



---

# Research scientist (m/f/d) for mechanisms and actuators

## Basic Info

Location      Ladenburg, Baden-Wurttemberg, Germany

Job type      Full-Time

Contract      Regular/Permanent

**Join ABB and work in a team that is dedicated to creating a future where innovative digital technologies allow greater access to cleaner energy.**

You are an expert of fast-moving mechanisms and novel actuation systems? Then join ABB, a global key player in industrial automation and smart electrification, operating in more than 100 countries. Apply your technical expertise in a challenging and fascinating environment and collaborate with ABB divisions and partners worldwide, to develop the foundations of future ABB digital solutions.

## Your responsibilities

- Conceptual design, modeling and simulation of fast-moving mechanisms and novel actuation systems (regarding dynamical as well as structural mechanical performance).
- Experimental analysis, including the design of test rigs, selection of sensors and data acquisition systems, defining and/or running the tests and analysis of measurement results.
- Development and realization of new mechatronic systems within the wide and versatile field of ABB's products.

- Participation in and execution of R&D projects in close cooperation with ABB divisions, end customers and universities.
- Identification of new trends through observation of market, competition and university research.
- Assessment of new technologies based on cost-benefit analyses.
- Presentation of research results within the ABB group, to customers and at scientific conferences/journals

## Your background

- PhD in mechanical engineering, mechatronics engineering, physics, or related field.
- Experience in mechanics research for industrial systems with a background in kinematics and dynamics (analysis as well as synthesis), modeling and simulation (multi body / structural mechanics / fatigue)
- Demonstratable experience and knowledge in state-of-the-art simulation tools for multibody dynamics and/or structural mechanics are a prerequisite, e.g. ADAMS, ANSYS, ABAQUS, COMSOL.
- Experience in practical implementation of mechanisms and actuators as well as strong laboratory set-up and testing skills.
- Proven ability to identify, structure and evaluate industrial innovation challenges in the area of mechatronic systems and a strong interest in the versatile industrial application of innovative actuation systems.
- Experience in concept design or mechanical design or manufacturing engineering is a plus.
- Additional IT-skills will be considered a plus, e.g. 3D CAD (e.g. SolidWorks, Creo), MATLAB/Simulink or LabView.
- Fluent in English and (willing to learn) German.
- High interest in new fields of research and technology, paired with a collaborative, solution-oriented approach.
- Willingness to travel (max. 2-3 weeks a year)

## More about us

Bring your very own sense of pride and purpose as you help us drive forward the Fourth Industrial Revolution – creating a sustainable future for our planet, and your career. Join ABB and harness the power of our diverse global network, as you collaborate with and learn from our world-class teams. Above all, challenge yourself every day. Let's write the future, together.

ABB is able to offer you an interesting role within a highly motivated team, together with open communication structures. On the basis of a personal, practice-oriented induction programme, you will be given the opportunity to acquire the confidence needed to work independently and self-reliantly within your assigned area. Even after the joining phase, ABB offers a wide range of individual career development opportunities and supports you in realising your career goals with targeted training measures. At ABB, as a certified family-friendly employer, you will find an attractive working environment in all phases of life - including policies for sabbaticals and home office, the ABB children's vacation camp and taking care of family members.

Interested in joining our team? We are looking forward to receiving your complete application through our online tool.

ABB Data Privacy Statement:

<https://new.abb.com/privacy-notice/candidate>

ABB AG

Your contact is: ABB PersonalDirekt

+49 (0) 621 381 3500

**Reference Number**

DE76417452\_E1

**Publication date**

2020-10-27