Chair of Product Development

University of Paderborn, Heinz Nixdorf Institute

About this organisation

Machine translation

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

With systematic strategy development, we consistently orientate manufacturing companies towards the circular economy of the future. We link the various specialist disciplines with approaches such as systems engineering and our newly developed V-model for mechatronic and cyber-physical systems: VDI 2206. We support development engineers in a targeted manner through modelling and analysis and analysis of effective chains.

Research at the Chair of Product Creation focusses on the product creation process and its digital and virtual support. In the BMBF research project OptiAMix, requirements for additively manufactured products were analysed in terms of variability and risks and a design checker for additively manufactured (AM) components was parameterised. As part of the BMWi-funded joint project BIKINI, the application of bionic design algorithms and AI-based assistance services in product development is being researched. The "Lightweight - Efficient - Mobile" research centre is developing new methods for the design, development and production of targeted mass reduction in machine, plant and vehicle construction. As a member of the Direct Manufacturing Research Centre (DMRC) at Paderborn University, the chair researched a decision-support toolbox for potential AM users in the DynAMiCS project.

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HEINZ NIXDORF INSTITUT
UNIVERSITÄT PADERBORN

Organisation type
University or higher education institution

Sectors

Employees
10 up to 49

Turnover
n/a

Funding

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About this organisation

Main areas covered	Requirements Engineering, (Model-Based) Systems Engineering, Artificial intelligence, Impact analyses, Effective chain modelling
Infrastructure	
Certifications	
Keywords	
Memberships	

Overview of lightweighting expertise

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	Research	Development	Manufacturing & Supply
Offer			
Products			
Services & consulting			
Field of technology			
Design & layout			
Functional integration			
Measuring and testing technology			
Modelling and simulation			
Plant construction & automation			
Recycling technologies			

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Overview of lightweighting expertise

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	Research	Development	Manufacturing & Supply
Manufacturing process			
Additive manufacturing			
Coating (surface engineering)			
Fibre composite technology			
Forming			
Joining			
Material property alteration			
Primary forming			
Processing and separating Drilling, Turning, Milling	✓		
Textile technology			
Material			
Biogenic materials			
Cellular materials (foam materials)			
Composites			
Fibres			
Functional materials			
Metals			
Plastics			
Structural ceramics			
(Technical) textiles			

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Contacts

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