



IAESTE

INTERNSHIP OFFER

DE-2026-2079-5



Karlsruhe, Germany,
Germany



ON-SITE

INTERNSHIP HOST



Name of Company
Karlsruhe Institute of Technology
Karlsruhe School of Elementary
and Astroparticle Physics (KSETA)



Website
www.kseta.kit.edu



Address of Company
Karlsruhe
Germany



Number of Employees
9000



Business or Product
Higher Education and Research

STUDENT REQUIRED



General Discipline
Physics and Physical
Sciences

Field of Study
General;Astrophysics;Experimental
Physics/Applied Physics

Completed Years of Study
3

Language Required
English Excellent (C1, C2)

Required Qualifications and Skills
Computer Programming
Bachelor degree in physics or a
neighbouring discipline.

Student Status Requirements
required during the whole period of
internship

Other Requirements/Information

INTERNSHIP OFFER



8 - 12
weeks



992 EUR
per Month



500 EUR
per Month

Latest Possible Start Date

01-Jul-2026

Within Months

May-2026 - Aug-2026

Company Closed Within

Deductions Expected
variable

Payment Method

Arranged by
Trainee with the help of IAESTE

Estimated Cost of Living including Lodging
992 EUR / Month

Working Environment: Research and development

Software development for a Dark-Matter detector

Working Hours / Week: 40.0

Liquid xenon detectors have been leading the searches on dark matter particle candidates thanks to their excellent sensitivity, low background and energy resolution. The XLZD Observatory, a future 60-tonne of LXe TPC for astroparticle and rare event searches, has a baseline design for its TPC of 3 m wide and 3 m tall. At KIT, we work on developing the necessary technologies that are required to power the with a high voltage the electrodes in the detector, and the construction of the electrodes themselves.

The student will be involved in the the simulation of particles interaction in the MOTION detector, a 70 kg liquid xenon time projection chamber, utilising the CERN-developed Geant4 software. The student will be in charged of improving the C++ based program, conducting Monte Carlo simulations of radioactive background materials, either from the laboratory walls or the detector components, or muons traversing the liquid xenon volume.

ADDITIONAL INFORMATION

Deadline for Nomination - 25-Jan-2026

Date - 12-Jan-2026

On Behalf of Receiving Country - IAESTE Germany