IAESTE GERMANY

WORK OFFER

Ref. No. DE-2022-1060-1

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:

This 3-months offer is specifically designed for Non-EU nationals to allow them an easier access to our institution, e.g. no needs of Visa. EU/EFTA citizens 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 theroretical, 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: 12 - 12

Within the months: 01-JAN-2022 - 31-DEC-2022

Or within: -

Company closed within: -

Latest possible start date:

Working environment: Research and development

Gross pay: 861 EUR / Month

Deduction to be expected: variable

Payment method / time of first payment: Other Cash or bank transfer / end of month

Accomodation

Canteen at work: Yes

Expected type of accommodation: Info will be handed in later

Accommodation will be arranged by: IAESTE

Estimated cost of lodging: 400 EUR / Month

Estimated cost of living incl. lodging: 861 EUR / Month

Additional Information

see additional documents

Nomination Information

Deadline for nomination: 2021-03-11

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