



University of Stuttgart

Independent Junior Research Group Leader (m/f/d, E14 TV-L, 100%) on Robotic Manufacturing and Reuse/Recycling of Fibre- Reinforced Composite Structures for Circular Building Construction

The **University of Stuttgart** stands for excellent, globally recognized research and first-class teaching in one of Europe's most dynamic industrial regions. With over 22,000 students and more than 5,800 employees, we are a reliable partner for knowledge and technology transfer and one of the largest employers in the state capital.

The **Cluster of Excellence IntCDC - Integrative Computational Design and Construction for Transformative Architecture**, which is funded by the German Research Foundation (DFG) from 2019 to 2032 as part of the federal and state governments' Strategy for Excellence, bundles the internationally recognised competencies of the University of Stuttgart, the Max Planck Institute for Intelligent Systems and Bauhaus Earth. It aims to lay the methodological foundations for the urgently needed, future-proof transformation of the way buildings are designed and constructed. Based on highly interdisciplinary and integrative research, IntCDC seeks to harness the full potential of digital technologies to concurrently advance computational design and engineering methods, cyber-physical fabrication, construction and renovation processes, and next generation material and building systems (www.intcdc.uni-stuttgart.de).

To complement our research activities, we are seeking a highly motivated scientist with an excellent PhD degree, an outstanding early-career track record and substantial international research experience as **Independent Junior Research Group Leader in the field of Robotic Manufacturing and Reuse/Recycling of Fibre-Reinforced Composite Structures for Circular Building Construction**.

The successful candidate will bridge between composite manufacturing/recycling and architecture, engineering and construction (AEC), conducting research at the interface of composite materials, robotics, process design, and sustainable construction. In this role of bridging, the successful candidate will be keen to engage with AEC and bring in excellent research expertise in one or more of the following or similar fields:

- (Semi-)automated and robotic fabrication of fibre-reinforced composite structures, particularly using bio-based resins and/or natural fibres
- Human-centered automation (HCA) in composite manufacturing, including human-robot interaction in production processes
- Process and structural simulation, digital twins, and computational process design for the manufacturing and recycling of composite materials
- AI-supported development of resource-efficient, sustainable, and circular fabrication and deconstruction processes in the construction sector

- AI-based methods for process optimization, monitoring, or control in robotic composite fabrication
- Circular strategies for fibre-reinforced composite structures

The successful candidate will **lead a new Independent Research Group** within the Cluster of Excellence IntCDC and its related structures. The establishment of a competitive research program and the proactive collaboration with IntCDC partners at the University of Stuttgart, the Max Planck Institute for Intelligent Systems and Bauhaus Earth is expected. The research group will benefit from IntCDC's supporting structures, instrumentation and labs. The scientific language of IntCDC is English.

The full-time position is on a **fixed-term contract until 31 December 2032**. The start date is as soon as possible, but can be adjusted to suit the availability of the successful candidate.

To apply, submit your application to **jobs@intcdc.uni-stuttgart.de** as **one single PDF file** (max. 10 MB) comprising (1) a cover letter, (2) an academic CV, (3) a full list of publications, (4) a description of past and future research activities, (5) degree certificates, and transcripts of records from Bachelor/Master/PhD degrees, (6) reprints of up to 3 key publications, (7) other work samples if applicable, (8) three reference letters. Please be aware of the risks regarding confidentiality and the integrity of your application contents when sending your application via email. Please use "IntCDC JRGL Robotic Manufacturing and Reuse/Recycling of Fibre-Reinforced Composite Structures for Circular Building Construction" as the subject of your application email. Applications will be reviewed on a rolling basis. The initial application deadline is **15 November 2026**.

Information on how we handle applicant data in accordance with Article 13 of the EU General Data Protection Regulation can be found at www.uni-stuttgart.de/en/privacy-notice/job-application/.

If you have any questions about the position, Prof. Dr.-Ing. Oliver Sawodny is looking forward to your call at +49-711-685-66302 or by email to sawodny@isys.uni-stuttgart.de.



The University of Stuttgart is committed to diversity, equal opportunity, and helping its employees balance work and family life. Applications are welcome regardless of background, gender, age, religion, or disability. In areas where women are underrepresented, equally qualified female applicants will be given preferential consideration; the same applies to equally qualified applicants with severe disabilities. This position can also be filled on a part-time basis or as a job share.