Tutor for Practical Course Optimal Control

The Institute of Flight System Dynamics offers the Practical Course Optimal Control, where students gain insights into the numerics of optimal control methods and their implementation. During the course, an optimal control framework will be implemented in MATLAB. To support the online course and help students with solving the programming tasks, we are looking **for one tutor** (student assistant) for **8 h/week** (3h live session, 5h preparation) under the following conditions:

Remuneration: The remuneration is according to the TdL for student assistants and the rate depends on the current academic degree.

Contractual period: The employment is during the lecture period in winter semester 2022/2023.

Time: **Fridays from 09:00 to 12:00** during the lecture period in winter semester 2022/2023.

Tasks:

- Preparation for each session (approx. 5 h per week, scheduled at your own convenience):
    o Review the theoretical background and problem statements.
    o Solve the programming tasks to identify alternative solution strategies, common pitfalls.
    o Prepare for questions and problems that might arise during the live session.
- Live sessions on-site (Fridays from 09:00 to 12:00, i.e. 3 h per week):
    o Answer students' questions regarding the theoretical background, problem statements and software architecture.
    o Assist in modeling, programming, debugging etc.

Requirements:

- You have good working knowledge of optimization and (numerical) optimal control.
- You have good knowledge of flight system dynamics and modelling.
- You have good MATLAB programming knowledge and experience.
- You are able to assist students in English, and, optionally, German.
- You are enrolled as a student during winter semester 2022/2023.