed structures**  
Chao Zhu, University of Manchester, UK

**14:25-14:40** Title: **Sandwich panel with lattice core for aircraft anti-ice system made by Selective Laser Melting**  
Sara Varetto, Polytechnic University of Turin, Italy

**14:40-14:55** Title: **Investigation of the mechanical properties of Hot-Melt extruded filaments for pharmaceutical applications of FDM**  
Jehad Nasereddin, University of East Anglia, UK

**14:55-15:10** Title: **Cell characterization methods for use in 3D bioprinting process development**  
Sarah Gretzinger, Karlsruhe Institute of Technology (KIT), Germany

**15:10-15:25** Title: **Micro-structures fabricated by SLA 3D printing to enhance the electrochemical effects of supercapacitors**  
Jiun-Hong Liu, Chung Yuan Christian University, Taiwan

**15:25-15:40** Title: **Freeform-FDM process development using natural fibre reinforced biopolymers**  
Mohamed Aburaia, University of Applied Sciences Technikum Wien, Austria

**Networking and Refreshments Break 15:40-15:50 @ Breakout Area**

**15:50-16:05** Title: **Shape matters: Benefits of 3D printing for the design of packed-bed reactors**  
Jennie von Seckendorff, Technical University of Munich, Germany

**16:05-16:20** Title: **Using digital image correlation in assessment of anisotropy of strength properties of 3D printed specimens**  
Katarzyna Czwakiel, Cracow University of Technology, Poland

**16:20-16:35** Title: **3D printed cellulose nanocrystals based hydrogel scaffolds for biomedical applications**  
Sahar Sultan, Stockholm University, Sweden

**16:35-16:50** Title: **An investigation into the quasi-static response of 316L gyroid structures manufactured using selective laser melting**  
Shuai Ma, Chongqing University, China

**Poster Presentation 16:50-17:50 @ Foyer**

**Poster Judge: Alexander V Manzhirou, Ishlinsky Institute for Problems in Mechanics - RAS, Russia**

**3DP-01** Title: **The development of computer aided tools for the formulation design of FDM 3D printed polypills**  
Salman Rahman, University of East Anglia, UK

**3DP-02** Title: **Platinum-based metallopolymers for 3d printing applications**  
Sam Hsien-Yi Hsu, City University of Hong Kong, Hong Kong

**3DP-03** Title: **Additive manufacturing for heterogeneous catalysis: New challenges in material and process development**  
Theresa Ludwig, Technical University of Munich, Germany

**3DP-04** Title: **Finite element simulation of sonotrode for ultrasonic additive manufacturing on dynamic performance**  
Changcai Cui, Huaqiao University, China

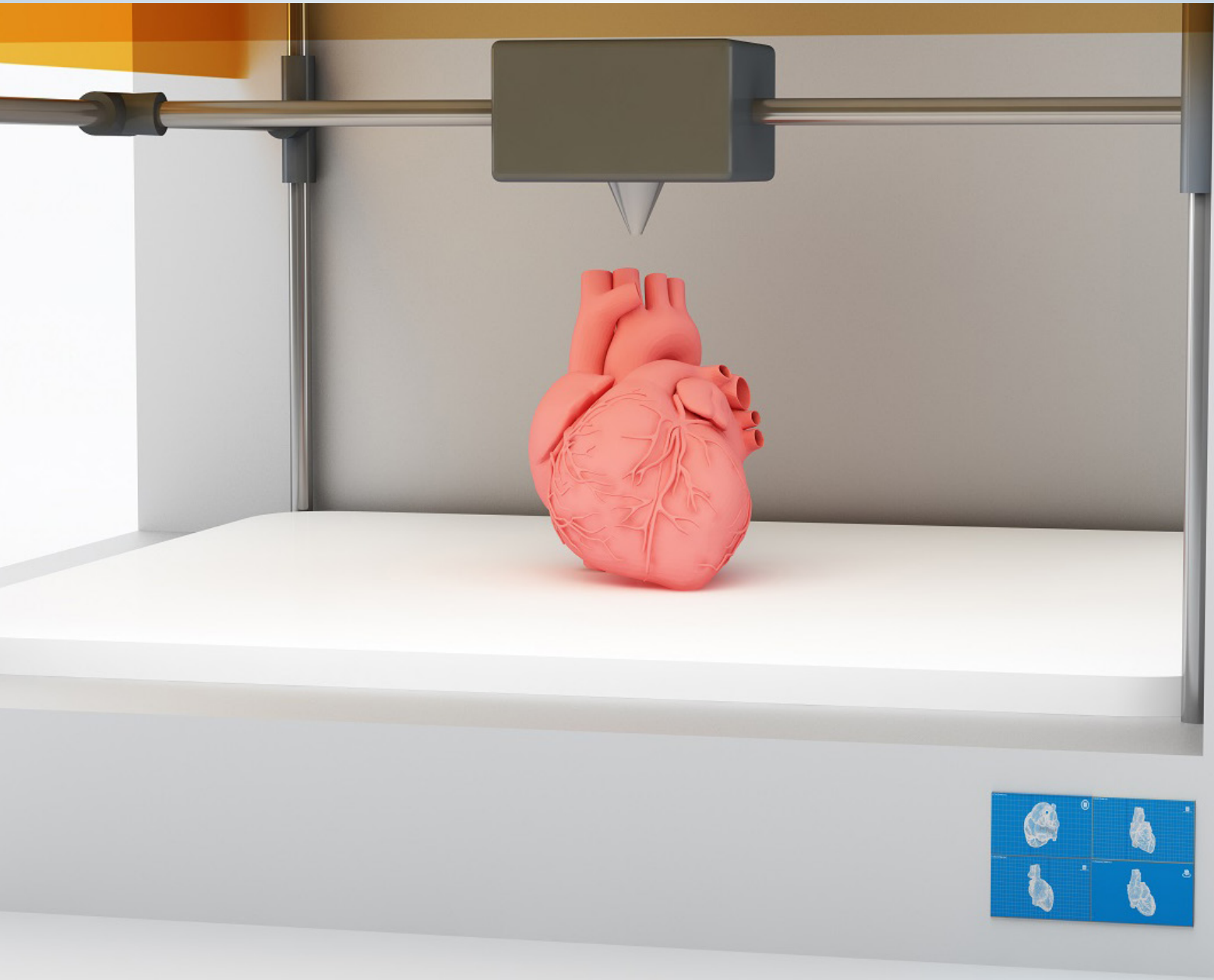
**3DP-05** Title: **Protecting diamond abrasive from been corroded in the vitrified bond wheel manufactured by 3D printing**  
Jing Lu, Huaqiao University, China

**3DP-06** Title: **3D Printing to biodiesel production by photocatalysis**  
Lorena Hernandez Afonso, University of La Laguna, Spain

- 3DP-07** Title: **SLA-3D printed electrolytes for solid oxide fuel cells**  
Lorena Hernandez Afonso, University of La Laguna, Spain
- 3DP-08** Title: **Distribution of the metal powder particles in the dispenser platform its influence on the printing quality**  
Ivana Zetkova, University of West Bohemia, Czech Republic
- 3DP-09** Title: **High resolution DEM building with SAR interferometry and high resolution optical image**  
Omar Hadj Sahraoui, Algerian Space Agency, Algeria

**Panel Discussion**

**Awards & Closing Ceremony 17:50-18:00**



**Bookmark your dates**

3<sup>rd</sup> International Conference on

# 3D Printing Technology and Innovations

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