

About this organisation

Machine translation

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

The Chair of Rail Vehicle Technology, which is part of the Institute of Machine Elements, deals with the railway system. It teaches and researches various topics in the field of rail vehicles, their operation and the railway system.

The professorship's expertise includes the conception, construction and design of rail vehicles and their components. This primarily includes the vehicle body and the bogie. The professorship also has extensive expertise in the field of rail vehicle dynamics and its calculation using multi-body simulation. In addition to the entire vehicle, the wheel-rail interaction and its interactions are analysed. As a result of the holistic view of the rail vehicle, extensive expertise in rail vehicle and multiple unit concepts is available. This expertise is used, among other things, to investigate lightweight construction aspects in the rail vehicle sector.

Pfaffenwaldring 9
70569 Stuttgart
Baden-Württemberg
Germany

www.ima.uni-stuttgart.de/

Main areas covered Rail vehicles and components, Rail vehicle structures, Monitoring and assistance systems, Rail vehicle dynamics, Wheel-rail interaction

Infrastructure

Certifications

Keywords Rail vehicles, Rail vehicle technology, Rail vehicle dynamics, Wheel-rail interaction, Rail vehicle assistance systems

Memberships DIN FSF, DMG Lightweight Construction Committee, ZEV Scientific Advisory Board



Organisation type

University or higher education institution

Sector



Employees

10 up to 49

Turnover

n/a

Funding

Overview of lightweighting expertise

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	Research	Development	Manufacturing & Supply
Offer			
<i>Products</i>			
Services & consulting Training, Engineering, Simulation	✓	✓	
Field of technology			
Design & layout Lightweight construction concepts	✓	✓	
<i>Functional integration</i>			
<i>Measuring and testing technology</i>			
Modelling and simulation Loads & stress, Optimisation	✓	✓	
<i>Plant construction & automation</i>			
<i>Recycling technologies</i>			
Manufacturing process			
<i>Additive manufacturing</i>			
<i>Coating (surface engineering)</i>			
<i>Fibre composite technology</i>			
<i>Forming</i>			
<i>Joining</i>			
<i>Material property alteration</i>			
<i>Primary forming</i>			
<i>Processing and separating</i>			
<i>Textile technology</i>			

Overview of lightweighting expertise

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Research Development **Manufacturing
& Supply**

Material

Biogenic materials

Cellular materials (foam materials)

Composites

Fibres

Functional materials

Metals

Plastics

Structural ceramics

(Technical) textiles

Contacts

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Mr Dr. -Ing. Jens König

Professorship representative

sft@ima.uni-stuttgart.de