

	<p>Institute of Infrastructure, Technology, Research And Management (An Autonomous University, Established by Government of Gujarat) IITRAM Campus, Parishkar Campus, Near Khokhra Circle, Maninagar (East), Ahmedabad – 380026, Gujarat. Phone: 079-67775430 e-Mail: office@iitram.ac.in Website: www.iitram.ac.in</p>
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Tender No.: 2022/32

Date: 09.12.2022

NOTICE INVITING TENDER

Important Information:

Name of Item:	BID FORM for Procurement of Recirculating Flume for Hydraulic Laboratory
Date of Issue of Tender	09.12.2022
Tender Fee	Rs.2950.00 (Including 18% GST) <i>Non-Refundable</i>
EMD	Rs.1,20,000.00 (<i>Refundable</i>)
Last Date & Time for Online BID Submission	30.12.2022 till 06.00 PM
Last Date & Time for Physical BID Submission	31.12.2022 till 05:00 PM
Date for Opening of Technical BID	02.01.2023 at 11.30 AM
Date for Opening of Financial BID	To be announced later through email
Tender Inviting Authority and Address	The I/c. Registrar, Institute of Infrastructure, Technology, Research And Management, Near Khokhara Circle, Maninagar (East), Ahmedabad – 380026, Gujarat. Phone: - 079-67775430

Institute of Infrastructure, Technology, Research And Management

NOTICE INVITING TENDER

Name of Item: Procurement of Recirculating Flume for Hydraulic Laboratory

Sir,

The Institute of Infrastructure, Technology, Research And Management (IITRAM), Ahmedabad invites quotations for **Procurement of Recirculating Flume for Hydraulic Laboratory** under “Two bid system in e-Tender format” Interested parties who wish to participate in this e-Tender may obtain the Tender documents from IITRAM website www.iitram.ac.in or from <https://education.nprocure.com>. Firms have to submit the technical documents through RPAD, Speed Post or in Person till the last date and time prescribed for submission. Tender sent by other means will not be accepted in any case. Hardcopy of Tender Document, Tender Fee, EMD and Other essential documents should be submitted on or before **31.12.2022 till 05:00 PM** in the office of the IITRAM, Room No. G2, IITRAM, Near Khokhara Circle, Maninagar (East), Ahmedabad-380026, Gujarat. Financial bid is to be submitted in electronic form only on (n)Procure website (<https://education.nprocure.com>).

1. Eligibility Criteria:

- 1.1 The firm should have PAN No. Enclose a copy of the PAN Card.
- 1.2 The firm should be registered with GST. Enclose a copy of the Registration No.
- 1.3 The firm has to submit at least last three years Income Tax Return of their firm.
- 1.4 The firm has to submit the Firm Registration Certificate.
- 1.5 The firm has to submit the Authorization Letter from the Original Equipment Manufacturer(OEM).

2. General Terms and Conditions:

- 2.1 The firm has to quote the price for the item as mentioned in particular Annexure-I.
- 2.2 The quoted price shall include taxes, other levy payable, all freight, packing & forwarding, transportation, loading & unloading, custom duty, excise duty & other duties, other charges (if any) to supply Goods/Item/Equipment at IITRAM.
- 2.3 Rates quoted should also including training, installation, commissioning, erection and demonstration of machine/material/goods/instruments/equipment at our site.
- 2.4 The items for which quotation have been submitted must be in accordance with the specifications given in **Annexure-I**.
- 2.5 The rates quoted by the firm shall be fixed for the duration of the contract and shall not be subject to adjustment on any account.
- 2.6 The offer shall be valid up to 90 days from the date of opening of Technical bid.
- 2.7 The Tender is liable to be rejected if complete information is not given therein or if the particulars and date (if any) asked for in the scheduled tender are not fully filled in. Particular

- attention must be paid to delivery date and also to the particulars referred to in the condition of the contract.
- 2.8 Financial bids will be opened in online format of technically qualified firms only.
- 2.9 Tenders not complying with the above conditions are liable to be rejected at the sole discretion of IITRAM without any further reference / communication.
- 2.10 This tender is not transferable.
- 2.11 IITRAM reserves the right to choose, accept or reject any or all requests/deviations/offers, in full or part and also reserve the right at any stage to reduce or increase the quantity and split the order.
- 2.12 The Supplier/Vendor has to submit photocopy of following documents along with duly signed & stamped manner:
- i. PAN Card
 - ii. Firm's Registration Certificate
 - iii. GST Registration Number
 - iv. Income Tax Return (Last three years')
 - v. This NIT Documents, Annexures, Appendix, etc.
 - vi. If firm is newly established, provide chartered accountant certificate to make firm eligible for tender. In case of foreign company/organization/industry, has to provide necessary document like firm registration, original manufacturing certificate etc. Otherwise, it shall be liable for disqualification of this NIT.
- 2.13 **Performance Security:** The successful firm shall be required to deposit Performance Security from any Nationalized Bank @5% of the cost of the items to be supplied for the duration of warranty plus additional two months in favor of "IITRAM" within 30 days of the receipt of the Purchase Order. If the firm fails to comply with the above requirements within the said period, the EMD already deposited by him/ them shall be applicable for forfeiture and IITRAM shall purchase the items required at the risk and cost of the successful firm.
- 2.14 This Performance Security will be returned (without any interest) within 30 (Working) days after satisfactorily completion of warranty period.
- 2.15 The successful firm shall have to enter into the Agreement in the prescribed Performa provided by IITRAM. (In Rs.300 Stamp Paper).
- 2.16 **Inspection:** Pre-dispatch inspection at Bidders site or inspection after the delivery of goods, as the case may be.
- 2.17 **Inspection Charges** @0.5% within Gujarat State and Inspection Charges @1% for outside Gujarat State of the total order value should be borne by the bidder.
- 2.18 All or any Claim(s), dispute(s) or difference(s) arising out of or in with connection with this agreement shall be subject to the jurisdiction of the Courts at Ahmedabad only.
- 2.19 Any loss or damage caused to the article in transit/Installation/Testing is to be made up item by the firm free of cost within period of 30 days.

- 2.20 If the firm is blacklisted by Central Government or State Government or any other Government body then its submitted tender will be rejected. It is essential for firm to submit **Appendix - I** duly filled, signed, sealed & stamped manner in hardcopy, **failing which the tender will be summarily rejected.**
- 2.21 If there happens to be a holiday on any date indicated in the quotation, the transaction shall be performed on the next Working Day.
- 2.22 No firm shall withdraw his rates after the Tender is opened. If a firm does so, his tender related deposit/s shall be forfeited and such firm shall be considered ineligible for work/contract in future.

3. Submission of bid:

- 3.1 The Tender document can be downloaded from website www.iitram.ac.in or from <https://education.nprocure.com>. The fully filled in and complete in all respect Tender must be submitted with Tender Fee, EMD in the form of Demand Draft in separate cover in favor of the “IITRAM” payable at Ahmedabad.
- 3.2 Please mention Tender Number and Firm Name of Firm on back side of DD.
- 3.3 The EMD is refundable (without any interest) within 30 (Working) days after successful award of Purchase Order:
- 3.3.1 EMD of unsuccessful suppliers / vendors will be returned within 30 (Thirty) working days from the date of award of Purchase Order.**
 - 3.3.2 EMD of successful supplier / vendor will be returned within 30 (Thirty) working days after submission Performance Security.**
 - 3.3.3 The EMD shall be forfeited:**
 - If the bidder withdraws his bid during the validity period of the bid.
- 3.4 The firm has to submit the Tender in two parts viz., (a) Technical Bid in envelop No.1 and (b) EMD in envelope No.2; both these envelopes should be sealed and put together in a covering envelope, super scribed with, Please Don't Open, bid for ***“Procurement of Recirculating Flume for Hydraulic Laboratory”*** with due date, Tender Number and complete address with contact number and email ID.
- 3.5 The bidder has to provide the make, model and detail technical specifications of the quoted item(s) and provide the technical specification of item as mentioned in Appendix-I. **Without this information, bid submitted by the bidder will be rejected.**
- 3.6 The firm has to submit financial quotation online only at (n)Procure Portal.
- 3.7 Price quoted “ONLINE” will only be considered for L1.

4. Special Terms & Conditions:

- 4.1 Any discrepancy found in the catalogue of Original Equipment Manufacturer(OEM) and the technical data sheet provided by vendor will lead to disqualification. Make and model number of the flume and its components shall be provided by the vendor and the technical specifications

of the quoted equipment (make and model) should be in compliance with the tender requirements.

- 4.2 No equivalent material for any parts of the flume, apart from that mentioned in the tender document will be accepted. If any such discrepancy is observed in the material type with respect to the tender document, then the party will be disqualified due to non-fulfilment of the tender specifications.
- 4.3 Vendor shall provide all necessary documents/ information as required by the tender along with their bid. Non-compliance of the tender specifications will lead to disqualification of the vendor. No clarification will be provided by email. However, the vendor will be updated about the reason for disqualification through (n)Procure system as per the procedure.
- 4.4 Vendor must have supplied atleast 2 equipment of same or superior specifications, to reputed institutes like NITs/ IITs/ IIITs/ IISERs/ IISC/ CSIR/ Centrally Funded Universities during last five (05) years. Purchase Order with specifications shall also be attached.
- 4.5 The Vendor has to provide/submit Catalogue from Original Equipment Manufacturer(OEM) of PUMP ALONG WITH CHARACTERISTICS CURVE and ELECTRONICALLY CONTROLLED VALVE. The MODEL NUMBER of the PUMP and ELECTRONICALLY CONTROLLED VALVE shall be highlighted (or mentioned).
- 4.6 **It is essential for firm to submit Annexures, Appendix & Tender documents (all pages) and other essential documents as mentioned in this NIT notice with duly filled, signed, sealed & stamped manner in hardcopy, failing which the firm tender will be summarily rejected.**

5. Evaluation of Quotations:

The tender evaluation committee of the IITRAM will evaluate and compare the received quotations to determine the substantially responsive tender i.e. (i) tender is complete (ii) properly signed (iii) confirm the terms/conditions and specifications. Further, the financial evaluation will be done only for the substantially responsive tender based on the following parameter(s):

- Total Price quoted (ONLINE ONLY) as per specifications mentioned in Annexure-I.

6. Award of Contract:

- 6.1 IITRAM will award the contract to the firm who has offered lowest price.
- 6.2 Notwithstanding the above, IITRAM reserves the right to accept or reject any quotation and to cancel the bidding process and reject all quotations at any time prior to the award of contract without giving any reason.
- 6.3 The firm whose bid is accepted will be notified of the award of contract by the IITRAM prior to expiration of the quotation validity period. The terms of the accepted offer shall be incorporated in the Purchase Order.

7. Delivery Period & Penalty:

- 7.1 The Equipment/ Instrument/ Machines/ Goods/ Item are to be delivered within a maximum time limit of 90 days from the issue date of Purchase Order. However, in case of imported Equipment/ Instrument/ Machines/ Goods/ Item are can be delivered within a maximum time limit of 120 days from the issue date of Purchase Order.
- 7.2 After the receipt of Items/Goods in acceptable condition at IITRAM, Ahmedabad bidder has to install Equipment/ Instrument/ Machines/ Goods/ Item within 30 Days. Bidder have to specify delivery period along with the technical documents.
- 7.3 **Penalty:** Penalty of 1% per week of order value will be charged after duration specified above individually. Further, 06 weeks or above delay from above mention days may lead to cancellation of order at the discretion of the university and forfeiting of Performance Security or EMD or Maximum Penalty shall be applicable 10%.

8. Warranty:

- 8.1 Minimum 3 years complete warranty from the time of complete installation and successful commissioning of the FLUME with its complete system (including software as applicable) at our site. Any technical issues during the warranty period shall be resolved by the vendor within 15 days from the date of intimation to the vendor.
- 8.2 Warranty certificate should be provided by Original Equipment Manufacturer(OEM) on the company's letter head.

9. Terms of Payment:

- The 100% payment in INR will be released against clear Tax Invoice through "CROSSED BANK CHEQUE" instrument within 30 days' from successful delivery, installation and demonstration of FLUME at our site.

10. Address for the Physical Bid Submission:

**The I/c. Registrar,
Room No. G2,
Institute of Infrastructure, Technology, Research And Management,
Near Khokhara Circle, Maninagar (East),
Ahmedabad- 380026, Gujarat.**

I/c. Registrar

(Schedule of Quantity)

Sr. No.	Name of Item & Specification	Qty.
1.	<p>Recirculating Flume - 10 m × 1 m × 0.8 m (L×W×H)</p> <p>Flume Experimental Section: Length: 10 m Material: Stainless Steel grade 304 Thickness: 10 mm Flow Cross-section (W×H): 1 m × 0.8 m Inclination adjustment (motorised): – 0.75 to 2.5 %</p> <p>Other Technical details:</p> <ol style="list-style-type: none"> 1. Flume bed shall be of stainless steel (grade 304) with thickness of at least 10 mm. 2. Bottom of the flume bed shall have the provision of at least 40 evenly distributed measuring points along the 10 m length. 3. All Manometer tapping's (40 Nos.) should be incorporated with Quick Releasing non-spill coupling arrangements to avoid spillage of fluid on laboratory floor. 4. At least 20-tube manometer panel - To read the pressure, the pressure measuring points should be connected to the manometer panel via hoses to allow direct reading of profile of depth over the entire length of the experimental section on the 20-tube manometer panel. 5. Side walls of the experimental section shall be made of scratch proof tempered glass of 15 mm thickness. Toughened Glass should be screwed or bolted with channel frame of stainless steel and bed to make glass easily replaceable in case of breakage. 6. Owing to TDS in water and inclusion of sediments, all the material must be corrosion-resistant material i.e. stainless steel (grade 304). 7. The flume shall be carefully designed in such a way that it satisfies the general tolerances for straightness and flatness according to ISO 2768. 8. There shall be provision of Flume length extension if such need arises in future. 9. Inclination of the flume – In order to adjust the inclinations of the flume for simulation of the slope and maintaining the constant depth of the flow, motorised inclination adjustment shall be provided. The jacks should be of spindle lifting gear type. Limit switch shall also be provided in the screw jacks as an extra safety feature. 10. Inlet section of the flume – It shall be designed to reduce the turbulence to minimum of incoming water. Water should enter from below through flow straightener. Damping plate must be provided to calm the incoming water. 11. Outlet section of the flume – It shall be provided with weir plate(s) to adjust and maintain the level of the water throughout the experimental section as per the requirement. An arrangement of free discharge without weir shall also be provided. 12. Sediment trap – To carry out the experiments on bed-load transport in the flume, the sediment trap shall be provided. It shall be mounted between the experimental section and the outlet section and consists of sediment trap and a bucket for sediment feed. The sediment trap shall be such that it shall prevent the sediments to enter into the pump or the flow meter of the flume. 13. Two pumps shall be provided to cater the small as well as large flow rate. The pumps shall be such that they can be operated individually or simultaneously as per the discharge requirements. Variable frequency drive shall be provided to control the flow of pumps. An electronically controlled valve shall also be provided at the pipe line. 	01 Nos.

14. Two Pumps

- a. Max. flow rate (for each pump): 220-230 m³/h
- b. Max. head (for each pump): 30 – 35m
- c. Max working pressure (for each pump): Atmost 1000 kPa
- d. Shut-off head (for each pump): 380 – 400 kPa
- e. Discharge x suction connection (for each pump): 80mm x 100mm flanged to DIN 2532 standard
- f. Casing cover: AISI 316 L Stainless Steel (stamped) (EN 1.4404)
- g. Impeller: AISI 316 Stainless Steel (precision cast) (EN 1.4401)
- h. Casing: AISI 316 Stainless Steel (precision cast) (EN 1.4401)
- i. Stub shaft: AISI 316 Stainless Steel (EN 1.4404)
- j. Rotation speed (for each pump): 2800 – 2900 min⁻¹
- k. Pole: 2

*There shall be provision of replacement of Pumps or addition of the pumps which can carry the sediments along with the water if such requirement is arises in the future.

15. **Arrangement of cutoff at pump** – In order to avoid overfilling of the experimental section, when the maximum level in the inlet or outlet section is exceeded, a level switch shall be provided. The level switch shall turn off the pump when the water level is exceeded beyond the maximum level in the inlet or outlet section.

16. **Switch box** – Position of the switch box shall be on the platform, which controls flow of the pump, electronically operated valve etc.

17. Electronically controlled butterfly valve with electric actuator, hand wheel and position indicator should be included to control the flow. The body and disc of the butterfly valve shall be of stainless steel (EN 1.4408). The shaft of butterfly valve should be of stainless steel (EN 1.4401).

18. Electromagnetic flow meter shall have measuring range of 20 – 450 m³/h.

19. The flume shall be recirculating one that carries the water from the tanks through powerful pumps to inlet section of the flume and discharge back to the tanks from the outlet section of the flume.

20. **Water Tanks** – In order to utilise the laboratory space efficiently, an arrangement of water tanks shall be such that it can form a gallery to walk and stand on. This will help users to comfortably reach to any part of the experimental section for taking readings or keeping table on it for the desktop pc, which requires during the measurement of velocity. Staircase shall be provided at both ends of the platform. The drain valves shall also be provided at the bottom of water tanks to remove water. Tanks shall be made of stainless steel (grade 304) and shall have 2 mm thickness. There shall be 4 tanks with capacity of each tank shall be between 3500 – 4000 litres. Each tank shall be connected to other tank by means of two parallelly connected stainless steel 304 grade pipes of at least 8 inch diameter with atleast 3 mm thickness and flanges of atleast 10mm thickness. The stiffeners used for the tanks shall also be of stainless steel.

21. Structure

- a. Two MS rectangular pipes of 300 mm x 200 mm x minimum 8 mm thickness arranged parallelly and welded with 16 mm thick plate.
- b. Flume Structure Stand – Square pipe of 100 mm × 100 mm, Thickness 5 mm on 16 mm thick MS plate.
- c. Side Support – Rectangular pipe of 80 mm × 40 mm, Thickness minimum 3 mm (for wider area of visualisation and increased strength)

22. All Structural sections used for fabrication should be strictly as per YST standard.

	<p>23. Instrument Carrier – Instrument Carrier with rail shall be supplied with Flume.</p> <p>24. All the nut bolts and fasteners that will be used, shall be of stainless steel.</p> <p>Following documents shall be provided along with the tender documents:</p> <ol style="list-style-type: none">1. Catalogue of original equipment manufacturers of pump along with characteristics curve. The model number of the pump shall be highlighted (or mentioned).2. Catalogue of original equipment manufacturers of electronically controlled valve. The model number of the valve shall be highlighted (or mentioned).	
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FORMAT FOR SUBMISSION OF COMPANY DETAILS (DATA SHEET)

Sr. No.	Particulars	Details to be filled by the Organization
1	Name of the Company	
2	Registered Office Address Telephone Number Fax Number e-Mail	
3	Correspondence Address Telephone Number Fax Number e-Mail:	
4	Details of the authorized person (Name, designation, address) Telephone Number Fax Number e-Mail:	
5	Is the firm - <ul style="list-style-type: none">• Government/ Public Sector Undertaking• Proprietary Firm• Partnership firm (if yes, give partnership deed)• Limited company or Limited Corporation• Member of a group of companies (if yes, give name and address and description of other companies)• Subsidiary of a large corporation (if yes give the name and address of the parent organization) If the company is subsidiary, state what involvement if any, will the parent company have in the project.	
6	Goods & Service Tax Number (GST):	
7	Permanent Account Number (PAN) of the firm.	

Seal & Signature of Company

Date: _____

Place: _____

FINANCIAL BID

(Format for Submission of Financial Details)

(Data Sheet to be submitted ONLY Online at (n)Procure Portal)

Sr. No.	Name of Items	Qty.	Rate (Without GST)	Total Amount (INR)	GST Slab Rate (%)
A	B	C	D	E = (C*D)	F
1.	Recirculating Flume – 10 m × 1 m × 0.8 m (L×W×H)	01 Nos.			

This table of financial bid is stated for reference purpose only and please do not disclose any price here at the time of submission of this document.

Declaration:

I/We hereby declare and affirm that I/We have read and understood the terms and conditions of the contract as stipulated in this NIT.

Seal & Signature of Company

Date: _____

Place: _____

UNDERTAKING

I, _____ hereby declare that Firm / Company / Agency / Organization / Partnership firm / Proprietary firm titled as _____ has not been blacklisted or banned or debarred at any stage from inception till this date by any of the NITs / IITs / IIITs / Central Universities / IISERs / CSIR Labs Central and State Government body / PSUs / Autonomous Institute or any Other Government Organization. In case of the any fraudulency, the Firm / Company / Agency / Organization / Partnership firm / Proprietary firm is fully aware that the tender / contract will be rejected / cancelled by IITRAM and EMD / Performance Security or any deposited amount shall be forfeited.

In addition to above, IITRAM will not be responsible to pay the bills for any completed / partially completed/supplied work.

Seal and Signature of Company

Date: _____

Place: _____