1	Section 1	Bid Schedule	
2	Section 2	Eligibility Criteria	As specified by IISc
3	Section 3	Terms and Conditions	As specified by IISc
4	Section 4	Specifications	Technical specifications
5	Section 5	Technical Bid	Annexure 1: Bidder details
			Annexure 2: Declaration regarding experince of bidder
			Annexure 3: Declaration regarding clean track record of the bidder
			Annexure 4: Declaration of acceptance of tender
			Annexure 5: Terms and conditions. Details of item quoted
6	Section 6	Commercial bid	Quotation with Price, Technical specifications of the Equipment

Section 1 - Bid Schedule

1	Tender No	QCONFOCAL/CeNSE/AG/27/01/2022
2	Tender Date	28th January 2022
3	Item Description	Supply and installation of "Microscopy system combining biological imaging and quantum sensing"
4	Tender Type	Two bid system (i) Technical Bid (Part A) (ii) Commercial Bid (Part B)
5	Place of tender submission	Chairperson Office First Floor Centre for Nano Science and Engineering Indian Institute of Science, Bangalore 560012
6	Last Date & Time for submission of tender	17th February 2022, 5 PM
7	For further clarification	Prof. Ambarish Ghosh Centre for Nano Science and Engineering Indian Institute of Science, Bangalore 560012 Email: ambarish@iisc.ac.in

Section 2 – Eligiility 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 belong to either class 1 or class 2 supplier distinguished by their "local content" as defined by recent edits to GFR. They should mention clearly which class they belong to in the cover letter
    a) Class 1 supplier: Goods and services should have local content of equal to or more than 50%.
    b) Class 2 supplier: Goods and services should have local content of equal to or more than 20 % and less than 50%.
3. Purchase preference as defined by the recent edits to GFR (within the "margin of purchase preference") will be given to Class-1 supplier.
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 envelops (two bid system).
    a. Technical Bid (Part-A) – Technical bid consisting of all technical details and check list for conformance to technical specifications. The proposal should contain a compliance table with 4 columns in addition to the ones in the technical requirements table that has been included with this RFQ below. The compliance table should include all the items in the same order and format. The first column should describe your compliance in a "Yes" or "No" response. If "No" the second column should state the extent of deviation. The "third" column should state the reasons for the deviation if any. The fourth column can be used to compare your tool with that of your competitors or provide details as requested in the technical requirements table below. (**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 sparate sealed covers, superscripting on both the envelopes the tender no. and the due date. Both these sealed covers are to be placed in a bigger cover which should also be sealed and duly superscripted with the Tender No, Tender Description & Due Date.

4. The SEALED COVER superscripting tender number / due date & should reach Chairperson Office, Centre for Nano Science and Engineering, 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 queries are to be addressed to the person identified in "Section 1 – Bid Schedule" of the tender notice.

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 per the format 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.

10. Quote should come only from Indian Original Equipment Manufacturer (OEM) or their Indian authorized distributor

11. The quotation should be on FOR-IISc Bangalore basis in INR only

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 90 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 eligibility 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 selected for installation, operation, preprocessing 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) Warranty:

The complete system is to be under warranty period of minimum 1 years including free supply of consumables, spare parts and data analysis software from the date of functional installation. If the instrument is found to be defective, it has to be replaced or rectified at the cost of the bidder within 30 days from the date of receipt of written communications from IISc, Bangalore. If there is any delay in replacement or rectification, the warranty period should be correspondingly
extended.

G) Annual Maintenance Contract:

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

H) 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.

I) Delivery, Installation and Training:

The bidder shall provide the lead time to delivery, installation and made functional at IISc, Bangalore from the date of receipt of purchase order. The system should be delivered, installed and made functional within 90 days from the date of receipt of purchase order. The

supply of the items will be considered as effected only on satisfactory installation and inspection of the system and inspection of all the items and features/capabilities tested by the IISc, Bangalore. After successful installation and inspection, the date of taking over of entire system by the IISc, Bangalore shall be taken as the start of the warranty period. No partial shipment is allowed.
The bidder should also arrange for technical training to the local facility technologists and users.

J) Payment Terms:

The payment will be determined after the mutual discussions with the successful bidder.

K) 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.

L) 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.

M) 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 informat
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

A. Technical Specifications of Motorized Inverted Fluorescence Research Microscope with Confocal:

S.No	Specification	Essential/Optional
1.	Fully Motorized double deck Inverted Fluorescence Microscope for BF/DIC/Fluorescence with remote control for controlling motorized components of the microscope and saftey features like interlock for lasers	Essential
2.	Trinocular observation tube with three position prism for selection of light path for full observation to 10X eyepiece, 50% - 50% Camera Port - eyepiece, 100% Camera Port	Essential
3.	Programmable (Linear Encoded) motorized X-Y scanning stage including multipoint, tile and mosaic imaging software	Essential
4.	LED illumination for Bright field (halogen color). Minimum power for BF LED illumination with minimum flux of 25lm@500mA and a life time of 10,000 Hrs	Essential
5.	Fibre coupled LED illumination for Fluorescence catering to the following fluorophores to be included. Minimum power for Fluorescence LED illumination >1000mW after the fiber /liquid light guide, with a lifetime of 25,000 hours.	Essential
6.	Band pass fluorescent filters for DAPI, CFP, GFP, Cy3, Cy5; atleast 4 empty filter cube: these are part of the turret	Essential
7.	Should have the provision of coupling our own laser/LED light sources for widefield fluorescence microscopy. This light path should be IR-compatible up to 1300 nm excitation, provision of including customized fluorescence cubes, including those for upconversion.	Essential
8.	Motorized 6 position revolving DIC nosepiece, Long working distance Condenser (NA 0.55/WD.27mm or better) with modules for DIC and minimum 5 position turret .	Essential
9.	High precision Z-focus drive with step size of 10 nm or better.	Essential
10.	Z Drift Compensator for long time stability time lapse imaging (must use near IR light to detect the correct focus position.)	Essential
11.	C Mount Adapter for Left Side 100% Port for mounting Camera.	Essential
12.	C Mount Adapter for Trinocular Port for mounting Camera.	Essential
13.	Side (preferably right) Port with approriate beamsplitter for separate laser path for user supplied 5W 1064 nm laser for optical tweezer applications	Essential
14.	Motorized 8 position fluorescent mirror turret, with motorized shutter	Essential
Optional Items (to be quoted separately in the commercial part)		
15.	CCD or sCMOS camera for wide field imaging in epifluorescence and DIC imaging modes. Minimum resolution of 2048 x 2048 pixels. QE	Optional

	between 500 to 850 nm should be greater than 45%, with peak QE at least 82%. minimum full resolution frame rate 40 fps.	
16.	High speed connection (camera link, CoaXPress etc.) for full resolution frame rates of 100 fps for the CCD or sCMOS camera	Optional
17.	Plan super apochromat objectives - 40x/0.95 air	Optional
18.	Plan super apochromat objectives - 60x/1.42 oil immersion	Optional
19.	Plan super apochromat objectives - 100X/1.45 oil.	Optional

B. Confocal imaging unit & lasers with high sensitivity detectors

S.No	Specification	Essential/Optional
1.	Two channel Spectral detecter with 2 multi-Alkali PMT capable of working in intensity and spectral imaging mode with spectral efficiency of 2nm resolution accuracy or better. The system should be able to perform both online and offline spectral unmixing. The spectral detectors should be directly connected to the sacnhead without any fibre inetrface to avoid any signal loss due to fiber. Transmitted Light detector integrated with transmitted light photomultiplier detector & LED lamp, with motorized switiching. PMT sensitivity at 550 nm should be minimum 25-30%. The system should be onsite upgradable to additonal 2 High Sesitive spectra GaAsP detectors if required in future. The scan head should have a bypass option to take the entire signal to external GaAs Detector through continuously variable pinhole or slective visible and NIR wavelegth between internal spectral detectors for visible light imaging and NIR imaging/g2 measurements or upconversion data collection through external detectors.	Essential
2.	Hybrid scanner, with XY, as well as Y + resonant X modes with speed scanning of 15 fps or better at 1024 x 1024 pixels **or** 30 fps or better at 512 x 512 pixels and 438fps or better when clipped to 512x32 at 1X Zoom without compromising the FOV	Essential
3.	Laser Combiner with 4 SOLID STATE Lasers, of wavelengths in these ranges: 400-410, 480-490, 530-578 & 620-660 nm, with minimum powers 50 mW, 18mW, 18 mW and 35 mW with fast laser switching capability (using either AOTF or some similar technology: please specify).. Bleed through Less than -40dB (In laser power: 0.01%) Leakage Less than -65dB (In laser power: 0.00003%) Power stability ±20% in ±2.4℃. The imaging software should give access to control the intensity and banking of our laser through a dedicated analog box & externa trigger for seamless imaging with built in laser as well as out custom laser (SC NIR/vis/IR lasers. All the built-in lasers should be usable in future for FCS and FCCS upgradation.	Essential
4.	Capability to replace the vendor suplied laser with a user supplied laser. Please mention separately if the laser, and the dichroics in the combiner can be replaced on site.	Essential
Optional Items (to be quoted separately in the commercial part)		

5.	Cost of the replacement process with nesseary components to be quoted as optional items.	Optional

C. System control and Imaging software

S.No	Specification	Essential/Optional
1.	Software should be capable (e.g. SDK) of controlling every component of the system including microscope, laser and confocal unit. Should be compatible for 3D, 4D, 5D and 6D imaging (X,Y,Z,t,multi color, multi point). Image stitching in coordination with XYZ stage. The SDK should give an access to the scanning parameters and the data out put through Analog box to be controlled through third party software such as matlab/labview for customised applications.	Essential
2.	Advanced 3D image reconstruction with rendering from a Z-stack image series including 3D Blind deconvolution capability in widefield and confocal modalities.	Essential
Optional Items (to be quoted separately in the commercial part)		
3.	Triggering and external instrument control capability for complex integration of the system	Optional
4	Advanced Image capture and processing software for real time 2D deconvolution, co-localization analysis,3D restoration, batch processing ,Dynamic ROI for on-line analysis, movie acquisition, Manual Multiple Image Alignment, Live deblurring ,contrast base auto focus and better high End Camera control.	Optional
5.	Software capability to perform FRAP; provide details	Optional
6.	Capability to perform FRET; provide details	Optional
7.	Capability to perform FCS; provide details	Optional
8.	High end 64 bit control computer with minimum Intel Xeon W Processor, DDR4 SDRAM 48 GB or more; primary HDD – 512 GB SSD or better; secondary HDD: 4 TB SATA (2TB x2), DVD, SuperMulti SATA +R/RW, Graphics card: dedicated dual display with minimum 2 GB DDR5 internal RAM, Gigabit Ethernet, Win 10 Pro or better, USB 3.0, Fire wire. Large 32” LCD/ TFT monitor or better. The machine should have atleast two empty PCI slots.	Optional

D. Customized three ports for laser introduction & incorporate desired External detectors.

1	Customized Laser combiners with three laser input ports & DM and Polarised beam splitters for combining the following lasers, in addition to the 4 built in lasers, which will be used for confocal imaging: a) Separate IR port for user supplied Supercontinuum (IR part of the spectrum) and user supplied IR lasers in ~ 640 -1300nm wavelength range b) Provision for coupling visible light: 532 nm CW/pulsed laser from the user along with user supplied Supercontinuum visible spectrum (~ 400-750nm) laser	Essential
2	8 position excitation dichroic mirror turret (for the confocal scanner) with built in quad band notch filter (>90 Reflection/Transmission) appropriate for the incidence of specified user supplied and built in lasers. Please quote separately for the following configurations, as available.	Essential
3.	Quad band notch filter for 405/488/560/640 to be placed in the excitation mirror turret which directs the specified wavelengths through the confocal scanner.	Optional
4.	Quad band notch filter for 488/532/975 to be placed in the excitation mirror turret which directs the specified wavelengths through the confocal scanner.	Essential
5.	Quad band notch filter for 488/532/730/975 to be placed in the excitation mirror turret which directs the specified wavelengths through the confocal scanner.	Optional
6.	Quad band notch filter 445/514 to be placed in the excitation mirror turret which directs the specified wavelengths through the confocal scanner.	Optional
7.	High end (preferably from Chroma) filter set (for widefield fluorescence microscopy) for 532nm excitation / 600-700nm emission (For NDs: nanodiamonds) [can be included with A-6]	Essential
8.	High end (preferably from Chroma) filter set (for widefield fluorescence microscopy) for 730nm excitation / 758nm emission(For DY-730 dye)) [can be included with A-6]	Optional
9.	High end (preferably from Chroma) filter set (for widefield fluorescence microscopy) for 975nm excitation / 804nm emission(For UPCNPs) [can be included with A-6]	Optional
10.	Provision to direct the fluorescence outside for further processing.	Essential
11	Appropriate filters to separate emission to internal and external detectors, with the following emission wavelength specifications: a) Long Pass 600nm filter b) Long pass 750nm filter c) Short pass 750nm filter	Optional
12	Provide appropriate rig, so that the fluorescence coupled outside can be further divided into two parts: a) One part will divert the IR/ NIR part (>800nm) and then coupled to a GaAs PMT.	Optional

	b) The other part with appropriate choice of emission filters allows selection of visible (400 – 750 nm) or IR (750 – 1300 nm), and subsequently coupled to a fiber. The fiber output from the rig mentioned above should be compatible with Picoquant g2 detection systems.	
13	A GaAs PMT with quantum efficiency of at least 20% in 500-800nm and around 10% or better in 800-850nm range	Optional
14	Complete schematic diagram of the entry and exit of the light paths need to be shared, including the port of entry for the tweezer (1064 nm) laser	Essential

E. Imaging

1	Dual Cam: Provision for two cameras on one microscope port with complete 50/50 beamsplitter cube and auxiliary interchangeable emission filter holders	Optional
2	Two way emission image splitter with dedicated bypass mirror for single channel operation, rectangular input diaphragm ,calibration cube and emission / excitation filter cubes for 25mm filters (Empty)	Optional
3.	Polarisation Accessories which can be integrated with the 2-way emission image splitter for polarisation specific observations.	Optional

F. Accessories

Vibration isolation table will be provided by the user. The bidder should supply the following items along with the instrument

G. Training and demonstration

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 Chairperson,
Attn: Prof. Ambarish Ghosh
Centre for Nano Science and Engineering
Indian Institute of Science, Bangalore 560012
Email: ambarish@iisc.ac.in

Annexure-1:

Details of the Bidder

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

Details of the Bidder

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

Signature of the Bidder

Name

Designation, Seal Date:

Annexure-2:

Declaration regarding experience

To,
The Chairperson,
Centre for Nanoscience and Engineering,
Indian Institute of Science,
Bangalore – 560012, India

Ref: Tender No: XXXXXXXXX
Dated: XXXXX

Supply and installation *Microscopy system combining biological imaging and quantum sensing*

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 Confocal systems.

(Signature of the Bidder)
Printed Name
Designation, Seal Date:

Annexure-3:

Declaration regarding track record

To,
The Chairperson,
Centre for Nano Science and Engineering
Indian Institute of Science,
Bangalore – 560012, India

Ref: Tender No: XXXXXXX
Dated: XXXXX

Supply and installation of *Microscopy system combining biological imaging and quantum sensing*

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

(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 Chairperson,
Centre for Nano Science and Engineering
Indian Institute of Science,
Bangalore – 560012, India

Ref: Tender No: XXXXXX
Dated: XXXX

Supply and installation of *Microscopy system combining biological imaging and quantum sensing*

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:

a. Company Name
b. Product Name
c. Part / Catalogue number
d. Product description / main features
e. Detailed technical specifications
f. 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:

S.No	Description	Cat. Number	Quantity	Unit Price	Sub total
1.	Essential items noted in the technical specification				
1.a	… (details of essential items)				
1.b	…				
2.	Optional items noted in the technical specification				
2.a	… (details of essential items)				
2.b	…				
3.	Accessories for operation and installation				
4.	All Consumables, spares and software to be supplied locally				
5.	Warranty (5 years)				
6.	AMC 2 years beyond warranty				
7.	Cost of Insurance and Airfreight				
8.	CIP/CIF IISc, Bengaluru				

Any additional items

S.No	Description	Cat. Number	Quantity	Unit Price	Sub total

Addressed to

The Chairperson,
Attn: Dr. Suresha S J (MNCF)
Centre for Nano Science and Engineering
Indian Institute of Science
Bangalore – 560012, India

Section 7 – Checklist

(This should be enclosed with technical bid- Part A)
The following items must be checked before the Bid is submitted:

1. Sealed Envelope "A": Technical Bid

1. **Section 5- Technical Bid (each page signed by the authorized signatory and sealed) with the below annexures:**
    a. **Annexure 1: Bidders details**
    b. **Annexure 2: Declaration regarding experience**
    c. **Annexure 3: Declaration regarding clean track record**
    d. **Annexure 4: Declaration for acceptance of terms and conditions**
    e. **Annexure 5: Details of items quoted**
2. **Copy of this tender document duly signed by the authorized signatory on every page and sealed.**

2. Sealed 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., Tender description & Due Date.