

TATA INSTITUTE OF FUNDAMENTAL RESEARCH

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Date: 13-02-2024

Global Tender Ref. No. TIFR/PD/GT/CA23-07/23-24/M/07

Sub: CORRIGENDUM NO. 1, against tender Ref. No. TIFR/PD/GT/CA23-07/23-24/M/07 for "Supply, Installation and Commissioning of High Resolution Transmission Electron Microscope for TIFR Hyderabad".

Dear Bidders/Vendors,

Please refer the subject tender published on 12-01-2024, the following corrigendum to the subject is being issued:

S.No	Change from	To be change/amended as
1	Annexure-A (Page 3 of tender document) 2c. Electron Source Adequate power back up to protect emitter in case of power outage.	Adequate power back up (minimum 8 days) to protect emitter in case of power outage.
2	Annexure-A (Page 4 of tender document) 6. Probe Current ≥ 2.5 nA; mention the probe dimension at 0.7 nm probe size or similar	≥ 2.5 nA at 1.0 nm probe size; Vendor to specify probe current at 0.7 nm probe size (with supporting data)
3	Annexure-A (Page 4 of tender document) 9a. Image/Data recording System High resolution CMOS camera (bottom-mounted or retractable) with a pixel of minimum 4K x 4K (16MP) size. The minimum pixel size should be 14 um or better. Installed camera should be compatible with the provided HT range of TEM.	High resolution CMOS camera (bottom-mounted) with at least 16 megapixels in total. Installed camera should be compatible with the provided HT range of TEM.

4	<p>Annexure-A (Page 4 of tender document) 9b. Image/Data recording System Sensor active area should be $\geq 777 \text{ mm}^2$ and pixel size of at least $6.4 \times 6.4 \text{ mm}^2$.</p>	Deleted
5	<p>Annexure-A (Page 4 of tender document) 9e Image/Data recording System Camera should be able to align, search, focus and stigmatate at full resolution on a UHD monitor at 58 or better frames per second (fps).</p>	9d: Camera should be able to align, search, focus and stigmatate at full resolution on a UHD monitor at ≥ 40 or better frames per second (fps).
6	<p>Annexure-A (Page 4 of tender document) 9f. Image/Data recording System Conversion efficiency @ 200 kV should be equal to greater than 30 counts per primary electron.</p>	9e: Conversion efficiency @ 200 kV should be greater than or equal to 25 counts per primary electron.
7	<p>Annexure-A (Page 5 of tender document) 9g Image/Data recording System The software should include online (real time drift correction at $5.7\text{k} \times 3.3\text{k}$, and Live FFT for astigmatism correction) and offline data processing features such as FFT and full support for real space (image mode) and reciprocal space (diffraction mode) calibrations. Separate computing device with display unit for capture, processing and display with latest software running on 64 bit Windows OS. The camera should be supported by a computer of appropriate capacity, so that image acquisition and storage in hard disk is possible</p>	9f: The software should include online (real time drift correction at ≥ 16 megapixels, and Live FFT for astigmatism correction) and offline data processing features such as FFT and full support for real space (image mode) and reciprocal space (diffraction mode) calibrations. Separate computing device with display unit for capture, processing and display with latest software running on 64 bit Windows OS. The camera should be supported by a computer of appropriate capacity, so that image acquisition and storage in hard disk is possible
8	<p>Annexure-A (Page 5 of tender document) 11 a. Vacuum System Clean ultradry differential pumping system. The system should have sufficient number of oil free ion getter pumps for column, gun and</p>	Clean ultradry differential pumping system. The system should have sufficient number of oil free ion getter pumps for column, gun and specimen chamber.

	specimen chamber. Vacuum should be suitable for cold FEG and EDS analysis. Pumping system should perform without the need for cleaning/maintenance for at least the first 5 years. Documentary evidence must be provided to support the performance and longevity of the pumping system.	Contamination-free pumping system for the projection chamber. Vacuum should be suitable for cold FEG and EDS analysis. Pumping system should perform without the need for cleaning/maintenance for at least the first 5 years. Documentary evidence must be provided to support the performance and longevity of the pumping system.
9	<p>Annexure-A (Page 6 of tender document) 15. Computer</p> <p>Sub system distributed control Integrated control: Command control through network communication Control: Communication command control through personal computer (PC) PC for operation OS: Windows® 10 Professional 64 bit or later CPU: 2.26 GHz or higher, 4 cores or more Memory: 16 GB or larger SSD: 500 GB or larger Control panel: Separate (right/left) control panels, free positioning of trackball Function panel Angle variation function available Monitor: 27-inch wide monitor (display resolution 2560×1440 or more) External control function: Standard configuration, network communication via TCP/IP Multi user support: Maintains control system settings/acquired data destination directory settings for each user.</p>	<p>Sub system distributed control Integrated control: Command control through network communication Control: Communication command control through personal computer (PC) PC for operation OS: Windows® 10 Professional 64 bit or later CPU: 2.26 GHz or higher, 4 cores or more Memory: 16 GB or larger SSD: 500 GB or larger Control panel: Separate (right/left) control panels, free positioning of trackball Function panel Angle variation function available; Monitor width ≥24-inches (display resolution 2560×1440 or more); External control function: Standard configuration, network communication via TCP/IP Multi user support: Maintains control system settings/acquired data destination directory settings for each user.</p>
10	<p>Annexure-A (Page 8 of tender document) 22.Site preparation and environmental condition:</p> <p>This includes complete precision air-conditioning (which shall be provided by the institute). Vibration parameters must be assessed on-site and necessary antivibration precautions/equipment must be included in the quotation.</p>	<p>This includes complete precision air-conditioning (which shall be provided by the institute). Vibration parameters must be assessed on-site and necessary antivibration precautions/equipment must be informed by the supplier prior to the system installation at TIFR Hyderabad. This must be done well in advance of system installation to allow sufficient time to get the site ready.</p>

11	--	Include Optional item 29. Multisegmented detector (4 or more segments) may be quoted as an optional item.
12	--	Include Optional item 30. Cryo transfer holder may be quoted as an optional item.
13	Last Date for Submission of Bid : 13-02-2024 up to 13.00 Hrs.	Last Date for Submission of Bid : 06-03-2024 up to 13.00 Hrs.
14	Date of Opening Bids (Part A) : 13-02-2024 at 15.00 Hrs.	Date of Opening Bids (Part A): 06-03-2024 at 15.00 Hrs.

Note: Remaining technical specifications, terms & conditions as per tender only.

All other terms & conditions of subject tender shall remain unchanged. This Corrigendum No. 01 is an integral part of the subject tender and a copy of the same must be submitted along with the offer duly signed and stamped.

**ADMINISTRATIVE OFFICER
(PURCHASE SECTION)
TIFR, HYDERABAD**