

Architecture of Workplaces 1. Lecture 6

Questions of today and challenges of the future

INDUSTRY 5.0 'coopetitive workspace'. World of today and near future, new challenges: "unique mass production", human cognitive abilities + technology. Food questions in the 21st century. Overpopulation, sustainability

3. 4D printing

17-20. 3XN has unveiled its proposal for Cobot Hub, a collection of modular laboratories and offices for developing robots set to be built in Odense, Denmark. Slated for completion in 2023, the 20,000-square-metre building has been designed as a shared space for robot developers Universal Robots and Mobile Industrial Robots. It is expected to become the world's largest hub for developing cobots – a type of robot designed to collaborate and share spaces with humans.

3XN's proposal was the winning entry of a competition to design the hub, initiated to support the continual, rapid growth of the two companies.

22-23. We are modelling and analysing observations of the nature.

25. Using forms derived from the nature.

The Institute for Computational Design (ICD) and the Institute of Building Structures and Structural Design (ITKE) of the University of Stuttgart have completed a new research pavilion demonstrating robotic textile fabrication techniques for segmented timber shells. The pavilion is the first of its kind to employ industrial sewing of wood elements on an architectural scale. It is part of a successful series of research pavilions which showcase the potential of computational design, simulation and fabrication processes in architecture. The project was designed and realized by students and researchers within a multi-disciplinary team of architects, engineers, biologists, and palaeontologists.

45. 3D printed joints

IPARTERV=Company for Industrial Building Design 1948-1990