



SESAME

Synchrotron-light for Experimental Science & Applications in the Middle East

Vacancy Notice No:	TS/19/05
Position and Grade:	Mechanical Engineer (Survey & Alignment), (P1, Step I)
Sector:	Technical Sector
Unit/section:	Mechanical Group
Duty Station:	Allan, Jordan
Issue Date:	May 2019
Type/Duration of Appointment:	3 years (first 12 months are probation period).
Benefits:	Health insurance, Life and disability insurance, Rental subsidies, Education grant.
Date for entry on duty:	As soon as possible
Application Deadline:	Will continue until a suitable candidate is found (repost)

Organization Setting

SESAME is the first synchrotron light source in the Middle East. It is located in Allan (Jordan). The facility consists of a 20 MeV Microtron, an 800 MeV Booster synchrotron and a 2.5 GeV electron storage ring. Two beamlines, the XAFX/XRF (X-ray absorption fine structure/X-ray fluorescence) spectroscopy and IR (infrared) spectromicroscopy beamlines, are in operation and started to host users in 2018. A third beamline, the MX (Materials Science) beamline, is expected to come on stream in few months, and a fourth, the MX (Macromolecular Crystallography) beamline, is under construction. Meanwhile, plans are underway for construction of the BEATS (BEAmline for Tomography at SESAME) beamline and HESEB (HEImholtz-SEsame) beamline for soft X-rays. SESAME offers a vibrating and stimulating international environment with great possibility for scientific and technical growth.

Assignment

Under the supervision of the Technical Director, and in close collaboration with the Mechanical Group, the incumbent will:

- Support the installation and alignment of all components in the facility including accelerator and beamlines. Develop and maintain survey networks as required.
- Carry out periodic measurement to check survey networks, analyze data and compensate eventual errors ensuring the most up-to-date alignment standards and procedures.
- Develop and apply expertise in technologies including, high precision alignment, stable support. structures, precision mechanisms, and the general design of scientific equipment and plant.

- Interact directly with users, engineers and scientific staff to translate survey and alignment concepts and requirements into work assignments.
- Work closely with internal & external scientific and engineering staff to produce mechanical designs for projects.
- Produce concept designs, layouts, assembly drawings and detailed manufacturing drawings employing AutoCAD and SolidWorks software.
- Procurement of equipment through commercial suppliers.
- Supervision of internal and contract design staff and control of quality.
- Contribute to hazard analysis and risk assessment exercises.
- Maintain and update engineering drawings and documentation on projects.
- Work within SESAME procedures and contribute to their development.
- Carrying out any other tasks/duties as requested by the line manager and/or SESAME Technical Director.

Education and Experience

- B.Sc. degree in Engineering. Two to five years of experience in design and of technical systems.
- Proficiency in 3D CAD modelling (AutoCAD, Solid work preferred)
- Experience with survey and alignment procedure and instrumentation
- Work experience in developing products in a high-tech environment.
- Preparing technical documents and user manuals.
- Previous work in a scientific research lab or a synchrotron facility.
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Knowledge, Skills and Abilities

- Ability to prepare and update manufacturing and assembly drawings according to required standards.
- Skills in troubleshooting, diagnostics, and problem-solving.
- Working in an environment that requires multi-tasks skills
- Working in a team but also capable of working independent without direct supervision.
- Excellent communication skills, both oral and written.
- Ability to learn and support new systems and applications, including support for the operational need of the facility (i.e. manning machine shifts).
- Good skills in using laboratory electrical/mechanical tools for the installation and alignment of equipment and performing troubleshooting and repairing if required.
- Good level of English, reading and writing.
- Available to travel abroad, including periods away from home.
- Available to work occasional shifts during machine development periods.

Employment Conditions

- The candidate would be expected to take up his/her position as soon as possible
- The work location is in Jordan
- The candidate should be willing to travel abroad for training, and to

participate in workshops, seminars and meetings.

- The starting salary will be that of a P1 post. Very exceptionally, if the incumbent's qualifications and experience justify this, the Step, and thus starting salary, may be higher.
- The candidate should preferably be a national of a Member of SESAME.
- SESAME is an equal opportunity employer.

How to apply

A detailed C.V. in English and a cover letter should be addressed to the Administrative Director by filling the Online Submission Form on the announcement page.

For further Information

Consult the SESAME web site: www.sesame.org.io