

CORRIGENDUM / ADDENDUM - 01

REF: Tender No. NIT-30/2017- NC-000157-BIO-17-18

ITEM: CONFOCAL MICROSCOPE

(A) The Tender date is extended as per the following.

- i) The date & time of opening of Bid: 08/05/2018 at 02.30 P.M.

All other terms and conditions of the above mentioned Tender will remain unchanged.

Stores & Purchase Officer



राष्ट्रीय विज्ञान शिक्षा एवं अनुसंधान संस्थान, भुवनेश्वर
(परमाणु उर्जा विभाग, भारत सरकार का एक स्वयं शासित संस्थान)
NATIONAL INSTITUTE OF SCIENCE EDUCATION AND RESEARCH
(AN AUTONOMOUS INSTITUTE UNDER DEPT. OF ATOMIC ENERGY, GOVT. OF INDIA)

Notice Inviting E-Tender No. 30/2017(NC-000157-BIO-17-18) (2 Part Tender)

CONFOCAL MICROSCOPE

Cost of Tender is 1500.00 (Non Refundable)

Paper Notice



**NATIONAL INSTITUTE OF SCIENCE EDUCATION & RESEARCH
JATNI CAMPUS, P.O. - JATNI
KHURDA – 752050, ODISHA, INDIA**

Notice Inviting E-Tender No. 30/2017(NC-000157-BIO-17-18) (2 Part Tender)

Sealed Tenders are invited on behalf of the Director, National Institute of Science Education and Research, Jatni from the manufacturers(Indian or Foreign) and their authorised reseller/Indian agent only for supply & installation of the following items:-

Sl. No.	Name of the Items	Tender No.	Name of Department	Indent No.	Qty.	EMD in INR
01	Confocal Microscope	NIT-30/2017	School of Biological Sciences	NC-000157-BIO-17-18	01 No.	4,00,000.00

Tender can be downloaded and bided from website address: www.tenderwizard.com/NISER. Tender documents for viewing only is also available in NISER web-site address: www.niser.ac.in.

Stores & Purchase Officer



**NATIONAL INSTITUTE OF SCIENCE EDUCATION AND RESEARCH
NIT OPEN DOCUMENT (2 PART BID)**

**SUPPLY & INSTALLATION OF
CONFOCAL MICROSCOPE**

Notice Inviting E-Tender No. 30/2017(NC-000157-BIO-17-18) (2 Part Tender)

National Institute of Science Education & Research (NISER), Jatni is an Autonomous Institute under Dept of Atomic Energy. NISER would like to procure the following equipment. The Technical Specifications Schedule of Requirements and Allied Technical details are given in Part-1 of tender document.

- **Item:** CONFOCAL MICROSCOPE
- **Tender Enquiry No:** NIT-30/2017
- **Last date of sale of Tender document:**
- **Last date of submission of bid-** 19.02.2018 upto 12.30 P.M
- **Opening of Technical Bids:** 19.02.2018 upto 02.30 P.M
- **Date and Time of Pre-Bidding** – 08.02.2018

E- tenders are invited for supply and installation of **CONFOCAL MICROSCOPE** in the National Institute of Science Education & Research, Jatni.

1. The details of tender notification can be downloaded from www.tenderwizard.com/NISER under "Tender Free View" link.
2. Vendors should obtain the USER ID and PASSWORD from www.tenderwizard.com/NISER by clicking on "REGISTER ME" link in the homepage.
3. The Vendor registration fees has to be paid to ITI Ltd for Rs. 1180/-. Using the epayment link provided at the time of registration, and the mode of payments are Credit Card, Debit Card and Internet Banking. Vendor Registration is Valid for 1year.
4. For further details on eTender participation, please contact ITI Help desk on
 - Telephone: 080-49352000/9686115318
 - Email: harishkumar.kb@etenderwizard.com, ambasa@etenderwizard.com.
5. Tenders should be submitted only through e-Tender portal and obtain the Tender Acknowledgement copy as a proof of successful submission.

**(Deepak Srivastava)
Stores & Purchase Officer**

The Institute can provide following documents.

1. Custom Duty exemption certificate.

COST OF TENDER IS RS. 1500/- (NON REFUNDABLE).

**This is payable in cash or Demand Draft of a scheduled Bank in favour of
Finance Officer, National Institute of Science Education and Research, Jatni.**



**PART – 1-Technical
TERMS & CONDITIONS
FOR SUPPLY AND INSTALLATION OF
CONFOCAL MICROSCOPE
FOR
NATIONAL INSTITUTE OF SCIENCE EDUCATION AND RESEARCH, JATNI
Notice Inviting E-Tender No. 30/2017(NC-000157-BIO-17-18) (2 Part Tender)**

1. Director, National Institute of Science Education & Research, Jatni (NISER) invites sealed tenders for **CONFOCAL MICROSCOPE** from the Manufacturer and their authorised reseller only having following credentials.
 - A. Should have satisfactorily completed **similar supply** (at least one of them in Central Government/Central Autonomous Body/Central PSU)
 - B. **Similar or Similar Nature of work means** Supply & Installation of any **CONFOCAL MICROSCOPE not necessarily of the same specifications as the one being tendered** for any of the following :
 - a) **Government/Autonomous Institutions**
 - b) **Government Research Centres**
 - c) **Universities**
 - d) **Autonomous/Reputed Private Research Centres**
 - e) **Purchase Orders / Completion certificates if any, for supporting above requirements.**

The Bidders are requested to give detailed tender in the prescribed forms in two Bids
i.e. Part - I Technical Bid.
Part - II Commercial Bid.

2. **Contact for information:** (Only E-mail enquiries will be entertained)

For Technical Information of CONFOCAL MICROSCOPE:

Dr. Chandan Goswami

School of Biological Sciences, NISER.

E-Mail – Chandan Goswami < chandan@niser.ac.in>

For Information regarding Commercial & all other Terms & Conditions:

Deepak Srivastava

Stores & Purchase Officer

National Institute of Science Education & Research, Jatni

E-Mail-spo@niser.ac.in

3. Supply means:

“Supply, Installation, Commissioning and satisfactory demonstration of the whole equipments”.

If any charges extra are payable for Installation and Commissioning, the same should be specified in the commercial offer.

4. Tender Document:

The Technical Offer should comprise of the following:

- a) Tenders, which are submitted without following the Two-Bid Offer System, will summarily be rejected.
- b) The technical offer should be complete to indicate that all products and services asked for are quoted. Each page of the bid and cutting/corrections shall be duly signed and stamped by the

bidder. Unsigned Tenders will also be rejected. Failure to comply with this requirement may result in the bid being rejected.

- c) The purpose of certain specific conditions is to get or procure best product/service etc. for NISER. The opinion of Technical Committee shall be the guiding factor for technical short listing.
- d) The earnest money deposit as indicated against the item should be send by post so that it reaches on or before the opening of the technical bid for e-tender system in the form of Account Payee Bank Draft payable on any branch of Nationalised/Schedule Bank at Bhubaneswar/ Jatni in favour of “Director, National Institute of Science Education & Research, Jatni”, in a separate sealed envelope. All tenders submitted without requisite amount of earnest money shall be rejected and their technical and financial bids shall not be opened. No interest is payable on EMD. The EMD will be returned to the bidders(s)/Agents whose offer is not accepted by NISER within one month from the date of the placing of the final order(s) on the selected bidder(s). In case of the bidder(s) whose offer is accepted the EMD will be returned on submission of Performance Bank Guarantee (if applicable). However, if the return of EMD is delayed for any reason, no interest /penalty shall be payable to the bidders.

EMD EXEMPTION:

PARTIES REGISTERED WITH SSI/DGS&D/DAE AND FOREIGN PARTIES QUOTING DIRECTLY ARE EXEMPTED FROM PAYING EMD. FOREIGN PARTIES QUOTING DIRECTLY UNDER ORIGINAL SEAL AND SIGNATURE (NOT SCANNED) WILL GET THE EXEMPTION.

The EMD shall be forfeited:

If the bidder withdraws the bid during the period of bid validity specified in the tender. In case a successful bidder fails to furnish the Performance Bank Guarantee (if applicable).

- e) Undertaking that the successful bidder agrees to give a Performance Bank Guaranty of 10% of the purchase order value in favour of “Director, National Institute of Science Education & Research, Jatni valid till warranty period.

Performance Bank Guarantee:

Within ten (10) days of the award of contract, the vendor shall furnish a Performance Bank Guarantee amounting to 10% of the purchase order value in the form of Bank Guarantee favouring the Director, National Institute of Science Education & Research, Jatni valid till completion of warranty period.

- f) If the bid is for branded makes, authorization letter from principals clearly indicating that the vendor is the competent authority to sell and provide services towards the items mentioned in the scope of supply given in this tender document.
- g) Copy of GST No. and PAN No. allotted by the concerned authorities.
- h) List of deliverables / Bill of materials and services.
- i) Compliance sheet with any deviation with reference to the terms and specifications.
- j) The item should be supplied with manuals and the manuals including technical drawings should be complete in all respects to operate the system without any problem.

“Commercial Bid” shall contain:

- a) Price schedule complete in all respects with proper seal and signature of authorized person.
Tender with any condition including conditional rebate shall be rejected forthwith.
- b) Cost of all the items should be mentioned clearly and individually in the Commercial Offer only.
- c) **The Bidders are requested to quote for Educational/Institutional Price for Machine/ Equipment and, since we are eligible for the same.**
- d) **Printed conditions of the vendor submitted with the tender will not be binding on NATIONAL INSTITUTE OF SCIENCE EDUCATION AND RESEARCH.**

5. Tender process & award of contract.

The technical bids will be evaluated to shortlist the eligible bidders. The commercial bids of only the short listed bidders shall be considered for further processing. Bidders whose technical offer is

found acceptable and meeting the eligibility requirements as specified in this tender will be informed about the date and time of the opening of the commercial bid.

- NISER will open commercial bids of only the short listed bidders, in the presence of the bidders or their authorized representatives who choose to attend the commercial bid opening. The Date and Time of opening the Commercial Bid will be intimated only to pre-qualified and technically acceptable Bidders for the item at a later date.
 - ONLY TECHNICALLY accepted competitive bids will be considered for placing Purchase Order. The commercial offers of the vendors whose technical offers are found to be technically deficient or do not meet the qualification criteria as specified in this tender will be returned to them without opening.
 - **Purchaser's Right to vary Quantities at the time of Award:** NISER reserves the right at the time of award of Contract to increase or decrease the quantity of items specified in the Schedule of Requirements without any change in price or other terms and conditions.
6. **The Director NISER reserves the right to accept the offer in full or in parts or reject summarily or partly.**

7. Delivery Period / Timeliness

The deliveries, installation must be completed within 180 days, after placement of purchase order. The time is the essence of the contract. It is mandatory for the bidders who respond to this bid to meet these expectations, as they are tightly linked to NISER's plans of completing the project within the time frame.

8. Locations for the Supply / Services

The Laboratory Equipments covered by this document is required to be supplied and installed at School of Biological Sciences of NISER, Jatni.

9. Order Placement and Release of Payment

The Purchase Order and payment shall be processed by –

**Stores & Purchase Officer
National Institute of Science Education & Research,
Jatni Campus, P.O. – Bhimpur-Padanpur, Via-Jatni,
Khurda – 752050, Odisha, INDIA**

Payment for the items to be supplied by the vendor against the purchase order shall be made by National Institute of Science Education & Research as follows:-

100% payment will be made through Letter of Credit. 80% will be paid after submission original shipping documents & balance 20% will be released after satisfactory installation, commissioning, warranty certificate and along with submission of Performance Bank Guarantee.

Agency Commission: Agency Commission to be paid to India Agent should be specified separately and same will be paid in INR.

The tenderers who are not agreeing to above payment terms are requested not to submit their tender otherwise their EMD will be forfeited.

10. NISER will not provide any accommodation/transportation for the engineers/ representatives for attending installation, commissioning and demonstration work. It is the absolute responsibility of the Principal Supplier/Indian Agent to make their own arrangements.
11. **The successful bidder**, on award of contract / order, must send the contract / order acceptance in writing, within 7 days of award of contract / order failing which the EMD will be forfeited.

12. Period of validity of bids

- Bids shall be valid for a period of 90 days from the date of opening the Technical bid.
- NISER may ask for the bidder's consent to extend the period of validity. Such request and the response shall be made in writing only. The bidder is free not to accept such request without forfeiting the EMD. A bidder agreeing to the request for extension will not be permitted to modify his bid.
- Bid evaluation will be based on the bid prices without taking into consideration the above corrections.

13. Corrupt or Fraudulent Practices

NISER requires that the bidders who wish to bid for this project have highest standards of ethics. NISER will reject a bid if it determines that the Bidder recommended for award has engaged in corrupt or fraudulent practices while competing for this contract. NISER may declare a vendor ineligible, either indefinitely or for a stated duration, to be awarded a contract if it at any time determines that the vendor has engaged in corrupt and fraudulent practices during the execution of contract.

14. Interpretation of the clauses in the Tender Document / Contract Document

In case of any ambiguity / dispute in the interpretation of any of the clauses in this Tender Document, Director, NISER's interpretation of the clauses shall be final and binding on all parties.

15. Price

- The price quoted shall be considered firm and no price escalation will be permitted at any time. The quotation should be in Indian Rupees or any known foreign currency. Packing, forwarding, freight, insurance, **Agency commission** and commissioning charges, if any extra may be quoted separately in Commercial Bid.
- In case of INR bids the price criteria should be on F.O.R., NISER, Jatni. Govt. Levies like GST, etc., if any, shall be paid at actual rates applicable on the date of delivery. Rates should be quoted accordingly giving the basic price, GST, etc., if any.
- Please provide TIN no. of the firm along with the GST No. allotted by the concerned authorities in your quotation.
- In case of Foreign Currency bid: - Price criteria should be FOB nearest airport detail break up of Price, FCA cost, **Agency Commission**, Insurance, Freight up to Kolkata Airport is required.
- NISER may place order at CIF Kolkata Airport basis.

16. Pre-installation:

Pre-installation facilities required for installation may please be intimated in the technical bid. Subsequently, before the consignment lands in NISER, Jatni the bidder shall confirm that the pre-installation requirements are sufficient for installation of the equipments. In other words the bidder should continuously monitor the pre-installation requirements and see that everything is ready before the consignment is taken to the site for installation.

17. Installation, Warranty & Support

- Bidder shall be responsible for installation / demonstration wherever applicable and for after sales service during the warranty and thereafter.
- The items covered by the schedule of requirement shall carry minimum Three years comprehensive warranty from the date of acceptance of the equipments by NISER. Warranty shall include free maintenance of the whole equipment supplied including free replacement of parts. The defects, if any, shall be attended to on immediate basis but in no case any defect should prolong for more than 24 hours. The comprehensive warranty includes onsite warranty with parts.
- The defects, if any, during the guarantee/warranty period are to be rectified free of charge by arranging free replacement wherever necessary. This includes cost, insurance, freight, custom duty, GST, local taxes if any should be borne by the beneficiary or his agent. A clear confirmation should be given for this item.

- The bidder shall assure the supply of spare parts after warranty is over for maintenance of the equipment supplied if and when required for a period of 10 years from the date of supply of equipment on payment on approved price list basis.
- The equipment must be supported by a Service Centre manned by the principal vendor's technical support engineers. The support through this Centre must be available 24 hours in a day, three days a week and 365 days a year. Also it should be possible to contract the Principal's vendor support Centre on a toll free number/web/mail.
- The vendor will have to arrange for all the testing equipment & tools required for installation, testing & maintenance etc.

18. Indemnity

- The vendor shall indemnify, protect and save NISER against all claims, losses, costs, damages, expenses, action suits and other proceeding, resulting from infringement of any law pertaining to patent, trademarks, copyrights etc. or such other statutory infringements in respect of all the equipment's supplied by him.
- The successful will be fully responsible for payment of wages and other dues as prescribed and compliance of various Labour Laws.
- The successful tender should give an undertaking that the staff deployed at the centre in terms of this contract at all time will be employees of the agency exclusively and they shall not be entitled to any claim of employment or permanency of job with NISER.
- NISER reserves the right to forfeit whole or part of the security money towards any damage/lose caused due to the negligence on the part of the agency engaged.

19. Insurance

The equipment's to be supplied will be insured by the vendor against all risks of loss or damage from the date of shipment till such time it is delivered at NISER site in case of Rupee/Foreign currency transaction.

20. Penalty for delayed Services / LD

As time is the essence of the contract, Delivery period mentioned in the Purchase Order should be strictly adhered to. Otherwise the bidder will forfeit EMD/SD and also LD clause will be applicable /enforced.

If the supplier fails to Supply, Install and Commission the equipment as per specifications mentioned in the order within the due date, the Supplier is liable to pay liquidated damages of 1% of order value per every week of delay subject to a maximum of 10% beyond the due date. Such money will be deducted from any amount due or which may become due to the supplier.

NISER reserves the right to cancel the order in case the delay is more than 30 days Penalties, if any, will be deducted from the EMD.

21. Jurisdiction

If a dispute arises out of or in connection with the contract, or in respect of any defined legal relationship associated therewith or derived therefrom, the parties agree to submit that dispute to arbitration under the ICADR Arbitration Rules, 1996.

The authority to appoint the arbitrator(S) shall be the International Centre for alternative dispute resolution.

The International Centre for Alternative Dispute Resolution will provide administrative services in accordance with the ICADR arbitration Rules, 1996.

**Stores & Purchase Officer
NISER, Jatni**

DECLARATION BY THE VENDOR

It is hereby declared that I/We the undersigned, have read and examined all the terms and conditions etc. of the tender document for which I/We have signed and submitted the tender under proper lawful Power of Attorney. It is also certified that all the terms and conditions of the tender document are fully acceptable to me/us and I/We will abide by the conditions from serial no. 1 to 25 and we have not given any printed conditions beyond the scope of this tender. This is also certified that I/We/our principal manufacturing firm have no objection in signing the purchase contract if the opportunity for the supply of the items against this tender is given to me/us.

Date:

Signature:

Address:

Name:

Designation:

On behalf of:

(Company Seal)



PART – 1-TECHNICAL
FOR SUPPLY AND INSTALLATION OF
CONFOCAL MICROSCOPE
FOR
NATIONAL INSTITUTE OF SCIENCE EDUCATION AND RESEARCH, JATNI
Notice Inviting E-Tender No. 30/2017(NC-000157-BIO-17-18) (2 Part Tender)

General Information –Self Attested

Sl. No.	Basic Information's	Please fill details	Page No. with name of the documents attached in support of information required
1.	Name of the Company		
2.	Full address of company along with Telephone no. Fax no. E-mail address :		
3.	Local address of company for communication, if any		
4.	Are you a manufacturer or dealer/reseller		
5.	Annual turn over in last 3 financial years in Rs. Crores. (i) Year 2013-2014 (ii) Year 2014-2015 (iii) Year 2015-2016 Please attach balance sheet		
6.	Supply & Installation of any CONFOCAL MICROSCOPE or equivalent to our tendered of last 3 financial years in State Government or Govt. of India Department(s) /Reputed Organisation(s) (in Nos. and Value) (Please attach list of clients) (i) Year 2013-2014 (ii) Year 2014-2015 (iii) Year 2015-2016 Please attach copy of Purchase Order/ Completion Certificate		
7.	GST Registration no. with Place		
8.	Income Tax Registration no. with place		
9.	Photocopy of EMD		
10.	If you are claiming exemption certificate under SSI/DGS&D/DAE, Please attach self attested copy of certificate which should be valid during the tender process		
11.	Service center details & principal vendor support centre		
12.	Declaration to be submitted by Vendor		
13.	Warranty 3 years Accepted/Not Accepted		



**SUPPLY AND INSTALLATION
OF
CONFOCAL MICROSCOPE
FOR**

National Institute of science education and research, JATNI

Notice Inviting E-Tender No. 30/2017(NC-000157-BIO-17-18)

PART-1-TECHNICAL SPECIFICATION

SL. No.	Item Specification	Accepted/ Not Accepted/ Deviation if any. Please specify your specificati on if deviation is there	Page No. of your specifications/B rochure, etc attached in supoort of your specification
	<p>NISER is planning to procure a single imaging system capable of spectral high speed confocal imaging AND light sheet based fluorescence microscopy. The system must be capable of imaging live and fixed biological samples and should include multichannel fluorescence imaging Z-stack, colocalization, time-lapse imaging, FRET, FRAP, photon counting and photo activation and conversion.</p> <p>The technical quote must be accompanied by a detailed technical document of the equipment components quoted from OEMs. Description proving compliance to each of the above technical requirement must be clearly highlighted in the said technical document, and the serial number of the related technical point must be noted next to the highlighting. In case the specific information is not present in the document, it must be clearly mentioned with a web-link, where in the website of the OEM such information about the quoted equipment can be found.</p> <p>Failure to satisfy these conditions, or unavailability of information to prove the technical features, or incomplete or unclear or false information provided in the technical quote will be grounds for summary disqualification. The onus is on the quoting party to provide all the information required for technical assessment, and such assessment will be carried out solely on the basis of the information provided to NISER in the technical quote.</p>		

1	<p>Fully-Motorized Inverted Fluorescence Microscope (with tilting binocular) for BF/DIC/FL with built-in TFT display for full control.a) Motorized XY Scanning stage with universal samples holders for slides, petri-dishes of various commonly used dimensions, multiwell-plate and closed perfusion chamber. Motorized DIC nosepiece, motorized BF/PH/DIC condenser and motorized FL turret. High -precision built in z-focus drive with step resolution of 5nm or better. Galvo z stage for high speed z movement. The travel range of z-stage should be at least 1500 micro meter with step size of at least 20nm. Transmitted and reflected light illumination respectively with LED and 120W metal halide with PC control and long lifetime of minimum 2000 hours.b) Microscope should have automated and motorized DIC having automated DIC components like objective prism, condenser prism, analyzer and polarizer for automatic swing in/out of DIC components from light path on selection of DIC w.r.t. objective lens. This must allow long duration live-cell imaging on a pre-programmed automatic format. c) High resolution Plan Apochromat objectives corrected for both UV & visible lines. Objectives of following zoom/minimum NA should be quoted: 10x/0.4, 20x/0.7, and 60x or 63x /1.4 oil oil immersion. DIC accessories for all objectives must be offered. Fluorescence band-pass filters must be present for DAPI/CFP, GFP /AF488/FITC, YFP/AF 514, Mito-tracker RED/AF 568d) System must come with an incubation chamber for live cells: Onstage type incubation chamber with programmable active CO₂ , temperature and humidity. Co₂ incubator should be controlled through Confocal software. Accessory for perfusion chamber along with peristaltic pump should be supplied with incubation chamber. The incubation chamber must be perfectly compatible with both confocal and light sheet imaging. e) The system must have automatic hardware based focus drift control based on LED, using wavelength 800nm or above.</p>		
2	<p>Active Anti vibration table must be supplied with the system from the manufacturer. Table/s must be provided for computers and components such as laser racks that come with the system.</p>		
3	<p>The point -scanning Confocal unit should be completely motorized with built-in internal high sensitivity spectral detectors of GaAsP or HyD type. The system must be offered with GaAsP/ HyD based imaging for at-least 1 channel and additionally GaAsP/ HyD/ PMT based detection for at least two channels. Detection with independent analog gain controls for all channels must be possible.</p>		
4	<p>All the fluorescence detectors of the scan head should be in spectral mode with freely selectable emission band width detection capability. The system should be capable of recording emission spectra with spectral GaASP detectors resolution of $\geq 5\text{nm}$.</p>		
5	<p>Must have continuously variable confocal pinhole with software control. Scan resolution of 4K X 4K must be possible.</p>		

6	The system must come with Spectral / Filter free detection unit with scan speed of ≥ 7 fps @ 512x512 pixels in spectral mode for at least 5 channels simultaneously. ROI scan and bleach with various ROI shapes should be possible for FRAP experiments. The scan field should have a field of view of minimum 20mm diagonal. The system must come with an additional second high speed scanner capable of 29fps @ 512x512 scan resolution for video rate imaging.		
7	The system must be capable of PMT-based transmitted light detector for DIC imaging.		
8	The system must come with following solid state lasers with the minimum wattages given respectively in parenthesis: 488nm (20mw), 552/561nm (20mw), 638nm (20mw) & Blue diode Laser 405/408nm (50mW). All the visible laser lines should be controlled through AOTF for fast laser switching and attenuation. Separate laser ports for UV/405nm, Vis, IR (for multiphoton).		
9	The system must come with at least two free active ports to facilitate future upgradation.		
10	Continuous hardware Scan zoom of 1x to 40x or better.		
11	Confocal System should be upgradable to multi Photon and/or Super-resolution of 50nm or better resolution in XY.		
12	The light sheet microscopy must operate by modification of the confocal system itself. All the attachments and accessories for using the confocal to generate the light sheet must be offered. The system with the attachments should make use light path of confocal for photo manipulation and light sheet generation for imaging. At least two illumination objectives (5X and 10X) and at least two imaging objectives (10x/0.3NA and 25x/0.9NA water immersion) must be offered for the light sheet imaging.		
13	Camera for light sheet imaging must be an sCMOS camera. It must satisfy the following criteria: Camera resolution should be 2048 x 2048 and speed 100fps with full resolution. Pixel size 6.45 x 6.45 micron, QE above 80%, full well capacity 30,000 electron, dark current 0.06 electron / pixel, 16/12/8 bit. Camera link and USB connection should be available for the camera. The system must come with with dual and triple band emission filters for FITC/GFP, Alexa568/ RFP, Cy5/ Alexa 633 and Dapi.		
14	High Dynamic range imaging / Bright R software or hardware module should be available.		
15	Along with the imaging system a high Power Workstation of following specifications must be offered: Windows 10Professional (64 bit) operating system, Intel octa-Core Xeon E5-2650 V3 , minimum 64 GByte RAM ,NVIDIA CUDA graphics card, 3 TB SATA HDD, Slim Super Multi DVD Writer, Ethernet Controller, 2 x USB 2.0, 8 x USB 3.0, IEEE 1394 Firewire B, CUDA processor for high speed imaging and processing. Keyboard and mouse, 31" LED HD Monitor, Resolution of 4K. Online PC should be supplied from factory with preloaded confocal software and should be tested by factory prior shipment.		

16	<p>Confocal system control software must be capable of controlling all motorized functions of microscope, scan head, lasers, image acquisition & Processing. Image acquisition for 3D, 4D, in-line spectral imaging and online spectral unmixing, co-localization. Live cell imaging control for multi-time series, FRAP, FRET (Acceptor photo bleaching), FRET (Sensitized emission), photo activation and conversion. Auto-fluorescence separation by online spectral unmixing.</p> <p>Advanced software for 3D reconstruction and processing of 3D data having features like Transparent, Maximum Intensity and Depth Coding, shadow projection, clipping, Orthogonal Sectioning and Annotation tool to add comments to 3D volume. Co-localization with histogram analysis, intensity profiles for quantification. The microscopy software should be capable of handling clsm and DLS integration, image acquisition and processing of data. The software must have deconvolution modules for widefield images as well as high density 3D confocal image data.</p>		
17	2D automatic measurement and object tracking automated analysis software module.		
18	Specialized analysis Software modules for FRAP and FRET (SE & AB), and multi-export formats for data output.		
19	Suitable online UPS for 30 min backup for the entire system and offline UPS with 30 min back up for offline workstation.		
20	3 Years On-Site Comprehensive Warranty		
21	For Information:- Parties quoting must quote for all the above-mentioned components. No quotes in part will be technically acceptable. Any component that is not from the OEM of the microscope must be installed, integrated and maintained by the technical personnel of the bedding party.		
<u>OPTIONAL ITEMS</u>			
1	As an optional item, scanner for 40fps at 512x512 should also be offered.		
2	Optional Separate workstation for image processing with offline software (include FRET & FRAP modules) with following specs: High Power Workstation with Windows 10 Professional (64 bit) operating system, Intel Xeon Octa core 3.5 GHz 10MB, 64 GB RAM ,NVIDIA CUDA graphics card, 3 T B SATA HDD, Slim Super Multi DVDRW ,USB 3.0/2.0, IEEE 1394 A/B, Keyboard and mouse, 31" LED HD Monitor, resolution 4K.		



**SUPPLY AND INSTALLATION
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FOR**

National Institute of science education and research, JATNI

Notice Inviting E-Tender No. 30/2017(NC-000157-BIO-17-18)

PART-2- FINANCIAL BID

SL. No.	Item Specification	UNIT Price FOB in Foreign Currency	Unit Price in INR for items which supplier will supply from India
	<ul style="list-style-type: none">• The price quoted shall be considered firm and no price escalation will be permitted at any time. The quotation should be in Indian Rupees or any known foreign currency. Packing, forwarding, freight, insurance, Agency commission and commissioning charges, if any extra may be quoted separately in Commercial Bid.• In case of INR bids the price criteria should be on F.O.R., NISER, Jatni. Govt. Levies like GST, etc., if any, shall be paid at actual rates applicable on the date of delivery. Rates should be quoted accordingly giving the basic price, GST, etc., if any.• In case of Foreign Currency bid: - Price criteria should be FOB nearest airport detail break up of Price, FCA cost, Agency Commission, Insurance, Freight up to Kolkata Airport is required.• NISER may place order at CIF Kolkata Airport basis.• Parties quoting must quote for all the above-mentioned components. No quotes in part will be technically acceptable. Any component that is not from the OEM of the microscope must be installed, integrated and maintained by the technical personnel of the bedding party.		

1	<p>Fully-Motorized Inverted Fluorescence Microscope (with tilting binocular) for BF/DIC/FL with built-in TFT display for full control.a) Motorized XY Scanning stage with universal samples holders for slides, petri-dishes of various commonly used dimensions, multiwell-plate and closed perfusion chamber. Motorized DIC nosepiece, motorized BF/PH/DIC condenser and motorized FL turret. High -precision built in z-focus drive with step resolution of 5nm or better. Galvo z stage for high speed z movement. The travel range of z-stage should be at least 1500 micro meter with step size of at least 20nm. Transmitted and reflected light illumination respectively with LED and 120W metal halide with PC control and long lifetime of minimum 2000 hours.b) Microscope should have automated and motorized DIC having automated DIC components like objective prism, condenser prism, analyzer and polarizer for automatic swing in/out of DIC components from light path on selection of DIC w.r.t. objective lens. This must allow long duration live-cell imaging on a pre-programmed automatic format. c) High resolution Plan Achromat objectives corrected for both UV & visible lines. Objectives of following zoom/minimum NA should be quoted: 10x/0.4, 20x/0.7, and 60x or 63x /1.4 oil oil immersion. DIC accessories for all objectives must be offered. Fluorescence band-pass filters must be present for DAPI/CFP, GFP /AF488/FITC, YFP/AF 514, Mito-tracker RED/AF 568d) System must come with an incubation chamber for live cells: Onstage type incubation chamber with programmable active CO₂ , temperature and humidity. Co₂ incubator should be controlled through Confocal software. Accessory for perfusion chamber along with peristaltic pump should be supplied with incubation chamber. The incubation chamber must be perfectly compatible with both confocal and light sheet imaging. e) The system must have automatic hardware based focus drift control based on LED, using wavelength 800nm or above.</p>		
2	<p>Active Anti vibration table must be supplied with the system from the manufacturer. Table/s must be provided for computers and components such as laser racks that come with the system.</p>		
3	<p>The point -scanning Confocal unit should be completely motorized with built-in internal high sensitivity spectral detectors of GaAsP or HyD type. The system must be offered with GaAsP/ HyD based imaging for at-least 1 channel and additionally GaAsP/ HyD/ PMT based detection for at least two channels. Detection with independent analog gain controls for all channels must be possible.</p>		
4	<p>All the fluorescence detectors of the scan head should be in spectral mode with freely selectable emission band width detection capability. The system should be capable of recording emission spectra with spectral GaASP detectors resolution of $\geq 5\text{nm}$.</p>		
5	<p>Must have continuously variable confocal pinhole with software control. Scan resolution of 4K X 4K must be</p>		

	possible.		
6	The system must come with Spectral / Filter free detection unit with scan speed of ≥ 7 fps @ 512x512 pixels in spectral mode for at least 5 channels simultaneously. ROI scan and bleach with various ROI shapes should be possible for FRAP experiments. The scan field should have a field of view of minimum 20mm diagonal. The system must come with an additional second high speed scanner capable of 29fps @ 512x512 scan resolution for video rate imaging.		
7	The system must be capable of PMT-based transmitted light detector for DIC imaging.		
8	The system must come with following solid state lasers with the minimum wattages given respectively in parenthesis: 488nm (20mw), 552/561nm (20mw), 638nm (20mw) & Blue diode Laser 405/408nm (50mW). All the visible laser lines should be controlled through AOTF for fast laser switching and attenuation. Separate laser ports for UV/405nm, Vis, IR (for multiphoton).		
9	The system must come with at least two free active ports to facilitate future upgradation.		
10	Continuous hardware Scan zoom of 1x to 40x or better.		
11	Confocal System should be upgradable to multi Photon and/or Super-resolution of 50nm or better resolution in XY.		
12	The light sheet microscopy must operate by modification of the confocal system itself. All the attachments and accessories for using the confocal to generate the light sheet must be offered. The system with the attachments should make use light path of confocal for photo manipulation and light sheet generation for imaging. At least two illumination objectives (5X and 10X) and at least two imaging objectives (10x/0.3NA and 25x/0.9NA water immersion) must be offered for the light sheet imaging.		
13	Camera for light sheet imaging must be an sCMOS camera. It must satisfy the following criteria: Camera resolution should be 2048 x 2048 and speed 100fps with full resolution. Pixel size 6.45 x 6.45 micron, QE above 80%, full well capacity 30,000 electron, dark current 0.06 electron / pixel, 16/12/8 bit. Camera link and USB connection should be available for the camera. The system must come with with dual and triple band emission filters for FITC/GFP, Alexa568/ RFP, Cy5/ Alexa 633 and Dapi.		
14	High Dynamic range imaging / Bright R software or hardware module should be available.		
15	Along with the imaging system a high Power Workstation of following specifications must be offered: Windows 10Professional (64 bit) operating system, Intel octa-Core Xeon E5-2650 V3 , minimum 64 GByte RAM ,NVIDIA CUDA graphics card, 3 TB SATA HDD, Slim Super Multi DVD Writer, Ethernet Controller, 2 x USB 2.0, 8 x USB 3.0, IEEE 1394 Firewire B, CUDA processor for high speed imaging and processing. Keyboard and mouse, 31" LED HD Monitor, Resolution of 4K. Online PC should be supplied from factory		

	with preloaded confocal software and should be tested by factory prior shipment.		
16	Confocal system control software must be capable of controlling all motorized functions of microscope, scan head, lasers, image acquisition & Processing. Image acquisition for 3D, 4D, in-line spectral imaging and online spectral unmixing, co-localization. Live cell imaging control for multi-time series, FRAP, FRET (Acceptor photo bleaching), FRET (Sensitized emission), photo activation and conversion. Auto-fluorescence separation by online spectral unmixing. Advanced software for 3D reconstruction and processing of 3D data having features like Transparent, Maximum Intensity and Depth Coding, shadow projection, clipping, Orthogonal Sectioning and Annotation tool to add comments to 3D volume. Co-localization with histogram analysis, intensity profiles for quantification. The microscopy software should be capable of handling clsm and DLS integration, image acquisition and processing of data. The software must have deconvolution modules for widefield images as well as high density 3D confocal image data.		
17	2D automatic measurement and object tracking automated analysis software module.		
18	Specialized analysis Software modules for FRAP and FRET (SE & AB), and multi-export formats for data output.		
19	Suitable online UPS for 30 min backup for the entire system and offline UPS with 30 min back up for offline workstation.		
20	3 Years On-Site Comprehensive Warranty		
	Sub-Total		
	Agency Commission		
	GST Charge If Any		
	CIP Kolkata Charges		
	Any Other Charges		
	Grand Total		

<u>OPTIONAL ITEMS</u>			
1	As an optional item, scanner for 40fps at 512x512 should also be offered.		
2	Optional Separate workstation for image processing with offline software (include FRET & FRAP modules) with following specs: High Power Workstation with Windows 10 Professional (64 bit) operating system, Intel Xeon Octa core 3.5 GHz 10MB, 64 GB RAM ,NVIDIA CUDA graphics card, 3 T B SATA HDD, Slim Super Multi DVDRW ,USB 3.0/2.0, IEEE 1394 A/B, Keyboard and mouse, 31" LED HD Monitor, resolution 4K.		
AMC Charges after expiry of warranty (in percentage)			