University of Bayreuth

Chair of Engineering Design and CAD

About this organisation

Machine translation

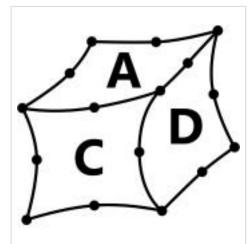
This organisation has been machine-translated based on data provided in German.

In line with the principle of "generating knowledge, structuring knowledge and imparting knowledge", we work on mostly interdisciplinary research projects to develop solutions for current challenges, for example in the areas of digitalisation, mobility and energy, and to make these available to German SMEs in particular.

Our expertise in lightweight construction is mainly reflected in two of our five specialist groups: Calculation and simulation methods: - Coupling classic analytical calculation methods based on technical mechanics with numerical calculation methods such as finite element analysis. This can drastically reduce the calculation time while maintaining the same quality of results. - Utilisation of machine learning methods for the design of components. Material and stress-optimised design: - Effective material/component behaviour - Process-oriented structural optimisation - Multi-scale analysis - Tribology and surface technology

Universitätsstraße 30 95447 Bayreuth Bavaria Germany

☑ www.konstruktionslehre.uni-bayreuth.de/de/index.html



Organisation type

University or higher education institution

Sectors

No specific sector

Employees

10 up to 49

Turnover

n/a

Funding

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About this organisation			
Main areas Simulation tools, Calculation & simulation methods, Continuous de processes, Process-oriented structural optimisation, Tribology			
Infrastructure			
Certifications			
Keywords			
Memberships			

Overview of lightweighting expertise Machine translation This organisation has been machine-translated based on data provided in German. Manufacturing Research Development & Supply Offer Products Services & consulting Training, Consulting, Engineering, Simulation, Technology transfer

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	Manufacturin			
	Research	Development	& Supply	
Field of technology				
Design & layout Lightweight manufacturing, Lightweight design, Hybrid structures, Lightweight construction concepts, Lightweight material construction	~	✓		
Functional integration				
Measuring and testing technology				
Modelling and simulation Loads & stress, Multiphysics simulation, Optimisation, Structural mechanics, Materials	✓	~	✓	
Plant construction & automation				
Recycling technologies				
Manufacturing process				
Additive manufacturing Fused deposition modeling, Stereolithography	✓	✓	✓	
Coating (surface engineering)				
Fibre composite technology				
Forming				
Joining				
Material property alteration				
Primary forming				
Processing and separating				

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Overview of lightweighting expertise **Machine translation** This organisation has been machine-translated based on data provided in German. Manufacturing **Development** & Supply Research Material **Biogenic materials Biocomposites** Cellular materials (foam materials) Composites Fibres Functional materials Metals **Plastics** Structural ceramics (Technical) textiles

Contacts

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