



Himachal Pradesh Technical University

(A State Government University)

Village & Post Office Daruhi, Tehsil & Distt. Hamirpur(H.P.) –177001

Phone : (01972) 226902, 226907 Fax: (01972) 226901,

GSTNo.:02AAATH9345M1ZH,PAN: AAATH9345M

E-mail ID: purchaseofficerhptu@gmail.com website: www.himtu.ac.in

HPTU/Purchase/Tender/02/2025-2719

Date:11/04/2025


Tender Notice

H.P. Technical University Hamirpur invites bids from the eligible firms/company/ Government agencies for procurement of the following items:

Sr. No.	Tender No.	Nature of Job	Tender Fee	Last date of receiving of bid in University office	Date and Time of Opening	
					Technical Bid	Financial bids
1	02/2025 dated 11-04-2025	Supply and set up of Lab Apparatus/ equipments & Chemicals for Physics Lab in Academic Block of HPTU.	Rs. 500/-	30-04-2025 up to 02:00PM	30-04-2025 At 3:30 PM	Financial bids will be opened after evaluation process of technical bids is completed.

Tender documents can be downloaded from the official website of the University www.himtu.ac.in. Tender Fee has to be submitted in the form of Demand draft in favour of **Finance Officer, HPTU, Hamirpur, Payable at Hamirpur, H.P.** in a separate envelope along with technical bid.

Tenders received after due date/ time/ without Tender Fee and without Earnest Money will be summarily rejected.


Purchase Officer
Himachal Pradesh Technical University,
Hamirpur.

TERMS AND CONDITIONS:

1. The firms /bidder shall submit their bids in two bid system in two separate envelopes, one 'Technical bid' and second 'Financial bid'. The Financial Bid of only those bidders shall be opened, who qualify in the Technical Bid.
2. The tender will be opened on 30-04-2025 at 3:30 PM in the presence of intending suppliers/ firms or the authorized representatives.
3. **Documents to be submitted with Technical Bids:-**
 - (i) Tender Fee Rs. 500/- (Non- refundable) in the shape of demand draft issued from any scheduled commercial bank in favor of **Finance Officer HPTU Hamirpur** payable at Hamirpur, should be enclosed with technical bid.
 - (ii) The amount of Earnest Money Deposit Rs. 50,000/- (Fifty Thousand Only) (Refundable) in the shape of DD/FDR to be pledged in favor of **Finance Officer HPTU Hamirpur** shall be enclosed with the Technical bid.
 - (iii) The bidder must have GST Number and PAN Number. Attach a self attested copy with Technical Bid.
 - (iv) The bidder should have **average turnover of 50 Lakh in last three financial years** (2021-22, 2022-23, 2023-24) and CA certified copy required to be enclosed with Technical Bid.
 - (v) Bidder/firm's Registration Certificate regarding registered as establishment/shop/ proprietorship firm, partnership firm/Company Private Ltd./ Public Undertaking etc. Attach a self attested copy with Technical Bid.
 - (vi) Bidder will have to submit undertaking to the effect that the firm is not blacklisted/debarred by any organization, not under Liquidation and no legal criminal case/ Police/ vigilance case is contemplated or pending against him.
 - (vii) Tender form each page to be signed by bidder with seal and attached with Technical Bid as acceptance of terms and conditions of tender.
 - (viii) Data sheet of the quoted product along with the Make/Brand required to be enclosed with Technical Bid.
 - (ix) All documents of Technical Bid are required to be put inside a separate envelope super scribed as 'Technical Bid for Lab Apparatus & Chemicals'.

Note: - All documents should be attached with Technical Bid in the order as mentioned in the checklist.

(Annexure -I)

4. It will be imperative on each bidder to fully acquaint himself with all local conditions and factors which would have any effect on the performance of the contract. No request for the change of price/

time, schedule of delivery of stores shall be entertained after the purchase on account of any local condition or factor.

5. The bid should be valid for the period of minimum of **120 days from the last date of submission of bid.**
6. The bidder should not sub-contract the work/supply order after receiving the supply order.
7. If any of the material supplied by the bidder is found to be substandard, refurbished, of low quality or not in accordance with the description/specification or otherwise faulty, the committee will have the right to reject the material or its part and no payment will be made to the bidder for the same. Further the bidder will have to lift the rejected materials/supplies from University at his own expenses.
8. In case of any miss happening / damage to material and supplies during the carriage transportation of goods, the supplier has to replace it with new supplies immediately at its own risk. The HPTU, Hamirpur will not be liable to any type of loss in any form.
9. In case the firm fails to supply the material within specified delivery period, the necessary action for cancellation of supply order, forfeiture of security/ earnest money of firm or blacklisting of firm may be taken by University.
10. Financial Bid:-
 - (i) The rates should be quoted including GST/other taxes/charges for each item.
 - (ii) Each page of Financial Bid in Annexure-II & Annexure – III to be filled up properly and signed by the bidder with stamp and seal and sealed in a separate envelope super scribed as 'Financial Bid for lab Apparatus (Annexure – II) & Chemicals (Annexure – III).
 - (iii) The name of Make/Brand of equipment is required to be mentioned by the bidder in Annexure II & Annexure –III against the individual items.
11. Supply should be F.O.R. at Himachal Pradesh Technical University, Hamirpur at Daruhi, VPO Daruhi, Tehsil & Distt. Hamirpur (H.P).
12. Loading/unloading of material/supplies shall be the responsibility of the firm and loading/unloading expenses shall be borne by the supplier.
13. No payment shall be made in advance to the successful bidder. The bidder will be required to raise a proper invoice to the University (showing GST component separately).
14. The rates must include the charges for Packing, Forwarding, Freight, installations covering all the accessory parts, demonstrations, travelling expenses for regular visits along with Manuals of each equipment.
15. The bidder/firm will give a minimum warranty of six months for all lab apparatus/equipment/ material supplied/installed in university from the date of supply. Any repair and replacement of equipments/ material, service maintenance during warranty period will have to be done by the supplier/firm free of



cost (including all visiting expenses).

16. Special conditions for equipment's/instruments: (Annexure-II)

(a) Data sheet of the quoted product/equipment along with the Make/Brand required to be enclosed with the Technical Bid.

(b) Compliance of specifications as per requirement to be ensured and signed with seal by bidder.

17. Performance security@ 10% of the total value of Annexure-II & Annexure – III will be required to be deposited by the successful bidder/ Supplier, which will be refunded after 6 months from the date of installation of Equipment's/ Instruments without interest.

18. Evaluation will be made Annexure wise and item wise. Whereas individual items rates will be required to be mentioned against each item but the financial evaluation will be made on the basis of total amount of the Annexure. The work will be awarded to the bidder quoting lowest rate for the Annexure. However in case the rate of any item seems to be unrealistic on the higher side the Committee may negotiate for such rate with bidder.

19. In case of any dispute arising regarding this tender, the Registrar, Himachal Pradesh Technical university, Hamirpur would act as an Arbitrator and his decision shall be final and binding upon both the parties. Any legal dispute shall be confined to the Court of Hamirpur (HP) jurisdiction.

20. The Purchase Officer, Himachal Pradesh Technical University, Hamirpur reserves the right to reject any or all the tenders without assigning any reason.


**Purchase Officer
HP Technical University,
Hamirpur**

Undertaking/Acceptance by Bidder

I/we _____ the Authorized signatory of _____
(firm) do hereby undertake to accept all the Terms & Conditions and specification of the
Tender.

**Signature of bidder
With Seal of the Firm/ Company**

BIDDER'S GENERAL INFORMATION

Bidder should fill in following information along with the self-attested photocopies of supporting documents:


1. Name of Firm/Agency : _____
2. Number of Years in Operation : _____
3. Registered address : _____

4. Operational Address if different from above: _____
5. Telephone No. (Landline) : _____
6. Tele/fax No. : _____
7. Mobile No. : _____
8. Email Address : _____
9. Name & Address of Branch, if any : _____
10. Type of Organization (whether public limited/ private limited/ partnership/ sole proprietorship) as per attached proof: _____
11. Name of Proprietor/ Partners/Directors of the Organization/Firm: _____

(SIGNATURE OF BIDDER WITH SEAL)

Technical Bid Checklist**Annexure-I**

Sr. No.	Particulars	Whether copy attached(Yes/ No)	Page No.
1.	Name of the organization/agency/ Proprietor (full address with telephone number)		
2.	Tender Fee Rs. 500/- (Non- refundable)		
3.	Earnest Money Deposit Rs. 50,000/- (Fifty Thousand Only)		
4	(A) GST No. (B) PAN No.		
5	Annual Turnover. (The Agency should have an average turnover of minimum Rs.50,00,000/- (Rupees Fifty lakh Only) for the last three financial years (i.e. FY 2021-22, 2022-23, 2023-24) (Please attach certified copy by Chartered Accountant for each year).		
6.	Bidder/firm's Registration Certificate regarding registered as establishment/shop/ proprietorship firm, partnership firm/Company Private Ltd./ Public Undertaking etc. Attach a self attested copy with Technical Bid.		
7.	Bidder will have to submit undertaking to the effect that the firm is not blacklisted/debarred by any organization, not under Liquidation and no legal criminal case/ Police/ vigilance case is contemplated or pending against him.		
8.	Data sheet of the quoted product along with the Make/Brand for Annexure - II required to be enclosed with Technical Bid.		
9.	Compliance of specifications as per requirement to be signed with seal by bidder for Annexure-II.		
10.	Any other information/ document tender wishes to submit for consideration of H. P. Technical University, Hamirpur.		

 **Note:** If any information given in the tender is found false at any stage of assessment, the entire earnest money will be forfeited to H. P. Technical University, Hamirpur and the tender will be rejected. In such a case, H. P. Technical University, Hamirpur reserved the right to blacklist the tenderer /Bidders.

Signature of the Tenderer/Bidder
or His/ Her Authorized signatory
With Seal of the Firm/ Company

Annexure-IIList of Items (Physics Lab Apparatus/Equipment)

Sr. No.	Item Description/Technical Specifications	Qty.	Unit Price In Rs.	Make/ Brand
1.	<p>Hall Effect Experiment Set Up <i>The experiment should consist of:</i> Hall Probe (Ge Crystal-n type and p type) with resistivity 18-19 ohm cm in n-type and 12-14 ohm cm in p-type, Hall voltage 35-60mV/10mA/KG, Contact : Solid Silver, sample size 4x5x0.5mm: One each Hall Probe Stand Multipurpose (metal stand with powder coated aluminum holder.) Hall Effect Set-Up, with Provision for Hall Voltage Offset Adjustment on panel. With built in 0-200mV digital Millivolt meter and 0-20mA Constant Current generator. Complete unit housed in metal cabinet of 260x200x110mm with effective electromagnetic shielding. Cabinet should be powder coated with plastic moulding on edges. Electromagnet with 50mm pole dia, Low Carbon steel yoke, with net size of 460x200x50mm. Two coils with 900 turns each. Magnetic field strength variable up to 7.5 KG at 10 mm air gap between its pole pieces. Coil resistance 3.4 ohm per coil. Constant Current Power Supply (transistor based) for above electromagnet (0-4A current) continuously variable. Complete unit housed in metal cabinet of 390x280x160mm with effective electromagnetic shielding. Cabinet should be powder coated with plastic moulding on edges. Digital Gauss Meter with GaAs Transverse Probe. Range: 0-2KG, 0-20KG and 7 segment LED display with accuracy 0.5%. Complete unit housed in metal cabinet of 260x200x110mm with effective electromagnetic shielding. Cabinet should be powder coated with plastic moulding on edges. Proper cables for interconnections between different units included with the setup. The setup should be complete in all respect.</p>	01	<p>In Figures:</p> <p>In Words:</p>	
2.	<p>Millikan Oil Drop Apparatus Experimental setup for determination of e/m through Millikan Oil Drop Method. <i>The experiment set up should consists of the following</i> An oil drop chamber mounted on top of the panel. It should have a pair of horizontal parallel plate electrodes separated by about 5 mm thick ebonite ring with a hole for viewing the oil droplets.</p>	01	<p>In Figures:</p> <p>In Words:</p>	

[illegible]

[illegible]

	<p>Test Points should be provided to measure the output</p> <p>Accessories: Power Cord, Patch Cords and operating manual.</p> <p>Experiments should cover :</p> <ol style="list-style-type: none"> 1) To Study various power Consumption at different Fluorescent Loads. 2) To analyze various parameters on multifunction meter at different Loads. 3) To study the performance of different loads by using Variac. 			
8.	<p>Polarization of Light and verification of Maul's Law Apparatus</p> <p><i>The experiment should consists of the following items arranged on wooden platform</i></p> <p>Incandescent bulb/Halogen spot/reflector lamp input 240V, Output 12V/50W Bulb with house. Double convex lens (50mm dia & F.L 10cm)</p> <p>Mirror Glass plate with arrangement for rotation and angle measurement</p> <p>Polaroid mounted on a graduated circular scale 360 degree and attached with Photo Voltaic Cell. Digital Micro ammeter 0-200 uA DC, housed in Bakelite case 3 ½ digit</p> <p>A set of patch cords, detailed operating manual should provide Main ON/OFF Switch , 230V AC +/- 10% at 50 Hz</p> <p>Experiments should cover:</p> <ul style="list-style-type: none"> -Study Of Polarization by Reflection from a Glass plate with the help of Polaroid and Photo Cell -To Verify the Brewster Law using a plain glass plate and a Polaroid. -Study and verify maul's Law using a plain glass plate and a Polaroid. 	01	<p>In Figures:</p> <p>In Words:</p>	
9.	<p>Single Phase Transformer for efficient test Apparatus</p> <p><i>The experiment consists of the following</i></p> <p>Digital AC Voltmeter (Range 0-300V & 0-200V), Digital Ammeter (Range 0- 5A , 0-2A)</p> <p>Digital Wattmeter Single Phase, current coil 0.5 A Pot Coil 250V, Total Watt 125 Watt</p> <p>Digital Wattmeter Single Phase, current coil 5 A Pot Coil 250V, Total Watt 1250 Watt</p> <p>Single Phase Auto Transformer :Primary Voltage : 230V , Secondary Voltage 0-270V , Rated Current 6 Amp Single Phase Transformer :</p> <p>Rating 1 KVA Primary Voltage 0- 125 V , 0-125 V</p> <p>Secondary Voltage 0-125V. 0- 125V MCB Required 10 Amp</p> <p>Load: Two 100Watt bulb should be provided for load & three pin socket for external load.</p> <p>Resistive Load should provide with set up</p> <p>A set of shrouded 4mm patch cords, detailed operating manual</p>	01	<p>In Figures:</p> <p>In Words:</p>	

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	<p>Main ON/OFF Switch , 230V AC +/- 10% at 50 Hz</p> <p>Experiments should cover :</p> <ul style="list-style-type: none"> -Study Of Polarity Test in a Single Phase Transformer (Additive & Subtractive Polarity) -Study Of Transformer Ratio in a Single Phase Transformer (Isolation Transformer , Step Down Transformer , Step Up Transformer) -Study Of Open Circuit & Short Circuit in a Single Phase Transformer -Study Of Load Test , determination the efficiency and voltage regulation in a Single Phase Transformer 			
10.	<p>To Study the variation of Magnetic Field with distance by Stewart and Gee's Apparatus</p> <p><i>The experiment consists of the following</i></p> <p>Digital Gauss meter: 0-200G Range; 0.1G Resolution; ± 0.5% Accuracy;</p> <p>Display 3½ Digit LED Display,</p> <p>Two Coils: 200 mm dia., 1000 turn</p> <p>Constant Current Power Supply: 0-0.5A Smoothly adjustable; ± 0.2%</p> <p>Line Regulation; 0.2%</p> <p>Load Regulation; 3½ digit LED Display</p> <p>Experiments should cover:-Study of magnetic field due to one coil and calculation of its diameter. -Study of Principal of super-imposition of magnetic field due to 2 coils.</p>	01	<p>In Figures:</p> <p>In Words:</p>	
11.	<p>Single Phase Power Measurement using three ammeters /voltmeters method</p> <p><i>The experiment should consists of the following :</i></p> <p>Main Supply : 230V +/- 10% , 50 Hz</p> <p>Auxiliary Supply : 230V +/- 10% , 50 Hz</p> <p>Choke coil : 150 mH , 5A</p> <p>Digital Voltmeter: 0- 500V (3 Nos.)</p> <p>Digital Ammeter: 0-5A (3 Nos.)</p> <p>Fixed Resistor : 20E 400W</p> <p>Fixed Resistor : 500E 150W</p> <p>MCB : 10A , Single Phase Variac : 0-230V, 6A or above</p> <p>Rheostat : 45E , 5A</p> <p>A set of shrouded 4mm patch cords, detailed operating manual</p> <p>Main ON/OFF Switch , 230V AC +/- 10% at 50 Hz</p> <p>Experiments should cover :</p> <ul style="list-style-type: none"> -To calculate the power and power factor in a single phase circuit using three voltmeters -To calculate the power and power factor in a Single Phase circuit using three Ammeters 	01	<p>In Figures:</p> <p>In Words:</p>	

12.	<p>Study of the energy band gap and diffusion potential of P-N Junctions <i>The apparatus should consist of:</i> Study of P-N Junction, Main Unit (a) 3½ digit Meter for current/temperature measurements. (b) 3½ digit Meter for bias voltage/junction voltage measurements. (c) Two parts to connect the diode - one for experiment 1 & 2 and other for experiment (d) Two fixed frequency oscillators (5KHz & 20KHz) with the same output (200 mV). Fast temperature controlled oven of 117mm dia and 65mm height with 5mm holes for fast cooling. Complete with RTD sensor. Four Core insulated cable with 4-pin connector Set of samples BC109, AC126, 1N 5408 The unit should be supplied complete with a detailed instruction manual. Sufficient theoretical description is included for a proper understanding. This is followed by a step-by-step procedure and a typical set of readings and results. Complete unit housed in metal cabinet of 382x230x165mm with effective electromagnetic shielding. Proper cables RG-59U for connection should be included. Experiments should cover: <i>The experiment set up should consists of the following</i> -Reverse saturation current and material constant -Temperature coefficient of junction voltage , - Energy band-gap & Junction capacitance</p>	01	<p>In Figures:</p> <p>In Words:</p>	
	TOTAL COST (IN RUPEES) in figure:			
	TOTAL COST (IN RUPEES) in Words:			

***Note:** The bids shall be evaluated on the basis of Total Amount Annexure- wise for the required quantity of items.

Signature of bidder/firm
Seal Firm/Company
Address

Financial Bid**Annexure-III****List of Chemicals**

List of Chemicals required to conduct research project work for the students of Physics Department						
Sr. No.	Product Description	Required Make/Brand	Quantity	Price/ Rate in Figure	Price/ Rate in words	Make/ Brand
1	TIN(II) CHLORIDE, REAGENT GRADE, 98%,	SIGMA / ALDRICH / LOBA / OTTO CHEMIE / PT – INDIA / PERFIT / QUARTZ / TARSONS	100 Gm			
2	INDIUM METAL POWDER,		1.8 Gm			
3	TELLURIUM, POWDER, –200 MESH, 99.8% TRACE METALS,		25 GM			
4	SELENIUM, POWDER, –100 MESH, 99.99% TRACE METALS BASIS,		25 GM			
5	THIOUREA 99% AR,		250 GM			
6	POLYCAPROLACTONE, AVERAGE MW ~14,000, AVERAGE MN ~10,000 BY GPC,		5 GM			
7	POLY(LACTIDE-CO-GLYCOLIDE) (-75,000 G/MOL),		2 GM			
8	SODIUM TRIFLUOROMETHANESULFONATE, 99%,		25 GM			
9	TIN (IV) OXIDE, NANOPOWDER AV. PARTICLE SIZE, LESS THAN 100 NM, 150.71 g/mol,		5 GM			
10	ZNO, ZINC OXIDE NANOPOWDER, 5GM, AV. PARTICLE SIZE, LESS THAN 50 NM		5 GM			
11	POLYLACTIC ACID (BIOPOLYMER), ~55000 APPROX,		5 GM			
12	MAGNETIC STIRRER WITH HOT					

	PLATE WITH TEMPERATURE REGULATOR SUITABLE FOR STIRRING UPTO 5 L VOLUMES. MAXIMUM SPEED 1200 RPM WITH VARIABLE SPEED CONTROL, SUPPLIED WITH A TEFLON COATED MAGNETIC STIRRING BARS.		02 No.			
13	DESSICATOR, PLAIN, NEUTRAL GLASS WITH SUITABLE PORCELAIN PLATE 120 INCLUDING SILICA GEL		01 No.			
14	QUARK TUBES, 25 MM/1000MM LONG		03 No.			
15	PETRI DISHES POLYESTER (NOT GLASS MADE), (90X14 EACH)		20 No.			

Note: The bids shall be evaluated on the basis of Total Amount Annexure-wise for the required quantity of items.

Signature of bidder/firm
Seal Firm/Company
Address