

About this organisation

Machine translation

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

The teaching assignment is based at the Institute of Material Resource Management. In addition to economics and resource strategy, the associated degree programme "Industrial Engineering" also deals with topics in physics, chemistry and materials science.

The aim is to further develop and optimise the entire process chain for fibre composites. To achieve this, the individual process steps must be examined and analysed. It is important to take a holistic view of the process chain, from the starting material, through the composite material within its construction and functional group, to the reuse of the material. By breaking down the process into individual steps, simulations of alternative processes can be carried out, making it possible to evaluate material usage and costs. Since January 2021 also active in the topic "Hydrogen as gamechanger for clean energy transition in sectors such as transportation, buildings and power generation".

Universitätsstraße 1
86159 Augsburg
Bavaria
Germany
www.mrm.uni-augsburg.de/gruppen/heine/



Organisation type

University or higher education institution

Sector



Others: Carbonfasern und Verbundwerkstoffe / Startups mit Carbonmaterialien

Employees

500 and more

Turnover

n/a

Funding

n/a

About this organisation

Main areas covered	Carbon fibres and composite materials
Infrastructure	Laboratory workshop
Certifications	Expert and technical expert
Keywords	Final theses in the industry
Memberships	Composite United e.V. (CUeV)

Overview of lightweighting expertise

Machine translation

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	Research	Development	Manufacturing & Supply
Offer			
<i>Products</i>			
Services & consulting Training, Testing and trials, Funding, Prototyping, Validation, Technology transfer, Maintenance and repair, Approval	✓	✓	✓
Field of technology			
<i>Design & layout</i>			
<i>Functional integration</i>			
<i>Measuring and testing technology</i>			
<i>Modelling and simulation</i>			
Plant construction & factory automation Others: null	✓	✓	
Recycling technologies Material separation, Recycling, Upcycling	✓	✓	

Overview of lightweighting expertise

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	Research	Development	Manufacturing & Supply
Manufacturing process			
Additive manufacturing 3D printing, Laminated object manufacturing (LOM)	✓	✓	
<i>Coating (surface engineering)</i>			
Fibre composite technology Filament winding, Manual lamination, Resin infusion process, Resin transfer moulding, Pre-preg processing, Vacuum infusion	✓	✓	
Forming Impact extrusion	✓	✓	
Joining Hybrid joining, Adhesive bonding	✓	✓	
<i>Material property alteration</i>			
<i>Primary forming</i>			
<i>Processing and separating</i>			
Textile technology Fibre manufacturing, Preforming, Weaving, Knitting, laid web production	✓	✓	

Overview of lightweighting expertise

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	Research	Development	Manufacturing & Supply
Material			
Biogenic materials Biocomposites, Wood	✓	✓	
<i>Cellular materials (foam materials)</i>			
Composites Ceramic matrix composite (CMC), Carbon-fiber reinforced plastics (CFRP), Short fibre-reinforced concrete, Metal-ceramic composite, Textile-reinforced concrete	✓	✓	
Fibres Carbon fibres	✓	✓	✓
<i>Functional materials</i>			
<i>Metals</i>			
Plastics Thermoset plastics, Elastomers, Thermoplastics	✓	✓	
Structural ceramics Non-oxidic ceramics	✓	✓	
(Technical) textiles Laid webs, Woven fabrics, Nonwovens, mats	✓	✓	

Contacts

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Contacts

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Innovation mentor

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