# Presseinformation
press information

**Rapid.Tech 3D**
**5-7 May 2020**
**Messe Erfurt**

## 3D printing inside the operating theatre – world's first system with integrated cleanroom to feature at the Rapid.Tech 3D specialist conference in Erfurt
## The new EU medical device regulation and its impact on additive manufacturing will also be discussed at the Medical, Dental & Orthopaedic Technology forum on 5 May 2020

*(Erfurt, 10 March 2020).* The new EU medical device regulation is currently the hot topic in the medical technology sector. It came into effect on 25 May 2017, but its transition period is set to end on 26 May this year. From this date, manufacturers will be obliged to follow the current rules and regulations. "This includes manufacturers that employ additive techniques in their production. There are still many questions as to how the new regulation will apply to products that are mostly made as one-offs for a specific patient. This is why the topic will kick off the Medical, Dental & Orthopaedic Technology Forum at Rapid.Tech 3D in Erfurt on 5 May 2020," explains Ralf Schumacher, Head of Digital Surgical Solutions at the Swiss company Medartis AG. He is overseeing the content and structure of the forum.

Dr Özlem Weiss will speak about the impact of the new EU medical device regulation on products made using additive techniques. Dr Weiss is the managing director of Expertants GmbH Schwalbach/Frankfurt, a service provider specialising in development and regulatory services for medical products and additive manufacturing. She also coaches and assesses start-ups in the life sciences and additive manufacturing industries.

Other talks in the forum will explore the latest developments in technology, materials and methods associated with additive manufacturing in medicine. Andreas Velten, CEO of IFA3D Medical Solutions GmbH Berlin, will outline his company's workflow for scans or medical imaging, such as CT, MRI or CBCT scans. He will cover the steps involved from digital processing through to printing the final product, as well as the software solutions and materials that the company utilises. IFA3D specialises in manufacturing custom respiratory masks and facial and hand prostheses.

Kumovis GmbH is bringing additive manufacturing right into the operating theatre with its development of the world's first 3D printer to feature an integrated cleanroom. Martin Herzmann, Business Development Manager at the Munich-based start-up, will present the company's new system for manufacturing high-performance and bioresorbable polymers, which lowers the entry barrier for 3D printing in hospitals considerably.

Lydia Mika, a researcher at the Technische Universität Dresden, will demonstrate how digital and additive technologies can be used to customise orthopaedic products for individual patients even faster, based on the example of lower leg prostheses. The manufacturing process for these products is normally very time-consuming, requiring highly precise work from an orthopaedic technician. Often the final product is not sufficiently replicable. Lydia Mika will present processes for designing and engineering moving elements to improve the production and reproducibility of custom lower leg prostheses using additive manufacturing. Some of the adaptations are made using neural networks.

The time factor also plays a key role in Professor Jörg Matthes' research project at Mittweida University of Applied Sciences. The scientists there are developing a new process chain for manufacturing custom

orthopaedic helmets, which are used in areas such as the treatment of skull deformations in small children. The manual, time-consuming process of using plaster casts is still commonplace in this field. By using 3D skull scans, modelling the helmet on a computer and printing it with a new high-speed 3D printer, the manufacturing time can be cut from several days to less than 20 hours.

Hiroaki Okamoto of the Japanese company Okamoto Chemical Industry Co. Ltd. will discuss new developments in materials for dental technology. He will present 3D printer resins for dental aligners and other dental products. The materials and processes deployed improve the product's properties and robustness, and avoid the yellowing often seen in traditional devices.

The Rapid.Tech 3D specialist conference will also explore sector-specific developments in additive manufacturing in the Automotive & Mobility, Aviation, and Tool, Model & Mould Making Forums. The AM News and Design & New Technologies Forums will reflect the increasing range of applications for additive technologies, while the Science Forum and the Software, Processes & Design Forum remain firm fixtures on the conference programme.

Rapid.Tech 3D will be playing host to providers and users of additive manufacturing technology from 5 to 7 May 2020, bringing them together in an even more tightly knit and specialised community under the banner of "Understanding.Seeing.Experiencing." Alongside the specialist conference, companies and research institutions will present innovative products and technologies at the specialist exhibition and showcase. These will be accompanied by various networking formats that will provide forums for exchanging ideas face to face and launching projects.

Some 4,500 visitors from 27 countries travelled to Erfurt for the 2019 event to attend the specialist conference and see for themselves the presentations by 180 exhibitors from twelve countries.

Further information and tickets are available at: www.rapidtech-3d.com

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