The TUM Chair of Aircraft Design team is looking for full-time

Doctoral Researcher in Aircraft Design Software Engineering

About us

As member of the department of Aerospace and Geodesy at the Technical University Munich the Chair of Aircraft Design is focusing on the design of manned and unmanned aircraft. The research is dedicated to the areas of „scenario analysis, future trends and technologies", „aircraft design for civil and military operations" and „operational analysis and evaluation". The combination of these research focus areas provides an ideal platform for interdisciplinary research in aerospace and software development.

Our common challenge

How may novel technologies influence new aircraft configurations to enable a sustainable aviation system? The quest for climate-friendly aviation will lead to radically different future aircraft. To find promising combinations of technologies by using adequate analysis and simulation tools, the TUM Chair of Aircraft Design is engaged in the software development of the open source cross-university UNICADO framework. As we strive to push the boundaries of aerodynamics, fuel efficiency, and overall performance while ensuring easily extendable software, the demand for innovative software solutions becomes increasingly crucial. Therefore, the challenge lies in developing robust and efficient programs that can simulate, among others, different propulsion architectures or systems integration, ultimately contributing to creating more efficient and environmentally sustainable aircraft. While enabling profound aircraft concept solutions in research the framework should also allow the use in teaching courses to improve the understanding of the interdisciplinary character of aircraft design.

Your contribution

The candidate we seek to join our team as a research associate in aircraft design software engineering must possess a strong background in software development and, ideally, aerospace. Therefore, you should bring a MSc. or Dipl. degree in informatics, or similar, well above average, showcasing a proficiency in programming languages such as Modern C++ and Python. The ideal candidate should have a track record of successful software projects, preferably in the aerospace domain, and a passion for exploring innovative solutions to complex engineering challenges. Thus, you should be interested in cooperation with other groups, bring good communication, and writing skills in English to publish scientific papers. Besides research activities, you will also contribute to the lectures and organizational tasks of the chair.

We provide

Full-time researcher positions featuring a fixed-term contract with a salary in accordance with the German state regulated public service salary scale (TV-L E13) TUM is an equal opportunity employer. TUM aims to increase the proportion of women and therefore particularly welcomes applications by women. Applicants with severe disabilities will be given priority consideration given comparable qualifications.

Applications (until 21.06.2024) via:

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