

**Research Associate (m/f/d)
at the Department of Aerospace Engineering
at the Institute for Jet Propulsion
in the field of**

**„Experimental studies of inlet-compressor-interaction on compact, highly
integrated propulsion systems“**

(Payment according to Entgeltgruppe 13 TVöD)

wanted immediately (initially) for a limited term until 31.12.2024 (anticipated, further funding in planning) on a full-time basis.

The Universität der Bundeswehr München is firmly established in the national and international research landscape. As a campus university with a comprehensive basic infrastructure, best conditions for high-quality teaching and research are given.

The Institute of Jet Propulsion (www.unibw.de/strahlantriebe) is intensively involved in the investigation of propulsion components and architectures for scalable, hybrid propulsion systems, primarily for use in unmanned systems. We are currently engaged in several work packages and are looking for appropriate support for the existing team in the areas of experimental investigation of inlet and exhaust systems, as well as their integration on jet engines at the institute's own engine test facilities. Exciting research topics lie ahead with a focus on optimising energy utilisation and increasing efficiency, investigations into the interaction of external flow, inlet architecture and compressor aerodynamics, as well as efficient exhaust and thermal management. One of the unique capabilities of the Institute of Jet Propulsion is the ability to implement extensive experimental test setups and their numerical support with the help of its own engine test facilities, whereby an exceptionally comprehensive portfolio of measurement technology can be applied.

Your Mission:

- Collaboration in the project team and development of innovative approaches to the emerging problems.
- Planning, preliminary design, set-up and execution of experimental investigations on various test rigs (inlet wind tunnel, engine test rigs, component test, etc.).
- Extensive data processing and scientific analysis of measurement data and validation of numerical simulations from the team, also using performance simulation software.
- Presentation of results at national and international conferences and project meetings.
- Collaboration in the teaching of the institute and in scientific organisational tasks.
- Participation in research and publication projects and in the acquisition of third-party funding.

Qualifications:

- Above-average university degree (diploma, master's degree) in aerospace engineering, mechanical engineering, process engineering or a similarly oriented course of study, preferably with in-depth knowledge of propulsion systems or fluid mechanics.
- Good knowledge of fluid mechanics and turbomachinery.
- Intensive interest and initial experience in a complex, experimental test environment.
- Advanced programming skills, especially MatLab and LabView.
- Good knowledge of computer-aided design and simulation programs, preferably CATIA V5.
- Good knowledge of English and German, both written and spoken.

What we expect:

- Intensive and broad interest in topics related to aviation and especially propulsion technology
- Interest in experimental test set-ups and prototype development, as well as their conception and implementation
- High level of initiative and the ability to inspire others with creative ideas
- Openness and enthusiasm for new research challenges
- Willingness and the ability to work autonomously, precisely and on one's own responsibility in a committed, interdisciplinary team with a constructive atmosphere

What we offer:

- You will acquire sound knowledge in theory and practice in the field of turbomachinery, aircraft propulsion systems, as well as experimental methods
- Active promotion of your scientific development and the opportunity to earn a doctorate
- You will work in an interdisciplinary team of highly motivated colleagues
- State-of-the-art IT and laboratory equipment
- Flexible working hours
- Excellent networking opportunities
- campus university with a very good infrastructure, its own crèche and kindergarten (parents' initiative), a family service centre with advice and support for university staff to help them reconcile family, care and work, and excellent sporting facilities
- Assignment to payment group 13 is carried out in compliance with § 12 TVöD with regard to the actual activities to be carried out and the fulfilment of the personal and collective agreement requirements
- Mobile working / offer of teleworking is possible to a limited extent after consultation with the institute management
- You work for a recognised and family-friendly employer in secure economic circumstances.
- You will benefit from targeted staff development and an extensive range of further education and training opportunities
- You have the opportunity to take part in company health promotion programmes
- You can expect an attractive salary, measured according to the collective agreement of the public service (TVöD)

The Bundeswehr fosters professional equality between women and men and therefore particularly welcomes applications from women. In accordance with the Sozialgesetzbuch IX and the Behindertengleichstellungsgesetz, we explicitly welcome applications from disabled persons; individual consideration is given with regard to the fulfilment of the tender requirements. The Bundeswehr supports the goals of the National Integration Plan and welcomes applications from people with a migration background.

Have we piqued your interest?

Then send your application documents (cover letter, CV, degree and work references) in PDF format (max. 10 MB) by e-mail with the subject: **"WiMi-Experiment"** latest **till January 19th 2024** to:

Prof. Dr.-Ing. Dragan Kožulović (dragan.kozulovic@unibw.de)

Dr.-Ing. Marcel Stößel (m.stoessel@unibw.de)

By submitting your application, you agree that your personal data may be stored, processed and forwarded to the offices involved in the application process for the purposes of the application. You can find more information on data protection under the following link:

<https://www.unibw.de/home/footer/datenschutzerklaerung>

We are very much looking forward to receiving your application!