



**Rapid.Tech 3D**  
**14 to 16 May 2024**  
**Messe Erfurt**

**Accelerating additive manufacturing with artificial intelligence and automation**  
**Efficient software processes are central topic at the Software, AI & Design forum on**  
**15 May 2024 at Rapid.Tech 3D**

*(Erfurt, 26 March 2024). Software is key to the introduction and performance of additive manufacturing (AM). Artificial intelligence (AI) and automation are playing an increasing role in the field, as the Software, AI & Design forum at Rapid.Tech 3D on 15 May 2024 will demonstrate.*

The forum will focus on software solutions for users of additive manufacturing. “We’ll be looking at the entire chain, from design and production through to legal issues for data utilisation. It’s all about efficient software processes, data management and data consistency between the individual stages of the process. Right now, creating and handling data still involves a lot of manual work. AI and automation can help us achieve our goals more quickly,” says Martin Gasch. The Business Development Manager at Siemens Digital Industries Software is overseeing the content of the forum. He has been a member of the Rapid.Tech 3D Advisory Board since November 2023, but he is also a seasoned participant in the AM event. “Rapid.Tech 3D is known for its technical expertise and the high calibre of its presentations. That’s what sets it apart from other events, and why I’m delighted to be contributing my knowledge and experience.”

**Rapid equipment construction with algorithm-driven design**

Automated design solutions offer a way to avoid the resource-intensive manual 3D modelling in conventional CAD software. Dr Damien Buchbinder, Product Manager at trinckle 3D GmbH, demonstrates how algorithm-driven design can be used to construct equipment in less than 15 minutes. In addition to speed, this innovation has two further advantages: it democratises equipment design by enabling people other than CAD experts to get involved, and it enables companies to build scalable and integrated workflows. The software can also be seamlessly integrated into the production environment, allowing AM to be used immediately for equipment manufacture.

**Advantages of simulation-based design optimisation**

Sebastian Stahn, Senior Application Engineer at Ansys Germany GmbH, highlights the advantages of simulation-based design optimisation. Taking the example of a bellcrank for a Formula Student race car, he demonstrates how its weight can be reduced by 30 per cent while still fulfilling all strength and performance requirements. Sophisticated simulation software is instrumental in the rapid delivery of a successful first print.

**AMAIZE ensures error-free 3D print data**

Berlin start-up 1000 Kelvin GmbH has developed its first AI software: AMAIZE. Co-founder and CTO Dr Katharina Eissing presents this predictive optimisation platform. The software analyses scanning strategies and can predict and correct printing problems before they occur. It creates error-free, ready-to-use 3D print files for complex parts, thus eliminating time-consuming trial-and-error cycles. AMAIZE can be seamlessly integrated into machine systems.



### Advanced software for LPBF processes

US company Dyndrite offers the Dyndrite LPBF Pro software specifically for metal 3D printing using laser melting (LPBF). It is designed to provide users with previously unattainable build capabilities, accelerated build rates and significant cost savings. Michael Head, Application Engineer at Dyndrite, will showcase the product, which can be used to automate key steps in industrial 3D printing, allowing users to develop their own IP and thus protect their intellectual property.

### Legal aspects of value creation using data and AI

In his talk “Value creation using data and artificial intelligence – the legal framework”, Marco Müller-ter Jung from Grant Thornton Rechtsanwalts-gesellschaft discusses the legal issues that generally need to be considered in the additive chain. He will focus particularly on the requirements arising from current European regulations on data and AI.

### Specialist conference with eight industry and science forums

Alongside the Software, AI and Design trade forum, other forums at the Rapid.Tech 3D specialist conference will provide insights into the latest AM developments and applications. On the first day of the event (14 May 2024), the AM4industry format organised by the Additive Manufacturing Working Group of the German mechanical and plant engineering association VDMA will welcome visitors for the first time. The established Aerospace forum is also set to take place that day, as is the AM Science forum, which will continue into day two (15 May 2024). On day two, the Chemical and Process Engineering forum, presented by DECHEMA, and the Innovations in AM forum will also run, with Innovations in AM continuing on day three (16 May 2024). The Mobility and AM Science by Fraunhofer forums will also take place on this final day.

### About Rapid.Tech 3D:

Over the course of two decades, Rapid.Tech 3D – with its centrepiece specialist conference – has become one of Central Europe’s leading AM trade events. This year’s event will be held from 14 to 16 May at Messe Erfurt.

More at: [www.rapidtech-3d.de/en](http://www.rapidtech-3d.de/en)

### About Messe Erfurt GmbH:

Central Germany’s largest trade show and conference venue, Messe Erfurt has established itself as a forum for businesses, scientists, doctors, trade unions and many other institutions. Every year, it hosts over 220 events, conventions, conferences, trade fairs, exhibitions, corporate events and concerts, attracting over 650,000 visitors.

More at: [www.messe-erfurt.de/en/](http://www.messe-erfurt.de/en/)

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