

	सामग्री प्रबंधन अनुभाग भारतीय प्रौद्योगिकी संस्थान, रुड़की सड़की-247667, हरिद्वार, उत्तराखण्ड, भारत Phone-(O) 01332-28-4293, 4693 E-mail: mmiitr@iitr.ac.in GSTIN-05AAALI0033R1Z5 PAN-AAALI0033R	Material Management Section Indian Institute of Technology Roorkee Roorkee-247667( Haridwar) (Uttarakhand) (India) Phone-(O) 01332-28-4293, 4693 E-mail: mmiitr@iitr.ac.in
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निविदा प्रलेख / Tender Document

Tender Document No:

2024250726/MM-5/IITR/2024-25/COMPUTER CONTROLLED FLOW /MIED/RT-2/159

13-May-25

Date of Uploading of Tender on institute Website

13-May-25

Bids under two bid systems (Technical and Commercial) are invited from the reputed manufacturer/authorized supplier/dealer for the following items. The bids complete in all respect must reach to the Deputy Registrar, Material Management Section, I.I.T. Roorkee-247667, Uttarakhand, India on or before:-

10 June 2025 15:00 Hrs

वस्तु की तकनीकी विशिष्टताये / Technical Specifications of item:

Sr. No	Name of Item / Specifications/	QTY	UOM
1	COMPUTER CONTROLLED FLOW PUMP SYSTEM WITH SUPPORTING ACCESSORIES	Please refer Annexure-VIII	
(For Detailed Technical Specification Plz refer Annexure-VIII)			
नोट-1: कृपया वस्तु का मूल्य एवं कर अलग-अलग दर्शाए।			
Global Tender Enquiry vide OM No.: F.4/1/2023-PPD (pt.) on dated: 28.06.2024			
Note-1: Please quote the Rate & Taxes of the item separately.			
Note-2: E-way bill is to be issued by the Venders/Transporter			
Note-3: The HSN / SAC Code of the item must be mentioned.			
For Reasonability of Rates, The firm must enclose the last two supply orders for the same item with Financial Bid (Annexure-III) only.			

Chapter-1 : Instruction to bidders

- A. The Tender should be enclosed with proper certifications like Agency Certification, Authorization certificate and/or Proprietary Certificate, as the case may be , in support of your offer.
- B. बोली का जमा किया जाना/ Submission of Bids:
  - 1 The bids should be submitted in two parts –(i) The Technical Bid (Annexure-I, II, V, VII & VIII) and Financial Bid (Annexure-III & IV)

Both in separate sealed covers and then these two sealed packets (with the identification statement clearly written- Technical Bid or Financial Bid) should be put in one covering sealed envelope labeled on the left hand top corner of their envelope mentioning followings:-

2024250726/MM-5/IITR/2024-25/COMPUTER CONTROLLED FLOW /MIED/RT-2/159

13-May-25

Opening Date 10 June 2025 by 16:00 Hrs

Name (in full) and complete address of the firm should be mentioned on left hand bottom corner of the covering envelop.

- 2 The bids should be printed on official pad preferably with GST Number of the firm.

- 3 The quotations should bear full details and where possible may be duly supported with catalogues, pamphlets, literature, samples of the item/items as the case may be for comparing the quality and rates of the item(s).
- 4 Quotation received after the closing date and time shall not be considered.
- 5 The transportation cost, insurance charge etc., if any, percentage/ rate of GST or all other taxes and duties should be clearly mentioned.
- 6 The bids / rates / tenders should remain valid for a minimum period of 90 days from the date of financial opening.
- 7 **Since this purchase being for research purpose, the I.I.T., Roorkee is registered in DSIR, New Delhi, it is therefore exempted from the payment of custom duty up to the limit of exemption as per Govt. Rules. The bidder should quote accordingly.**
- 8 There should not be any over-writing or cutting on rates quoted. However, all cutting/corrections must be duly authenticated else the offer will be rejected.
- 9 The rates shall not be subject to escalation of any nature.
- 10 The rates quoted should be applicable to educational institutions and any cost advantage received in lieu thereof should be passed on the Institution.
- 11 While quoting / sending rates, the firm shall give an undertaking as per Annexure-II.
- 12 The quotations should be given for the items in the same order as in the enquiry letter.
- C. **विधि निक्षेप/ Earnest Money Deposit (EMD):**  
In lieu of Bid Security/Earnest Money Deposit (EMD), declaration as per Annexure-V should be provided.
- D. **निष्पादन बैंक प्रत्याभूति/ Performance Bank Guarantee (PBG):** NA
- E. **बोलियों का खोला जाना/ Opening of Bids:**
- 1 The Technical Bids will be opened as given below. Representatives of the firms(s) may be present at the time of opening the technical bid if they so desire at below schedule (No information shall be given to the late arrivals regarding the bids):-

**10 June 2025                      16:00 Hrs                      Venue:                      Material Management Section,  
IIT Roorkee**

- 2 The Financial bids of only the Technically Qualified bidders will be opened. The date and time for opening the Financial Bid will be communicated to the respective firm later on by post/e-mail.
- 3 Representatives of the firms(s) may be present at the time of opening the financial bids if they so desire.

## Chapter-2 : Conditions of Contract

- F. **देका देना/ Award of Contract:**  
The final selection of the bidder for the award of the contract will be made on the basis of the lowest commercial bid amongst the Technically Qualified Bidders.
- G. **पूर्व-आपूर्ति निरीक्षण/ Pre-supply Inspection:**  
Authorized representative of the Institute shall make the final inspection before supply of the item at site of the firm, if required.
- H. **वस्तु की आपूर्ति/ Supply of Item:**  
The whole supply as per order shall have to be completed within the time mentioned in the order failing which the I.I.T. Roorkee shall have the right to accept or reject any quantity of items ordered. The firm will have to arrange for supply of the material in good condition.
- I. **भुगतान की शर्तें/ Payment Terms:**
- A. **Payment in INR for supply of goods:**  
Where installation is not required: 100% payment will be made after satisfactory delivery of material duly certified by the HOD/P.I.  
**OR**  
Where Installation is required :100% payment will be made after satisfactory delivery and installation of the material duly certified by the HOD/P.I.  
**OR**  
80% payment will be made on receipt and acceptance of goods and balance 20% on successful installation and commissioning duly certified by the HOD/P.I.
- B. **Payment in INR for AMC/Service:**  
Quarterly/Halfyearly after satisfactory completion of work/service duly certified by the H.O.D./P.I.
- C. **Payment in Foreign Currency for supply of goods:**  
Payment will be made as below after deducting Indian Agency commission (if any). IAC is payable in Indian Rupee after satisfactory installation.
- a. 90% of the LC amount shall be released on presentation of complete and clear shipping documents and 10% of the LC amount shall be released after the satisfactory delivery/installation/demonstration of the equipment duly certified by the H.O.D./P.I. at IIT Roorkee.

b. Payment through Wire transfer after receipt/installation of material in good condition.

**D. Payment in Foreign Currency for AMC/Service:**

Quarterly/Halfyearly after satisfactory completion of work/service duly certified by the H.O.D./P.I. through wire transfer.

**J. दंड/Penalty:**

A penalty of 0.5% of the total order value per week shall be levied for the delay subject to a maximum of 5% of the total order value.

In case of the non-supply of the item/service after the acceptance of the work/supply order, EMD & PBG (if submitted) will be forfeited by the Institute. Also, the firm will be debarred from any future bidding process of IIT Roorkee for a period of a minimum two year.

**K. अप्रत्याशित घटना/Force Majeure:**

For the purpose of and within the scope of contract by way of indication and not of limitation, the term "Force Majeure" shall mean acts of nature, strikes, Lockouts, or other industrial disturbances, act of public/enemy, wars, blockades, insurrection, riots, epidemics, landslides, earthquakes, storms lightening, flood, washouts, civil disturbances, explosion and any other similar even not within the control of either party on which by exercise of due care and diligence neither party is able to prevent or overcome.

**L. मध्यस्थता/ Arbitration:**

If any dispute which may arise with respect to any term and condition or with respect to the interpretation of any term and condition of the Purchase Order/Work Order, which may be issued to the qualified and successful tenderer subsequently, the same shall be settled strictly in accordance with and in compliance of the Arbitration procedure which is mentioned descriptively in the Purchase Order/ Work Order.

**M. बोली अस्वीकृती के लिए मानदंड/ Criteria for bid rejection:**

- 1 If not received on or before due date and time.
- 2 If technical bid found without the required undertaking (Annexure-II) & Annexure-V.
- 3 If it found at a later date that any information given in the bids is incorrect/false then the bid is liable to be disqualified/rejected.
- 4 Canvassing in any form will result to disqualification.
- 5 If "extra, as actual" etc. are mentioned against any of the price components in the bid the bid will be rejected.
- 6 Technical bids should be sealed. Moreover, financial / commercial bid should also be sealed separately. The sealed envelopes of technical and financial bids should be further put in the main envelop. Main envelop should also be sealed. If the financial bid are found opened/unsealed, then bid shall be rejected outrightly.
- 7 If any bidder submitting two/multiple bids for the same item of a tender, both/all the bids of that bidder will be outrightly rejected.

### Chapter-3 : Schedules of requirements

**N. टिप्पणी/ Note:**

- 1 If the supplier/firm is manufacturer/authorized dealer/sole distributor/of the item, the certificate to this effect should be attached.
- 2 Please note that the firms must submit the compliance Statement in an organized and structured manner in respect of all the specifications as per Annexure-VII with the supporting printed catalogue/leaflet of the firm. Annexure-I, II & VII have to be submitted with Technical Bid and Annexure-III & IV with financial bid.
- 3 It may also be noted that the tender bids received after the stipulated date & time or found incomplete and the tender bids containing false/incorrect information shall be summarily rejected. The Institute shall not entertain any communication in this regard, whatsoever.
- 4 The firm is required to give its Bank Account details with IFSC for the purpose of making e-payment.
- 5 The Indian Institute of Technology (IIT) Roorkee reserves the right to reject any quotation wholly or partly without assigning any reason.
- 6 The quantity shown against the item is approximate and may vary as per demand of the Institute at the time of placing order.
- 7 The decision of the institute in all matters relating to eligibility, acceptance, rejection of the bid will be final and binding on the applicants.
- 8 IIT Roorkee discourages High Sea Sale purchase. All tenders with High Sea Sale will be rejected.
- 9 The firms should clearly mention (in the financial bid) the Harmonized System of Classification (HS code) defined by the Central Custom and Excise Board (Govt. of India)- for the item(s) involving import.
- 10 If the due date happens to be a holiday, then the bid will be accepted till 12.00 Noon and opened at 3.30PM of the next working day followed by the holiday.



- 11 If an agent submits bid on behalf of the Principal/OEM, the same agent can not submit a bid on behalf of another Principal/OEM in the same tender for the same item/product.
- 12 Indian Agent should submit the certificate from the Foreign Principal that they are the Authorized & Registered Indian Agent.
- 13 The quantity shown in the tender can be increased or decreased to any extent depending upon the actual requirement.
- 14 Any corrigendum/addendum/errata in respect of the Tender Notice/ Enquiry letter shall be made available only at our Institute website [www.iitr.ac.in](http://www.iitr.ac.in). Hence prospective bidders are advised to visit the Institute website regularly.
- 15 Bidders shall be responsible for the correctness of the information provided in the enquiry letter/tender document. If it is found at a later date that any information given in the bid is Incorrect/false then the bid is liable to be disqualified/rejected.
- 16 Institute will not be responsible for non-receipt of bid(s) within the stipulated date due to any postal delay or delay for any other reason in transit.
- 17 Before submission of bids, bidders should read the complete enquiry letter/tender document carefully and ensure that the bidders fulfill the eligibility criteria.
- 18 In case the item/product is under rate contract with DGS&D or GeM, then Bidder should certify that the rate quoted is not over and above (higher side) the rates under RC with the DGS&D or GeM.
- 19 As per Public Procurement (Preference to Make in India), Order 2017 preference shall be given to Make in India products for which it is mandatory to provide self certificate of local content as per Annexure-VII.  
For more details please refer: Order No.: P-45021/2/2017-PP (BE-II), DPIIT, Ministry of Commerce and Industry issued Dated: 16th Sept. 2020.
- 20 In case calculation mistakes are found in the financial bid, then calculation shall be made by the Institute on the basis of rate per unit quoted by the bidders will be processed further.
- 21 The Institute reserves the right to rectify any discrepancy of this advertisement, if found later on. In case of any inadvertent mistake in the process which may be detected at any stage even after the issue of purchase order, the Institute reserves the right to modify/withdraw/cancel any communication made to the bidder.

**Chapter-4 : Specifications and allied Technical details**

**Plz. See Annexure- I, II & V, VII & VIII**

**Chapter-5 : Price Schedule (to be utilized by the bidders for quoting their prices)**

**Plz. See Annexure- III**

**Chapter-6 : Contract Form**

**Purchase Order is used as Contract Form**

**Chapter-7 : Other Standard Forms, if any to be utilized by the purchaser and bidders**

**Plz. See Annexure- IV**

**For any clarification regarding technical specifications of item please contact:**

**Prof. Andallib Tariq,  
Department of Mechanical and Industrial  
Engineering,  
IIT Roorkee**

**Department of Mechanical  
and Industrial Engineering,  
IIT Roorkee**

**Ph.-01332-28-5728  
Email: [atariq@me.iitr.ac.in](mailto:atariq@me.iitr.ac.in)**

  
**उप कुलसचिव (सामग्री प्रबंधन)  
Deputy Registrar (MM)  
Material Management  
भा. प्रौ. सं. रुड़की/I.I.T. Roorkee**  


तकनीकी बोली

विस्तृत विवरण अनुपालन रिपोर्ट के साथ प्रस्तुत किया जाना है (अपने आधिकारिक लेटर हेड पर विक्रेता/फर्म द्वारा प्रस्तुत करने के लिए )

Detailed specification cum compliance report to be submitted with the Technical Bid  
(to be submitted by the vendor/firm on its official letter head)  
(For Detailed Technical Specification Plz refer Annexure-VIII)

Sr.No	Name & Required Specifications of Item(s)	Qty	UOM	Offered specifications of item(s) by the firm
1	COMPUTER CONTROLLED FLOW PUMP SYSTEM WITH SUPPORTING ACCESSORIES	Please refer Annexure-VIII		
	Firm's Profile :			
1	Manufacturer/Authorized Agent/Distributor/Dealer/Supplier(valid certificate must be attached)			
2	E-mail I.D. & Telephone/Mobile No. Detail of Bank A/C			
Note:	1. "offered specifications", should be filled up properly in the format provided as per Annexure-I.			
	2. Volume & Weight of the item should also be mentioned.			
	3. The HSN / SAC Code of the item must be mentioned.			

Signature: \_\_\_\_\_

Name : \_\_\_\_\_

Designation : \_\_\_\_\_

Seal of the Organisation

उपपत्र / UNDERTAKING

Ref. No. 2024250726/MM-5/IITR/2024-25/COMPUTER CONTROLLED FLOW /MIED/RT-2/159  
Dated:- 13-May-25

I/We hereby certify that we or Our OEM are not from such a country which shares a land border with India or, if from such a country, We are registered with the Competent Authority. [Where applicable, evidence of valid registration by the Competent Authority is attached.]" (For details Please refer annexure-V)

That all the terms/conditions mentioned in the enquiry letter/tender against which the rates are being given are acceptable to the firm.

It is certified that the rate quoted is not over and above (higher side) the rates under RC with the DGS&D or GeM.

It is certified that the firm has never been black-listed from any Government Department. (State/Central Govt./ Autonomous/ PSU) in the last two years.

Signature \_\_\_\_\_  
Name \_\_\_\_\_  
Designation \_\_\_\_\_  
Seal of the Firm/Agency

**Financial Bid**

(to be submitted by the vendor/firm on its official letter head)

Ref. No. 2024250726/MM-5/IITR/2024-25/COMPUTER CONTROLLED FLOW /MIED/RT-2/159  
 Date: 13-May-25

Rates :

Sr. No	Name of item / Specifications/	Qty	UOM	Rate	Amount (INR) Or In Other Currency
1	COMPUTER CONTROLLED FLOW PUMP SYSTEM WITH SUPPORTING ACCESSORIES	Please refer Annexure-VIII			
Total					
GST etc. @.....%					
Grand Total Rs.					

1) Price of the items should be clearly mentioned if supplied Free of Cost.

## Terms &amp; Conditions:

- 1 Prices (if quoted in Rs.): FOR Department of Mechanical and Industrial Engineering, IIT Roorkee
- 2 Prices (if quoted in Foreign Currency): CIP/ CIF New Delhi OR FOB/FCA/Ex-work
- 3 Payment: Should be clearly mentioned, As per clause-I of enquiry letter.
- 4 Validity:
- 5 Delivery period:
- 6 Other charges:
- 7 Warranty:
- 8 Rejection: Equipment if found not as per the required specification would be rejected.
- 9 Penalty Clause: As per clause-J of enquiry letter.
- 10 **Order to be placed:**  
 (Name and complete address of the firm to whom Purchase/Work order is to be issued.)

It is certified that the rate quoted is not over and above (higher side) the rates under RC with the DGS&amp;D or GeM.

Signature \_\_\_\_\_  
 Name \_\_\_\_\_  
 Designation \_\_\_\_\_  
 Seal of the Firm/Organization \_\_\_\_\_



**Mandatory field to fill up by the supplier (enclosed with financial bid only):**

Ref No: 2024250726/MM-5/IITR/2024-25/COMPUTER CONTROLLED FLOW /MIED/RT-2/159  
 Date: 13-May-25

1 Please tick (v) carefully the following as per requirement:

- A Customs Duty Exemption Certificate (with following supporting document) [ ]
- i) GATT Declaration
  - ii) Authority Letter for custom clearance
  - iii) Bank Release Order (BRO)
  - iv).....
  - v).....
  - vi).....
  - vii).....

2 Please fill up the following details:

- A Complete address of Freight Forwarder, Air lines etc. in whose favor Bank Release Order (BRO) has to be issued:

M/s \_\_\_\_\_

- B Complete address of Custom House Agent (CHA) / Clearing Agent in whose favor GATT / Authorization for custom clearance has to be issued:

M/s \_\_\_\_\_

- C Complete address of the firm / supplier / CHA to whom original clearance documents will be sent:

M/s \_\_\_\_\_

- 3 Supplier has to submit above details with the financial bid wherever possible and has to send the above detail to [mmiitr@iitr.ac.in](mailto:mmiitr@iitr.ac.in) and our CHA well ahead in time prior to shipment.

- 4 **IITR CHA Address :**

M/s Cwick (Import Consolidation), Private Limited,  
 L-II/101, New Mahavir Nagar Extension,  
 Outer Ring Road, New Delhi-110018,  
 E-Mail: [info@cwickimport.com](mailto:info@cwickimport.com) and [followup@cwickimport.com](mailto:followup@cwickimport.com),  
 Tel: +91-09313996082, +91-11-25996082, +91-11-25992781

- 5 **Details of Institute :**

IEC CODE	0100000011	
AD CODE	0001069-2770325	S.B.I., IIT ROORKEE
	0303974-2770324	P.N.B. IIT ROORKEE



**DECLARATION**  
(to be submitted by the vendor/firm on its official letter head)

To,  
Registrar,  
IIT Roorkee,  
Roorkee,

Subject: Undertaking as per GFR – 2017, Rule 170 (iii) in lieu of Bid Security/Earnest Money Deposit (EMD)

Tender Ref no: 2024250726/MM-5/IITR/2024-25/COMPUTER CONTROLLED FLOW /MIED/RT-2/159

13-May-25

Dear Sir,

We, the undersigned, offer to Supply the .....  
..... as per tender at IIT Roorkee, in response to your above referred tender no.

We are hereby submitting our proposal/Bid/Quote for the same, which includes Technical bid and the Financial Bid. As a part

1. Our bid shall remain valid for 90-days from the date of financial opening and that we will not withdraw or modify our bid during the validity period,
2. In case, we are declared as successful bidder and an order is placed on us, we will submit the acceptance in writing within 7 days of placement of order on us.
3. In case of failure on our part to comply with any of the above said requirements, we are aware that we shall be declared as un-eligible for said tender and /or debarred from any future bidding process of IIT Roorkee for a period of minimum one year.
4. The undersigned is authorized to sign this undertaking.

**Signature:**

**Name:**

**Designation:**

**Seal of the Firm/Organization:**

### Instructions for Bidders from a country which shares a land border with India

- 1 Any bidder from a country which shares a land border with India will be eligible to bid in this tender only if the bidder is registered with the Competent Authority.
- 2 "Bidder" (including the term 'tenderer', 'consultant' or 'service provider' in certain contexts) means any person or firm or company, including any member of a consortium or joint venture (that is an association of several persons, or firms or companies), every artificial juridical person not falling in any of the descriptions of bidders stated hereinbefore, including any agency branch or office controlled by such person, participating in a procurement process.
- 3 "Bidder from a country which shares a land border with India" for the purpose of this Order means: -
  - a. An entity incorporated, established or registered in such a country; or
  - b. A subsidiary of an entity incorporated, established or registered in such a country; or
  - c. An entity substantially controlled through entities incorporated, established or registered in such a country; or
  - d. An entity whose beneficial owner is situated in such a country; or
  - e. An Indian (or other) agent of such an entity; or
  - f. A natural person who is a citizen of such a country; or
  - g. A consortium or joint venture where any member of the consortium or joint venture falls under any of the above
- 4 The beneficial owner for the purpose of (3) above will be as under:
 

In case of a company or Limited Liability Partnership, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has a controlling ownership interest or who exercises control through other means.

(i) **Explanation:**

  - a. "Controlling ownership interest" means ownership of or entitlement to more than twenty-five per cent. of shares or capital or profits of the company;
  - b. "Control" shall include the right to appoint majority of the directors or to control the management or policy decisions including by virtue of their shareholding or management rights or shareholders agreements or voting agreements;

In case of a partnership firm, the beneficial owner is the natural person(s) who, whether acting alone or together, or through one or more juridical person, has ownership of entitlement to more than fifteen percent of capital or profits of the partnership;

(ii)

In case of an unincorporated association or body of individuals, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has ownership of or entitlement to more than fifteen percent of the property or capital or profits of such association or body of individuals;

(iii)

Where no natural person is identified under (i) or (ii) or (iii) above, the beneficial owner is the relevant natural person who holds the position of senior managing official;

(iv)

In case of a trust, the identification of beneficial owner(s) shall include identification of the author of the trust, the trustee, the beneficiaries with fifteen percent or more interest in the trust and any other natural person exercising ultimate effective control over the trust through a chain of control or ownership.

(v)
- 5 An Agent is a person employed to do any act for another, or to represent another in dealings with third person.
- 6 In case of Works contracts, including Turnkey contracts, the successful bidder shall not be allowed to sub-contract works to any contractor from a country which shares a land border with India unless such contractor is registered with the Competent Authority.
- 7 Please refer: F.No.6/18/2019-PPD, Ministry of Finance, department of Expenditure Date: 23rd July 2020

### Prequalification

- 1 An undertaking by the firm that it has never been black-listed in the last two years must be attached along with the Bid, failing which the Bid shall be rejected. (As per Annexure-II)
- 2 True copy of Permanent Account Number.
- 3 Details of GST along with a copy of certificate to be attached.
- 4 Submission of samples if required, for all items indicated in the NIT. The make of items proposed to be supplied should be indicated and submitted along with the techno commercial unpriced bid without indicating the pricing components.
- 5 Willingness to execute all orders which are placed to meet emergency requirement on priority basis. The Bidder shall note that standards for workmanship, material and equipment, and references to brand names designated by the Purchaser in the tender document are intended to be descriptive only and not restrictive. The Bidder may substitute alternative standards, brand names and/or catalogue numbers in his bid, provided that it demonstrates to the Purchaser's satisfaction that the substitutions ensure substantial equivalence to those designated in the Technical Specifications.

(to be submitted by the vendor/firm on its official letter head)

Self-Certificate for Local Content

Tender No.:

2024250726/MM-5/IITR/2024-25/COMPUTER CONTROLLED FLOW  
/MIED/RT-2/159

Date: 13-May-25

We hereby certify that the items quoted by us against above mentioned tender no. has the local content as per below:

Local Content (in %):.....

Local Supplier Class:.....

The details of the Make in India items/parts used in the quoted products is/are as under:

- 1
- 2
- 3

The details of the location(s) at which the local value addition made/manufactured is/are as under:

- 1
- 2
- 3

We also understand, false declarations will be in breach of the code of integrity under rule 175(1)(i)(h) of the General Financial Rules for which a bidder or its successors can be debarred for up to two years as per Rule 151(iii) of the General Financial Rules along with such other actions as may be permissible under law.

Signature:

Name:

Designation:

Seal of the Firm/Organization:



**Tender Acceptance Letter**  
(To be given on Company Letter Head)

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**Date:**

**Sub: Acceptance of Terms & Conditions of Tender.**

**Tender 2024250726/MM-5/IITR/2024-25/COMPUTER CONTROLLED FLOW /MIED/RT-2/159**

**Tender description:**

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**Dear Sir,**

- 1 I/We have downloaded/ obtained the tender document(s) for the above mentioned 'Tender No.' from the web site(s) namely:  
  
as per your advertisement, given in the above mentioned website(s).
- 2 I/We hereby certify that I/We have read the entire terms and conditions of the tender documents from Page No. \_\_\_\_\_ to \_\_\_\_\_ (including all documents like section(s), schedules(s) etc.), which form part of the contract agreement and I/we shall abide hereby by the terms/conditions/ clauses contained therein.
- 3 The corrigendum(s) issued from time to time by your department/ organisation too have also been taken into consideration, while submitting this acceptance letter.
- 4 I/We hereby unconditionally accept the tender conditions of above mentioned tender document(s)/ corrigendum(s) in its totality/entirety.
- 5 In case any provisions of this tender are found violated, then your department/organisation shall without prejudice to any other right or remedy be at liberty to reject this tender/bid including the forfeiture of the full said earnest money deposit absolutely.

**Yours Faithfully,**

**(Signature of the Bidder, with Official Seal)**

## **TECHNICAL SPECIFICATION OF COMPUTER CONTROLLED FLOW PUMP SYSTEM WITH SUPPORTING ACCESORIES**

### **(I) COMPUTER CONTROLLED FLOW PUMP**

**(1 Set)**

#### **1. Fluid Flow Specifications**

- a) Volume range: 1.0-300 ml/s
- b) Accuracy:  $\pm 3\%$  for 50 to 300 ml/s
- c) Sine waves: 12 Hz or better
- d) Physiological flow waveforms including reverse flow components
- e) Capable of pumping non-viscous fluids

#### **2. Mechanical Specifications**

- a) Servo-motor: High-torque
- b) pump: Gear pump
- c) over-pressure shut-off: Adjustable (7 to 50 psi)
- d) connectors: Self-sealing plastic

#### **3. Computer Control**

- a) Motor controller: On-board dedicated
- b) Software: Easily upgraded high level control
- c) Operating System: Windows 10 Embedded

#### **4. Interface**

- a) User supplied monitor, keyboard and mouse

#### **5. Physical**

- a) Reservoir capacity: minimum 20 liters
- b) Circulating fluid volume: minimum 9 liters

#### **6. File Format**

- a) Waveform data is stored on embedded hard drive
- b) Files can contain up to 1,000 flow-rate values describing a waveform
- c) User specified time-base ranging from 2 to 50 ms per point
- d) Waveforms can be looped continuously
- e) Variable frequency waveforms can be generated

#### **7. Electrical**

- a) Power Rating: 110/220 VAC 50/60 Hz, 4.0 amps @ 120V
- b) EMI shielding: Included
- c) serial communication port: 1 RS-232
- d) ECG TTL trigger output: 1 BNC
- e) Monitor port: Included
- f) Keyboard port: Included
- g) Mouse port: Included

#### **8. Calibration Options**

- a) Standard calibration
- b) Traceable calibration to a National Standard

## 9. Others Features

- a) **Realistic** physiological flow waveforms
- b) **Pulsatile** and constant flow waveforms
- c) **Accurate** volume flow waveforms
- d) **Reproducible** waveforms
- e) **Programmable** user defined waveforms
- f) **Calibration** certificate
- g) **Multimodality** ideal for comparing imaging modalities
- h) **Pre-programmed waveforms include** carotid, femoral, sine, rectangular and constant flow waveforms.
- i) **Robust gear pump** ensures uninterrupted volume flow waveforms.
- j) **Accurate and reproducible physiological flow waveforms** including those with reverse flow components such as the femoral waveform.
- k) **Control** with user supplied keyboard, mouse and monitor to communicate with the embedded computer.
- l) **A calibration certificate** is provided with each system verifying the system's accuracy. The system can be calibrated and certified traceably to a national standard for regulatory requirements. A re-calibration service is available.

## SUPPORTING ACCESSORIES

### (II) Accessory Products

- |   |          |
|---|----------|
| a) MR Finger for ECG gated flow studies                                 | (1 Qty)  |
| b) Multi+ Variable Waveform Software Option to mimic arrhythmia         | (1 Qty)  |
| c) Anatomically correct hearts, heart valves and vascular models        | (1 Set)  |
| d) Blood mimicking fluids   | (10 ltr) |
| e) Two shielded cables between the Control Unit and a penetration panel | (10 ft)  |
| f) Two shielded cables between the Pump Unit and a penetration panel    | (20 ft.) |

### (III) Carotid Anthropomorphic Vascular Phantom along with Thin-walled silicone carotid bifurcation vessels:

- Compatible with MR, radiographic imaging and particle imaging velocimetry (PIV) modalities.
- Made of a transparent and compliant silicone material with high accuracy within  $\pm 0.25$  mm.
- Phantoms are fitted with quick-disconnect entrance and exit fluid connectors.

(a) **Normal Bifurcation:** Common carotid: 8mm I.D., Internal: 5.56 mm I.D., External: 4.62mm I.D. (1 Qty)

(b) **60% symmetric Carotid Bifurcation:** Common carotid: 8mm I.D., Internal: 5.56 mm I.D., External: 4.62mm I.D., 2.21mm in diameter at the narrowest part. (1 Qty)

(c) **60% asymmetric Carotid Bifurcation:** Common carotid: 8mm I.D., Internal: 5.56 mm I.D., External: 4.62mm I.D., 2.29mm in diameter at the narrowest part. (1 Qty)