Start your mission at DLR

Institute of Communications and Navigation in **Oberpfaffenhoffen or Aachen** is looking for a

Bachelor/Master student (w/m/d) studying
Aerospace/Electrical/Mechanical engineering or similar to support

Integration of navigation equipment into a drone (Internship/HiWi)

The institute of Communications and Navigation is developing new methods for reliable navigation within the framework of various projects, thereby enabling for example autonomous air transport (UAM, e.g. air cabs). These vehicles typically operate in environments, such as urban environments, where high accuracy is required but the performance of satellite navigation techniques is degraded by local effects such as satellite signal shadowing and multipath. Therefore, integrated navigation systems using multiple types of sensors need to be integrated to ensure safe and reliable navigation.

To test these systems, the institute employs experimental Unmanned Aerial Vehicles (UAVs) equipped with advanced sensor suites. By replicating real-world operational environments, the team can identify potential issues, validate system designs, and optimize navigation algorithms. To integrate different types and configurations of sensors into a new UAV, custom developments in terms of mechanical and electrical integration are required.

We offer a pleasant working atmosphere in a successful research and development group, state-of-the-art equipment and an environment with national and international corporations. Flexible working hours and an individual arrangement for mobile working are possible in our institute. If we have made you curious, we look forward to getting to know you!

Your Tasks:
- 3D/CAD Design for integration of sensors and components into an experimental UAV used in flight testing of new navigation systems
- Basic circuit and PCB development (break-out boards, power distribution boards, sensor carrier boards)
- Basic Python programming (optional)

Your Qualification:
- Bachelor or Master student in engineering (e.g. electrical engineering, mechanical engineering) or a similar related field
- Knowledge in 3D CAD design and 3D printing
- Basic experience circuit development and simple PCB design
- Enthusiasm, motivation and creativity in solving practical engineering problems
- Experience in Python programming is a plus

Contacts:
Please send your CV/Cover letter/Transcripts of your BS&MS to Daniel Gerbeth (Daniel.Gerbeth@dlr.de)