HiWi / Student Assistant

Student Assistant (Tutor) for the Optimal Control Lab in WS 24/25

We at the Institute of Flight System Dynamics are looking for a student assistant who supports us in teaching during the *Optimal Control Lab* in the upcoming winter semester. As a tutor you will **help students gain insight into the numerical solution of optimal control problems** (trajectory optimization) and support them in implementing optimal control methods in Matlab. The optimal control lab will be given from **2024-10-18 to 2024-02-07** with **one session per lecture week**.The course takes place in presence at campus Garching.

Work Packages:

- Preparation for each session (scheduled at your own convenience):
    - o Review the theoretical background and problem statements.
    - o Solve the programming tasks yourself, in order to identify alternative solution strategies, common pitfalls and issues with the task descriptions.
- Live sessions on-site (**Fridays from 09:00 to 12:00 CET**, 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.

Your Profile:

- You have good **Matlab programming** skills and experience.
- You have good working knowledge of **optimization and optimal control**.
- You have good knowledge of **flight system dynamics and modelling**.
- You are able to assist students in English.
- You are entrolled as a student during the 2024/2025 winter term.

What we offer:

- A job amounting to approx. 5 h per course session; details depend on individual availability and the achievable contract duration.
- Flexible working hours for the preparation of each session.

Start: October 2024 or later, depending on your availability and the duration of HR procedures.

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