

Fabrication Additive

Bulletin de Veille - 10 avril 2019

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A LA UNE

L'impression 3 D change d'échelle - Cahier technique

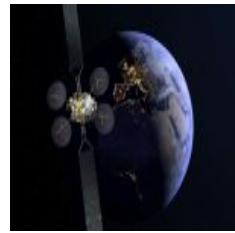
27/03/2019 - intranet.portail.cnes.fr

L'impression 3D des pièces polymères s'est démocratisée, mais reste encore limitée à des réalisations de petites dimensions. Des travaux sont en cours pour adapter ce procédé afin de produire notamment des pièces de structures en composites.

AÉROSPATIAL - FABRICATION ADDITIVE

Thales Alenia Space takes 3D printing into series production for satellites

22/03/2019 - 3dprintingindustry.com



The Spacebus NEO platform at Thales Alenia Space is a line of all-electric geostationary telecommunications satellites. The Eutelsat KONNECT is the first satellite to make use of the new Spacebus NEO platform. Based on the successful installation of the KONNECT wheel brackets Alenia Space says "Other Spacebus Neo platforms will also feature organically designed 3D printed parts in the near future."

ESA's new 3D printer will defy build volume restraints as well as gravity

20/03/2019 - 3dprintingindustry.com



In a recent interview for RTÉ Dr. Sean Lyons, Dean of the Faculty of Engineering and Informatics at AIT, Dr. Ugo Lafont and Dr. Advent Makaya, ESA IMPERIAL Project coordinators, have revealed further details about the joint undertaking. Vote for your Aerospace Application of the Year and more in the 2019 3D Printing Industry Awards. For more of the latest additive manufacturing news and research developments subscribe to the free 3D Printing Industry newsletter, like us on Facebook and follow us on Twitter.

Relativity Space "completely 3D printed" rocket to send Telesat satellites into LEO

08/04/2019 - 3dprintingindustry.com



According to the agreement, the 3D printed Terran 1 spacecraft by Relativity Space will be used to send small satellites, made by Telesat, into the lower earth orbit (LEO). Tim Ellis, CEO and co-founder of Relativity Space said, "We are thrilled to partner with Telesat, a renowned industry leader, and support launches for their innovative LEO constellation with our adaptable and completely 3D printed Terran 1 rocket."

Aerojet Rocketdyne Acquires 3D Material Technologies and Expands Metal Additive Manufacturing Capabilities

05/04/2019 - www.engineering.com

(Aerojet Rocketdyne completed a hot-fire test of its MPS-120 CubeSat High-Impulse Adaptable Modular Propulsion System (CHAMPS), the first 3D-printed hydrazine integrated propulsion system, in 2014. Aerojet

- Auburn receives \$5.2M NASA contract to develop 3D printing techniques to boost rocket performance



Rocketdyne Holdings, Inc., the American rocket and missile propulsion manufacturer, has recently announced that it has acquired 3D Material Technologies (3DMT) from ARC Group Worldwide, Inc. 3DMT is a provider of additive manufacturing services to the aerospace, defense, medical and industrial markets.

NASA announces top 3 finalists for 3D printed Mars habitats challenge

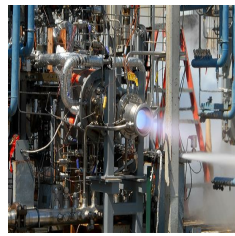
02/04/2019 - www.3ders.org



Finalists were awarded a share of the \$100,000 prize purse and include SEArch+/Apis Cor, out of New York who took first place, Zopherus from Rogers, Arkansas who came in second, and Mars Incubator out of New Have Connecticut who took the third spot. SEArch+/Apis Cor won the top place as well as \$33,954.11. Team Zopherus won the second place and \$33,422.01. The virtual design from team Mars Incubator won the third place and \$32,623.88.

NASA creates special copper alloy for 3D printing rocket parts

22/03/2019 - www.3ders.org

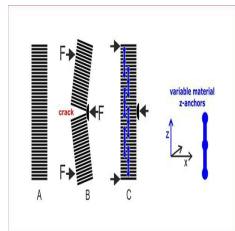


NASA researchers with the Glenn Research Center (GRC) and Marshall Space Flight Center (MSFC) teamed up to develop GRCop-42, a copper-based high strength alloy with high conductivity. The GRCop-42's 3D printing process and parameters were developed on a ConceptLaser M2 3D printer, which was also used in the GRCop-84 development and had proven itself 'copper friendly' with its inert glovebox and build chamber. Posted in 3D Printing Materials.

TECHNOLOGIES - FABRICATION ADDITIVE

Strengthening the connection between layers of FDM 3D printed objects with z-anchors

21/03/2019 - www.3ders.org



We recently wrote about several projects that aim to increase the strength of 3D printed components. "Stratasys invented the FDM 3D printer, but the task to increase the strength in Z-axis direction has been challenging since then. Layered object (A) is not very stable and can (B) break along the along the layers when forces (F) act. "I am thinking of partners from the FDM printer industry, sinter printer manufacturers (SLS), software companies offering slicing apps or manufacturers of special dosing pumps. Posted in 3D Printing Technology.

Aurora Labs MCP technology offers high-speed titanium and highly-dense aluminium parts

08/04/2019 - www.metal-am.com



Aurora manufactured these titanium hexagonal shapes in 20 minutes using its Multi-layer Concurrent Printing process (Courtesy Aurora Labs). The company's Rapid Manufacturing Technology (RMT) production process is reportedly capable of achieving print speeds of up to 113 kg/day using its Multi-level Concurrent Printing system.

4D printed smart metamaterials can be stiff as wood or soft as sponge

29/03/2019 - www.3ders.org



Rutgers University-New Brunswick engineers have created flexible, lightweight 4D printed materials with potential applications in morphing airplane or drone wings, soft robotics and tiny implantable biomedical devices. Time is the fourth dimension that allows them to morph into a new shape. They can be temporarily transformed into any deformed shape and then returned to their original shape on demand when heated.

MATÉRIAUX - FABRICATION ADDITIVE

Solvay collaborates with Aerosint to develop high-performance polymers for SLS multi-material 3D printing

22/03/2019 - 3dprintingindustry.com



The multi-material 3D printing technology operates using a selective powder deposition system, which enables total control over the 3D printing material placement in powder bed fusion printing processes. Its portfolio of high-performance polymers for 3D printing includes neat PEEK, 10% carbon fibre-reinforced PEEK, and Radel polyphenylsulfone (PPSU), as well as medical grade KetaSpire, a 10% carbon fiber reinforced PEEK material, and the Radel PPSU.

Desktop Metal livre son premier système de production pour l'impression 3D métallique en série

09/04/2019 - www.primante3d.com



Start-up montante de la fabrication additive métallique, Desktop Metal révèle avoir livré son premier système de production « Production System. L'heureux destinataire, une société gardée anonyme classée au Fortune 500, pourra bénéficier des dernières mises à jour de son imprimante 3D métal destinée à la fabrication de pièces en série. La vitesse d'impression initiale a quant à elle été optimisée de 50 %, portant désormais le débit moyen de l'imprimante à 12 000 cm³ / heure, soit plus de 60 kg de métal par heure.

Un système d'impression 3D SLS Made in Belgium pour les polymères hautes performances

22/03/2019 - www.primante3d.com



Les polymères haute performance de Solvay, tels que le polyphénylène sulfure (PPS) et le PEEK KetaSpire de Ryton, pourraient potentiellement ouvrir la voie à l'introduction de nouvelles applications exigeantes en impression 3D SLS. L'un d'entre eux consiste à développer et optimiser entièrement les poudres de polymères FA pour usage à haute température, parallèlement aux matériaux non fusibles, dans un processus de dépôt multi-poudre », explique Brian Alexander, Responsable Produit & Application de Fabrication additive au sein de la GBU Specialty Polymers de Solvay.

MARKET / BUSINESS - FABRICATION ADDITIVE

Siemens and EDAG intensify cooperation on industrial Additive Manufacturing

03/04/2019 - www.metal-am.com



From the left: Dr Martin Hillebrecht, Head of Innovation EDAG Engineering Group, and Rainer Wittich, CEO EDAG Production Solutions meet Dr Wolfgang Heuring, CEO Business Unit Motion Control at Siemens, and Dr Karsten Heuser, VP Additive Manufacturing at Siemens, at the NextGenSpaceframe 2.0 Automotive use case, Hannover Messe 2019 (Courtesy Siemens AG).

Markforged establishes European 3D printing headquarters in Dublin

04/04/2019 - 3dprintingindustry.com

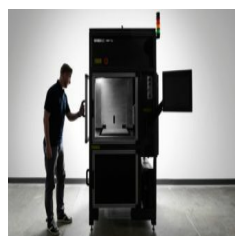


Wasting no time with its expansion plans funded by March's \$82 million Series D round, 3D printer manufacturer Markforged has opened its first office outside of the U.S. (Sample parts made on the Markforged Metal X 3D printer. Other 3D printing business to receive the IDA's support include DePuy Synthes' €36 million Innovation Centre, and Irish Manufacturing

Research (IMR), which was recently involved in a 3D printed medical implant project with Renishaw and nTopology.

Stratasys lance sa première imprimante 3D SLA commerciale

01/04/2019 - www.primante3d.com



Toujours très scruté par l'ensemble de la profession, le leader mondial de l'impression 3D Stratasys a fait sensation en dévoilant sa première imprimante 3D commerciale SLA, la V650 Flex. Déjà 75 000 heures de travail et 150 000 pièces produites avec la V650 Flex Imprimante 3D SLA V650 Flex. La configuration en cuve ouverte de l'imprimante 3D V650 Flex est compatible avec les résines Somos DSM commercialisées par Stratasys, dont les suivantes :. Dénommée F120 , il s'agit d'une imprimante 3D FDM compacte visant à rendre plus accessible l'impression 3D industrielle.

Auburn receives \$5.2M NASA contract to develop 3D printing techniques to boost rocket performance

03/04/2019 - www.3ders.org



Auburn University's Samuel Ginn College of Engineering announced that NASA has awarded a three-year, \$5.2 million contract to its National Center for Additive Manufacturing Excellence, or NCAME, to develop additive manufacturing processes and techniques to boost liquid rocket engines performance. achieve its space exploration goals," said Christopher B. Roberts, dean of Auburn's Samuel Ginn College of Engineering.

Service Information Numérique - Pôle IES

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