



Research Associate (m/f/d)

Failure analysis of additively manufactured fiber-reinforced composite structures made of natural fibers

Textile technology, mechanical, or aerospace technology etc.

application deadline

01.09.2023

start

01.11.2023

time limitation

1 year

workplace

Denkendorf

Job Description

The Institute for Textile and Fiber Technologies (ITFT) of Stuttgart University is conducting research in the field of coreless filament winding (CFW) for fiber-reinforced composite structures. In a future research project, building elements made of CFW structures (natural fiber-reinforced plastic) will be explored and manufactured; however, the building system also includes timber elements. The aim is to investigate how these CFW elements fail structurally in order to design them in a more sustainable and durable manner. At ITFT, the research focus is on the material and the damage mechanisms that occur. The partners are responsible for the holistic assessment of the architectural building system.

Your Tasks

- Integration of fiber optical sensors into natural fiber composites and evaluation/analysis of measurement results
- Definition of data based criteria for structural integrity
- Supervision of student theses (Bachelor/Master)
- Preparation of applications for scientific projects
- Publication of scientific papers

Your Qualifications

- Excellent master's degree or diploma in one of the above-mentioned disciplines
- Theoretical and practical experience in the field of fiber-reinforced composite processing
- Experience in sensor technology as well as measurement data evaluation/analysis
- Confident knowledge of the German and English language

Our Offer

- Possibility of doctorate given and explicitly desired
- Payment according to TV-L EG13 (100% working hours according to collective agreement)
- Earliest possible start date: 01.11.2023 (time limitation 1 year, an extension is sought)

The University of Stuttgart emphasizes the compatibility of private life, family and career as well as equal opportunities for persons of all genders. Disabled individuals are given preference in the case of equal suitability.

Contact

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