

Cetex Institute gGmbH

at the Chemnitz University of Technology

About this organisation

Machine translation

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

Cetex is the research institute in Germany for new technologies and machines for the production of technical textiles, textile-based semi-finished products, functional components and high-performance structures. As an affiliated institute, we work in close cooperation with Chemnitz University of Technology on the development of cost-efficient customised components.

We develop processes and machines for multifunctional lightweight construction for our customers, from the idea to the concept to the prototype or special machine - as requested by our partners as part of subsidised application-oriented or preliminary research or as contract development. Our research activities focus on technologies and machines for technical textiles and textile-based composites that are suitable for large-scale production.

Altchemnitzer Str. 11
09120 Chemnitz
Saxony
Germany
www.cetex.de



Organisation type

Non-university research institution

Sectors



Employees

50 up to 249

Turnover

n/a

Funding

n/a

About this organisation

Main areas covered	Classic textile machines, Machines for technical textiles, Special machines, Textile-reinforced applications, Fibre composites
Infrastructure	Test hall, partially air-conditioned, Mechanical production, Textile machine/testing technology, Machine/testing technology fibre composite, Software CAD/Calculation/Programme.
Certifications	
Keywords	Mechanical engineering, Technical textiles, Fibre composites, Process development, Measuring and testing technology
Memberships	

Overview of lightweighting expertise

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	Research	Development	Manufacturing & Supply
Offer			
Products Parts and components, Semi-finished parts, Machines and plants, Materials	✓	✓	✓
Services & consulting Consulting, Testing and trials, Engineering, Prototyping, Validation	✓	✓	✓

Overview of lightweighting expertise

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	Research	Development	Manufacturing & Supply
Field of technology			
Design & layout Lightweight manufacturing, Lightweight design, Hybrid structures, Lightweight construction concepts, Lightweight material construction	✓	✓	
Functional integration Material functionalisation	✓	✓	
Measuring and testing technology Component and part analysis, Visual analysis (e.g. microscopy, metallography), Materials analysis	✓	✓	✓
<i>Modelling and simulation</i>			
Plant construction & factory automation Plant construction	✓	✓	
<i>Recycling technologies</i>			

Overview of lightweighting expertise

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	Research	Development	Manufacturing & Supply
Manufacturing process			
Additive manufacturing 3D printing	✓	✓	✓
<i>Coating (surface engineering)</i>			
Fibre composite technology Filament winding, Pre-preg processing	✓	✓	✓
Forming Impact extrusion, Thermal converting	✓	✓	
Joining Hybrid joining, Sewing	✓	✓	
<i>Material property alteration</i>			
<i>Primary forming</i>			
Processing and separating Drilling, Turning, Milling			✓
Textile technology Braiding, Preforming, Knitting, Knitting, laid web production	✓	✓	

Overview of lightweighting expertise

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	Research	Development	Manufacturing & Supply
Material			
<i>Biogenic materials</i>			
<i>Cellular materials (foam materials)</i>			
Composites Aramid fibre composites, Basalt fibre-reinforced plastic, Glass-fiber reinforced plastics (GFRP), Ceramic matrix composite (CMC), Carbon-fiber reinforced plastics (CFRP), Metal matrix composite, Natural fibre reinforced plastics (NFRP), Laminates, Textile-reinforced concrete	✓	✓	
Fibres Basalt fibres	✓	✓	
<i>Functional materials</i>			
<i>Metals</i>			
<i>Plastics</i>			
<i>Structural ceramics</i>			
(Technical) textiles Yarns, rovings, Meshes, Laid webs, Crocheted fabrics, Woven fabrics, Knitted fabrics	✓	✓	

Contacts

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Contacts

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