

IAEA/SESAME Training Fellowships (Call for 2016)

Background

The International Center for Synchrotron-light for Experimental Science and Applications in the Middle East (SESAME) is established in Jordan, under the auspices of UNESCO. Its mission is to promote international collaboration in the Middle East and neighbouring countries using synchrotron light for basic and applied research in physics, chemistry, biology, materials science, the environment, medicine, archaeology and other research areas of relevance to the region.

In September 2014, SESAME's booster synchrotron was successfully commissioned, and accelerated the injected beam from 20 MeV up to the design energy of 800 MeV,. Meanwhile the complete magnetic structure of the 2.5 GeV storage ring and most of the vacuum system is installed and commissioning is expected for end of 2016.

The SESAME laboratory will come into operation with two 'day-one' beamlines in late 2016/early 2017, but already users are visiting SESAME for their work thanks to the Fourier Transform Infra-Red (FTIR) microscope that is operational there.

Seven Beamlines have been approved for the first operational phase of SESAME. These are:

1. IR (infrared spectromicroscopy)
2. XAFS/XRF (X-ray absorption fine structure/X-ray fluorescence spectroscopy)
3. MS (materials science)
4. MX (macromolecular crystallography)
5. EUV (extreme ultraviolet spectroscopy)
6. SAXS/WAXS (small angle and wide angle X-ray scattering)
7. VUV (soft X-ray vacuum ultraviolet)

The IR and XAFS/XRF beamlines will be 'day-one' beamlines, to be followed shortly after by the MS and MX beamlines and later the remaining three Phase-1 beamlines.

In 2006, a Memorandum of Understanding (MoU) was signed between the International Atomic Energy Agency (IAEA) and SESAME. One of the results is an interregional Capacity Building Project in the use and operation of SESAME that aims *inter alia* at enhancing the skills of potential SESAME operators and users in different fields of operation of the SESAME Laboratory.

In the context of this Capacity Building project, IAEA fellowships for SESAME, are available for young scientists from SESAME Members to allow them to develop skills in well-established synchrotron radiation laboratories around the world needed to use any of the aforementioned seven beamlines.

All applications received will be reviewed by a team consisting of SESAME and IAEA officials and the final selection will be made by IAEA.

Eligibility for a Fellowship

- Nationals of SESAME members (Bahrain, Cyprus, Egypt, Iran, Israel, Jordan, Pakistan, Palestinian Authority and Turkey).
- A PhD or evidence of being engaged in research for a doctoral thesis in any of the disciplines of the physical or biological sciences.
- Ability to work effectively in a multicultural environment with a multidisciplinary team of scientists, engineers and technicians.
- Excellent oral and written command of English
- Good communication skills.
- Willingness to travel abroad.

Fellowships available and their duration

In 2016 to 2019, through the above-stated interregional Capacity Building project, a number of training fellowships will be offered. These fellowships may be of a duration of 2-6 months.

Fellowship Conditions

No application will be deemed complete without the following in English:

- A letter of intention clearly listing in point the skills in which training is being sought, in addition to the detailed programme of the training required.
- A detailed C.V. with a clear indication of academic qualifications and positions held; major fields of training and research experience; and, in no more than five lines, current research work.
- A list of publications with an asterisk against the five most significant ones (articles are not to be submitted and abstracts are not to be listed or submitted).
- At least 2 recommendation letters from experienced scientists who know the applicant's work.
- Since this is an IAEA interregional Technical Cooperation project with SESAME, a duly completed application form ([IAEA Fellowship form through the respective National Liaison Officers](#)) will be requested from the selected candidates.

Though not obligatory, candidates are encouraged to submit a letter of "acceptance" from a host institution indicating that it is willing to accept them if the fellowship is awarded.

How to apply

By 30 September 2016, the documents referred to in the Section "Fellowship Conditions" above are to be sent electronically directly to SESAME Secretariat, via filling the on-line form:

http://www.sesame.org.jo/sesame/index.php?option=com_rsform&formId=38

For further information: please consult the SESAME web site: www.sesame.org.jo