

Soliciting Elettra beamtime allocation proposals from Indian scientists under Indo-Italian Program of Cooperation in Science & Technology

1. Indo-Italian Programme of Cooperation (POC) in Science & Technology 2005-2007 is an inter-governmental framework for supporting project based exchange visit of scientists with co-funding by Indian Department of Science & Technology (DST) and Italian Ministry of Foreign Affairs (MAE). One of the approved projects PhT9 within this POC relates to sponsoring Indian scientist's visit to Trieste for conducting research experiments on Italian synchrotron facility- Elettra.

1.1 While Indian DST obligation is for meeting the international air-travel cost for the Indian scientists between place of work in India to the nearest airport to Trieste , the Italian MAE obligation is towards local hospitality costs of the visiting Indian scientist's stay in Trieste for Elettra beamtime utilization , as per the agreed financial rates of the current Indo-Italian POC in S&T (POC 2005-2007 provides Euro 93 per day as the cash allowance in Italy for short-term visits of up to 10 days)

2. Elettra is a third generation 2-2.4 GeV Italian synchrotron radiation source covering wide energy range from far infrared to hard x-rays. Elettra's 19 operational beamlines, as listed below, caters to researchers in the fields of materials science, life sciences, physical sciences, chemical sciences, microelectronics and various related engineering fields:

- Advanced Line for Overlay, Interface & Surface Analysis (ALOISA)
- Advanced Photoelectric-effect Experiments (APE)
- Beamline for Advanced Dichroism (BACH)
- Bending Magnet for Emmission Absorption & Reflectivity (BEAR)
- Circular Polarization (CIPO or Polar)
- Deep Lithography (DELI)
- ESCA Microscopy (ESMI)
- Gas Phase Photoemmission (GAPH)
- Inelastic Ultra Violet Scattering (IUVS)
- Laboratory for Inter-disciplinary Lithography (LILIT)
- Materials Science (MASC)
- Nanospectroscopy (NASP)
- Small-angle x-ray scattering (SAXS)
- Spectromicroscopy (SPEM)
- Super ESCA (SUES)
- Synchrotron Radiation for Medical Physics (SYRMEP)
- VUV Photoemission (VUPE)
- X-Ray Absorption Fine Structures (XAFS)
- X-ray diffraction (XRDI)

Details of various Elettra beamlines and the Scientist-in-charge for each beamline are available at the internet web address

<http://www.elettra.trieste.it/experiments/beamlines/index.html>

2.1 Elettra beamtime allocation proposals from Indian scientists are required to be submitted on-line through Elettra Virtual User Office Trieste (<http://vuo.elettra.trieste.it/>) as per Elettra procedures respecting submission by two deadlines each year:

- February 28 (proposals for user period July 1-Dec.31)
- August 31 (proposals for user period Jan.1-June 30)

The on-line submission forms are accessible to any applicant world-over generally two months before the two official deadlines.

Indian scientists are encouraged to contact the Elettra beamline coordinator prior to making proposal or revising the proposal.

3. In order to generate more number of proposals from Indian scientists for Elettra beamtime allocation under Indo-Italian POC in S&T framework, a special tie up has been made between Indian DST & Italian Sincrotrone Trieste, whereby the **template format (RTF File in downloadable version- Encl.1) quite similar to on-line submission form of Elettra Virtual User Office Trieste is henceforth available to Indian scientist for writing Elettra Beamtime Allocation Proposals throughout the year**

3.1 While the "Template Format based application" from Indian scientist can be written anytime of the year and submitted electronically to Indian DST (Email: srelia@nic.in) for it to be evaluated within India, the proposer should make sure that the same proposal is submitted officially to Elettra as per the "Elettra Beamtime Allocation Application -On line Form". This will require Indian scientist to get logged on to the Elettra Virtual User Office Trieste [http:// vuo.elettra.trieste.it/](http://vuo.elettra.trieste.it/).

3.1.1 The **"Template Format based application" can be submitted by Indian scientist throughout the year in an electronic form - MS Word Rich Text Format (RTF) to DST** (Attn: Ms. Sadhana Relia, Adviser/Scientist G, International Cooperation Technology Bhavan New Mehrauli Road, NewDelhi-110016 Email: srelia@nic.in Tel: +91-11-26602216). Detailed instructions can be found in this template for preparing the proposal. In case the "Proposal Number" is not known at the time of submitting the proposal to DST, this field can be left blank. However, in such a case, the Proposal Number should be intimated to Ms. Sadhana Relia DST after the same proposal is submitted to Elettra in "Elettra Beamtime Allocation Application -On line form "and the proposal number obtained from there. In case, the proposer is already aware of the most suitable sub-committee at Elettra to review the proposal, this should be given at the specified field in the template; otherwise, this field may be left blank. All other information must be provided in the spaces specified in the template and the format prescribed should be adhered to in preparing the proposal.

3.1.2 The Indian scientist is expected to intimate to DST the Proposal Number allotted to Elettra Beamtime Allocation-On Line Form which has been electronically submitted across to Elettra Virtual User Office, Trieste. If the on-line application by Indian scientist to Elettra Virtual User Office Trieste is substantially changed from the

template format based application already submitted by the Indian scientist, then it should be notified to DST at once along-with the electronic copy of the substantially changed "Elettra Beamtime Allocation Application -On line Form " submitted across to Elettra Virtual User Office Trieste to replace the previous template format based application submitted to DST.

3.2 Only those Indian proposals that are routed through Indian DST will be considered for co-funding under Indo-Italian POC in S&T framework. **Directly submitted Indian application to Elettra Virtual User Office, upon award of Elettra beamtime , without a prior submission to DST, will not be eligible for funding under Indo-Italian POC in S&T.** Further, the revised proposals should also be submitted through DST only with clear statement of reasons for resubmission and a copy of comments from Elettra, if any.

4. The Indian applications invited under this advertisement will be subject to first level of evaluation within India by DST through an 'Expert Committee- Coordination Group' written as per "Template Format based application form" followed by second level of evaluation of "Elettra Beamtime Allocation Application -On line form " by 'Sincrotrone Scientific Review Committee'.

4.1 DST's Coordination Group would assess and recommend the Indian applications for Elettra beamtime allocation , along the following criteria :

- **Novelty and significance of Indian scientific experiment** - does it address a research problem of international significance; will it gain from finer resolution and better quality data from Elettra;
- **National Relevance of Indian scientific experiment to be run on Elettra** - does it offer value addition to Elettra facilities and sub-systems which meet the requirement of Indian R&D programs; will this experience add to on-going Indian accelerator based R&D programs and operations of Indian Synchrotron Facilities like INDUS-I & II.
- **Possibility to utilize instrumentation within India for conducting the proposed Indian scientific experiment** at Elettra or other international synchrotron radiation facilities abroad.
- **Appropriateness in choosing the Elettra beamline for the given Indian scientific experiment**, number of shifts and the availability of where withal at Elettra experimental station for running the sample to be investigated.

4.2 Sincrotrone Trieste (Attn: Dr. Michele Bertolo Email: bertolo@elettra.trieste.it) would check on Indian applicants cleared by Indian Evaluation System from DST under Indo-Italian POC in S&T framework generally around April/October every year for the Sincrotrone Scientific Review Committee's second stage evaluation.

5. Request for sponsoring one scientist for Indian experiment awarded upto three shifts; two scientists for Indian experiment awarded upto six shifts; and three scientists for Indian experiment awarded more than six shifts will be considered under the Indo-Italian POC in S&T .

6. Once the Indian proposal (original or revised) qualifies the two step evaluation one by Indian DST's Expert Committee-Coordination Group & another by Italian

Sincrotrone Scientific Review Committee, Indian DST will fund the international air travel expenses between place of work in India and nearest airport to Trieste by Economy Excursion IATA Fare and the Italian Ministry of Foreign Affairs will provide the daily allowance for the Indian scientist to cover board, lodging and local transport in Trieste, Italy @ Euro 93 per day (which are the current financial terms agreed for Indo-Italian POC in S&T 2005-2007).
