



Elettra Sincrotrone Trieste

Technician for the CHIRAX ERC project at Elettra and FERMI

Deadline: 31 March 2024

Ref: DB/24/13

Background

Elettra Sincrotrone Trieste is an international multidisciplinary research center operated as a user facility, featuring a 2.0/2.4 GeV, third-generation synchrotron light source (Elettra), a new free-electron laser light source (FERMI) and a variety of support laboratories. The extremely high quality of the machines and beamlines has set new performance records and has been producing results of great scientific and technological interest. In order to allow the laboratory to remain competitive in the next 20 years, an entirely new source - Elettra 2.0 - belonging to the new generation of storage rings (DLSR or Diffraction Limited Storage Ring) is being developed. The new source will exhibit a major increase in the brilliance and coherence fraction of the photon beams. The Elettra 2.0 optics is based on our enhanced symmetric six bend achromat structure (S6BA-E) with a 12-fold symmetry and an emittance of 200 pm-rad at 2.4 GeV. The new structure creates also straight sections in the arcs permitting the installation of additional insertion devices, thus increasing the number of beamlines. Existing beamlines will have to be upgraded and new beamlines developed to take full advantage of the characteristics of Elettra 2.0. The new machine is scheduled for commissioning in the second half of 2026. See <http://www.elettra.eu> for more information.

Beamline/Activity/Project description

The CHIRAX project, funded by the European Research Council, aims to implement X-ray spectroscopy of chiral molecules in solution, using circular and helical dichroism to study their structure and a rich variety of dynamic processes of great scientific interest. Experimental activities include the design and development of new instrumentation to be exploited at Elettra, FERMI and other laboratories worldwide.

Job description

The successful candidate will provide technical support for the development, operation, and maintenance of various experimental set-ups to be used in a large class of synchrotron light and FEL experiments, working closely with the project scientific staff. The position involves the installation and maintenance of advanced scientific instrumentation, such as liquid delivery systems in vacuum and experimental chambers. In addition, the selected candidate will be involved in the design and implementation of mechanical and optical set-ups.

Qualifications

An industrial technician diploma with specialization in mechanics, or equivalent, is required. Experience in the following areas is desired:

- Use of machine tools (drill, lathe, and milling machine) and EDM machines;
- TIG welding, brazing, and spot welding;
- Demonstrated technical drawing skills with CAD programs (CATIA or SolidWorks) and proficiency in Office applications (Word, Excel).

Previous experience as a technician in mechanical or micro-mechanical workshops will be positively evaluated. Knowledge of basic vacuum practices will be considered an advantage.

Good oral and written communication skills in Italian and basic oral and written communication skills in English are essential.

General information

The appointment will be a fixed term employment contract with an initial duration of 12 months, renewable upon agreement by the parties. The salary will be commensurate with previous experience and qualifications of the candidate.

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Applications should include a full curriculum vitae and the names and contact information (including electronic mail) of up to two persons who have agreed to provide references.

The deadline for the submission of the application is March 31, 2024.

In accordance with the provisions of article 21 of the Italian legislative decree no. 39/2013 and in conjunction with article 53 (subsection 16ter) of Italian legislative decree no. 165/2001, employees or former employees of any Italian Public Entity who have exercised authority over Elettra Sincrotrone Trieste S.C.p.A. or have negotiated with Elettra - Sincrotrone Trieste S.C.p.A. within the last three years will be excluded from the present selection procedure. We thank all applicants in advance.

For more information, please contact Riccardo Mincigrucci (email: riccardo.mincigrucci@elettra.eu).

To apply for this position please visit the following link:

<https://www.elettra.trieste.it/it/about/careers/working-withus.html?id=3902>

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