Chemnitz University of Technology

Professorship of Composites and Material Composites

About this organisation

Machine translation

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

The Chair of Composites and Material Composites is part of the Institute of Materials Science and Engineering at Chemnitz University of Technology.

We conduct research in the field of all composite material classes MMC, CMC and PMC, as well as material composites made from hybrid laminates. We also investigate innovative soldering and low-heat joining processes, including for dissimilar materials. There is extensive expertise in the characterisation of materials.

Erfenschlager Straße 73
09125 Chemnitz
Saxony
Germany
www.tu-chemnitz.de/mb/pvw/

Organisation type
University or higher education institution

Sectors
No specific sector

Employees
10 up to 49

Turnover
n/a

Funding
n/a



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About this organisation

Main areas covered	Composite materials, Material composites, Soldering and low-heat joining processes, Alloy development, metallurgy, Material characterisation
Infrastructure	Powder metallurgy (HEM, SPS), Coating (PVD, CVD), Microscopy (SEM, TEM, EDXS), Ceramic synthesis (CVI, LSI, LPI), Joining technology (FSW, soldering systems)
Certifications	DIN EN ISO 9001:2008
Keywords	Composite materials, Material composites, Joining technology, Alloy development, Material characterisation
Memberships	

Overview of lightweighting expertise

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	Research	Development	Manufacturing & Supply
Offer			
Products Materials	✓	✓	
Services & consulting Consulting, Validation	✓	✓	

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Overview of lightweighting expertise

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	Research	Development	Manufacturing & Supply
Field of technology			
Design & layout			
Functional integration Actuator technology, Sensor technology, Material functionalisation	✓	✓	
Measuring and testing technology Component and part analysis, Visual analysis (e.g. microscopy, metallography), Materials analysis	✓	✓	✓
Modelling and simulation			
Plant construction & automation			
Recycling technologies			

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	Research	Development	Manufacturing & Supply
Manufacturing process			
Additive manufacturing			
Coating (surface engineering) Sputtering, Others (CVD)	✓	✓	
Fibre composite technology Manual lamination	✓	✓	
Forming Thermal converting	✓	✓	
Joining Soldering, Others (Friction stir welding, ultrasonic welding, temperature-sensitive joining with nanoparticles)	✓	✓	
Material property alteration			
Primary forming Casting, Sintering, Injection moulding	✓	✓	
Processing and separating			
Textile technology			

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	Research	Development	Manufacturing & Supply
Material			
Biogenic materials			
Cellular materials (foam materials)			
Composites Ceramic matrix composite (CMC), Carbon-fiber reinforced plastics (CFRP), Metal-ceramic composite, Metal matrix composite, Nanocomposites, Laminates, Particulate composites	✓		
Fibres Basalt fibres, Glass fibres, Ceramic fibres, Carbon fibres	✓		
Functional materials Shape memory materials	✓	✓	
Metals Aluminium	✓		
Plastics Thermoset plastics, Thermoplastics	✓	✓	
Structural ceramics Monolithic ceramics, Non-oxidic ceramics, Oxidic ceramics	✓	✓	
(Technical) textiles Yarns, rovings	✓		

Contacts

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