

	<b>INDIAN INSTITUTE OF TECHNOLOGY MADRAS</b> <b>Chennai 600 036</b>  Telephone: [044] 2257 9798/9723 E-mail: tender@imail.iitm.ac.in	
---	--	---

The Senior Manager (Project Purchase)

**Ref: MEE/ASHI/040/2019**  
Date: 23.09.2019

**Open Tender No: MEE/ASHI/040/2019**

**Due Date: 14<sup>th</sup> October 2019, 2 PM**

**Pre-Bid meeting: - Not required.**

**Technical Bid opening meeting on 14<sup>th</sup> October 2019, 3:00 PM at Department of Mechanical Engineering, IIT-Madras.**

Dear Sir/Madam,

On behalf of the Indian Institute of Technology Madras, offers are invited for the supply of **“Supply and Installation of Resonant Scanning Laser Confocal Setup”** conforming to the specifications given in Annexure I.

**Instructions to the Bidder**

- I. **Preparation of Bids:** - The tenders should be submitted under two-bid system (i.e.) Technical bid and Financial bid.
- II. **Delivery of the tender:** - The tender shall be sent to the addresses mentioned below, either by post or by courier so as to reach our office before the due date and time specified in our schedule. The offer/bid can also be dropped in the tender box on or before the due date and time specified in the schedule.  
The tender box is kept in the office of the:

**The Senior Manager,  
Project Purchase,  
IC & SR Building 2<sup>nd</sup> floor,  
I.I.T. Madras,  
Chennai - 600 036.**

- III. **Opening of the tender:** - The offer/bids will be opened by a committee duly constituted for this purpose. The technical bids will be opened first and will be examined by a technical committee which will decide the suitability of the bids as per our specifications and requirements. All bidders will be invited for opening of the technical bids. With respect to opening the financial bid, only technically qualified bidders will be called.

- IV. Prices:** - The price should be quoted in net per unit (after breakup) and must include all packing and delivery charges to the **Department of Mechanical Engineering**. The offer/bid should be exclusive of taxes and duties. The percentage of tax & duties should be clearly indicated separately. Kindly note that IIT Madras is eligible for concessional GST and relevant certificate will be issued.

In case of import supply, the price should be quoted without custom duty. IIT Madras is exempted from levy of IGST on Imports and eligible for concessional custom duty (not exceeding 5%) and the price should be quoted on EX-WORKS and CIP basis indicating the mode of shipment.

- V. Agency Commission:** - Agency commission, if any, will be paid to the Indian agents in rupees after receipt of the equipment and its satisfactory installation. Agency Commission will not be paid in foreign currency under any circumstances. The details should be explicitly shown in the tender document even in the case of 'Nil' commission. The tenderer should indicate the percentage of agency commission to be paid to the Indian agent. The foreign Principal should indicate the percentage of payment and it should be included in the basic price quoted originally (if any)..
- VI. Terms of Delivery:** - The item should be supplied to the **Department of Mechanical Engineering** as per the Purchase Order. In case of import supply, the item should be delivered at the cost of the supplier to our Institution. The Installation/Commissioning should be completed as specified in our important conditions.
- VII. Technical Bid Opening:** The technical bid will be on 14<sup>th</sup> October, 2019, 3:00 PM at the **Department of Mechanical Engineering, IIT-Madras**. The financial bids of those tenders who are technically qualified will be opened at a later date under intimation to them.
- VIII. IIT Madras** reserves the full right to accept / reject any tender at any stage without assigning any reason.

Yours sincerely,

**The Senior Manager (Project Purchase)**  
**IC&SR Building, I.I.T. Madras,**  
**Chennai - 600 036.**

## SCHEDULE

### Important Conditions of the tender

1. The due date for the submission of the tender is **14.10.2019, 2 PM.**

The offers / bids should be submitted in two bids systems (i.e.) Technical bid and financial bid. The Technical bid should consist of all technical details / specifications only. The Financial bid should indicate item-wise price for each item and it should contain all Commercial Terms and Conditions including Taxes, transportation, packing & forwarding, installation, guarantee, payment terms, pricing terms etc. The Technical bid and financial bid should be put in separate covers and sealed. Both the sealed covers should be put in a bigger cover. The Open Tender for supply of **“Supply and Installation of Resonant Scanning Laser Confocal Setup”** should be written on the left side of the Outer bigger cover and sealed.

2. **EMD: - The EMD (Should be in INR) in the form of Account Payee Demand Draft/Fixed Deposit Receipt/ Banker’s Cheque or Bank Guarantee for 2% of the quoted value of the item; drawn in favor of The Registrar-IIT Madras, payable at Chennai should be enclosed in the cover containing financial bid.** Any offer not accompanied with the EMD shall be rejected summarily as non-responsive.

The EMD of the unsuccessful bidders shall be returned within 30 days of the end of the bid validity period. The same shall be forfeited, if the tenderers withdraw their offer after the opening during the bid validity period. The Institute shall not be liable for payment of any interest on EMD. EMD is exempted for Micro and Small Enterprises (MSE) as defined in MSE Procurement Policy issued by Department of Micro, Small and Medium Enterprises (MSME).

***When a foreign vendor does not have a local agent in India, he can submit demand draft equal to 2% or wire transfer the amount to our account as detailed in the attachment (Annexure II) and enclose the proof with the financial bid.***

3. **Performance Security: -** The successful bidder should submit Performance Security for an amount of 5% of the value of the contract/supply. The Performance Security may be furnished in the form of an Account Payee DD, FD Receipt from the commercial bank, Bank Guarantee from any nationalized bank in India. **The performance security should be furnished within 21 days from the delivery of the purchase order.**

**Performance Security in the form of Bank Guarantee:-** Incase the successful bidder wishes to submit Performance Security in the form of Bank Guarantee, the Bank Guarantee should be routed through the Beneficiary Bank to the end user bank. Otherwise, the Indian Agent of the foreign vendor has to submit a Bank Guarantee from a Nationalized Bank of India.

The Bank Guarantee should remain valid for a period of sixty days beyond the date of completion of all contractual obligations of the supplier including the warranty obligations.

4. **Indian agent:** If an Indian agent is involved, the following documents must be enclosed:  
Foreign principal’s proforma invoice indicating the commission payable to the Indian Agent and nature of after-sales service to be rendered by the Indian Agent.
  - ✓ Copy of the agency agreement with the foreign principal and the precise relationship between them and their mutual interest in the business.
5. The offer/bids should be sent only for a machine that is available in the market and supplied to a number of customers. A list of customers in India and abroad with details must accompany the quotations. Quotations for a prototype machine will not be accepted.

6. Original catalogue (not any photocopy) of the quoted model duly signed by the principals must accompany the quotation in the Technical bid.
7. Compliance or Confirmation report with reference to the specifications and other terms & conditions should also be obtained from the principal.
8. **Validity:** Validity of Quotation not less than 90 days from the due date of tender.
9. **Delivery Schedule:** - The tenderer should indicate clearly the time required for delivery of the item (subjected to the executive committee-IITMadras approval). In case there is any deviation in the delivery schedule, liquidated damages clause will be enforced or penalty for the delayed supply period will be levied.  
If there is delay, the penalty will be @1% per week of delay subject to a max of 10% of the value of purchase order and if the delay is more than accepted time frame by IITM, the PO would be cancelled and liquidated damages will be enforced.
10. **Risk Purchase Clause:-** In the event of failure of supply of the item/equipment within the stipulated delivery schedule, the purchaser has all the right to purchase the item/equipment from other sources on the total risk of the supplier under risk purchase clause.
11. **Payment:-** Payment will be via LC. 10% payment will be done after installation of the equipment.
12. **On-site Installation:** - The equipment or machinery has to be installed or commissioned by the successful bidder within number of days (as prescribed by PI) from the date of receipt of the item at site of IIT Madras.
13. **Warranty/Guarantee:** - The offer should clearly specify the warranty or guarantee period for the machinery/equipment. Any extended warranty offered for the same has to be mentioned separately (For more details please refer our Technical Specifications).
14. **Late offer:** - The offers received after the due date and time will not be considered. The Institute shall not be responsible for the late receipt of Tender on account of Postal, Courier or any other delay.
15. **Acceptance and Rejection:** - I.I.T. Madras has the right to accept the whole or any part of the Tender or portion of the quantity offered or reject it in full without assigning any reason.
16. **Do not quote the optional items or additional items unless otherwise mentioned in the Tender documents / Specifications.**

**17. Disputes and Jurisdiction:**

**Settlement of Disputes:** Any dispute, controversy or claim arising out of or in connection with this PO including any question regarding its existence, validity, breach or termination, shall in the first instance be attempted to be resolved amicably by both the Parties. If attempts for such amicable resolution fails or no decision is reached within 30 days whichever is earlier, then such disputes shall be settled by arbitration in accordance with the Arbitration and Conciliation Act, 1996. Unless the Parties agree on a sole arbitrator, within 30 days from the receipt of a written request by one Party from the other Party to so agree, the arbitral panel shall comprise of three arbitrators. In that event, the supplier will nominate one arbitrator and the Project Coordinator of IITM shall nominate on arbitrator. The Dean IC&SR will nominate the Presiding Arbitrator of the arbitral tribunal. The arbitration proceeding shall be carried out in English language. The cost of arbitration and fees of the arbitrator(s) shall be shared equally by the Parties. The seat of arbitration shall be at IC&SR IIT Madras, Chennai.

- a. **The Applicable Law:** This Purchase Order shall be construed, Interpreted and governed by the Laws of India, Court at Chennai shall have exclusive jurisdiction subject to the arbitration clause.
- b. 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 Chennai in Tamil Nadu.

18. All Amendments, time extension, clarifications etc., will be uploaded on the website only and will not be published in newspapers. Bidders should regularly visit the above website to keep themselves updated. No extension in the bid due date/ time shall be considered on account of delay in receipt of any document by mail.

**Acknowledgement:** - It is hereby acknowledged that the tenderer has gone through all the conditions mentioned above and agrees to abide by them.

**SIGNATURE OF TENDERER  
ALONG WITH SEAL OF THE  
COMPANY WITH DATE**

**ANNEXURE-I****TECHNICAL SPECIFICATIONS FOR PURCHASE OF LASER SCANNING  
CONFOCAL ACCESSORIES FOR VISUALIZING FLOWS IN MICROFLUIDIC  
CHANNELS**

Sl. No.	Name of Equipment	Minimum Requirements	Quantity
01	Confocal imaging unit with high sensitivity detectors	<p>a) Laser point scanning confocal system with the ability to conduct spectrally-resolved detection. User must have freedom to select the exact wavelength range, they wish to capture in every detection channel at nano-meter precision. (2nm or better throughout the spectral range of for all the spectral detectors).</p> <p>b) 2-channel multi-Alkali PMT detectors with spectral detection capability. At least 2 independent fluorescence signal implemented using 2-independent multi-Alkali PMT detectors with independent PMT gain and independent PMT offset controls for each detector. Simultaneous detection of minimum 2 fluorophores is a must. System should be capable of doing 4 colours in sequential mode. Compatible to upgradation for two or more high sensitivity spectral Peltier cooled GaAsP detector (2nm or better). The detectors should directly be coupled to scan head (without any optical fibre) for better S/N and sensitivity.</p> <p>c) Spectral operation should be performed either using one or more of the following methods: i.) Reflection Diffraction Grating ii.) Pellin-Broca Prism iii.) Holographic Transmission Diffraction Grating.</p> <p>d) Spectral pass-band selection using slit/knife edge based mechanism with continuously variable slits in all the detectors down to 2nm. Robust spectral resolution detection:</p> <p>e) Transmitted detector unit to conduct DIC with confocal imaging.</p> <p>The system should have galvo mirror with highest reflectivity from 400-1000nm (&gt;90%) for better sensitivity from UV – NIR Imaging.</p>	01
02	High Speed Hybrid Resonant Scanning Unit	<p>High speed resonant scanner @ 30FPS at 512x512 pixels of full field of view without zoom and up to 430 FPS at 512x32 pixel region. Scanning zoom factor should be changed from 1X to 8X in 0.01X increments. Higher field of view under the high speed scanning mode will be preferred. Hybrid scanner should have galvanometer and resonant scanner.</p>	01

03	Laser modules with AOTF control	<p>a) Solid-State Laser module with laser combiner for 405nm, 488nm, 561 nm and 640 nm, which should be upgradable to maximum 3 more lasers for future applications. Laser-scan head connection through fiber optic cable. Laser must switch fast synchronised manner for conducting photo activation, photo-conversion and FRAP experiments at the particular ROI through AOTF. Laser safety control to be provided.</p> <p>b) All lasers should be diode or solid state with output power larger than or equals to 20mW</p> <p>c) All visible &amp; UV lasers should be connected to the scan head and should be controlled through AOTF for fast laser switching and attenuation in pixel precise synchronization with the laser scanner. Real ROI scan for FRAP, PA/conversion experiments.</p> <p>The scan head and the detector should be directly connected microscope and not through optical fibre to avoid signal loss.</p>	01
04	Motorized Fluorescence attachment	<p>Motorized Fluorescence attachment 6/8 position turret with 130 watts mercury / metal halide light source, Fluorescence narrow band pass filters for UV, Blue &amp; Green Excitation, at least 2 nos. of empty mirror cubes also to be quoted.</p>	01
05	System control and Imaging Software	<p>a) Software should be capable of controlling every component of the system including microscope, Confocal system.</p> <p>b) Multidimensional Image Acquisition and analysis software</p> <p>c) Motorised stage control for multipoint, multi-well (in the case of 96-well plate)</p> <p>d) Image stitching software module</p> <p>e) 2D Deconvolution</p> <p>f) Real ROI for FRAP, Photo-activation/conversion experiments</p> <p>g) Standard geometry measurement such as length, angles, areas and intensity measurements like line profile, histogram and intensity statistics</p> <p>f) FRET and FRAP acquisition and analysis module</p> <p>g) Co-localization analysis</p> <p>h) orthogonal plane viewing of the 3D time-lapse data set</p> <p>j) Spectral un-mixing with the fingerprinting for separation of overlapping excitation/emission spectra of fluorophores</p> <p>Capability to perform Macro to micro imaging of large specimens with seamless stitching capability in real time.</p>	01

**Optional item (Price to be quoted separately):**

01	Computer and Monitor	<p>a) High end CPU with fast processor.  b) At least 4TB of storage space (HDD).  c) At least 32 GB RAM.  d) High performance graphic card.  e) 64-bit operating system.  f) Slim Super Multi DVDRW.  g) 1TB 7200 RPM SATA 1st HDD, 1TB 7200 RPM SATA 2nd HDD  h) USB Keyboard, USB 1000dpi laser mouse.  i) Win 10 Pro 64 bit or better, USB 2.0/ 3.0, Fire wire.  j) Large 32" LED monitor 3840 X 2160 resolution or better, Keyboard &amp; Mouse.</p>	01
----	----------------------	--	----

- **Manufacturer's Warranty of at least 2 years will be part of the quotation for all the aforementioned parts including laser replacement.**
- **Installation to be done by the vendor for free of cost and service and maintenance will be done by the vendor as and when required.**





CENTRE FOR INDUSTRIAL CONSULTANCY & SPONSORED RESEARCH (IC&SR)  
INDIAN INSTITUTE OF TECHNOLOGY MADRAS  
CHENNAI 600 036



**ELECTRONIC CLEARING SERVICE (Credit Clearing)/ REAL TIME  
GROSS SETTLEMENT (RTGS) FACILITY FOR RECEIVING PAYMENTS**

**A. Details of Account Holder**

Name of the Institution	Indian Institute of Technology - Madras
Complete Contact Address	Industrial Consultancy and Sponsored Research Indian Institute of Technology-Madras, IIT- Madras Campus Post Office, Sardar Patel Road, Guindy, CHENNAI - 600 036
Telephone No./ Fax No.	Tel - 044-22578355 / Fax - 044-22570545
E- mail ID of the FO/AO/REG/DIR	dricsr@iitm.ac.in

**B. Bank Account Details:**

Institution Account Name (As per Bank Record)	The Registrar, Indian Institute of Technology - Madras
Account No.	2722101001741
Account Print Name	IIT F A/C , The Registrar IIT Madras
IFSC CODE	CNRB0002722
Bank Name (in full)	Canara Bank
Branch Name	IIT-Madras Branch
Complete Branch Address	Canara Bank, IIT-Madras Branch, IIT- Madras Campus Post Office, Sardar Patel Road, Guindy, CHENNAI - 600 036
MICR No.	600015085
Account Type	Savings Account

Certified that the Institute's account is in an RTGS enabled branch.  
I hereby declare that the particulars given above are correct and complete.

Date: \_\_\_\_\_ Signature of the Competent Authority  
of the Institution with seal.

*K. M. Ganesan*  
DEPUTY REGISTRAR (IC&SR) (Vc)  
IC & SR, I.I.T. MADRAS  
CHENNAI - 600 036

Certified that the particulars furnished above are correct as per our records.

Date: \_\_\_\_\_ Signature of the Authorized  
Bank Official with Bank Seal.



For CANARA BANK  
*B. Sekar*  
SENIOR MANAGER  
IIT-MADRAS CHENNAI 600 036.

**B. SEKAR**  
Senior Manager  
SP No 39312



CENTRE FOR INDUSTRIAL CONSULTANCY & SPONSORED RESEARCH (IC&SR)  
 INDIAN INSTITUTE OF TECHNOLOGY MADRAS  
 CHENNAI 600 036



K VIJAYALAKSHMI  
 DEPUTY REGISTRAR (IC&SR) *KL*

Project Accounts  
 July 5, 2019

TO WHOMSOEVER IT MAY CONCERN

In connection with project, US currency may be transferred to CANARA BANK, IIT – MADRAS  
 Branch In connection with the following details.

FOR TRANSFER OF CURRENCY US DOLLAR

Please Credit in USD

(THROUGH)

JP MORGAN CHASE, NEW YORK  
 SWIFT CODE: CHASUS33

For credit to

USD ACCOUNT No: 001 – 1395969, of CANARA BANK INTERNATIONAL DIVISION MUMBAI

For Further Credit to

ACCOUNT NO: 2722101001741 of IIT Chennai – Swift Code: CNRBINBBIT OF THE  
 REGISTRAR, IIT, MADRAS

*K Vijaya*  
 DEPUTY REGISTRAR(IC & SR) i/c

This is to certify that particulars furnished are correct.

*for CANARA BANK*  
*[Signature]*  
 Senior Manager  
 CHENNAI-600 036.  
 Canara Bank – IIT Madras branch

B. SEKAR  
 Senior Manager  
 SP No. 39312



DEPUTY REGISTRAR (IC&SR) (i/c)  
 IC & SR, I.I.T. MADRAS  
 CHENNAI - 600 036