



**PONDICHERRY UNIVERSITY
CENTRAL INSTRUMENTATION FACILITY**

**Expression of interest (EOI) document for supply
of sophisticated analytical instrument –
Fluorescence Assisted Cell Sorter
Ref:PU/CIF/DST-PURSE-Ph2/EOI-01/2014**

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1. Preamble

Pondicherry University is inviting expression of interest (EOI) from reputed manufacturers / vendors / their authorised dealers / representatives in India for the supply, installation, commissioning and testing of sophisticated analytical equipment – Fluorescence Assisted cell Sorter - at the Central Instrumentation Facility and also to provide operational and maintenance training on these equipment.

The purpose of this document is NOT to provide detailed specifications for bidding, but to provide the interested manufactures/suppliers, an overview of the scope and requirements of the equipment to be commissioned in the Pondicherry University.

2. Scope of Work under Expression of Interest

The scope of work under the said EOI will be supply, installation, commissioning, testing and provision of staff training for operation and maintenance of the complete systems of the following Sophisticated Analytical Instrument - Fluorescence Assisted cell Sorter.

Fabrication of all the components required such as vacuum systems, purge gas systems, pressured air / gas or liquid circulating systems etc., will be the responsibility of the vendor. The scope of this EOI is to identify potential original suppliers for the above mentioned equipments who have successfully executed similar jobs in reputed universities, IITs and R&D institutions. The vendors must qualify as per the eligibility criteria mentioned in Section-5 of this document.

3. Required Test Facilities

The instrument / equipment system should be tested and proved for its specifications and features using suitable standards as per norms and conditions laid down by the Pondicherry University to the satisfaction of the user.

4. Schedule and Duration of Work

The scope of work explained in this EOI, will be supplied in more details in the tender document. The expected period for delivery of the equipment is less than 4 months from the date of placing purchase order and one month thereafter for completing the installation in all respects. The duration mentioned and agreed upon is required to be followed by the supplier in a strict manner. Any delay in the process will attract penalty to be paid by the supplier.

5. Eligibility Criteria

Technical Requirement:

- The vendor should have proven track records of supplying adequate number of similar sophisticated equipment to reputed universities, IITs and R&D institutions within the past three years.
- The vendor shall have in-house or access to equipment facilities similar to that is to be supplied and should be able to arrange for site visits for carrying out testing on standards and samples to verify the technical specifications and performance of the equipment by a committee constituted for this purpose by the Pondicherry University.
- The vendor should have adequately factory trained and skilled manpower to carry out the installation, commissioning, testing and application support with regard to the equipment supplied.
- The vendor should have factory trained and skilled manpower for periodic maintenance and prompt service support for breakdown calls in India, preferably, at a close location to Pondicherry University.
- The vendor should give training in routine operation and maintenance of the equipment / facilities to personnel of Pondicherry University.

6. Standard conditions

1. Annexure – I (Tables 1 and 2) should be filled, duly signed and submitted along with all the valid supporting documents while submitting the EOI. If the EOI is submitted without valid documents or received without proof of eligibility criteria, the party will summarily be rejected.
2. The EOI shall be submitted along with a covering letter of Expression of Interest, Vendor Information Form as contained in Annexure-I duly filled with the requested information/responses as per this EOI with all accompanying documents duly signed by personnel authorized by the interested parties. The designation and authority of the signatory shall be stated.
3. Proof of attachment will be considered only if the documents are found valid with respect to the requirements specified in various sections of this EOI.
4. Those who do not meet with the eligibility criteria need not submit EOI.
5. The Registrar, Pondicherry University reserves the right to accept or reject any response in full or part thereof without assigning any reason thereof.
6. Request for the extension of due date will not be considered.
7. Late/Delayed proposals will not be accepted.
8. The brief technical description / features of the equipment / facilities proposed to be established are given in Annexure- II.
9. Further details and technical specification will be included in tender document which will be supplied to the shortlisted parties of this EOI. Hence, queries regarding further technical details will not be entertained during this process of EOI.

7. Roadmap to finalize the Vendor for Supply of Equipment / Facilities

1. Following is indicative roadmap that will be followed to obtain EOI proposals for finalizing the vendor to supply the equipment / facilities listed in this EOI document.
2. This notice is for invitation of EOI proposal for contract for supply, installation, testing of equipment / facilities at Pondicherry University and this is **NOT** the tender.
3. The scope of work involved is mentioned in Section – 2.
4. Essential eligibility criteria are in Section-5 (EOI proposals received from the vendors satisfying these essential eligibility criteria will only be considered for further evaluation).
5. Vendor will submit EOI proposal with all necessary supporting documents as mentioned in Annexure-1.
6. Vendors, whose EOI proposals are found suitable, shall be called at Pondicherry University and asked to make a presentation for their EOI proposals. The presentation should cover the following points:
 - a) Vendor's overall profile.
 - b) Vendor's manpower availability for installation of equipment/ facilities at Pondicherry University.
 - c) Vendor's work experience in similar nature jobs, list of projects executed in India, few of which can be discussed in detail. Some important journal publication using their instruments may be included.
 - d) Understanding of overall scope of work & technologies involved and their approach towards successful execution of projects of this nature.
 - e) Critical areas identified in the scope, if any and proposed solutions.
 - f) Capability and financial abilities to undertake this type and magnitude of work contract.
 - g) Codes and standards regularly followed in manufacturing, assembly, and installation of the sophisticated analytical equipment / facility covered in the EOI
 - h) Details of quality policy and program, testing and inspection facilities.
 - i) Project planning and execution strategy, with specific emphasis on time schedule
 - j) Records for last three years in terms of projected and actual delivery schedule of similar equipment supplied in India.
- 7) Pondicherry University reserves the right to incorporate the suggestions made by the vendors in their proposal, during the presentations and meeting at its sole discretion in final tender document.

- 8) Final selection of EOI proposals for award of tender documents shall be made based on submitted documents, presentations and discussions. This assessment shall be done considering (a) Available manpower and infrastructure, (b) Understanding of scope of work presented during presentations and discussions, (c) Earlier experience of doing such jobs and in successful execution of similar projects, assignments in terms of costs, quality and schedule.
- 9) The vendors, whose EOI proposals are accepted by Pondicherry University, will be given an opportunity for pre-bid discussion on technical specifications and scope of work. A final tender document will be prepared by taking into account the feedback of vendors.
- 10) Final tender document shall be in two parts. **Part-A** containing detailed technical specifications of the equipment and deliverables, work plan and time scheduling of installation, testing, operational and maintenance training of personnel and commercial terms and conditions and **Part-B** containing price bid format.
- 11) Those who receive tender documents shall submit the responses in two parts. Detailed procedure for submission of technical proposal including commercial terms and conditions (Part-A) and price bid (Part-B) shall be mentioned in our tender document.
- 12) Initially technical proposals including commercial terms and conditions (Part – A) shall be opened.
- 13) Pondicherry University will evaluate the technical proposals received and shortlist them after scrutinizing their contents for the suitability as specified in tender document.
- 14) Those, whose proposals (Technical proposals – Part A) are short listed based on the scrutiny, shall be called for further discussion for technical content of the proposals in more details and to clarify commercial terms of Pondicherry University.
- 15) Pondicherry University shall shortlist these proposals further based on the outcome of the technical discussions held during meeting. This short listing shall be based on vendor's presentations informing about their past experience, technical specifications and delivery schedule given in our tender document. If needed, technical bid can be revised, based on the outcome of these meetings along-with their price bids.
- 16) Price bid (Part-B) of only short listed vendors will be opened.
- 17) Based on the price bid, Pondicherry University shall award a contract for the supply and installation of equipment and facilities covering the details mentioned in tender documents and finally agreed during techno-commercial meeting.
- 18) Pondicherry University reserves right to procure all or some of the equipment or none of the equipment given in the EOI

Annexure I

Table 1. Vendor's Details

Name of the Vendor		
Address of the Vendor		
Name of the Indian Dealer		
Address of the Dealer		
Key persons to be contacted		
Senior Management	Name	
	Contact Phone Numbers	
	Fax	
	email	
	Address	
Sales Department	Name	
	Contact Phone Numbers	
	Fax	
	email	
	Address	
Service Department	Name	
	Contact Phone Numbers	
	Fax	
	email	
	Address	

Table 2. Vendor’s Performance details

Sl. No.	List of information to be furnished with documentary proof to determine the eligibility of the vendor	Vendors Response	Proof of documents attached
1	Total number of installations of similar equipment facility in India installed during past three years. Give contact details of person in-charge of the equipment along with email and telephone numbers		
2	Total number of installations of similar equipment facility in abroad installed during past three years. Give contact details of person in-charge of the equipment along with email and telephone numbers		
3	Time taken for supply of equipment/facilities in the past two years in India. Attach necessary proof.		
4	Time taken for installation and commissioning of equipments/facilities in the past two years in India. Attach necessary proof.		
5	Factory trained service engineers available in India		
6	Normal time taken to attend to service request or to solve problems with equipment		
7	Access to the equipment similar to that is to be supplied for carrying out testing on standards and samples to verify the technical specifications and performance by a committee constituted by the Pondicherry University		
8	Comprehensive warranty for three years to be provided		
9	Support for site preparation, supply of standards and calibration material and other accessories for installation and operation of the equipment facility.		
10	Customer satisfaction reports on equipment supplied during past three years		

Annexure II

Brief description about specifications and features of the Sophisticated Analytical Instrument – Fluorescence Assisted Cell Sorter (FACS)

A. Technical Specifications for Optics:

1. System Configuration – 3 LASER (**Violet 405nm , Blue 488nm and Red 633nm**) - 8 colors preferred –
LASER power to be specified by the Vendor
2. Excitation (nm) - 375, 405, 445, 488, 561, 633, 640 - preferred wavelengths with choice to select
combinations
3. Emission detection :
 - (a) Forward scatter detector & filters –with 488/10 band pass filter
 - (b) Fluorescence detector -
 - (c) Side scatter detector -
4. Detectors for – FITC, PE, PE-Texas Red, PcrCP-Cy5.5 PcrCP-Cy7, APC, APC – Cy7 or APC-H7, V450,
Pacificblue, DAPI, Living colors, m-cherry, Propidium Iodide, CFP, Hoechst Blue, LP-Hoechst Red or
possible variety of specific aforementioned dyes
5. Flow Cell – quartz type, specify manufacturer
6. Optical Alignment – Fixed, not operator assisted.
7. Collection optics feature – specify

B. Technical Specifications for Fluidics:

1. User changeable filters & Mirrors
2. Refrigerator/Heater option for sorted cell collection in tubes/multiwall plates/slides
3. Operating temperature range – normal available range
4. Automatic cell deposition unit
5. Adjustable sample flow rate – 10 to 100 uL/min minimum
6. Autoclavable fluidic reservoir - > 5L capacity
7. Fluidics to provide sheath, Cleaning fluids and Waste reservoir
8. Sheath pressure – 5 – 75 psi or define.
9. Sheath Fluid consumption - 1 Liter/hr normal and very low during standby
10. Sample injection – direct to flow cell/option
11. Sample volume – 25uL to 4.0 mL
12. Auto cleaning feature for injector
13. Sample dead volume – 30uL or < 30uL
14. Sample acquisition rate – 8000 to 12000 events /sec (minimum), with compensated fluorescence &
scatter parameters.
15. Ability to accept FACS tubes(4ml), Microfuge tubes(1.5ml) and microwell plates (6,12,24,48 & 96)

C. Technical Specifications for Performance:

1. Nominal acquisition rate – vendor to specify
2. Carry over: < 0.5%
3. Sensitivity: Nominal fluorescence sensitivity in normal mode
4. Fluorescence resolution: < 5.0% for CV with PI
5. Fluorescence linearity: around 2.0 with PI employing 488nm laser
6. Purity & Yield: >90% P & >70 % Y
7. Viability: Cell proliferation for days post sort
8. Drop Frequency: Optimal viable range
9. Multiple sample input sizes
10. Adjustable input agitation/vortex & temperature control
11. Ability to analyse bio-samples of bacteria, yeast to mammalian cells

D. Signal processing

- Analog-digital conversion/ pulse sampling method
- Multiple data acquisition channels
- Low correlation error
- Desirable dynamic range of 4 logs
- Time correlation feature for kinetics/other applications

E. Additional Requirements: -

1. The Whole system including all the modules, components, parts should be covered with a comprehensive warranty for a period of not less than 3 years from the date of handing over the system after final installation, satisfactory performance check and compliance with standard test reports.
2. AMC terms and conditions for a period of 5 years after the comprehensive warranty period of 3 years should be included in the EOI.
3. For the instrument control, data acquisition and Analysis, suitable Computer system with the most recent configurations and printer should be part of the offer.
4. Software should provide unlimited analysis license for Data Management
5. An UPS system covering the whole instrumentation system which can also provide adequate backup time for completion of on-going analysis and allows proper shut down of system – with a comprehensive warranty for a period of not less than 3 years should be included in the offer.
6. All spares, standards, consumables etc., required for trouble free and uninterrupted operation of the FACS system for a period of three years should also be indicated.