

Short Course A2

*"Smart composites and hybrids in civil engineering
and building constructions - future vision"*

Chairman:

Thoralf Krause, SKZ – Germany Plastics Center, Halle

Course Description

Modern, definable in their properties, composites will be playing a crucial role in the near future in the construction industry. At this time we should focus on what material is technically ideal for use in an application and at the same time economically feasible. Then again the benefits of the currently so often quoted lightweight potential (high strength at low density) is sure to be one-sided. The focus must also be directed to other properties, which enable completely new functions of a component, such as a facade or a support structure... best all in one!

Course outline

- Basics knowledge of smart composites, their properties and application areas
- Knowledge generation through cooperation with universities
- Lessons learned from the past 6 years
- Every participant can feel different materials and create their own structure

Course Benefits

Upon completion of this course participants will have basics knowledge of smart composites, their properties and application areas

Who should attend?

- Students
- Design engineers
- Civil engineers
- Architects
- Innovation managers

Instructor Biography

Thoralf Krause is architect and unconventional thinker. He is dedicated to sustainable building in the world moving forward and is enthusiastically searching for innovative building materials, which can be used e.g. in intelligent façade systems. His international project experience includes consulting, planning, implementation of constructions made of fiber reinforced plastics and composites; he offers expertise and analysis of production processes and design of training concepts for architecture. Thoralf Krause is responsible for a range of projects in the following areas: building & construction, e-mobility, aerospace, boat building, rail vehicles, wind energy, tanks and pipeline construction. He received his architectural degree at the Bauhaus-University in Weimar. Since 2006 he is leading the composites division at SKZ – German Plastics Center, since 2014 he has responsibility for the SKZ' sites in Eastern and Northern Germany as well as in the United Arab Emirates and is passionate tutor at the Leipzig University of applied sciences.