Rapid.Tech + FabCon 3.D
25 - 27 June 2019
Messe Erfurt

3D printing belongs in the classroom
Education forum premieres at Rapid.Tech + FabCon 3.D on 26 June 2019
Event points the way to the early incorporation of digital technologies into teaching

(Erfurt, 31th May 2019). Mathis Jung can lay claim to being almost certainly the youngest speaker in the 16-year history of Rapid.Tech + FabCon 3.D in Erfurt. The 15-year-old, a pupil at the Konrad-Adenauer-Gymnasium in Westerburg, Rhineland-Palatinate, will address the Education forum on 26 June 2019 to explain how he discovered 3D design and 3D printing at the age of 12, and uses the technologies for one of his hobbies. The young technology enthusiast is a member of his local youth fire service. To enable fire service personnel to identify people in smoke-filled rooms more easily and to keep their hands free to save lives, a helmet-mounted thermal imaging camera makes absolute sense – and an idea Mathis came up with. To produce the mount that this requires, he decided to produce the design data using a 3D scan of a helmet and to carry out the development work with the aid of a 3D-printed model.

Mathis Jung found a backer for his project in Michael Eichmann. The pupil and the manager from 3D-printing technology experts Stratasys met at the Night of Technology at Koblenz Chamber of Trade and have been in active contact ever since. "Sadly, it is still the exception for school pupils in Germany to get involved in 3D printing. However, there is a need for methodical early engagement with these technologies as they will become a requirement in many job descriptions, if they aren't already. By including the Education forum as a new addition in the supporting programme for Rapid.Tech + FabCon 3.D, we wanted to raise awareness of this issue and to present practical avenues for integrating it into the curriculum," says Stratasys manager Michael Eichmann, who is co-chair of the advisory board of Rapid.Tech + FabCon 3.D, alongside Professor Gerd Witt of the University of Duisberg-Essen.

In addition to Stratasys and MakerBot, the forum is partnered by MedienLB – Medien für Lehrpläne und Bildungsstandards GmbH, based in Starnberg. The company, led by Dr Anita Stangl, creates innovative interactive equipment such as digital learning tools for teaching in schools. During the public section of the Education forum on the afternoon of 26 June 2019, Dr Stangl and Michael Eichmann will demonstrate how it is now possible to integrate 3D design and 3D printing into teaching as part of the curriculum, laying the foundations for vocational training. To this end, a number of partners from industry and education have together created Digital Genial, a solution comprising hardware, software, instructional films and textbooks. Teaching additive manufacturing (AM) is already established at higher education institutions. Professor Gerd Witt will report on the current requirements, examples and implementation concepts in the university sector and in industry. How Baden-Württemberg is incorporating 3D technologies into digital education infrastructures is the subject of the talk by Imri Mühlhuber of the State Institute for School Development.

MedienLB will take advantage of the morning of 26 June to host a professional development event exclusively for the 500-plus media centres in Germany. These centres enable teaching staff to borrow digital media for use in schools, free of charge. The non-public section of the event in Erfurt will focus on two future issues for digital education: digital schoolbooks and interactive workbooks. "Digital schoolbooks can be updated and corrected at any time, and can be used anywhere, immediately – regardless of the device used," says Dr Stangl, naming just some of the advantages of the digital book. Digital and interactive workbooks using H5P software make it possible to create modules for didactic learning tools and to embed them in existing websites.

With the new Education forum, Rapid.Tech + FabCon 3.D are presenting practical proposals and approaches for training and education in 3D technologies. "We are purposefully continuing the dialogue between business and education that began in 2017 and contributing to the integration 3D printing as a continuous theme from school to vocational education and degree programmes, through to further education in all stages of learning and life," says Michael Kynast, CEO of Messe Erfurt GmbH, summing up the trade fair and exhibition organiser's activities in this area.

The Education forum is part of the supporting programme for Rapid.Tech + FabCon 3.D, alongside the 3D Printing Conference, the 3D Pioneers Challenge and the Start-Up Award. In addition to the presentations in the exhibition, the 14 sector- and subject-specific forums on the conference programme will also help attendees to share their knowledge and experience. Three forums – Software & Processes, Plastics, and Standardisation & EHS – are appearing on the agenda for the first time. Alongside these new additions, the programme will feature the established forums on the Automotive Industry; Aviation; Medical, Dental and Orthopaedic Technology; Contract Additive Manufacturing; 3D Printed Electronics & Functions; Design; Metal; Tool, Mould & Jig Construction; and Law, as well as a session by the Fraunhofer Additive Manufacturing Alliance and the two-day AM Science forum. Overall, over the three days of the conference, there will be more than 100 lectures presenting the latest developments, trends and findings relating to additive technologies and applications in theory and practice.

For their 16th edition, Rapid.Tech + FabCon 3.D are yet again expecting over 200 exhibitors from Germany and abroad, as well as more than 5,000 international trade visitors and conference delegates.

Further information: www.rapidtech-fabcon.com

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