



For Immediate Release

ASME Announces AM Innovation Award Winners

Best-in-class 3D printing products selected by expert judges and attendees of all-new ASME virtual AM Tech Forum

NEW YORK (June 22, 2021) – The American Society of Mechanical Engineers (ASME) has recognized “best-in-class” additive manufacturing (AM) technologies with its first [AM Innovation Awards](#), showcased at all-new [AM Tech Forum](#) on June 17. ASME hosted the event to help engineers, product designers, manufacturers, and technology professionals stay up to speed with rapid developments in 3D printing. The interactive virtual event featured nearly 40 new product and service demonstrations and connected participants with experts and solutions to their AM challenges. Sponsors include Carbon, GE Additive, six startup companies, and [many more](#).

The winners reflect key needs and trends in additive manufacturing, including the use of artificial intelligence for design and processing efficiency, the continuing need for more materials, particularly those with functionality for production, and ongoing effort to increase the speed of AM technologies. AM Innovation Award winners were announced in five categories, along with a “Customer Choice Award” selected solely by attendees.

The winners are:

Machines & Processes – [Nexa3D](#): “Transforming AM”

The company’s NXE 400 machine can efficiently and quickly produce parts with SL-like details and thermoplastic-grade mechanical properties. Combined with the NexaX 2.0 software, which can optimize CAD models for AM by maximizing each part’s mechanical performance and consistency, reducing production cycles from days to minutes, and minimizing material usage and waste, the complete Nexa3D system provides significant productivity and performance features.

Materials – [3D Systems](#): “Advancing the Revolution in Photopolymer 3D Printing Performance”

The company’s Figure 4 3D printing solution includes platform, software, and materials. Ultra-fast print speeds, batch-run processing, and part quality comparable to injection molding are now combined with material chemistry that ensures printed parts remain functional and stable for prolonged durations in any environment. Materials include a variety of resins for different applications.

Software – [Intellegens](#): “Deep Learning for Additive Manufacturing”

The company’s Alchemite™ software uses unique deep learning algorithms first developed at the University of Cambridge to help AM teams extract value from their data, optimizing build parameters and ensuring more repeatable AM processes, while greatly reducing the need for testing. The software allows users to find which process parameters are really controlling target properties, identify optimal process parameters and conditions, gain a quantitative understanding of uncertainties to focus on the most reliable routes, and predict the likely performance of candidate processes.

Measurement & Analysis – [Sigma Labs](#): “Quality Assurance with PrintRite 3D”

The latest release of the company’s PrintRite3D monitoring solution includes new features that make it easier to find anomalies in the process data, as well as production fleet optionality with machine-to-machine qualifications, and multi-laser system support.

Startup – [Intellegens](#): “Deep Learning for Additive Manufacturing”

Intellegens was founded in 2017 by a team of interdisciplinary and multicultural PhDs, physicists, data and computer scientists, software developers and industry professionals with a mission to help clients accelerate innovation by using unique deep learning solutions to extract valuable information from existing processes and data. Their technology originated from the work of Gareth Conduit, Ph.D., and collaborators at the Cavendish Laboratory, University of Cambridge. This work has been further developed to build a unique Artificial Intelligence (AI) toolset that can train deep neural networks from sparse or noisy data through their first commercial product, Alchemite™.

Customer Choice – [AM-Flow](#): “Regaining Control of Your Production with AM Post Processing Automation”

AM-Flow’s stack of software integrates with AM production hardware to provide building blocks for end-to-end automation of the 3D-printing process. Combining 3D-shape identification, industrial machine vision and AI software, and MES software, AM-Flow delivers scalability, workflow efficiency, tracking and tracing, certifiable production process, automatic data entry, automatic counting, and an Industry 4.0 Digital thread.



Attendees and a judging panel of AM industry experts in aerospace, automotive, energy, medical devices, point-of-care (hospitals), heavy equipment, consumer & sporting goods, as well as news media scored technology demonstrations across multiple criteria and provided valuable feedback. Judges rated based on

key factors including: impact on speed, cost, and quality; range of potential use across applications and industries; level of innovation—from an improvement to a game changer; and likelihood of purchase.

Product demonstrations from the winners and other exhibitors can be viewed on-demand through August 17 at: <https://amtechforum.vfairs.com/> (Free registration required to access.)

“It’s exciting to see all the work the AM community is doing to accelerate applications,” says Debbie Holton, ASME’s managing director of industry events. “We’re seeing more efficiency, improved quality, and new machines, materials, and tools to help engineers and manufacturers in a variety of industries better plan and design innovative new products.”

Additive manufacturing/3D printing technologies are rapidly developing, as companies apply the technology to produce end-use parts, functional prototypes, and more in industries from aerospace to consumer goods. Although the pandemic is believed to have caused a considerable slowdown in the industry, overall AM products and services worldwide grew by 7.5% to \$12.758 billion in 2020, compared to 21.2% in 2019, according to [Wohlers Associates, Inc.](#)

ASME has formed strategic alliances with [America Makes](#) and the [Association for Manufacturing Technology](#) to present the AM Tech Forum and offer other AM resources.

Visit <https://event.asme.org/AMtechforum/awards> for more information.

About ASME

ASME helps the global engineering community develop solutions to real world challenges. Founded in 1880 as the American Society of Mechanical Engineers, ASME is a not-for-profit professional organization that enables collaboration, knowledge sharing and skill development across all engineering disciplines, while promoting the vital role of the engineer in society. ASME codes and standards, publications, conferences, continuing education, and professional development programs provide a foundation for advancing technical knowledge and a safer world. ASME recently formed the International Society of Interdisciplinary Engineers (ISIE) LLC, a new for-profit subsidiary to house business ventures that will bring new and innovative products, services, and technologies to the engineering community. For more information, visit www.asme.org.



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