

Notice Inviting Tender

Tender notification for upgradation of TEM/ Supply of a Transmission Electron Microscope (TEM)

Tender No. DBT-IISC/ DBS/TEM/2020-21



**DBT-IISc Partnership Program Phase-II at IISc
Division of Biological Sciences
Indian Institute of Science
Bangalore – 560012**

July 2020

Assistant Professor
Molecular Biophysics Unit
Indian Institute of Science
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SECTION 1 – BID SCHEDULE

1	Tender No	DBT-IISC/ DBS/ CONFOCAL-FLIM-FCCS/2019-20
2	Tender Date	24 th July 2020
3	Item Description	Supply and Installation of Live Cell Confocal system with FLIM and FCCS module
4	Tender Type	Two Bid System a) Technical Bid (Part-A) b) Commercial Bid (Part-B)
5	Place of Submission and tender opening	Principal Investigator, DBT-IISc Partnership Program Office, Biological Sciences, Indian Institute of Science, Bangalore – 560012, India
6	Last Date & Time for submission of tender	17 th August 2020, 15:00 hrs
7	Date of opening of technical bids	21 st August 2020, 16:00 hrs
8	For further clarifications	Principal Investigator, DBT-IISc Partnership Program Office, Biological Sciences, Indian Institute of Science Bangalore- 560012, India Email: somnath@iisc.ac.in, deepaksaini@iisc.ac.in with copy to vijaylakshmi@iisc.ac.in 080-2293 3453 and 2293 3371

SECTION 2 – ELIGIBILITY CRITERIA

Prequalification criteria:

- 1. The Bidder's firm should have existence for a minimum of 3 years. (Enclose Company Registration Certificate)**
- 2. The Bidder should have qualified technical service personnel for the instrument(s) based in India.**
- 3. If the Bidder is a local distributor/dealer/Agent, it is mandatory to attach authorization certificate along with the bid from the original equipment manufacturer.**
- 4. The bidder should sign and submit the declaration for Acceptance of Terms and Conditions as per -Annexure 4**
- 5. The Bidder must not be blacklisted/banned/suspended or have a record of any service-related dispute with any organization in India or elsewhere. A declaration to this effect has to be given as per Annexure 3.**

SECTION 3 – TERMS AND CONDITIONS

A) Submission of Tender:

- 1. All documentations in the tender should be in English.**
- 2. Tender should be submitted in two envelopes (two bid system).**
 - a. Technical Bid (Part-A) –**
Technical bid consisting of all technical details, check list for conformance to specifications, format in which the price bid is quoted without the actual prices (suppliers who include any indication of prices in the technical bid will be automatically disqualified).
 - b. Commercial Bid (Part-B) –**
Indicating item wise price for the items mentioned in the technical bid, as per the format of quotation provided in tender, and other commercial terms and conditions
- 3. The technical bid and price bid should each be placed in a sealed cover, superscripting on both the envelopes the tender no. and the due date and Both these sealed covers are to be placed in a bigger cover which should also be sealed and duly superscripted with the Tender No & Due Date.**
- 4. The SEALED COVER superscripting tender number / due date & should reach The Chairman, Centre for Product Design and Manufacturing, Indian Institute of Science, Bangalore – 560012, India on or before due date mentioned in the tender notice. In case due date happens to be holiday the tender will be accepted and opened on the next working day.**

If the quotation cover is not sealed, it will be rejected.

- 5. All communications are to be addressed to- The Principal Investigator, DBT-IISc Partnership Program Office, Biological Sciences, Indian Institute of Science, Bangalore– 560012, India.**
- 6. GST/other taxes, levies etc., are to be indicated separately. The BIDDER should mention GST Registration and PAN in the tender document (Indian Bidders only).**
- 7. If price is not quoted in Commercial Bid as provided in tender document the bid is liable to be rejected.**
- 8. The Institute reserves the right to accept or reject any bid and to annul the bidding process and reject all bids at any time prior to the award of contract, without there by incurring any liability to the affected bidder or bidders or any obligation to inform the affected bidder or bidders.**
- 9. Incomplete bids will be summarily rejected.**

B) Cancellation of Tender:

Notwithstanding anything specified in this tender document, IISc Bangalore, in its sole discretion, unconditionally and without having to assign any reason, reserves the rights:

- a. To accept OR reject lowest tender or any other tender or all the tenders.**
- b. To accept any tender in full or in part.**
- c. To reject the tender, offer not confirming to the tender terms.**

C) Validity of the Offer:

The offer shall be valid 120 Days from the date of opening of the commercial bid.

D) Evaluation of Offer:

- 1. The technical bid (Part A) will be opened first and evaluated.**
- 2. Bidders meeting the required criteria as stated in Section 2 of this document shall only be considered for Commercial Bid (Part B) opening. Further, agencies not furnishing the documentary evidence as required will not be considered.**
- 3. Pre-qualification of the bidders shall not imply final acceptance of the Commercial Bid. The agency may be rejected at any point during technical evaluation or during commercial evaluation. The decision in regard to acceptance and / or rejection of any offer in part or full shall be the sole discretion of IISc Bangalore, and decision in this regard shall be binding on the bidders.**
- 4. The award of contract will be subject to acceptance of the terms and conditions stated in this tender.**
- 5. Any offer which deviates from the vital conditions (as illustrated below) of the tender is liable to be rejected:**
 - a. Non-submission of complete offers.**
 - b. Receipt of bids after due date and time and or by email / fax (unless specified otherwise).**
 - c. Receipt of bids in open conditions.**
- 6. In case any BIDDER is silent on any clauses mentioned in these tender documents, IISc Bangalore shall construe that the BIDDER had accepted the clauses as of the tender and no further claim will be entertained.**
- 7. No revision in the terms and conditions quoted in the offer will be entertained after the last date and time fixed for receipt of tenders.**
- 8. Lowest bid will be calculated based on the total price of all items tendered for Basic equipment along with accessories for installation, operation, pre-processing and post processing, optional items, recommended spares, warranty, annual maintenance contract**

E) Pre-requisites:

The bidder will provide the prerequisite installation requirement of the equipment along with the technical bid.

F) Mode of Shipment:

In case of foreign bidders, the consignment must be airlifted, insured and transported to the Bangalore International Airport (CIP/CIF). Necessary custom clearance will be done by IISc, Bangalore, from Bangalore International Airport.

G) Customs clearance:

The IISc, Bangalore will furnish the necessary papers for the import of items into India, necessary custom duty exemption certificate and other supporting documents to facilitate the import of the items will be provided.

H) Warranty:

- a. A minimum warranty period of 5 (five) years is expected for the proposed TEM.
- b. During the warranty period, IISc will expect a maximum on-site attendance time of 24 (twenty-four) hours from first notification of a problem with the TEM and a maximum fix time of 5 (five) days from first notification.
- c. The tenderer will also include within the tender their current average on-site attendance time that has been achieved in responding to unplanned breakdowns plus their current average fix time to complete such repairs to equivalent TEMs installed at other locations in the India or outside of India.

I) Annual Maintenance Contract:

An annual maintenance contract for a period of 2 years post warranty should be provided on completion of warranty period.

J) Purchase Order:

1. The order will be placed on the bidder whose bid is accepted by IISc based on the terms & conditions mentioned in the tender document.
2. The quantity of the items in tender is only indicative. IISc, Bangalore reserves the right to increase /decrease the quantity of the items depending on the requirement.
3. If the quality of the product and service provided is not found satisfactory, IISc, Bangalore reserves the right to cancel or amend the contract.

K) Delivery and Installation:

1. The TEM will be delivered, installed and commissioned by the tenderer at Biological Sciences building, IISc within the 90 days of the place order.
2. It is expected by the IISc that all packaging, transit and other waste materials will be removed from the site by the contractor before final departure from the site.
3. After completion of the tender process, the successful tenderer will be expected to survey the proposed operational room to identify any potential sources of power spikes, surges or other electrical interference, or stray AC (alternating currents) fields or vibrations that might affect performance.
4. In case any such risk is thus identified, an additional quotation for appropriate counter measures should be included in the tender response.

L) Payment Terms:

The payment will be through a Letter of Credit and milestone of the payment will be determined after the mutual discussions with the successful bidder.

M) Statutory Variation:

Any statutory increase in the taxes and duties subsequent to bidder's offer, if it takes place within the original contractual delivery date, will be borne by IISc, Bangalore subject to the claim being supported by documentary evidence. However, if any decrease takes place the advantage will have to be passed on to IISc, Bangalore.

N) Disputes and Jurisdiction:

Any legal disputes arising out of any breach of contract pertaining to this tender shall be settled in the court of competent jurisdiction located within the city of Bangalore, India.

O) General:

1. All amendments, time extension, clarifications etc., within the period of submission of the tender will be communicated electronically. No extension in the bid due date/time shall be considered on account of delay in receipt of any document(s) by mail.
2. The bidder may furnish any additional information, which is necessary to establish capabilities to successfully complete the envisaged work. It is however, advised not to furnish superfluous information.
3. The bidder may visit the installation site before submission of tender, with prior intimation.
4. All imported equipment should be quoted in the currency of the country of origin, and all locally sourced items should be quoted in Indian Rupees.
5. Any information furnished by the bidder found to be incorrect, either immediately or at a later date, would render the bidder liable to be debarred from tendering/taking up of work in IISc, Bangalore.

Section – 4 – Technical Specifications For Upgradation of TEM/ Supply of a Transmission Electron Microscope (TEM)

This is a request for a quotation for upgradation of TEM or procurement of a “Transmission Electron Microscope (TEM) on C.I.P. Bangalore basis. Your quotation should clearly indicate the terms and conditions of the quotations, delivery, delivery schedule, entry tax, payment terms, warranty coverage, shipping location, mode of shipping etc., The quotation should be submitted in two parts: Part I (Technical bid) and Part II (Commercial bid) and both should be submitted in a sealed envelope. Technical bid should be exactly same as commercial bid except that prices are not shown in technical bid. Technical bid should have item wise compliance report of all specifications. Technical specification for a 120 kV transmission electron microscope (TEM) are given below. The quotation should be submitted in sealed envelope separately and clearly highlight the part of the tender.

The commercial bid should have pricing for each of the items quoted in the technical bid. Prices quoted should be inclusive of all taxes / duties. The prices quoted should be inclusive of delivery of the items to the site and installation at site and should include Euro and/or US dollar quotes. The last day for submitting the bid is August 17, 2020. The offer should be valid for a period of at least 90 days from the last date for submission of quotes.

Technical Specifications: Part A) for 120 kV Transmission Electron Microscope (TEM)

1. Basic configuration:

Following basic configuration is expected for 120 kV transmission electron microscope (TEM)

- a. Microscope should be capable to take high contrast images.
- b. Acceleration voltage of the microscope should be 20KV to 120 KV (variable continuously).
- c. HT switching time should be < 1 min

2. Resolution

TEM Line Resolution should be < 0.20nm and TEM Point resolution should be – < 0.37 nm

3. Specimen chamber

- a. Eucentric Goniometer fully motorized stage with all 4 axis (XYZα) with accurate specimen position recall and retrieve facility.
- b. Specimen tilt angle ± 90 deg.
- c. X-Y movement: ± 1 mm, motor driven (computer controlled with specimen position recall facility) and Z movement ± 0.375 mm, motor driven for specimen height adjustment.
- d. SmartCam should be standardly available, improving the handling of all applications more quickly and with higher dynamic range than with the original fluscreen.

e. SmartCam allows day-light operation

4. Automation

- a. Should be possible to align both electron gun and beam at selected acceleration voltages and recall that for automatic alignment while switching from one acceleration voltage to another. This should be possible for all acceleration voltages, such as 20kV, 40kV, 60kV, 80kV and 120 KV.
- b. The microscope should be provided with automatic apertures (objective, condenser and SAD).

5. Operation mode:

It is expected that TEM should have two operational modes

- a. TEM (Bright field and dark field)
- b. Micro- Probe and Nano –Probe.

6. Full remote operation: automatic apertures in combination with CETA camera and SmartCam support remote operation

7. CMOS camera:

- a. High Resolution retractable CMOS camera of minimum 4k x 4k pixel (16M pixel) full frame CCD with near 100 % fill factor.
- b. Camera Length for Diffraction should be at least ≤ 80 mm to ≥ 2000 mm.
- c. High Speed Camera Link Digital Interface for camera data transfer and control.
- d. Camera should be usable function at different HT voltage at 20-120kV.
- e. Camera Should have CMOS sensor with built-in shutter. Sensor active area should be ≥ 3500 mm², and pixel size at least 12 μ m.
- f. Camera should have user-friendly software, which is integrated with TEM system software along with measurement and diffraction analysis package as standard feature.

8. Vacuum system

- a. Fully automatic differential oil free pumping system preferentially with turbo molecular and ion pumps.
- b. Clean ultrahigh dry differential pumping system. The system should have sufficient number of Oil-free Ion Getter Pumps/Sputter Ion Pumps for Column, Gun and Specimen chamber.
- c. Pumping time from start to ultimate vacuum should be less than 60 minutes.
- d. Specimen exchange pump time should be $\ll 30$ sec for both RT
- e. Vacuum recovery time after specimen exchange should be less than 10 minutes.

9. Lens System

- a. Objective lens with upper and lower pole pieces distance not less than 11mm (double objective lens with objective lens and objective mini-lens).
- b. Objective in the back focal
- c. Variable objective lens aperture (≥ 3 sizes may be provided).

- d. All apertures must be motorized.
- e. Intermediate lens, Projector lens.
- f. Distortion and rotation free images.
- g. Constant power objective lens

10. Enclosure and remote operation

- a. The system should be protected from any interference coming from environment (such as light and vibration) by an outer shell in order to grant optimal stability.
- b. It should be possible to operate the microscope in a complete remote fashion.

11. Maintenance & Service

- a. The tenderer will specify the appropriate planned preventative maintenance program, including the scheduled down time, in their tender response for the proposed TEM.
- b. All preventative maintenance work on the proposed TEM will be pre-arranged during normal working hours with minimum down time of the equipment.
- c. The tenderer will include with their tender response a list of spare parts (plus unit prices) recommended to be held by the IISc to ensure that downtime of the TEM is not prolonged due to unavailability of such parts.
- d. The tenderer will also include within their tender response a list of spare parts (plus unit prices) it intends to hold and/or holds as normal stock on behalf of the IISc to ensure that downtime of the proposed TEM system is not prolonged due to unavailability and also to replenish the items recommended to be held by the IISc.
- e. The tenderer will include in their response, details of initial service and maintenance training that will be provided to representatives of the IISc necessary to ensure the satisfactory, safe and efficient operation of the proposed TEM and this will be included in the tender price.
- f. The tenderer will include in their response, details of ongoing service and maintenance training that can be provided to representatives of the IISc necessary to ensure the satisfactory, safe and efficient operation of the proposed TEM system(s).

12. Accessories, Consumables, and spares parts

- a. Adequate spares and tools (for at least three years), which is immediately required for proper use and maintenance of the TEM should be provided by tenderer.

13. Miscellaneous

- a. User Experience in terms of research publications using quoted or identical configurations.
- b. The tenderer should provide the number of installations with proper references (at least 3 or more) of similar configuration in India or abroad.
- c. IISc is also expecting that tenderer should provide an on-site engineer at IISc, who will be always available at IISc, and provide a service whenever it is required for TEM.
- d. The tenderer should specify that the hardware components and the software meant to handle the microscope would not go obsolete for at least five years and the required spares would be available for at least ten years. A statement/letter to that effect may be included alongside the tender.

14. Costs

- a. The tender response will provide a total life cost for the proposed TEM over a period of 10 (ten) years.
- b. This costing will include, but not be limited to, the costs of power consumption, maintenance, spare parts and consumables.
- c. Costs for hardware and/or software upgrades should be excluded from this calculation (and may be listed separately).

15. Training and demonstration:

- a. Training on usage of the machine (hardware and software) must be demonstrated by the successful bidder at bidder's cost to the end users at IISc, Bangalore.

Section 5: Technical Bid

The technical bid should furnish all requirements of the tender along with all annexure in this section and submitted to

**The Principal Investigator,
DBT-IISc Partnership Program
Biological Sciences
Indian Institute of Science
Bangalore – 560012, India**

Annexure-1:

Details of the Bidder

The bidder must provide the following mandatory information & attach supporting documents wherever mentioned:

Details of the Bidder

SI No	Name of the Bidder	
1	Nature of Bidder (Attach attested copy of Certificate of Incorporation/ Partnership Deed)	
2	Registration No/ Trade License, (attach attested copy)	
3	Registered Office Address	
4	Address for communication	
5	Contact person- Name and Designation	
6	Telephone No	
7	Email ID	
	Website	
8	PAN No. (attach copy)	
9	GST No. (attach copy)	

Signature of the Bidder

Name

Designation, Seal

Date:

Annexure-2:

Declaration regarding experience

To,

**The Principal Investigator,
DBT-IISc Partnership Program
Biological Sciences,
Indian Institute of Science,
Bangalore – 560012, India**

Ref: Tender No: XXXXXXXXX

Dated: XXXXX

**Supply and installation of Tender notification for upgradation of TEM/
Supply of a Transmission Electron Microscope (TEM)**

Sir,

I've carefully gone through the Terms & Conditions contained in the above referred tender. I hereby declare that my company / firm has ---- years of experience in supplying and installing Live Cell Confocal system containing high sensitivity detector along with FLIM module.

(Signature of the Bidder)

Printed Name

Designation, Seal

Date:

Annexure-3:

Declaration regarding track record

To,

**The Principal Investigator,
DBT-IISc Partnership Program
Biological Sciences,
Indian Institute of Science,
Bangalore – 560012, India**

Ref: Tender No: XXXXXXX

Dated: XXXXX

**Supply and installation of Tender notification for upgradation of TEM/
Supply of a Transmission Electron Microscope (TEM)**

Sir,

I've carefully gone through the Terms & Conditions contained in the above referred tender. I hereby declare that my company/ firm is not currently debarred / blacklisted by any Government / Semi Government organizations / institutions in India or abroad. I further certify that I'm competent officer in my company / firm to make this declaration.

Or

I declare the following

Sl.No.	Country in which the company is Debarred /blacklisted / case is Pending	Blacklisted / debarred by Government / Semi Government/Organizations /Institutions	Reason	Since when and for how long
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(NOTE: In case the company / firm was blacklisted previously, please provide the details regarding period for which the company / firm was blacklisted and the reason/s for the same).

Yours faithfully

(Signature of the Bidder)

Name

Designation, Seal

Date:

Annexure – 4:

Declaration for acceptance of terms and conditions

To,

**The Principal Investigator,
DBT-IISc Partnership Program,
Biological Sciences,
Indian Institute of Science,
Bangalore – 560012, India**

Ref: Tender No: XXXXXX

Dated: XXXX

**Supply and installation of Tender notification for upgradation of TEM/
Supply of a Transmission Electron Microscope (TEM)**

Sir,

I've carefully gone through the Terms & Conditions as mentioned in the above-referred tender document. I declare that all the provisions of this tender document are acceptable to my company. I further certify that I'm an authorized signatory of my company and am, therefore, competent to make this declaration.

Yours faithfully,

(Signature of the Bidder)

Name

Designation, Seal

Date:

Annexure – 5:

Details of items quoted:

Company Name	
Product Name	
Part / Catalogue number	
Product description / main features	
Detailed technical specifications	
Remarks	

Instructions to bidders:

- 1. Bidder should provide technical specifications of the quoted product/s in detail.**
- 2. Bidder should attach product brochures along with technical bid.**
- 3. Bidders should clearly indicate compliance or non-compliance of the technical specifications provided in the tender document.**

Section 6: COMMERCIAL BID

The commercial bid should be furnished with all requirements of the tender with supporting documents as mentioned under:

SI No	Description	Catalogue Number	Quantity	Unit Price	Sub Total
1	Instrument price				
2	Accessories for operation and installation				
3	All Consumables, spares and software to be supplied locally				
4	Warranty (5 years)				
5	Cost of Insurance and Airfreight				
6	CIP/CIF IISc, Bengaluru				

SI No	Description	Quantity	Unit Price	GST	Total

Addressed to:

**The Principal Investigator,
DBT-IISc Partnership Program
Biological Sciences,
Indian Institute of Science,
Bangalore – 560012, India**

SECTION 7 – CHECK LIST

(This should be enclosed with technical bid- Part A)

The following items must be checked before the Bid is submitted:

1. Envelope “A”: Technical Bid

a) Section 5- Technical Bid (each page signed by the authorized signatory and sealed) with the below annexures:

Annexure 1: Bidders details

Annexure 2: Declaration regarding experience

Annexure 3: Declaration regarding clean track record

Annexure 4: Declaration for acceptance of terms and conditions

Annexure 5: Details of items quoted

b) Copy of this tender document duly signed by the authorized signatory on every page and sealed.

2. Envelop “B”: Commercial Bid

Section 6: Commercial Bid

Your quotation must be submitted in two envelopes: Technical Bid (Envelope A) and Commercial Bid (Envelope B) super scribing on both the envelopes with Tender No. and due date and both of these in sealed covers and put in a bigger cover which should also be sealed and duly super scribed with Tender No. & Due Date.