# Leibniz University Hannover
*Institute for Steel Construction*

## About this organisation

The Institute for Steel Construction does research and teaching in classical topics of steel construction and bridge construction. But also special topics such as the behavior of onshore and offshore support structures of wind turbines and their connections (welds, bolts, grouted joints) are part of the research.

The expansion of offshore wind turbines will make a major contribution to the implementation of climate policy targets. However, for the installation of offshore wind turbines, very large, heavy steel structures are used as support structures. The institute investigates connections such as welds, bolts, grouted joints and suction buckets and optimizes their design and verification with regard to load-bearing behavior and fatigue resistance.

Appelstr. 9A
3016 Hannover
Lower Saxony
Germany
www.stahlbau.uni-hannover.de/en/

**Organisation type**
University or higher education institution

**Sectors**
Others:

**Employees**
10 up to 49

**Turnover**
n/a

**Funding**

| | |
|---|---|
| **Main areas covered** | Offshore-Structures, Additive Manufacturing, Quality Assessment |
| **Infrastructure** | Testing laboratory, Clamping field, Universal testing machines |
| **Certifications** | |
| **Keywords** | Offshore-Structures, Additive Manufacturing, Connections |
| **Memberships** | |

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## Overview of lightweighting expertise

| | Research | Development | Manufacturing & Supply |
|---|---|---|---|
| **Offer** | | | |
| *Products* | | | |
| **Services & consulting**<br>Training, Consulting, Testing and trials, Standardisation, Validation, Simulation | ✓ | | |
| **Field of technology** | | | |
| *Design & layout* | | | |
| *Functional integration* | | | |
| *Measuring and testing technology* | | | |
| *Modelling and simulation* | | | |
| *Plant construction & automation* | | | |
| *Recycling technologies* | | | |
| **Manufacturing process** | | | |
| *Additive manufacturing* | | | |
| *Coating (surface engineering)* | | | |
| *Fibre composite technology* | | | |
| *Forming* | | | |
| *Joining* | | | |
| *Material property alteration* | | | |
| *Primary forming* | | | |
| *Processing and separating* | | | |
| *Textile technology* | | | |

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## Overview of lightweighting expertise

| | 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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