BIAS - Bremer Institut für angewandte Strahltechnik GmbH

MBS material processing and machining systems

About this organisation

Machine translation

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

BIAS is located in the centre of knowledge and research, in the Bremen Technology Park. BIAS has been a reliable partner in the research and development of laser-assisted processes for over 40 years: Microfabrication/ structuring, joining, additive processes, process interfaces, metallography, optical metrology and (non-destructive) testing. From basic research to application is the mission and focus of our work.

Expertise in laser beam joining of mixed joints, e.g. for car body construction, laser drilling (HLFC/aerospace), laser beam brazing, laser beam welding and laser alloying.

Klagenfurter Str. 5
28359 Bremen
Bremen
Germany
www.bias.de

Organisation type
Non-university research institution

Sectors
No specific sector

Employees
50 up to 249

Turnover
n/a

Funding
n/a

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About this organisation

Main areas covered	Laser material processing
Infrastructure	Various lasers, optical measurement technology
Certifications	.
Keywords	Joining, laser drilling, additive/3-D
Memberships	Aviaspace, CIRP, DVS Association, VDI, WLT

Overview of lightweighting expertise

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	Research	Development	Manufacturing & Supply
Offer			
Products Materials, Tools and moulds	✓	✓	
Services & consulting Consulting, Testing and trials, Engineering, Prototyping, Validation, Simulation, Technology transfer	✓	✓	✓

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	Research	Development	Manufacturing & Supply
Field of technology			
Design & layout Lightweight manufacturing, Hybrid structures	✓	✓	
Functional integration			
Measuring and testing technology Component and part analysis, Visual analysis (e.g. microscopy, metallography), System analysis, Materials analysis, Non-destructive analysis	✓	✓	✓
Modelling and simulation Optimisation, Processes	✓	✓	
Plant construction & automation			
Recycling technologies			

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	Research	Development	Manufacturing & Supply
Manufacturing process			
Additive manufacturing 3D printing, Deposition welding, Selective laser melting (SLM, LPBF, ...)	✓	✓	
Coating (surface engineering) Powder coating	✓	✓	
Fibre composite technology			
Forming Deep-drawing	✓		
Joining Hybrid joining, Soldering, Welding, Others (Laser-assisted joining)	✓	✓	✓
Material property alteration Others (Laser chemical processes, etching)	✓	✓	
Primary forming			
Processing and separating Drilling, Cutting	✓	✓	
Textile technology			

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	Research	Development	Manufacturing & Supply
Material			
Biogenic materials			
Cellular materials (foam materials)			
Composites Carbon-fiber reinforced plastics (CFRP), Metal matrix composite	✓	✓	
Fibres			
Functional materials			
Metals Aluminium, Intermetallic alloys, Steel, Titanium	✓	✓	
Plastics			
Structural ceramics			
(Technical) textiles			

Contacts

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Contacts

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