



Elettra Sincrotrone Trieste

# Electronic Technician for Elettra 2.0

Deadline: 27 November 2020

Ref: GA/20/38

## Company description

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. See <http://www.elettra.eu> for more information.

## Beamline/Activity/Project description

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.

## Job description

The successful candidate, with specialization in low power electronics, will be part of the team responsible for the definition, development, prototyping, procurement, and installation of the components of the injection system for the Elettra 2.0 storage ring. In particular, he/she will participate in the following activities:

- . Testing and assembly of hardware prototypes
- . CAE design of Analog/Digital boards, wiring diagrams and component libraries
- . Simple mechanical realizations, prototype assembly and electrical testing
- . Measurements with standard laboratory instrumentation
- . Bill Of Materials fill-in and simple procurement activities

Other activities include collaboration in the definition and drafting of the technical specifications required for the publication of call-for-tenders.

## Qualifications

A Diploma degree from an industrial institute with specialization in Electronics or a Bachelor degree in Electronic Engineering or Electrical Engineering is required. Experience in assembly, development, integration, validation and documentation of hardware devices and related firmware are expected.

The following technical skills are also required :

- adequate knowledge of CAD-VMS (preferably Labcenter Proteus) and development of firmware in C, BASIC for Pic16 and 24 platforms and basic knowledge on signal processing;
- attitude for testing and debugging of prototypes;
- familiarity with the use of laboratory equipment for carrying out electrical measurements

### Elettra - Sincrotrone Trieste S.C.p.A.

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Knowledge of the main communication protocols (RS232, SPI, I2C, TPC-IP) would be considered an advantage.

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

Good oral and written communication skills in English are essential.

A working knowledge of the Italian language is required .

*The appointment envisioned is a fixed term contract with an initial duration of 12 months, renewable upon parties' agreement.*

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

*Applications should include full curriculum vitae and contact information (including electronic mail) of at least one reference.*

*Due to the situation related to the COVID-19 virus, the interviews will be performed through video conferencing.*

The deadline for the submission of the application is November 27, 2020.

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 Alessandro Carniel (email: [alessandro.carniel@elettra.eu](mailto:alessandro.carniel@elettra.eu)) or Piergiorgio Borsi (email: [piergiorgio.borsi@elettra.eu](mailto:piergiorgio.borsi@elettra.eu)).

To apply for this position please visit the following link:

<https://www.elettra.trieste.it/it/about/careers/working-withus.html?id=1581>

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