Fabrication Additive

Bulletin de Veille - 19 octobre 2018

SOMMAIRE

A LA UNE

XJet ouvre son centre de fabrication additive métal et céramique

17/10/2018 - www.3dnatives.com

XJet a conçu deux modèles d’imprimantes 3D, la Carmel 1400 et la Carmel 700 qui se distinguent par leur taille ; la 1400 offre un volume d’impression de 1 400 cm2, d’où son nom. Un centre de fabrication additive pour faire évoluer la technologie XJet a investi $10 millions dans son nouveau centre de fabrication additive dans lequel il fait tourner 9 machines – Dror Danai, CBO de l’entreprise explique que chacune est composée de 24 têtes d’impression qui possèdent 512 buses. (xjet) Les pièces imprimées en 3D offrent un niveau de détails élevé (crédits photo : 3Dnatives).

GENERALITES

Lockheed Martin enters $5.8 million contract with U.S Navy to accelerate 3D printing automation

02/10/2018 - 3dprintingindustry.com

“Machines should monitor and make adjustments on their own during printing to ensure that they create the right material properties during production. Prior to this, exploring the innovations of additive manufacturing software, Lockheed Martin invested $100 million into the New York-based AM software company nToplology to help streamline its design and manufacturing processes.

Recreating the Tech Boom of the 20th Century with Advanced Manufacturing

16/10/2018 - www.engineering.com

As powder materials like nylon typically cost between USD$75 to $100 per kilogram, this discovery could result in significant cost savings in part production. Photonics has proven to dramatically improve the performance of electronic integrated circuits as well as reducing size, weight and power consumption of circuitry. Manufacturing USA Annual Report, Fiscal Year 2017 (The America Makes 3D Veterans Bootcamp program provides training in additive manufacturing and 3D printing to veterans in Los Angeles, Pittsburgh, San Antonio and San Francisco...

AEROSPATIAL

NASA tests new antibacterial 3D printing filament

08/10/2018 - 3dprintingindustry.com

A new research paper '3D printed antibacterial prostheses' published in Applied Sciences journal investigates, "the development of 3D printed prostheses using antibacterial filaments" and the resulting "antibacterial properties of the 3D printed prostheses. With an eye on long-term missions to Mars, NASA is keen address health challenges faced by astronauts spending considerable time in space. The study addresses use of advanced antibacterial 3D printing material for customized medical applications during NASA's space missions.

NASA and DARPA "next generation" hypersonic project moving forward with 3D printing

11/10/2018 - 3dprintingindustry.com

A report delivered by the DoD to congress earlier this year describes the importance of additive manufacturing and its role within a digitally based manufacturing environment, also referred to as the Digital Factory vision. According to the report, "Additive manufacturing (3D printing) and fully digital-capable equipment are creating new and more efficient manufacturing capabilities that in some cases lower operation costs by 50% and reduce cycle times by margins greater than 70%.

Boeing imprime une pièce monobloc de plus 3 mètres pour son programme 777X

13/10/2018 - www.primante3d.com

Le projet basé sur un nouveau procédé appelé VLP (Vertical Layer Print / impression de couches verticales) démontre une nouvelle fois la capacité de l'impression 3D à produire des pièces d'outillage de grande qualité pour l'industrie aérospatiale. On apprend que la pièce en question a été imprimée sur l'imprimante 3D à grande échelle LSAM (Large Scale Additive Manufacturing) de Thermwood , la même que celle utilisée par Local Motors pour son mini-bus.

Russian firm is preparing to send duplicate 3D Bioprinter to ISS after Soyuz MS-10 failure

16/10/2018 - www.3ders.org

The Russian 3D Bioprinting Solutions company is preparing to send a duplicate 3D bioprinter for experiments at the International Space Station (ISS) in the near future, after a Soyuz spacecraft crashed due to a malfunction during liftoff. Earlier last week, Youssef Hesuani, the company's co-founder and managing partner told Sputnik that the unique 3D magnetic bioprinter, called Organ.Aut, would be delivered by the Soyuz MS-10 spacecraft to the ISS for the world's first experiment on printing fabric of organs in space.

GE Additive brings 3D printing to help South Korea's aerospace industry soar higher

17/10/2018 - 3dprintingindustry.com

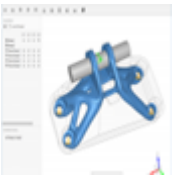
GE Additive has signed a memorandum of understanding (MoU) to develop additive manufacturing capabilities in the Korean aerospace industry. – Make a part: printing location, support structure recommendation, infrastructure for high volume 3D printing, certification. Image via GE Additive) Step-by-step additive manufacturing through GE Additive's AddWorks.

It was also reported that German 3D printer manufacturer, EOS and Z3DFAB , a South Korean metal 3D printing specialist, will build an AM facility in South Korea , to promote 3D printing services.

CONCEPTION

Frustum launches GENERATE, manufacturing-ready generative design platform

03/10/2018 - 3dprintingindustry.com



The 2018 3D Printing Industry Awards nominated software startup Frustum Inc. has launched its GENERATE design platform for Windows operating systems. Elsewhere in the industry Boston-headquartered 3D printer manufacturer Desktop Metal is working on LiveParts its own solution for generative design. For all the latest 3D software releases subscribe to the 3D Printing Industry newsletter , and join us on Facebook and Twitter. Start a new career or find additive manufacturing experts, visit 3D Printing Jobs now.

The Chunker “chunk-based slicer” proposed for cobot 3D printing

16/10/2018 - 3dprintingindustry.com

“The chunk-based slicing algorithm is critical to the success of cooperative 3D printing, which may enable an autonomous factory equipped with a swarm of autonomous mobile 3D printers and mobile robots for autonomous manufacturing and assembly. “The results show great promise to a new direction of 3D printing that may provide a path to make 3D printing a mainstream manufacturing technology with autonomous printing robots.

TECHNOLOGIES

Une imprimante 3D gigantesque dévoilée par Ingersoll et ORNL

03/10/2018 - www.primante3d.com

Parce que tout va très vite dans le monde de l’impression 3D, l’imprimante 3D géante de Titomic et ses 9 mètres de long, est déjà relégué au second rang par une machine plus gigantesque encore ! Le laboratoire ONRL à qui l’on doit déjà l’imprimante 3D géante BAAM et la LSAM , et le spécialiste des machines outils grande échelle Ingersoll Machine Tools, ont développé ensemble une gamme d’imprimantes 3D grand format baptisée WHAM (pour Wide and High Additive Manufacturing). WHAM : une imprimante 3D combinant fabrication additive et soustractive.

Multi Jet Fusion Increases Efficiencies

11/10/2018 - www.stratasysdirect.com

Multi Jet Fusion is a new 3D printing technology , offering you more possibilities for complex, lower-cost parts. Whether used in serial production for single parts or batch manufacturing by shipsets of multiple part numbers, Multi Jet Fusion offers a faster, more cost-effective process for 3D printed parts. Manufacturing cycle-time for Multi Jet Fusion is driven by the height of the particular batch of parts being printed.

Coolrec and Refil launch HIPS 3D printer filament made from recycled fridges

17/10/2018 - www.3ders.org

It is slightly lighter than ABS, making it a great choice for parts that can benefit from the lighter weight, such as toys, appliances, product packaging and cases. “Whereas Coolrec is all about the recycling of electrical and electronic equipment, Refil transforms the acquired plastics into 3D printing filament and makes it available around the world," says Casper van der Meer, ceo Refil. Using innovative techniques, Coolrec is able to recover the plastics from the discarded fridges and reuse it in the manufacturing process of new products, such as 3D printing filament.

3D Systems lance une nouvelle imprimante 3D pour le moulage à cire perdue

17/10/2018 - www.primante3d.com

Selon une analyse comparative des coûts réalisée par Mueller Additive Manufacturing Solutions, l’outil de modèle d’une came mécanique coûte 6050 $, tandis que le modèle équivalent produit par impression 3D coûte moins de 25 $, le temps de fabrication correspondant uniquement au temps nécessaire pour imprimer le modèle. Les modèles sont ensuite imprimés dans le matériau 100 % cire VisiJet® M2 ICast qui offre les mêmes caractéristiques de fonte et de brûlage que les cires de moulage standard.

MATERIAUX

ULTEM 9085 CG is an ideal thermoplastic suited for projects that require the following:

05/10/2018 - www.stratasysdirect.com

High strength-to-weight ratio: The ULTEM 9085 CG material has improved mechanical properties with upwards of 39% increase to tensile strength and upwards of 65% increase to elongation at break in the Z orientation compared to standard ULTEM 9085. Fused Deposition Modeling Resources (mahle) 3D Printing Puts Fixtures into Gear Automotive parts supplier gets up to speed on FDM’s capabilities for fixtures. .

Des scientifiques doublent la solidité de l’aluminium imprimé en 3D

16/10/2018 - www.3dnatives.com

En Russie, des scientifiques de l’Université Nationale de Science et Technologie (NUST MISIS) ont présenté leurs travaux de recherche sur une méthode de production d’une alumine à ultra haute pureté (UHPA) capable de doubler la résistance des composites en aluminium imprimés en 3D. Le professeur Alexander Gromov affirme : “Nous avons développé une technologie pour renforcer les composites à matrice en aluminium imprimés en 3D et nous avons obtenu des modificateurs innovants en brûlant des poudres d’aluminium.

Sinterit introduces first PA11 for desktop SLS 3D printing

17/10/2018 - 3dprintingindustry.com

A nylon-based high performance polymer, PA11 Onyx is reportedly the first of its kind for use on desktop SLS 3D printers. (Heard-wearing combat glasses case 3D printed in a single piece using PA11 Onyx. Photo via Sinterit) Heard-wearing combat glasses case 3D printed in a single piece using PA11 Onyx. The nitrogen chamber on the Sinterit Lisa Pro provides the ideal

environment for 3D printing PA 11 Onyx. For all the latest materials releases subscribe to the 3D Printing Industry newsletter , follow us on Twitter and like us on Facebook.

MARKET / BUSINESS

Researchers 3D print objects that can communicate without electronics

11/10/2018 - 3dprintingindustry.com

Scientists at the University of Washington (UW), have developed self-tracking 3D printed devices that can provide analytics without using batteries or electronics. To show this, the team integrated the bi-directional backscatter designs within existing CAD models, in particular, with a 3D printed e-NABLE prosthetic arm. For more news on the latest trends in the 3D printing industry, subscribe to our 3D printing newsletter. Featured image shows a 3D printed e-NABLE prosthetic hand.

MPA to launch on-port additive manufacturing facility in Singapore

17/10/2018 - 3dprintingindustry.com

The first MoU is signed with Port Singapore Authority International Pte Ltd (PSA), one of the largest port operators in the world, Singapore's National Additive Manufacturing Innovation Cluster (NAMIC), and metal additive specialist 3D MetalForge Pte Ltd .. Continuing progress to make Singapore the center of sea-fairing 3D printed spare parts the MPA's first MoU with PSA, NAMIC, and 3D MetalForge, will focus on establishing a new 3D printing facility at Pasir Panjang Terminal, the most advanced terminal of the PSA.

EVENEMENTS / ETUDES

Celebrating Manufacturing Day 2018

05/10/2018 - www.engineering.com

On Manufacturing Day, annually coordinated on the first Friday in October, manufacturers across North America open their doors to build awareness and excitement for manufacturing careers and technology. The factory of today, NAM argues, is technologically advanced: 3D printing , robotics , and AR/VR are at work. The average annual salary of manufacturing workers is $77,000, and 90 percent of manufacturing workers have health benefits. Manufacturing Day Events To browse the full list of registered events, visit the Manufacturing Day events page.

Formnext 2018 3D printing premieres to see in Frankfurt next month

12/10/2018 - 3dprintingindustry.com

In the coming weeks 3D Printing Industry will be taking a look at what to expect from this year's show. For the first time worldwide, complex and resilient functional parts can be produced from three components in hard/soft combination with support structure using this machine for industrial additive manufacturing – that's unique in the industry. The 3D Printing Industry team will of course be at Formnext, so if you'd like to meet please get in contact through the usual channels. Have you signed up to our free 3D Printing Industry newsletter yet?

REGLEMENTATION / BREVETS

American Bureau of Shipping publishes guidance for DED, PBF and binder jet 3D printing

02/10/2018 - 3dprintingindustry.com

The American Bureau of Shipping (ABS) has published Guidance Notes on Additive Manufacturing for marine and offshore industries. (The ABS Additive Manufacturing Qualification Process.) The ABS Additive Manufacturing Qualification Process. Photo via the ABS.Keep updated with the latest in additive standards – subscribe to the 3D Printing Industry newsletter , and join us on Facebook and Twitter. Start a new career or find additive manufacturing experts, visit 3D Printing Jobs now

Desktop Metal and Markforged reach agreement over industrial espionage claims

03/10/2018 - 3dprintingindustry.com

The case first came to the attention of 3D Printing Industry in March 2018. Photo via Desktop Metal) Desktop Metal's patented 3D printed support removal. Formlabs , maker of the Fuse 1 and the Form series of 3D printers, settled an SLA licensing agreement with South Carolina's 3D Systems. For all of the latest legal and regulatory updates in 3D printing subscribe to the 3D Printing Industry newsletter , and join us on Facebook and Twitter. Start a new career or find additive manufacturing experts, visit 3D Printing Jobs now. ..

Creaform defends 3D scanning patent invalidation allegation in China

16/10/2018 - 3dprintingindustry.com

A trademark product, the HandySCAN 3D is one of Creaform's handeheld scanners, capable of attaining 3D images at up to 0.040 mm (0.0016 in. The wider 3D printing industry has also seen its fair share of intellectual property (IP) infringement cases of late. The alleged infringement and industrial espionage between Bostonian 3D printer manufacturers Desktop Metal and Markforged was recently settled on undisclosed terms. For more of the latest IP and technology updates subscribe to the 3D Printing Industry newsletter , follow us on Twitter , and like us on Facebook.