

Project Id: 1250

Instrument Scientist for ESTIA

External id: ESD-19926

Instrument Scientist for ESTIA

The European Spallation Source (ESS) is a partnership organization of 13 European member countries located in the city of Lund, Sweden. The ESS is hiring motivated and inspiring people from across the globe to design, construct and operate the world's most powerful neutron source. We seek collaborative, talented people in a range of fields who are excited about playing a part in the future of science in Europe.

We are currently recruiting for the position of Instrument Scientist for Estia. This is a critical role that exists within the Instrument Scientists Group of the Neutron Scattering Systems (NSS) Division. Working with the Estia lead engineer and our in-kind partner Paul Scherrer Institute (PSI) you will be tasked to deliver the Estia instrument to hot commissioning and prepare the instrument for user operations. Further, your responsibilities and qualifications will include:

Your role:

- Working with the Science directorate, our partner PSI, and the user community, prepare "First Science" experiments to be carried out during the initial operation phase of ESS.
- Support the user programme at ESS by performing local contacting duties and collaborative research
- Provide expertise in the scientific application of neutron reflectometry and in neutron reflectometry method development.

Your responsibilities:

- Develop closely familiarity with the Estia instrument design
- Working with the Estia lead engineer, our in-kind partner PSI, plan and execute the ESTIA installation and cold commissioning.
- Provide scientific guidance and support to Estia work package team.
- Provide an interface between ESS Technical Groups and In-Kind partner PSI.
- Take part in the pre-build of components at PSI
- Manage and contribute to installation and cold commissioning of the Estia Instrument
- Operate the Estia instrument as part of the ESS user programme
- Manage scientific and technical project changes in accordance with project goals, making use of ESS and PSI project management processes and tools.
- Represent the project during advisory panel and committee reviews at ESS and PSI
- Provide requirements to ensure the integration of the scientific capabilities of the instrument software, sample environment and support labs.
- Conduct your own research in line with the Estia science case and seek research funding from national and international funding bodies as principle investigator.
- Participate in teaching and outreach activities.

Required qualifications

- PhD in the physical sciences or biology with research interests and publication record aligned with the science case of the Estia instrument, involving research in the field magnetism or membrane biophysics
- Experience and technical interest in instrumentation and neutron reflectometry, preferably using polarization analysis and time of flight techniques
- Ability to work in a team with people of a variety of disciplines in an international collaboration.
- Excellent oral and written English skills
- Flexibility to travel. The project requires regular travel between ESS and PSI.

Additional desirable qualifications and experience:

- Knowledge of neutron scattering data treatment and modeling at a level sufficient to guide the development of instrument specific software.
- Programming experience in Python
- Experience in neutron optics and Monte Carlo ray tracing simulations
- Hands-on experience in sample preparation for reflectometry-related science

Duration & Location

The position is a permanent, full-time position located in Lund, Sweden.

Application & Contact

Please provide your CV in English by clicking on "apply" and following the instructions.

The deadline for applications is **November 30th 2022**.

For more information regarding the ESS recruitment process, please follow this link <https://europeanspallationsource.se/ess-recruitment-process>.

For further information regarding the position, please contact the Line Manager, Andrew Jackson, Group Leader Instrumentation Scientists, Andrew.jackson@ess.eu.

For further information regarding the recruitment process, please contact Recruitment Partner, Kate Quaak, kathryn.quaak@ess.eu.

For trade union information please contact Unionen / Conny Wendt at +46 72 179 24 63 or SACO / Swedish Association of Graduate Engineers/ Yngve Levinson at +46 72 179 21 65

We look forward to receiving your application!