



WORK OFFER

Ref. No. DE-2022-2018-1

Employer Information

Employer: Technical University Munich
Associate Professorship of Thermo-Fluid Dynamics
Boltzmannstr. 15
D-85747 Garching
Germany

Website: <https://www.tfd.mw.tum.de>

Location of placement: Garching
Nearest airport: München (MUC)
Working hours per week: 40.0
Working hours per day: 8.0

Number of employees: 50
Business or products: Research

Student Required

General Discipline: MECHANICAL ENGINEERING
Field of Study: Aerospace, Aeronautical and Astronautical/Space Engineering.

Completed years of study: 3
Student status requirements: Required during the whole period of internship.
Language required: English Good (B1, B2) Or German Good (B1, B2)

Required Knowledge and Experiences:

Required theoretical knowledge: Advanced Mathematics (Differential equations, vector algebra, complex numbers, ...), Thermodynamics, Fluidmechanics, Numerical Methods
Required programming skills: good knowledge of Matlab (or equivalent, e.g. Python etc.)
Experience with CFD simulation is beneficial (OpenFOAM, Ansys Fluent, ...)

Other requirements:

Internship has to be compulsory part of the course of study. Due to legal issues only EU/EFTA residents can apply for this position. All other applicants are referred to our second offer

Work Offered

The trainee will work in a group of ~40 PhD students. The trainee will directly collaborate with one or two PhD students. Our group works on theoretical, numerical and experimental investigation of thermoacoustic instabilities, combustion, two-phase flow and heat and mass transfer. For details please consider our homepage(s) <https://www.tfd.mw.tum.de> and <https://www.td.mw.tum.de>. Depending on the individual interest and previous knowledge, projects offered for students are mainly in the field of numerical simulation of thermo-fluids (by means of CFD, i.e. OpenFOAM, etc.) and reduced order modeling of thermo-acoustic instabilities (based on Matlab/Simulink). Besides, projects related to experimental investigation of reacting flows by means of optical (LIF, PIV, etc) and acoustical measurement methods may also be possible. As thermo-fluid dynamics is a challenging discipline, trainees will have to spend the first weeks of the internship to get into the topic. Therefore, the minimal duration of the offered internship is 5 months. For more details on the IAESTE program at our institute, please consider <https://www.tfd.mw.tum.de/index.php?id=228&L=1>

Number of weeks offered: 20 - 24
Working environment: Research and development
Within the months: 01-JAN-2022 - 31-DEC-2022
Gross pay: 861 EUR / Month
Or within: -
Deduction to be expected: variable
Company closed within: -
Payment method / time of first payment: Other Cash or bank transfer / end of month

Latest possible start date:

Accommodation

Canteen at work: Yes
Expected type of accommodation: Info will be handed in later
Estimated cost of lodging: 400 EUR / Month
Accommodation will be arranged by: IAESTE
Estimated cost of living incl. lodging: 861 EUR / Month

Additional Information

see additional documents

Nomination Information

Deadline for nomination: 2021-04-11

Date: 08-SEP-2021 **On behalf of receiving country:** IAESTE Germany