



Technician for Mechanical Metrology Elettra 2.0 project

Deadline: 10 January 2025

Ref: RA/24/57

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 main target of the activities of the Mechanical Metrology Laboratory (MML) consists in the complete characterization of the mechanical components in order to check compliance with the construction specifications and improve the alignment technique during accelerator and beamlines assembling. The more accurate will be the alignment of the mechanical components, the easier will be the electron and photon beam transport.

Job description

The candidate will become part of the Mechanical, Vacuum and Optics Group (MVO). In particular he/she would be involved in all of the activities of the MML, i.e., characterization of mechanical and opto-mechanical elements for the new Elettra 2.0 facility, participation in the alignment of accelerator and beamline components and related maintenance activities.

Qualifications

A Diploma in Mechatronics, Mechanical or a Bachelor Degree in Industrial Engineering (three-year cycle) or equivalent is required. Knowledge of 3D Coordinate Measurement Machines (CMM and PCMM), 3D CAD main application software and expertise in metrology would be considered as additional assets.

Good oral and written communication skills in English are required. A working knowledge of the Italian language is desirable.

Good time management skills, flexibility, versatility and ability to prioritize are expected, together with the ability to interact with the facility staff and to work as part of a multi-disciplinary team.

General information

The appointment envisioned is a fixed-term contract of an initial duration of 24 months, in accordance with the National Metalworkers' Union Collective Labour Agreement and the Company Union Agreement dated 28th March 2024, ex. art. 8 of the Decree Law 138/2011.

The salary will be commensurate with previous experience and qualifications of the candidates.

Applications should include a full curriculum vitae, description as well as any evidence of the qualifications declared, and, if possible, the names and contact information (including electronic mail) of three references.

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ai sensi dell'art. 10, comma 4,
L. 19 ottobre 1999 n. 370



Elettra Sincrotrone Trieste

The interviews may be held via video conferencing.

The deadline for the submission of the application is January 10, 2025.

Permanent employees of Elettra Sincrotrone Trieste S.C.p.A. and 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, 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. We thank all applicants in advance.

For more information, please contact Edoardo Busetto (email: edoardo.busetto@elettra.eu).

To apply for this position please visit the following link:

<https://www.elettra.trieste.it/it/about/careers/working-withus.html?id=4230>

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