

Subject: Invitation for quotations/limited tender for Purchase of equipments by Department of Materials & Metallurgical Engineering, Punjab Engineering College (Deemed to Be University), Chandigarh as per Table1 given below:

TABLE 1: EQUIPMENT’S NAME, EMD AND TIME LIMIT

S. No.	Name of the Equipment	Quantity	EMD In INR	Time limit in days from the issue date of purchase order
1.	Resistivity Measurement Apparatus (Four Probe setup)	01	4500	20 Days
2.	Magnetic Characterization Unit (B-H Curve Tracer)	01		
3.	Curie Temperature and Dielectric Constant Measurement Unit for Ferroelectric Samples	01		

You are requested to quote for the items mentioned above as per the following specification:

TABLE 2: TECHNICAL SPECIFICATIONS FOR THE EQUIPMENTS

S.No.	Technical Specifications	Quantity
1.	<p>Resistivity Measurement Apparatus (Four Probe setup):</p> <ul style="list-style-type: none"> ➤ Spring loaded Four Probe Arrangement with built-in thermocouple sensor ➤ Standard Samples: Ge, Si and Aluminum with known resistivity and resistance • Specifications of the Oven Controller ➤ Temperature Range: Ambient to 473 K or higher for variation of the temperature of the crystal. ➤ Resolution: 1K ➤ Stability: ± 0.5 K ➤ Measurement Accuracy: ± 1 K ➤ High Performance PID controller ➤ Display: 3½ digit, 7 segment LED with auto polarity and decimal indication ➤ Power: 150 W • Specifications of Multirange Digital Voltmeter 	01

	<ul style="list-style-type: none"> ➤ Range: X1 (0-200 mV) & X10 (0-2 V) ➤ Resolution: 100 μV at X1 range ➤ Accuracy: \pm 0.1% ➤ Display: 3½ digit, 7 segment LED with auto polarity and decimal indication ➤ Overload Indicator • Specifications of Constant Current Source ➤ Open Circuit voltage: 18 V ➤ Ranges: 0-20 mA & 0-200 mA (For low resistivity Samples like thin films of metals and alloys) ➤ Low Current Source Ranges: 0-2 μA, 0-20 μA, 0-200 μA, 0-2 mA (For highly resistive samples like thin films of polymers etc.) Accuracy: \pm 0.25 % 	
2.	<p>Magnetic Characterization Unit (B-H Curve Tracer):</p> <ul style="list-style-type: none"> ➤ Variable magnetic field source and magnetic field displayed in Gauss ➤ A good quality solenoid coil ➤ Measurement Parameters: Coercivity, Retentivity, Saturation magnetization, Various Magnetic phase identification, Hysteresis losses ➤ Display: 3.5 digits ➤ Standard Samples: Soft Iron, Nickel, Hard Steel ➤ Mains Supply: 230V\pm10%, 50 Hz ➤ Manual ➤ Warranty: 01 Year • Optional: Oscilloscope 	01
3.	<p>Curie Temperature and Dielectric Constant Measurement Unit for ferroelectric Samples:</p> <ul style="list-style-type: none"> • Probe Arrangement: Unit consists of spring loaded probes mounted in a suitable stand which also holds the sample plate. • Leads to connect capacitance meter and temperature controller unit. • At least three or more standard ferroelectric samples with known Curie temperature less than 200 °C. • Specifications for temperature controller unit: Temperature Range: Room temperature to 200°C or higher Display: 3½ digits, 7 segments LED with auto polarity & decimal indication Resolution: 0.1°C or lower Accuracy: \pm0.5°C or lower 	01

	Stability: $\pm 0.1^{\circ}\text{C}$ Power: 150W • Specifications for Capacitance measurement unit: Range: 50-6000 pF Resolution: 1pf Display: 3½ digits, 7 segments LED	
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All bids must be accompanied by a bid security/ Earnest money deposit as mentioned in table 1 in the form of Account payee Demand Draft/ Bankers Cheque drawn on a scheduled bank in favor of the Director, Punjab Engineering College (Deemed To Be University), Sector 12, Chandigarh and payable at Chandigarh. Bidders may bid for one item or all items. Bids shall be evaluated item wise.

Address at which tender is to be submitted:

**A) Head, Department of Materials & Metallurgical Engineering,
Punjab Engineering College (Deemed To Be University),
Sector 12, Chandigarh-160012**

**B) Last date and time for receipt of tender : 19th January, 2018
upto 5:00 P.M.**

The complete tender document downloads from the Punjab Engineering College (Deemed to Be University) website www.pec.ac.in as well as website of Chandigarh administration (<http://etenders.chd.nic.in>).

**Head
Materials & Metallurgical
Engineering Dept.
Punjab Engineering College
(Deemed To Be University)
Chandigarh**

**Invitation for limited tender for Purchase of equipments Listed in
Table 1 for
Department of Materials & Metallurgical Engineering**

This invitation to Limited Tender is **for Purchasing and installation of equipments listed in Table 1 for Materials & Metallurgical Engineering Department**, Punjab Engineering College (Deemed to Be University), Chandigarh. Tenderers are advised to study all technical and commercial aspects carefully of the tender document. Sealed offers prepared in accordance with the procedure enumerated in Section II & III should be submitted to Head, Materials & Metallurgical Engineering Department, Punjab Engineering College (Deemed to Be University), Sector 12, Chandigarh, not later than the date and time laid down, at the address given in the schedule for invitation to tender under Clause **1.12** of Section I. All bids must be accompanied by a earnest money/bid security mentioned in Table 1 in the form of Demand Draft / Bankers Cheque/Fixed deposit Receipt (FDR)/Bank Guarantee drawn from a commercial bank in favour of the Director, Punjab Engineering College (Deemed to Be University), Chandigarh, payable at Chandigarh.

TENDER DOCUMENT

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SECTION - I

1. Invitation for Bids

- 1.1 The Punjab Engineering College (Deemed to Be University), Chandigarh proposes to procure equipment **and installation thereof for Materials & Metallurgical Engineering Department**, Punjab Engineering College (Deemed to Be University), Chandigarh. The Punjab Engineering College (Deemed to Be University) is looking for vendors who have experience in supplying above type of equipment.
- 1.2 Tenderer is advised to study all technical and commercial aspects, instructions, terms and specifications carefully in the tender document. Failure to furnish all information required in the Tender document or submission of a bid not substantially responsive to the Tender document in every respect will be at the tenderer's risk and may result in the rejection of the bid.
- 1.3 Sealed offers prepared in accordance with the procedure enumerated in Clause 1 of Section II should be submitted to Head, Materials & Metallurgical Engineering Department, Punjab Engineering College (Deemed to Be University), Sector 12, Chandigarh, not later than the date and time laid down, at the address given in the schedule for invitation to Tender under Clause **1.12** of Section I.
- 1.4 All bids must be accompanied by a refundable earnest money/bid security mentioned in Table 1 in the form of Demand Draft / Bankers Cheque/Fixed deposit Receipt (FDR)/Bank Guarantee drawn from a commercial bank in favour of the Director, Punjab Engineering College (Deemed to Be University), Chandigarh, payable at Chandigarh.
- 1.5 The categories of items and quantity indicated in the Tender Document are tentative, Punjab Engineering College (Deemed to Be University) reserves the right to increase or decrease the quantity or delete some or all of the items depending on the needs of the Department/University without assigning any reasons.
- 1.6 The tenderer should indicate specifically the Basic Price, GST, other duties (if any), and levies chargeable.
- 1.7 The tender should be submitted in Two cover system i.e. **a and b**. There should be proper indication of the contents on each envelope as indicated in clause 1.1 of section II.
- 1.8 **The earnest money must be in a separate sealed envelope indicating the amount, tender Notice Number and due date and enclosed with the bid.**
- 1.9 The tenderer are required to quote in Indian Currency only.
- 1.10 The tenders will be opened on the date and time indicated in the presence of tenderers, if any, present on the occasion. If the date of opening is declared to be a holiday the tenders will be opened on the next working day.
- 1.11 Payment of bill will be made to the supplier directly to firm's bank a/c, for this purpose, name of the bank, firm's bank a/c no., IFSC code & firm's PAN No. are required.
- 1.12 **Schedules for Invitation to Tender**

A) Address at which tender is to be submitted:

**Head of the department, Materials & Metallurgical Engineering
Department,
Punjab Engineering College (Deemed to Be University), Sector 12,
Chandigarh-160012**

B) Latest time and date for receipt of tender: **19.01.2018 upto 5.00 PM**

C) Place, Time and Date of opening of Technical and Financial bids:

Place: Seminar Hall, Materials & Metallurgical Engineering Department, Punjab Engineering College (Deemed to Be University), Sector 12, Chandigarh-160012

Opening of Technical Bid: Time & Date: 22-01-2018 at 11.00 A.M.

Opening of Financial Bid: Technically qualified bidders shall be informed.

D) Person to be contacted:

Dr. Uma Batra, Prof. & Head, Materials and Metallurgical Engineering Department,

Email: headmett@pec.ac.in

Prof. R.K. Mahajan, O/I Purchase, Materials and Metallurgical Engineering Department,

Email: rkmahajan2006@yahoo.com

E) Validity of tender: **90** days from the opening of technical bid. Installation of whole equipment shall be done within **20** days after the issue of purchase order.

F) Punjab Engineering College (Deemed to Be University), Chandigarh shall not be responsible for any postal delay about non receipt/non-delivery of the documents.

SECTION - II

1. Procedure for submission of Bids

- 1.1 It is proposed to have a Two Cover System for this tender: (a) Technical Bid in one cover and (b) Financial bid in one cover.
- 1.2 Technical Bid consisting of all technical details along with terms and conditions of the Tender should be covered in a separate sealed cover superscribing the wordings "Technical Bid".
- 1.3 Financial Bid indicating item wise price for the item mentioned in technical bid of the Tender should be covered in a separate sealed cover superscribing the wordings "Financial Bid". Financial Bid should only indicate prices.
- 1.4 The Earnest Money/bid security must be in a separate sealed envelope indicating the amount, tender Notice Number and due date and enclosed with the bid.
- 1.5 All the three documents viz. Technical Bid Cover, Financial Bid Cover and earnest money prepared as above are to be kept in a single sealed cover superscribed with **"Tender for purchasing equipments in Materials & Metallurgical Engineering Department"**
- 1.6 The cover thus prepared should also indicate clearly the name and address of the tenderer to enable the Bid to be returned unopened in case it is declared "late".

2. Cost of Tender

The tenderer shall bear all costs associated with the preparation and

submission of its Bid, including the cost of presentation for the purpose of clarification of the bid, if so desired by the client and the client will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the Tendering Process.

3. Clarification of Tender Document

A prospective tenderer requiring any clarification of the Tender Document may notify the client in writing at the Client's mailing address indicated in **Clause 1.12 of Section I.**

4. Amendment of Tender Document

- 4.1 At any time prior to the last date for receipt of bids, the client may for any reason, whether at its own initiative or in response to a clarification requested by a prospective Tenderer, modify the Tender Document by an amendment.
- 4.2 The amendment will be notified on the website of the university www.pec.ac.in.
- 4.3 In order to afford prospective Tenderers reasonable time in which to take the amendment into account in preparing their bids, the Client may, at its discretion, extend the last date for the receipt of the Bids.

5. Language of Bids

The bids prepared by the Tenderer and all correspondence and documents relating to the bids exchanged by the Tenderer and the Client, shall be written in English language, provided that any printed literature furnished by the Tenderer may be written in another language so long as accompanied by an English translation in which case, for purposes of interpretation of the bid, the English translation shall govern.

6. Documents comprising the Bids

6.1 The Bids prepared by the Tenderers shall comprise of following components:

a) Technical Bid shall consist of the following: -

- (i) Technical Bid furnished as per the format for technical bid (Section III).
- (ii) Technical literature for each product/service, covering full technical specifications.

b) Financial Bid consisting of the following: -

- (i) Bid prices duly filled, signed and complete as per the format (Clause 3 of Section III).
- (ii) Maximum educational discount as could be offered should be mentioned.

(c) EMD:

The earnest money/bid security mentioned in Table 1 in the form of Demand Draft / Bankers Cheque/Fixed deposit Receipt (FDR)/Bank Guarantee drawn from a commercial bank in favour of the Director, Punjab Engineering College (Deemed to Be University), Chandigarh, payable at Chandigarh.

SECTION - III

(1) Technical Specifications for the Equipments (Technical Bid)

S.No.	Technical Specifications	Quantity
1.	<p>Resistivity Measurement Apparatus (Four Probe setup):</p> <ul style="list-style-type: none"> ➤ Spring loaded Four Probe Arrangement with built-in thermocouple sensor ➤ Standard Samples: Ge, Si and Aluminum with known resistivity and resistance • Specifications of the Oven Controller ➤ Temperature Range: Ambient to 473 K or higher for variation of the temperature of the crystal. ➤ Resolution: 1K ➤ Stability: ± 0.5 K ➤ Measurement Accuracy: ± 1 K ➤ High Performance PID controller ➤ Display: 3½ digit, 7 segment LED with auto polarity and decimal indication ➤ Power: 150 W • Specifications of Multirange Digital Voltmeter ➤ Range: X1 (0-200 mV) & X10 (0-2 V) ➤ Resolution: 100 μV at X1 range ➤ Accuracy: $\pm 0.1\%$ ➤ Display: 3½ digit, 7 segment LED with auto polarity and decimal indication ➤ Overload Indicator • Specifications of Constant Current Source ➤ Open Circuit voltage: 18 V ➤ Ranges: 0-20 mA & 0-200 mA (For low resistivity Samples like thin films of metals and alloys) ➤ Low Current Source Ranges: 0-2 μA, 0-20 μA, 0-200 μA, 0-2 mA (For highly resistive samples like thin films of polymers etc.) Accuracy: ± 0.25 % 	01
2.	<p>Magnetic Characterization Unit (B-H Curve Tracer):</p> <ul style="list-style-type: none"> ➤ Variable magnetic field source and magnetic field displayed in Gauss ➤ A good quality solenoid coil ➤ Measurement Parameters: Coercivity, Retentivity, Saturation magnetization, Various Magnetic phase identification, Hysteresis losses 	01

	<ul style="list-style-type: none"> ➤ Display: 3.5 digits ➤ Standard Samples: Soft Iron, Nickel, Hard Steel ➤ Mains Supply: 230V[±]10%, 50 Hz ➤ Manual ➤ Warranty: 01 Year • Optional: Oscilloscope 	
3.	<p>Curie Temperature and Dielectric Constant Measurement Unit for ferroelectric Samples:</p> <ul style="list-style-type: none"> • Probe Arrangement: Unit consists of spring loaded probes mounted in a suitable stand which also holds the sample plate. • Leads to connect capacitance meter and temperature controller unit. • At least three or more standard ferroelectric samples with known Curie temperature less than 200 °C. • Specifications for temperature controller unit: Temperature Range: Room temperature to 200°C or higher Display: 3½ digits, 7 segments LED with auto polarity & decimal indication Resolution: 0.1°C or lower Accuracy: ±0.5°C or lower Stability: ±0.1°C Power: 150W • Specifications for Capacitance measurement unit: Range: 50-6000 pF Resolution: 1pf Display: 3½ digits, 7 segments LED 	01

FIRST COVER TITLED as “Technical Bid” should contain the self-attested scanned copies of following with consecutive Sr. No:

1. Name of the firm/organization’s authorized person, his telephone/Mobile No./e-mail/Fax number on letter head of the company/firm/organization.
2. Self-attested copies of PAN/TAN Card/GST No.
3. Scanned copy of income tax return of the last two financial year i.e. 2015-16 and 2016-17
4. Certificate of acceptance of terms & condition mentioned in Section II and Section IV of tender document.
5. List of user customers of said equipment (s).
6. Proof of supplying similar equipments in Government institutes/departments/colleges/universities/research labs/industrial & commercial organizations etc. in India during last three financial years i.e. 2014-15, 2015-16, 2016-17.

NOTE: All above mentioned documents should be duly in order and are essential to Qualify for Technical Bid.

(2) Financial Bid

Financial Bid should be submitted in the following format

Item (Including Installation)	Basic Price	GST	Total Cost (Inclusive GST) and shipment cost if any

SECTION -IV

GENERAL TERMS AND CONDITIONS

1. Rates should be quoted F.O.R. Punjab Engineering College (Deemed to Be University), Sector 12, Chandigarh and should include all freight charges, packing, forwarding duties etc. GST to be indicated separately.
2. Conditional quotations will be rejected summarily without any intimation. Therefore, no extra condition should be inserted in the quotations.
3. Bid security / earnest money as mentioned in Table 1 will be taken from the prospective bidders in the form of account payee Demand Draft/ Cheque of a Bank Guarantee from a scheduled bank.
4. The rates quoted should be valid for a period of 90 days from the date of opening of quotation. The quantities of items given in lists are tentative and can vary upon actual requirement.
5. No revision of rates will be allowed except taxes/charges levied by the central/state govt. by duly notified only.
6. No advance payment will be made. Payment will be released after satisfactory receipt of goods/material and demonstration / installation and production of bill (in duplicate) in name of Director Punjab Engineering College (Deemed to Be University), Chandigarh.
7. Firm who have been blacklisted by Central/ State Govt. /UT Govt. Authority/ Punjab Engineering College (Deemed to Be University) are not eligible to quote.
8. The material should be supplied and installed within **20 days** of the Purchase order failing which penalty @ 0.5 % per week of the cost of purchase order will be imposed upon the firm.

9. Earnest money deposit as mentioned in Table 1 of the successful firm will be forfeited in case of the material supplied is not as per specifications or inferior quality and if firm violates any of the terms & conditions.
10. All disputes will be subject to Chandigarh Jurisdiction.
11. The Director, Punjab Engineering College (Deemed to Be University), Chandigarh reserves to himself the right of rejecting any quotation without assigning any reason.
12. The bidder will not be permitted to alter/modify their bids after the expiry of the dead line for receipt of bids.
13. Bids received after the due date will not be accepted. Punjab Engineering College (Deemed to Be University), Chandigarh shall not be responsible for any postal delay about non receipt/ non delivery of documents.
14. **Performance security of 5% of the total cost for Chandigarh** will be submitted within ten days by the successful bidder from the date of award of contract in the shape of account payee Demand Draft or Bank guarantee from a scheduled bank which should be valid for a period of **60 days** beyond the completion of obligations of the supplier including warranty. Performance security is to be forfeited and credited to the Institute in the event of breach of contractual obligation by the supplier in terms of relevant contract.
15. Firm is entirely responsible for any damage or loss done to the material in the transit, the firm will lodge, all the complaints regarding damage done in the transit and shall bear all the expenses.
16. Full payment will be made to the company/firm only after the receipt of the material in the good condition and satisfactory operations/installation of equipments in the department.
17. The Agency may send the material insured if necessary but the insurance charges will be borne by your organization.
18. This institute being a premier Education and Research Institution funded by govt., Discount as applicable to Research Institutes/ Educational Institutes may be provided in the quotation.

19. The Vendor will be responsible for the comprehensive maintenance of equipment supplied during the warranty period of 12 months after the acceptance of installation & testing of equipments. In case of default Punjab Engineering College (Deemed to Be University), Sector 12, Chandigarh will have the right to arrange maintenance at the risk and cost of vendor from any other source and shall raise bills to vendor. Vendor shall clear such bills within 15 days.
20. The college has been exempted from customs duty in terms of Government Notification no.51/96-Customs dated 23 July ,1996 and Central Excise duty in terms of Government Notification No.10/97-Central Excise dated March, 1997 as amended from time to time.
21. The material will be accepted only after inspection at this Department. If not found suitable according to the specification, the same will be returned at the cost and risk of the supplier.
22. In a tender, either the Indian agent on behalf of the Principal/OEM or Principal/OEM itself can bid but both cannot bid simultaneously for the same item/ product in the same tender.
23. If an agent submits bid on behalf of the Principal/OEM, the same agent shall not submit a bid on behalf of another Principal/OEM in the same tender for the same item/product.
24. All disputes, if arise at later stage will be sorted out within the jurisdiction of U T Chandigarh.

Acceptance of the terms and conditions

The terms and conditions of this tender document are acceptable to me/us.

Date
tenderer

Signature of