

To extend our team, we are looking for a full time

Research Associate (m/f/d) in the field of AFP process development for LH2 tanks

About us

The Chair of Carbon Composites (LCC) at the Technical University of Munich pursues an interdisciplinary research approach from raw materials to production engineering up to complete composite components. of fiber-reinforced composite materials and their applications. This includes the development of new manufacturing methods, new approaches for process and structural simulation, as well as research in the field of material characterization and testing.

We are currently looking for a new, motivated colleague (m/f/d) for a collaborative research project focused on the development of AFP process technology for aircraft-specific, linerless Liquid Hydrogen (LH2) storage tanks for efficient integration into an aircraft wing. Automated Fiber Placement (AFP) is an automated manufacturing technology for producing high-performance composite materials through efficient and precise layer-by-layer deposition of material.

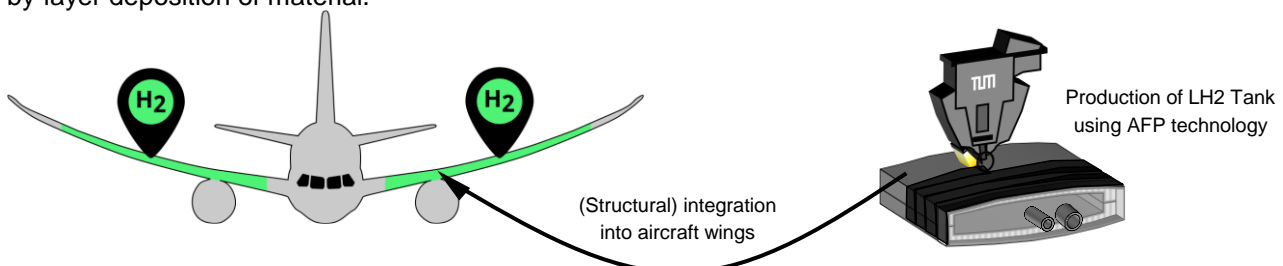


Figure 1: Project goal: Manufacturing of aircraft-specific, linerless LH2 tanks using AFP technology for structural integration in the aircraft wing

At TUM, we are focusing on the following research areas:

- Development of a manufacturing concept based on AFP technology for aircraft-specific, linerless hydrogen tanks
- Demonstration of the manufacturing concept using a technology demonstrator
- Material characterization and provision of mechanical properties for the design of the tanks

Requirements

- Above-average university degree (Diploma or Master's degree) in the fields of materials science, composite materials, plastics engineering, manufacturing technology, or similar
- General interest in manufacturing processes and characterization of composite structures
- Enjoyment of experimental work, automation techniques and digitalization topics
- Determination, independent, structured and creative working style and pronounced teamwork and communication skills
- Proficiency in writing longer texts with complex content in German and English

Tasks

- Independent handling of various tasks in a research project with partners from industry and science
- Participation in the preparation of research proposals
- Supervision and guidance of student theses
- Involvement in teaching in the field of materials science/composite materials
- Supervision of scientific equipment

We offer

- Exciting research and working environment within a young, committed team
- Opportunity for a doctorate for professional and personal development
- Remuneration according to the collective agreement (TV-L)

Application

- The position is initially limited to two years
- Disabled persons will be given preference if they have the same qualifications and suitability
- TUM strives to raise the proportion of women in its workforce and explicitly encourages applications from qualified women.
- TUM does not cover any costs associated with attending interviews
- Please send your application via email to personal_24_01.lcc@ed.tum.de. In the case of a written application, we kindly ask you to submit only copies, as we cannot return your application documents after the procedure is completed

Data Protection Notice:

As part of your application for a position at the Technical University of Munich (TUM), you will transmit personal data. Please note our privacy policy in accordance with Art. 13 General Data Protection Regulation (GDPR) for the collection and processing of personal data as part of your application. By submitting your application, you confirm that you have taken note of TUM's Privacy Policy.

Technical University of Munich

Chair of Carbon Composites

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