

Leipzig University of Applied Sciences for Technology, Economics and Culture

Institute for Concrete Construction

About this organisation

Machine translation

This organisation has been machine-translated based on data provided in German.

The Institute of Concrete Structures (IfB) is made up of around 20 employees who are highly committed to researching and teaching lightweight structures of the future.

Work at the institute is always interdisciplinary in order to demonstrate the added value of these new constructions. In this way, a building structure can be developed specifically for a particular application with the appropriate properties. The following primary parameters are designed to achieve the target criteria of the building construction: manufacturing and planning processes, building construction, static and physical properties of the building materials. These target parameters of the lightweight constructions are determined by means of simulations, validation measurements on demonstrators and prototype production in the factory. Within the two research groups "Solid Construction" and "Sustainable Building", a wide variety of building constructions and typologies can be developed and validated.

Karl-Liebknecht-Str. 132
04277 Leipzig
Saxony
Germany
www.ifb.htwk-leipzig.de



Organisation type

University or higher education institution

Sectors



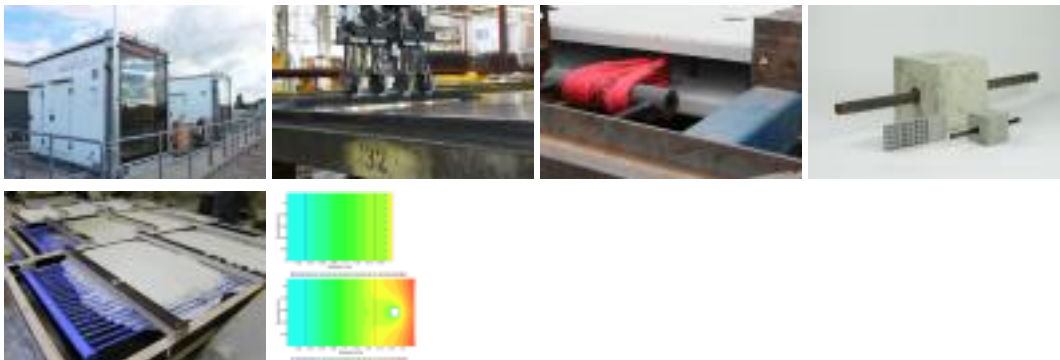
Employees

10 up to 49

Turnover

Up to €2m

Funding



Leipzig University of Applied Sciences for Technology, Economics and Culture

Institute for Concrete Construction

About this organisation

Main areas covered	Material and structural design, Design & Simulation, Process development, Prototype production, Component testing
Infrastructure	Test hall Component testing, Building physics laboratory, Building acoustics laboratory, Automated production laboratory, Laboratory materials
Certifications	
Keywords	
Memberships	Carbon Concrete Composites - C ³ , Smart ³ -Smart Solution Growth

Overview of lightweighting expertise

Machine translation

This organisation has been machine-translated based on data provided in German.

	Research	Development	Manufacturing & Supply
Offer			
Products Parts and components, Semi-finished parts, Systems and end products, Materials, Tools and moulds	✓	✓	
Services & consulting Training, Consulting, Distribution, Testing and trials, Funding, Engineering, Prototyping, Validation, Simulation	✓	✓	

Overview of lightweighting expertise

Machine translation

This organisation has been machine-translated based on data provided in German.

	Research	Development	Manufacturing & Supply
Field of technology			
Design & layout Lightweight manufacturing, Lightweight design, Hybrid structures	✓	✓	
Functional integration Actuator technology, Media conductivity, Sensor technology, Thermal activation, Material functionalisation	✓	✓	
Measuring and testing technology Component and part analysis, Visual analysis (e.g. microscopy, metallography), System analysis, Environmental simulation, Materials analysis, Destructive analysis, Non-destructive analysis	✓	✓	
Modelling and simulation Loads & stress, Life-cycle analysis, Multiphysics simulation, Optimisation, Processes, Structural mechanics, Materials	✓	✓	
Plant construction & automation Automation technology, Robotics	✓	✓	
Recycling technologies Downcycling, Material separation, Recycling, Upcycling	✓		

Overview of lightweighting expertise

Machine translation

This organisation has been machine-translated based on data provided in German.

	Research	Development	Manufacturing & Supply
Manufacturing process			
Additive manufacturing 3D printing, Laminated object manufacturing (LOM)	✓	✓	
Coating (surface engineering) Painting	✓	✓	
Fibre composite technology Casting (concrete), Manual lamination, Pre-preg processing, Spinning (concrete), Spraying (concrete)	✓	✓	
<i>Forming</i>			
Joining Adhesive bonding, Soldering, Riveting, Screwing, Welding	✓	✓	
<i>Material property alteration</i>			
<i>Primary forming</i>			
Processing and separating Drilling, Turning, Milling, Sawing, Shearing/punching, Grinding, Cutting	✓	✓	
Textile technology Knitting, laid web production	✓	✓	

Overview of lightweighting expertise

Machine translation

This organisation has been machine-translated based on data provided in German.

	Research	Development	Manufacturing & Supply
Material			
Biogenic materials Biocomposites, Wood	✓	✓	
<i>Cellular materials (foam materials)</i>			
Composites Carbon-fiber reinforced plastics (CFRP), Short fibre-reinforced concrete, Laminates, Textile- reinforced concrete	✓	✓	
Fibres Metal fibres	✓	✓	
Functional materials Shape memory materials	✓	✓	
<i>Metals</i>			
<i>Plastics</i>			
<i>Structural ceramics</i>			
(Technical) textiles Laid webs	✓	✓	

Contacts

Machine translation

This organisation has been machine-translated based on data provided in German.

Leipzig University of Applied Sciences for Technology, Economics and Culture

Institute for Concrete Construction

Contacts

Mr Prof. Dr.-Ing. Klaus Holschemacher

Institute Director

klaus.holschemacher@htwk-leipzig.de

Mr Dr.-Ing. Stefan Käseberg

Research group leader

stefan.kaeseberg@htwk-leipzig.de

Mr Dipl.-Ing. (FH) Alexander Kahnt

Research group leader

alexander.kahnt@htwk-leipzig.de