

Friedrich-Alexander-University Erlangen-Nuremberg

Chair of Plastics Technology (LKT)

About this organisation

Machine translation

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

Dietmar Drummer is part of the Department of Mechanical Engineering at Friedrich-Alexander-Universität Erlangen-Nürnberg and is involved in research, development and teaching in the field of plastics technology.

Research at the Chair of Plastics Technology focuses on additive manufacturing, new materials and material properties, processing, joining technology and tribology. The department has around 2800 m² of state-of-the-art office and technical centre space as well as several testing laboratories equipped with the latest equipment. The research areas are supported by various laboratories with qualified employees who carry out both development work and expert tests. The core of LKT's scientific work is a holistic approach to manufacturing processes, focussing on the relationships between processes, materials and their internal properties, the design and the resulting component characteristics.

Am Weichselgarten 10
91058 Erlangen
Bavaria
Germany
www.lkt.tf.fau.de



Organisation type

University or higher education institution

Sectors



Employees

10 up to 49

Turnover

n/a

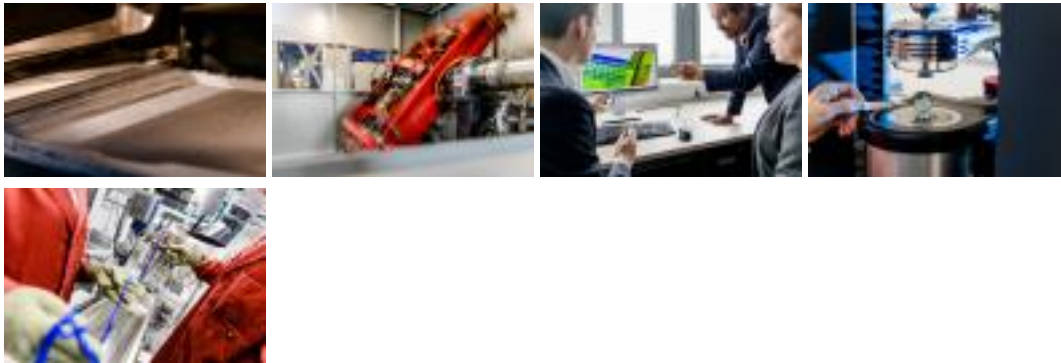
Funding

n/a

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Main areas covered	Additive manufacturing, Processing, Sustainability, Material properties, Joining technology and tribology
Infrastructure	Systems for material preparation, Machines for primary and secondary forming, Systems for additive manufacturing, Connection technology, Material and component analysis
Certifications	
Keywords	Material preparation, Additive manufacturing, Plastics processing, Material characterisation, Component testing
Memberships	Research Association 3-D MID e.V., Welding Research Association, Research v. Drive Technology (FVA)

Overview of lightweighting expertise

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Manufacturing
Research Development & Supply

Offer

Products

Services & consulting

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Overview of lightweighting expertise

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

Overview of lightweighting expertise

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	Research	Development	Manufacturing & Supply
Manufacturing process			
Additive manufacturing 3D printing, Selective laser sintering (SLS), Stereolithography	✓	✓	
<i>Coating (surface engineering)</i>			
Fibre composite technology Pre-preg processing	✓		
Forming Compression moulding, Thermal converting	✓		
Joining Hybrid joining, Welding	✓	✓	
<i>Material property alteration</i>			
Primary forming Extrusion, Sintering, Injection moulding	✓	✓	
<i>Processing and separating</i>			
<i>Textile technology</i>			

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	Research	Development	Manufacturing & Supply
Material			
Biogenic materials Bioplastics	✓		
Cellular materials (foam materials) Closed-pore, Syntactic foams	✓	✓	
Composites Aramid fibre composites, Basalt fibre-reinforced plastic, Glass-fiber reinforced plastics (GFRP), Carbon-fiber reinforced plastics (CFRP), Nanocomposites, Natural fibre reinforced plastics (NFRP), Laminates	✓		
Fibres Aramid fibres, Glass fibres, Carbon fibres, Natural fibres	✓		
<i>Functional materials</i>			
<i>Metals</i>			
Plastics Thermoset plastics, Elastomers, Thermoplastics	✓	✓	
Structural ceramics Oxidic ceramics	✓		
<i>(Technical) textiles</i>			

Contacts

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Contacts

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