

Institute for Production Management and Technology

Hamburg University of Technology

About this organisation

Machine translation

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

The Institute of Production Management and Technology (IPMT) consists of the chairs of Production Management and Production Technology. As part of the research focus on aviation technology and product-orientated materials development at the Hamburg University of Technology (TUHH), the Chair of Production Engineering researches fundamental production problems and develops procedures and processes for manufacturing companies.

The focus of the chair is on - innovative machining technologies for fibre composite and metallic lightweight materials, - tool, cutting material and process development, e.g. for large lightweight structures, - the automation of machining, measuring and assembly processes and - the development of innovative machining and system concepts. In addition to innovative testing and measuring equipment, modern simulation tools are also available for solving the wide range of tasks in research and development. Linking science with industrial issues is a key area of research at the IPMT and is usually carried out in co-operation with renowned partners from science, industry and associations.

Denickestr. 17
21073 Hamburg
Hamburg
Germany
www.tuhh.de/ipmt/



Organisation type

University or higher education institution

Sectors



Employees

10 up to 49

Turnover

n/a

Funding

n/a



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About this organisation

Main areas covered Development of machining processes, Cutting material and tool development, Process modelling and simulation, Analysis of cutting mechanisms, Monitoring of machining processes

Infrastructure

Certifications

Keywords FRP materials (CFRP, GFRP), Heavy-duty machinable materials, Process automation, Sensor-guided processing, Knowledge-based methods

Memberships

Overview of lightweighting expertise

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| | Research | Development | Manufacturing & Supply |
|---|----------|-------------|------------------------|
| Offer | | | |
| <i>Products</i> | | | |
| Services & consulting Training, Testing and trials, Engineering, Validation, Simulation | ✓ | ✓ | |

Overview of lightweighting expertise

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| | Research | Development | Manufacturing & Supply |
|--|----------|-------------|------------------------|
| Field of technology | | | |
| <i>Design & layout</i> | | | |
| <i>Functional integration</i> | | | |
| <i>Measuring and testing technology</i> | | | |
| Modelling and simulation Optimisation, Processes | ✓ | ✓ | |
| Plant construction & automation Plant construction, Automation technology, Robotics | ✓ | ✓ | |
| <i>Recycling technologies</i> | | | |
| Manufacturing process | | | |
| Additive manufacturing Others (Reworking the functional surfaces, removing the support structures) | ✓ | ✓ | |
| <i>Coating (surface engineering)</i> | | | |
| Fibre composite technology Others (Machining post-processing) | ✓ | ✓ | |
| <i>Forming</i> | | | |
| <i>Joining</i> | | | |
| <i>Material property alteration</i> | | | |
| <i>Primary forming</i> | | | |
| Processing and separating Drilling, Turning, Milling, Sawing, Grinding | ✓ | ✓ | |
| <i>Textile technology</i> | | | |

Overview of lightweighting expertise

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| | Research | Development | Manufacturing & Supply |
|---|----------|-------------|------------------------|
| Material | | | |
| <i>Biogenic materials</i> | | | |
| <i>Cellular materials (foam materials)</i> | | | |
| Composites Glass-fiber reinforced plastics (GFRP), Carbon-fiber reinforced plastics (CFRP), Metal matrix composite, Laminates | | | |
| | ✓ | ✓ | |
| Fibres Glass fibres, Carbon fibres | | | |
| | ✓ | ✓ | |
| <i>Functional materials</i> | | | |
| Metals Aluminium, Intermetallic alloys, Magnesium, Steel, Titanium, Others (Glare) | | | |
| | ✓ | ✓ | |
| <i>Plastics</i> | | | |
| <i>Structural ceramics</i> | | | |
| <i>(Technical) textiles</i> | | | |

Contacts

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Contacts

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