Institute for Statics and Construction

Darmstadt University of Technology

About this organisation

Machine translation

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

The Institute of Structural Analysis and Design bundles research and teaching activities in the fields of structural analysis, structural dynamics, materials, building envelopes and construction in order to achieve a standardised basis for material-compatible design and construction.

This specialisation covers fundamental theoretical work on calculation and design methods, material testing and simulation, material modelling, numerical simulations, safety theory, design methods as well as applied research and development from the design to the component to the material level. Energy-related issues are also considered integratively from the perspective of design and materials.

Franziska-Braun-Str. 3
64287 Darmstadt
Hesse
Germany
www.ismd.tu-darmstadt.de

ISM+D
Institute of Structural Mechanics and Design
Institut für Statik und Konstruktion

Organisation type
University or higher education institution

Sector

Employees
10 up to 49

Turnover
n/a

Funding

Main areas covered	Glass construction, Facade technology, Structural analysis, Building dynamics, Additive manufacturing
Infrastructure	Industrial robots, Additive manufacturing, Materials testing
Certifications	
Keywords	
Memberships	

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Overview of lightweighting expertise

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	Research	Development	Manufacturing & Supply
Offer			
Products Software & databases, Systems and end products	✓		
Services & consulting Training, Consulting, Validation, Simulation, Technology transfer	✓		
Field of technology			
Design & layout Lightweight construction concepts	✓		
Functional integration Thermal activation, Material functionalisation	✓		
Measuring and testing technology Component and part analysis, Visual analysis (e.g. microscopy, metallography), Destructive analysis	✓		
Modelling and simulation Structural mechanics	✓		
Plant construction & automation Robotics	✓		
Recycling technologies Recycling	✓		

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Overview of lightweighting expertise

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	Research	Development	Manufacturing & Supply
Manufacturing process			
Additive manufacturing 3D printing, Deposition welding	✓		
Coating (surface engineering)			
Fibre composite technology			
Forming			
Joining Adhesive bonding	✓		
Material property alteration			
Primary forming			
Processing and separating			
Textile technology			

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Overview of lightweighting expertise

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	Research	Development	Manufacturing & Supply
Material			
Biogenic materials Others (Paper)	✓		
Cellular materials (foam materials)			
Composites			
Fibres			
Functional materials			
Metals Aluminium, Steel	✓		
Plastics			
Structural ceramics Others (Brick)	✓		
(Technical) textiles			

Contacts

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Contacts

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