



INDIAN INSTITUTE OF SCIENCE EDUCATION AND RESEARCH

PUNE

CLARIFICATION ON TENDER NUMBER - IISER-PUR-1256-13

ITEM DESCRIPTION- PROCUREMENT OF ATOMIC FORCE MICROSCOPE FOR MULTI-DISCIPLINARY APPLICATION

Please refer our Press Tender Notice No.IISER/S&P/14/13 dated 10.1.2014 for procurement of . Atomic Force Microscope For Multi-Disciplinary Application Tender Reference Number - IISER-PUR-1256-13.

Pre-Bid meeting was held on 24.1.2014 at 4.00 pm and minutes of meeting is as under.

At the outset, the Chairman welcomed all the Members and the representative of the Prospective Bidders and briefed in general the scope of the Project and thereafter requested Assistant Registrar (S&P) to brief the vendors on the salient features of the commercial terms and the indenting Officer to read out the clarification sought by the Prospective Bidders and replied thereto as detailed in Annexure -II

The representatives present were satisfied with the replies given and it was informed that the corrections / additons / clarifications given, as discussed during the Pre-Bid Conference would be hosted on the website of IISER Pune and all the Prospective Bidders are required to take cognizance of the proceedings of the Pre-Bid Conference before submitting their bids as stipulated in the Bidding Documents.

The other terms & conditions of the notice issued on our IISER website [www.iiserpune.ac .in](http://www.iiserpune.ac.in) will remain unchanged.No more correspondence in this regard will be entertained

The meeting ended with vote of thanks to the Chair.

24.1.2014

Sd/-
Assistant Registrar (S&P)



IISER PUNE

PRE-BID CONFERENCE FOR PROCUREMENT OF ATOMIC FORCE MICROSCOPE FOR MULTI-DISCIPLINARY APPLICATION

TECHNICAL QUERIES AND CLARIFICATION

TENDER NUMBER - IISER-PUR-1256-13

DATE : 24.1.14

S.No	Query/Clarification Sought	Clarification/Amendment
1.	<p>Chapter 4 (page # 24)</p> <p>Point No. 1: Operational modes with AFM (all modes must operate in both air and liquid): Non-contact, Contact, Intermittent Contact /Tapping Mode, Phase Imaging, Lateral Force Microscopy (LFM) and Magnetic Force Microscopy (MFM), Electrochemical AFM and STM: The microscope should include built-in potentiostat /galvanostat for electrochemical AFM and STM, and should be software controlled. Appropriate cell/sample holder should be included.</p> <p>Other modes, which come as default modes with the offered instrument should also be mentioned.</p> <p>Request to restrict Electrochemistry to AFM only and remove the word “built-in” for potentiostat/galvanostat</p>	<p>Chapter 4 (page # 24)</p> <p>Operational modes with AFM:</p> <p>Electrochemical AFM and STM: The microscope should include potentiostat/galvanostat for electrochemical AFM and STM, and should be software controlled. Appropriate cell/sample holder should be included.</p> <p>Rest as specified in the tender document.</p>
2.	<p>Chapter 4 (page # 24)</p> <p>Point No. 2 Scanners: The instrument design should allow the use of two or more scanners to cover large area and high resolution imaging for stand-alone, with environment chamber and during variable temperature operations. The scanners must</p>	<p>Chapter 4 (page # 24)</p> <p>Scanners: The instrument design should allow the use of two or more scanners to cover large area and high resolution imaging for stand-alone, with environment chamber and during variable temperature operations.</p>

	<p>have a piezo tube design or equivalent design for high resolution imaging.</p> <p>Request to modify equivalent to alternative. Request to modify: “The scanners must have a piezo tube or flexure guided design for large area scanning as well as for high resolution imaging.” The instrument design should allow the use of one or more scanners to cover large area and high resolution imaging for stand-alone</p>	<p>The scanners must have a piezo tube design or flexure guided design for high resolution imaging.</p> <p>Rest as specified in the tender document.</p>
<p>3.</p>	<p>Chapter 4 (page # 25)</p> <p>Point No. 9 Controller Electronics (i) Two numbers of 32 bit floating point Digital Signal Processors (DSPs) should be provided for scan and data processing.</p> <p>Request to modify Two Numbers to 1 or more 32 bit DSP and DAC 16 bit or more</p> <p>(ii) The system should support high pixel density images up to ~5k x~5k pixels or more</p> <p>Request to modify ~5kx~5k to 4096x4096 or above</p> <p>(iii) Capability of higher harmonic imaging with controller bandwidth of up to 3 MHz or more (or equivalent specification) should be possible with the system.</p> <p>Request to remove this specification</p>	<p>Chapter 4 (page # 25)</p> <p>Controller Electronics: (i) One or more 32 bit (minimum 32 bit) floating point Digital Signal Processors (DSP) should be provided for scan and data processing. 8 or more DACs with 16 bit or more resolution for X, Y, and Z scanner positioning 8 or more ADCs with 16 bit or more resolution for X, Y, and Z scanner positioning</p> <p>(ii) The system should support high pixel density images up to ~5k x ~5k pixels or more</p> <p>(iii) Capability of higher harmonic imaging with controller bandwidth of up to 3 MHz or more (or equivalent specification) should be possible with the system. This specification has been removed from the main specification and has been moved to optional item section.</p> <p>Rest as specified in the tender document.</p>

4	<p>Chapter 4 (page # 25) Point 7: Temperature controlled sample holder: Ambient to 250 °C (in air) Ambient to ~110 °C (in liquid)</p> <p>Comment: We request you to change the temperature range for liquids from ambient to 80 °C instead of to 110 °C.</p>	<p>Chapter 4 (page # 25) Temperature controlled sample holder: Ambient to 250 °C (in air) Ambient to ~70 °C (in liquid)</p> <p>Heating and cooling should be controlled by using the system software. Peltier heating/cooling is preferred. Rest as specified in the tender document.</p>
5.	<p>Chapter 4 (page # 26) Point 10: Scanning Tunneling Microscopy STM:</p> <p>The system should support STM with current amplifier module, low current capabilities and software control.</p> <p>Request: mention the current range</p>	<p>Chapter 4 (page # 26) Point 10: Scanning Tunneling Microscopy STM:</p> <p>The system should support STM with current amplifier module, low current capabilities (1-10 pA) and software controlled.</p>
6.	<p>Chapter 4 (page # 26)</p> <p>Point 11: Software: Microsoft Windows operating system is preferred. Suitable software for data acquisition, optical view and for image processing, analysis, and presentation for all modes in AFM and STM should be provided.</p> <p>Request you to modify the above specification even for Linux based operating system</p>	<p>Chapter 4 (page # 26)</p> <p>Same as specified in the tender document</p>
7.	<p>Chapter 4 (page # 27) Optional features:</p> <p>Specification No. It is preferable if the system allows imaging of sub molecular structures (soft matters) in air and fluid by controlling cantilever oscillation directly by way of magnetic actuation.</p> <p>Request you to remove the word “Magnetic Actuation” here.</p>	<p>Chapter 4 (page # 27)</p> <p>This is an optional feature Same as specified in the tender document</p>
8.	<p>Chapter 4 (page # 26)</p> <p>Optional features/modes/consumables/accessories</p>	<p>Chapter 4 (page # 26) Optional features/modes/consumables/accessories</p> <p>The following feature has been added to the Optional features section: Capability of higher harmonic imaging with controller bandwidth of up to 3 MHz or more (or equivalent specification) is preferred.</p>

		<p>Items requested in the Optional features/modes/consumables/ accessories section may not be considered for the commercial comparison.</p> <p>Rest as specified in the tender document.</p>
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COMMERCIAL QUERIES AND CLARIFICATION

TENDER NUMBER - IISER-PUR-1256-13

DATE : 24.1.14

S.No	Query/Clarification Sought	Clarification / Amendment
1.	-----NIL-----	-----NIL-----