



Central Purchase unit

National Institute of Technology Srinagar (J&K) -190006

Tel:- 0194-2424792/2429423/2424809/2424797 Fax:- 0194-2420475

Document for Tender Notice No. 18 of 2018 Dated 14.08.2018.

"Tender Notice for Invitation of bids for the supply of equipment for Fluid Mechanics Lab of Civil Engg. Department.

-0-0-0-

1. Sealed Bids are invited for the lab equipment having detailed Specifications as given in Annexure -A. in two bid format on the terms & conditions given from para-2.
2. **Envelope- A (Techno-commercial Bid) Containing the following documents:-**
 - (a) Original equipment manufacturer proof.
 - (b) Proof of being Distributor/Marketing agent/ Authorized dealer in the shape of copy of agreement and registration under law in force.
 - (c) PAN card of the firm.
 - (d) Tax registration
 - (e) Proof of annual turnover of the firm for last three years which shall not be less than Rs.1.00 Crore to be proved by way of copy of audited accounts and income tax returns of 3 years.
 - (f) Proof of availability of after sale support/service.
 - (g) Bid security for Rs. 75,000/= in the form of CDR/TDR in favour of Officer In-charge, Central Purchase Unit NIT Srinagar (J&K) and tender document fee Rs.1,000/- in the form of DD, in favour of Director, NIT Srinagar. Tender without CDR/document fee shall be rejected.
 - (h) Proof of legal status.
 - (i) The bidder shall fill in Bid form in the format given in Annexure-B, Technical specification Schedule as per Annexure-C.
 - (h) List of users of the said equipment.
3. **Envelope-B (Price Bid), Containing the following:-**
 - (a) Bid prices must be quoted both in words & figures. The rates quoted should be covered with transparent tape.
 - (b) The rate quoted should be FOR NIT Srinagar (J&K).
 - (c) Bid price should be without over writing. However minor over writing should be clearly signed by the bidder. In case of any discrepancy between price quoted in figures and words, the price quoted in words will prevail. Bid price should be firm for the bid validity period.
 - (d) **All duties, taxes and levies (GST or other charges) payable, must be quoted separately.**
 - (e) **As per SRO 129 of Government of Jammu & Kashmir, the institute is Exempted from state entry tax. The Institute will provide Entry tax exemption certificate to successful bidder with supply order. The Institute is also exempted from Custom/Excise duty.**
 - (f) Price bid schedule in the format enclosed in Annexure-D
4. **Validity of Bids**

Bids shall remain valid at least for 120 days from the date of opening of the bids.
5. **Evaluation of Bids.**
 - (a) The purchaser shall evaluate and compare the bids which are found Responsive. i.e
 - (i) Properly signed.
 - (ii) Conform to terms and conditions and technical specifications.
 - (iii) Accompanied with Bid security and all other documents.
 - (b) Bids shall be evaluated separately for each item.
6. **Award of contract**
 - (a) Contract shall be awarded to the bidder whose bid is commercially, technically responsive and offered at lowest evaluated price.

(b) Successful bidder shall be notified about the award of the contract through a supply order where in terms and conditions of supply shall be incorporated.

7. Payment.

Payment to foreign manufacturer can be made through LC as per approved terms and conditions of GFR-2017. For Indian bidders 80% payment shall be made against delivery of equipment at NIT Srinagar in good condition and found as per prescribed specifications and 20% after successful installation/ commissioning and training of the staff if required..

8. Warranty and after sale service:

(a) All items shall carry comprehensive standard warranty of two years from the date of commissioning and service support after expiry of warranty.

9. Performance security.

(a) Performance security shall be retained for the amount as mentioned in the award of contract letter/supply order. However it shall not exceed 10% of the contract value.

10. Settlement of disputes.

Settlement of disputes if any shall be subject to the jurisdiction of Srinagar Courts only.

11. Liquidated Damages.

If the bidder after accepting the purchase order of goods/equipments or services, fails to deliver any or all of the goods/equipments or to perform the services within the specified period, a penalty of 0.50% (half percent) of the price value of the item per week or part thereof shall be imposed. The maximum penalty shall be limited to 10% of the cost. Once maximum is reached NIT Srinagar shall proceed on its own to consider the termination of the supply order, on the risk & responsibility of the defaulting bidder.

12. Submission of Bids.

(a) ***The last date for submission of bids is 05.09.2018 upto 16.00 hours.***

(b) Bids should be properly sealed.

(c) The two envelopes A & B should be separately sealed and superscripted as Techno-Commercial Bid & Price Bid, due date of submission, Name of equipment. These two sealed envelopes should be sealed in a bigger Envelope with the address of the Tender receiving Officer & Tender No.

(d) Bids should be addressed to Officer In-charge, Central Purchase Unit NIT Srinagar (J&K)

(e) Bids not from Srinagar shall be dispatched sufficiently well in advance so as to reach the destination as per scheduled time & date. NIT Srinagar shall not be responsible for any delay by posts Deptt. or Courier agency.

13. Bid opening.

(a) The Technical Bid (Envelope- A) will be opened first and Price Bid (Envelope-B) of the qualified bidders will be opened subsequently. Interested bidders can attend the Bid opening.

14. Custom clearance will be responsibility of the supplier, however, Institute. will pay custom on Line through on line portal (Indian Customs EDI Gateway)

15. Notwithstanding above, the purchaser reserves the right to reject any or all the bids received in response to this N.I.T. or withdraw it without assigning any reasons thereof.

Officer In-charge
Central Purchase unit, NIT Srinagar

N.B.

1. Before preparing your valuable bid kindly go through the document fully and take care of all the requirements.
2. Bidders from outside Srinagar may please send their Bids well in advance so that these are received in time.

No. NIT/CPU/Civil/18/4266 Dated 14.08.2018

Annexure-A
Details of Equipment:-

S.No	Description of items	Specifications	Qty	Delivery Period
1	RIVER FLOW SIMULATOR	<p>A self contained river flow simulator for the study and visualization of river formations and fluvial geomorphology, with experimental capabilities on erosion, deposition, thalwage, cut banks, standpoint bars, riffles , meandering, channel morphology studies and hydrographs determinations.</p> <p>Stainless steel tank : Dimensions : 5000x800x250mm working area, Slope adjustment: Tank mounted on steel frame with jacking system to adjust the tank slope while fully loaded, with water recirculation Discharge measurement: With electro-magnetic flow meter. Storage tank capacity: 1000L Flow meter : Measuring range : 2m³/h - 70m³/h Pump : Power consumption :2.9 kW :Head : 13m , Flow rate : 74m³/h Profile measurement: A movable instrument carrier and a point gauge. Accessories: Models like bridge pier, plate weir or an island, sand scoop etc. A comprehensive instruction manual, CD etc</p>	01 No	60 days After date of issue of supply order.
2	PIPE SURGE AND WATER HAMMER	<p>A free standing unit with water recirculation to demonstration pipe surge resulting from slow deceleration of flow in a pipe, determination of the oscillatory characteristics of surge shaft, measuring the pressure profile characteristics associated with water hammer, comparison between theoretical and measured pressure profiles and determination of the velocity of sound through a fluid in an elastic pipe.</p> <p>Stainless steel pipe section for pressure vibrations Dimensions : Length: 6m, dia:26mm , ball valve Surge shaft: Dimensions : Height: 825mm,dia:50mm Pressure measuring ranges : 0-0.3bar Stainless Steel pipe section for water hammers Dimensions : Length: 6m, dia:26mm, solenoid valve Pressure measuring ranges : 2 -16bar Electronic pressure sensors for measurement of water hammer and subsequent vibrations. Stainless steel tank: 50L</p>	01 No	

		<p>Supply unit: Pump Pump body : Stainless steel in compliance with ISO 228/1 Suction filter : Stainless steel AISI 304 Suction plate : Stainless steel AISI 304 Impeller : Stainless steel AISI 304 Motor casing : Stainless steel AISI 304 Motor casing plate : Stainless steel AISI 304 Motor shaft : Stainless steel EN 10088-3-1.4104 Power consumption:250W Flow rate 150 -160 L/min Head:7.6 m Storage tank:180L Measuring Tank with volumetric flow rate: 10-40L, Water circulation system, Data acquisition via USB. Flume section of bench : 730x170x150 mm A comprehensive instruction manual, CD etc</p>		
3	PIPE NETWORK	<p>A fee unit that enable the construction and investigation of various pipe networks like measurement of head loss verses discharge for different size of pipes, characteristics of flow through interconnected pipes of different size, characteristics of flow through parallel pipe networks, characteristics of flow through series pipe networks, doubling pipes through existing networks to increase flow rate, pipe network with proper fittings, effect of changes in supplies and off takes of flow around a ring main. Pipe sections: Dimensions: Length 700 mm each Diameter: 1 No.(stainless steel) 25 mm , 2Nos: 20 mm(stainless steel and Aluminum), 1 No. 16 mm (stainless steel) 6Nos.: 14 mm (Stainless steel) Twin tube differential manometers (digital) Pump. Pump body : Stainless steel compliance with ISO 228/1 Suction filter : Stainless steel AISI 304 Suction plate : Stainless steel AISI 304 Impeller : Stainless steel AISI 304 Motor casing : Stainless steel AISI 304 Motor casing plate : Stainless steel AISI 304 Motor shaft : Stainless steel EN 10088-3-1.4104 Power consumption:250W Flow rate 150 -160 L/min Head:7.6 m Storage tank:180L Measuring Tank with volumetric flow rate: 10-40L Bench Dimensions: LxWxH : 730x170x150 mm Pressure</p>	01 No	

		measuring ranges : Differential pressure: 0-1 bar Differential pressure with two tube manometers: 0-100mbar. A comprehensive instruction manual, CD etc		
4	Fluid Properties and Hydrostatic Bench.	A self contained and mobile unit for properties and hydrostatics. To determine properties of different liquids like density, viscosity , surface tension, specific gravity , capillarity etc, hydrostatics studies like hydrostatic pressure, Pascal's law, static and dynamic pressure, various methods of pressure measurement , diaphragm manometer and a Bourdon tube manometer, Boyle's law, position and centre of pressure, relation between intensity of pressure with depth, etc , stability of floating bodies like verifying Archimedes Principal and determination of met centric height. Universal hydrometer: Range 0.70-2.00 subdivided in 0.01 intervals Falling sphere viscometer: 40mm tube diameter Hydrostatic pressure apparatus: Counter balanced quadrant pivoted knife edges at the centre of arc. Direct reading barometer: With compensated silvered metal scale Range 585-790mm subdivided in 1mm intervals, includes thermometer. 100mm dial pressure gauge: Range 0-200 kN/m ² (kPa) and equivalent head of water in metres. Deadweight pressure gauge calibrator: With 2 No. 0.5kg, 1kg and 2.5kg weights Lever balance: 178mm diameter pan, hook for use in buoyancy experiments, anti parallax cursor, double scales 0-0.25kg and 0-1.0kg Thermometer: Range -10°C to +50°C Pump : Power consumption: 250Wmax. Flow rate:9m ³ /h Max.Head:7.6m Compressor: Power: 65W, Pressure at inlet: 240mbar, Pressure at outlet: 2bar Tanks: 3 No. Height 500mm d=100mm, d=133mm, d=200mm Supply tank for water: 55L Aerometer .2no. Measuring ranges Pressure: 1-1.5bar differential pressure: 0-500mmWS Differential pressure: 0-0.4bar Density: 1No. 0. 8-1g/cm ³ , 1No. 1-1, 2g/cm ³ . A comprehensive instruction manual, CD etc	01 No	

5	Cavitation Demonstrator	<p>A unit for demonstration of cavitation processes like pressure as a function of flow rate and cavitations processes at different flow rate. To visualize the flow processes the unit should include venture nozzle made of transparent material. Provision for varying the input pressure. Ball valves for adjusting the flow rates and pressure level.</p> <p>Pressure distribution within the venture nozzle to be shown on three manometers. Flow can be read by a flow meter (rotameter). The temperature is measured directly upstream of the venture nozzle and is displayed on the thermometer.</p> <p>Circular venture shapes test section made of clear acrylic for visualization of cavitation phenomenon,</p> <p>Cross section of flow: Inner diameter: 18mm.</p> <p>Contraction – 10.5 degrees</p> <p>Outlet cross section flow: 18mm, enlargement: 4 degrees</p> <p>Narrowest cross section ; inner diameter:3.5 mm</p> <p>Pump</p> <p>Pump body : Stainless steel compliance with ISO 228/1</p> <p>Suction filter : Stainless steel AISI 304</p> <p>Suction plate : Stainless steel AISI 304</p> <p>Impeller : Stainless steel AISI 304</p> <p>Motor casing : Stainless steel AISI 304</p> <p>Motor casing plate : Stainless steel AISI 304</p> <p>Motor shaft : Stainless steel EN 10088-3-1.4104</p> <p>Power consumption:250W</p> <p>Flow rate 150 -160 L/min</p> <p>Head:7.6 m</p> <p>Storage tank:180L</p> <p>Measuring Tank</p> <p>Volumetric flow rate: 10L -40L</p> <p>Bench</p> <p>Dimensions :LxWxH : 730x170x150 mm</p> <p>Pressure Measuring Ranges:</p> <p>Pressure range: - 1 to 1.5 bar</p> <p>Temperature: 0-60 degrees</p> <p>Flow rate: 0-10000l/h</p> <p>A comprehensive instruction manual, CD etc</p>	01 No	
6	Laptop and Monitor	Laptop and monitor with multiple ports for different experimental setups for data importing	01 No	

(Tender opening format)
(To be filled-in by the Bidder)

Name of the firm:- _____

Tender for supply of _____

NIT No. &Date:- _____

Technical specification/ literature attached:- Yes/No

Valid tax clearance certificate attached:- Yes/ No

Registration/ Authorization Dealership/
manufacturer certificate attached:- Yes/ No

Revenue stamp affixed. Yes/ No

Rates covered with transparent tape:- Yes/ No

Bid document fee deposited:- Yes/ No

Call Deposit Receipt enclosed:- Yes/ No.

Bid price in Indian Rupees:- Yes/ No

FOR Srinagar:- Yes/No

Bid without correction/overwriting:- Yes/ No

Seal & Signature of the Supplier.

Annexure-B
BID FORM

From M/S.....

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To,

Officer In-charge,
Central Purchase unit, NIT Srinagar.

Ref: NIT No.: NITS/CPU/ 2018-19/..... Dated goods/Equipment for
.....Department

Sir,

With reference to above invitation for bids we would like to say that we have gone through your bid document thoroughly and hence offer our competitive Technical/Price Bid in sealed envelope for the supply of various goods/equipment listed in your document.

The following documents constitute our Bid.

- (a) Bid form
- (b) Price Bid schedule in the requisite format
- (c) Authorization dealer ship certificate from the manufacturer
- (d) Valid sales tax certificate
- (e) Technical literature for the goods/equipment
- (f) Names of organization where this equipment has been supplied. (Applicable for equipment whose unit price exceeds Rs.2.00 lacks
- (g) Bid security as mentioned in the schedule of requirements in the form of CDR drawn in favour of the Officer In-charge Central Purchase Unit NIT Srinagar.
- (h) Telephone No.....

Kindly feel free for any enquiries and clarifications.

Yours Sincerely

(.....)

From M/S.....

Place.....

Date.....

.....

Annexure-C

Technical specification.

Name of Equipment /Goods : e.g.,

Make /Model/ Country of origin: e.g.....

S. No.	Technical Specifications (as per. NIT/CPU/Advertised)	Technical Specifications of the Make /Model	Complies	Higher/Better (with detail quantification)	
				Higher/Better	Quantification
1			Yes	----	
2					
3					
4					
5					

