Xella

Xella becomes a member of the Center Construction Robotics and designs the construction site of the future

With the Center Construction Robotics, the construction site of the future is being created on the RWTH Aachen campus with the participation of renowned industrial partners.

Duisburg, October 8, 2020 With the RWTH Aachen Campus, RWTH Aachen University is developing into one of the world's leading technical universities.

With 16 research clusters, RWTH Aachen University is creating one of the largest technology-oriented research environments in Europe. With the Center Construction Robotics in the Building Cluster, a reference construction site was established on the RWTH Aachen Campus as a living lab. The reference construction site is intended to revolutionize construction by testing new technologies under real construction site conditions. In the Center Construction Robotics, under the scientific direction of Professor Sigrid Brell-Cokcan, an interdisciplinary scientific team from RWTH Aachen University conducts research together with a European industrial consortium. The Xella Group has now joined this consortium with well-known industrial partners such as PORR, Liebherr tower cranes, EIFFAGE, LEONHARD WEISS, HILTI, KUKA and Autodesk.

"The digitalization and automation of construction processes still has a lot of potential for productivity and efficiency in construction," says Dr. Michael Leicht, Chief Digital Officer of the Xella Group. "We were enthusiastic about the interdisciplinary approach of this center from the beginning and are pleased to be able to contribute our expertise in digital planning and the provision of modern building and insulation materials to this panel of experts".

Digital Planning

In the past, Xella has already been able to demonstrate cost savings of up to 20 percent and time savings of up to 30 percent on major projects with the use of digital planning and production processes tailored to this alone. "The interest of our customers in optimizing the shell of a building as early as the digital model in order to improve material requirements and avoid planning errors has grown rapidly in recent years," says Andreas Radischewski, who is responsible for digital planning at Xella as Digital Building Solutions and Transformation Manager. Now, under the motto 'BIM to field', instruments and ways are to be found to close the gap between digital planning on the model and analog execution on the construction site.



Automated production

A further research focus is the topic of automated manufacturing. "In recent years, we have already seen, accompanied and developed some interesting approaches. Now it is time to put these technologies into practice to be ready for series production and use in construction. We are looking forward to sharing our previous experiences and ideas with the consortium and to pushing forward a practice-oriented development together".

All research topics are to be gradually transferred into specific research projects and validated on the reference construction site. The reference construction site is also available as a basis for student projects and a wide variety of teaching formats across faculties.

Digital & real

The construction of a demonstrator building involving all members of the center will already start at the end of 2020. Not only the latest technologies and physical processes will be used and developed. During the entire construction process, the real process will be linked to the digital twins of construction machines and buildings thanks to the latest network technology. Via digital planning, control and real-time feedback of the actual building, the digital and the real world are thus connected at the reference construction site.

Contact

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About Xella

With sales of 1.6 billion euros, 95 plants and over 7,000 employees, the Xella Group is one of the leading international solution providers in the construction and insulation materials sector. Xella is the parent company of such well-known brands as Ytong, Silka, Hebel, Multipor and Ursa and with its digital planning service blue.sprint is one of the pioneers in digitally supported construction processes. <u>www.xella.com</u>

About Center Construction Robotics

In the Center Construction Robotics in the Building Cluster on the RWTH Aachen Campus, an industrial consortium - including Liebherr, KUKA and Autodesk - is conducting research together with an interdisciplinary team of scientists in the field of robotics for the construction industry. The Center is under the scientific direction of Professor Sigrid Brell-Cokcan (Chair of Customized Building Production), Professor Robert Schmitt (Machine Tool Laboratory WZL | Production Measurement and Quality Management) and Professor Markus Kuhnhenne (Institute for Steel Construction | Chair of Lightweight Metal Construction).

https://construction-robotics.de/en/

Picture material

Caption: Xella employees visit the CCR reference construction site

from left to right: Elisa Lublasser (CCR), Verena Leurs (Xella), Dr. Alexander Brunst (Xella), Claudia Kellert (Xella), Andreas Radischewski (Xella), Dr. Michael Leicht (Xella), Prof. Sigrid Brell-Cokcan (CCR)

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