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SINGAPORE HIGHLIGHTS



Singapore First National Standard for Aerospace 3D Printing

SS709/2024, Singapore's first national standard for aerospace additive manufacturing using Filament Layer Manufacturing (FLM) was launched at the inter airport Southeast Asia 2026 event. This standard will provide a comprehensive FLM framework to produce aerospace-grade components. Read more.

<u>Deep-Sea Art Installation: 3D-Printed</u> <u>Cubes at the Ocean's Deepest Point</u>

NTU's advanced 3D printing technology enabled the deployment of deep-sea art installation made up of three metal cube by artist Lakshmi Mohanbabu. The art is placed 7 km beneath the Mariana Trench in a disaster-tribute installation engineered to withstand crushing pressure and corrosive deep-sea conditions. Read more.



NUS Unveils Al-Driven 3D Bioprinted Gum

NUS researchers have developed an Alenhanced 3D bioprinting method to fabricate personalised gum tissue grafts, reducing the need for invasive procedures. The approach improves efficiency, patient outcomes, and offers broader potential in regenerative medicine. Read more.

INDUSTRY HIGHLIGHTS



Adidas Launches 3D-Printed Climacool Slip-Ons Globally

Adidas launched its entirely new 3D-printed Climacool slip-ons globally in May. Featuring a lightweight, breathable lattice structure, this marks Adidas's first full additively manufactured footwear beyond limited midsole applications. Read more.

UC Berkeley Introduces Desktop 3D Printable Humanoid Robot

UC Berkeley unveiled the Berkeley Humanoid Lite, an open-source, 30-printable humanoid robot costing under \$5,000. Built with 30-printed cycloidal gearboxes and trained using reinforcement learning, the robot can walk, hop and has remote control capabilities. Read more.

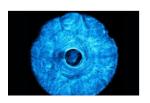


3DCeram launched Al-Powered CERIA for Advanced Ceramic 3D Printing

3DCeram launched CERIA, an Al-driven software suite that boosts yield and efficiency in industrial ceramic 3D printing. CERIA can optimize part design while enabling real time print adjustments, transforming large scale ceramic AM for sectors like aerospace and biomedicine. Read more

MIT Researchers Grow Bioinspired Muscles Using 3D-Printed Stamp

MIT researchers developed a simple 3Dprinted stamping method to guide artificial muscle growth with micro-scale precision. This approach enables multidirectional contraction, advancing potential applications in biohybrid robotics, regenerative medicine and muscle disease research by mimickina





Researchers Advance Medical 3D Printing

Researchers from EPFL and the University of Southern Denmark developed HoloVAM, a holographic 3D printing method, 20X more light-efficient than conventional volumetric light projections. The team fabricated detailed millimetre-scale objects in under 60 seconds, offering transformative potential for medical bioprinting applications. Read more

Pratt & Whitney Debuts DED Repair for GTF Engines

Pratt & Whitney introduced a Directed Energy Deposition (DED) repair method for critical geared turbofan (GTF) engines components, cutting repair time by over 60% and improving turnaround time. With plans to scale and deploy across its global MRO network, this process is expected to recover \$100M worth of parts within the next five years. Read more.



MIT Develops First Fully 3D-Printed Electrospray Engine for Cube Sats

MIT researchers developed the first fully 3Dprinted electrospray engine, using an electric field to generate high-speed jets of small droplets for spacecraft propulsion. The lowcost, modular engine enables rapid production, in-orbit manufacturing, and realtime mission adaptability for space applications. Read more.

GE's Lightweight 3D-Printed Catalyst Engine Gains FAA Approval

GE's Catalyst turboprop engine received Federal Aviation Regulation Part 33 certification, a significant milestone for airworthiness and a crucial step into operating the engine. With nearly a third of 3D-printed internal components, the engine consumes 18% less fuel and delivers 10% higher cruise speeds. Read more.





Titomic and DNV Partner to Certify Cold Spray AM for Marine and Offshore Applications

Titomic announced a partnership with DNV to certify its advanced coating and repair technologies for the oil & gas, and maritime sectors. The collaboration also targets NORSOK M-501 and other global certification bodies to validate its cold spray additive manufacturing technology for high-performance, corrosion-resistant applications in the marine and offshore industry. Read more

UPCOMING EVENTS



The NAMIC Global AM Summit returns for its 14th edition this yearl Themed 'Unlocking Agility and Scale with Dightalisation and Additive Manufacturing', this year's summit will feature topics on how additive manufacturing and dightal technologies are transforming industries, enabling scalable production, and driving circular economy manufacturing. Click here to find out more.

4DMDA 2025 will showcase the latest developments and technologies in smart materials, metamaterials, intelligent designs, modelling, additive manufacturing, and 4D printing, it seeks to address current concerns in the further development of 30/4D printed devices and provides a forum for internationally recognised experts and young scientists to present their work. Register here





This conference will convene global industry leaders, engineers, designers, and investors to discuss the future of these technologies, sharing insights and exploring new business opportunities. It will also feature high-profile keynote speakers, thought-provoking panel discussions, and hands-on workshops designed to push the boundaries of what is oossible in manufacturing in the

Middle East. Register <u>here</u>.

Future of AM is Singapore's first international academic focused AM conference. It will bring together leading research scientists, experts. and practitioners from all over the world to address and explore topics in additive manufacturing (AM), including but not limited to: fundamental research in AM, new techniques and materials in AM, computational and AI model in process and materials and more. Register here.





With the theme "From Imagination to Creation: The 3D Printing Revolution," the 4th International Conference on 3D Printing and Additive Manufacturing is a global platform to explore breakthrough innovations and redefine the possibilities of additive manufacturing. Connect with industry leaders, researchers, and innovators at the event. Register here.

Explore the future of additive manufacturing at ITAP 2025—Asia Pacific's leading platform for industrial transformation. From rapid prototyping to sustainable large-scale production, discover breakthrough AM innovations across key sectors including aerospace, healthcare, and more. Register



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