

Job advertisement

PhD student in Wood technology/ Wood science

Department: Department Wood Biology and Wood Products (ID 13981)

Contact: PD Dr. Christian Brischke

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ForestValue together with the Fachagentur Nachwachsende Rohstoffe (FNR) send a signal, that the European Joint Research Project

“Delivering fingertip knowledge to enable service life performance specification of wood“

with Georg-August-Universitaet Goettingen as a project partner will be funded.

Department Wood Biology and Wood Products invites applications for a position of a

PhD student in Wood technology/ Wood science

- 13 TV-L - initially 50% (currently 19.80 h/week) for 36 months subject to funding.

The superior objective of the project is to develop a performance-based specification protocol to provide a software tool for architects and specifiers to predict the service life and performance of wood products.

The University of Goettingen is focussing on the development and optimization of prediction models to quantify the effect of macro- and microclimatic parameters on the resulting material climate and its impact on fungal and insect damage of wood. Furthermore, existing gaps of existing data sets and currently available methodology will be identified and closed through experimental studies. University Goettingen will be heavily involved in the development of a global model that can be used as basis for the software tool for durability-based service life prediction.

Your tasks:

- Moisture-Monitoring in differently exposed wooden components to determine the climate-induced risk for decay and corresponding dose-response relationships

- Durability studies with native wood, thermally and chemically modified wood, wood treated with water repellents and wood preservatives
- Mathematical modelling of decay and degradation processes caused by wood-destroying fungi, bacteria and termites
- Quantitative characterisation of the effect of selected parameters, e.g. microclimate, design, maintenance and repair, and material resistance
- Adaptation of existing modelling approaches to determine the service life of wooden components in soil contact
- Development of material resistance models
- Investigation on the effect of fungal degradation on the structural integrity of wood
- Analysis of the spatial distribution of fungal decay in dependence of the material climate
- Determination of material characteristics, especially strength properties and moduli of elasticity
- Reporting

Your profile:

- Master degree in material science, forest science, wood science, or similar subjects
- Experience with statistical analysis
- Experience with material testing, preferably experience with material testing of wood and wood products

The University of Goettingen is an equal opportunities employer and places particular emphasis on fostering career opportunities for women. Qualified women are therefore strongly encouraged to apply in fields in which they are underrepresented. The university has committed itself to being a family-friendly institution and supports their employees in balancing work and family life. The mission of the University is to employ a greater number of severely disabled persons. Applications from severely disabled persons with equivalent qualifications will be given preference.

Deadline for electronic applications is December 17, 2018. To apply, please send a detailed CV, research statement and the names and e-mail addresses of potential referees, citing 'PhD' to: Georg-August Universitaet Goettingen, Holger Miltz, Abteilung Holzbiologie und Holzprodukte, Buesgenweg 4, 37077 Goettingen, E-Mail: holger.miltz@uni-goettingen.de

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