



Indian Institute of Information Technology, Pune

Reference No: IIITP/Physics/2017-18/109

DATE: 18-07-2017

INVITATION OF TENDER

For

Procurement of Physics Laboratory Equipments at Indian Institute of Information Technology, Pune

Price of Tender Document: Rs. 1000/- (Rupees One Thousand Only)

Indian Institute of Information Technology, Pune

Website: www.iiitp.ac.in and www.coep.org.in

INVITATION OF TENDER**Name of the Work:**

Indian Institute of Information Technology Pune invites sealed quotations for Supply of Physics Laboratory Equipments at College of Engineering Pune as per the **Part 1: Technical Bid and Part 2: Commercial Bid in the prescribed Bid forms.**

Sealed bids are invited for Physics Laboratory Equipments at College of Engineering Pune from reputed / experienced organizations who have successfully carried out similar work in the past as mentioned in **Part 1: Technical Bid: Annexure-I.**

The tender Document can be downloaded from the website www.iiitp.ac.in and www.coep.org.in

Sr. No.	Tender No & Date	Reference No: IIITP/Physics/Equipment/2017-18/109 DATE: 18-07-2017
1.	Issue of Tender Forms	From 21-07-2017 to 04-08-2017
2.	Last Date of Receipt of Tenders	04-08-2017 before 15:00 Hours
3.	Opening of Tenders	04-08-2017 at 16:00 Hours
4.	Tender Fees	Rs. 1000-00 (Non-Refundable)
5.	Correspondence Address	Department of Physics, College of Engineering Pune, Shivajinagar, Pune 411005

1. Eligibility Criteria:

- 1.1 The bidder must have minimum three years experience in similar kind of work that is, supply of Physics Laboratory Equipments. The bidder must have executed at least one purchase order of not less than **Rs. 5.00 Lakhs (Single order)** during any of the last three years.
- 1.2 The bidder should at attach purchase orders of supply of equipments to renowned educational institutes in last three years.
- 1.3 Bidder should have an appropriate authorization letter/Manufacturer's Authorization form from the principal vendor in reference to this enquiry Reference No: IIITP/Physics/Equipment/2017-18/109, DATE: 18-07-2017

Pre-Qualification / Eligibility Criteria details:

Sr. No.	Pre-Qualification Criteria	Supporting Documents to be enclosed with the Bid
1.	Bidder should be registered in India under Companies Act 1956	Certificate of Incorporation
2.	The bidder must be a renowned Indian/Multinational Company with primary business in Technology. It should also be an Authorized system Integrator(s)/partner of the principal, in India.	GST Registration Certificate. Manufacturer's Authorization form of the Original Equipment Manufacturer (if applicable)
3.	Bidder must have experience of at least 03 years in the relevant field of Supplying Physics Laboratory Equipments.	Copies of relevant work-order(s)
4.	Bidder should have duly filed Income Tax Returns, Service Tax and other applicable Govt./Statutory body Taxes for the past three years.	Relevant Documents
5.	Prime bidder including the consortium members shall not be under a declaration of ineligibility for corrupt or fraudulent practices or blacklisted with any of the Government agencies.	Self-Certification

Seal and signature of Manager /
Representative of the firm On behalf of the firm
submitting Tender
Telephone:.....Mobile:.....
Fax:..... Mail :.....
Contact Person Name and Designation:

2. Bidding Process:

The Bid / Tender document will be in two-cover system/envelope - Technical Bid (Part 1) and Commercial Bid (Part 2).

Part 1: Technical Bid - detailed profile of the agency/organization, eligibility for selection, tender terms & conditions, etc. - to be submitted in a separate sealed cover. This should include **Annexure-I** and documents in support of **turnover, experience, list of similar project, client list, Pre-Qualification / Eligibility Criteria, Appendix -A** etc.

Part 2: Commercial Bid - As per the tender, commercial bid should be indicated in Indian rupees in figures as well as words. The final offer given by the bidder shall be with respect to the complete cost of the project.

3. Submission of Tender Documents:

3.1 Format & signing of Bid Document:

The Bid / Tender document will be submitted in the prescribed format in two parts in sealed cover super scribing "Supply of Physics Laboratory Equipments at Indian Institute of Information Technology Pune."

Instruction for submitting bids are given below:

3.1.1 Part 1: Technical Bid - in prescribed format duly signed and sealed

Part1: shall contain the following:

1. A covering letter in the format enclosed and **Annexure-I** along with cost of the bid document of Rs. 1000/- by way of DD drawn in favor of 'Mentor Director, Indian Institute of Information Technology Pune' of any nationalized / Scheduled Bank payable at Pune.
2. Details of bidders experience and capabilities in the format (**Annexure -I**).

3.1.2 Part 2: Commercial Bid - in prescribed format duly signed and sealed.

4. Acceptance of Tender conditions:

First envelope should be marked as Part-1: Technical Bid with Reference No: IIITP/Physics/Equipment/2017-18/109, DATE: 18-07-2017, "Physics Laboratory Equipments at Indian Institute of Information Technology Pune" Due on 04-08-2017 at 15.00 hrs.

4.1 Second envelope should be marked as Part-2: Commercial Bid with Reference No: IIITP/Physics/Equipment/2017-18/109, DATE: 18-07-2017, "Physics Laboratory Equipments at Indian Institute of Information Technology Pune" Due on 04-08-2017 at 15.00 hrs.

4.2 Both sealed envelopes of Part 1 & 2 are to be put in a single envelope duly sealed and super-scribed as "Reference No: IIITP/Physics/Equipment/2017-18/109,

DATE: 18-07-2017, "Physics Laboratory Equipments at Indian Institute of Information Technology Pune" Due on 04-08-2017 at 15.00 hrs must be submitted on or before at **Inward section of, College of Engineering, Pune-411005.**

- 4.3 The **last date for submission** of tender document is **04-08-2017 before 15.00 hrs.** Bids received beyond the closing date / time will not be accepted and will be rejected, unopened.
- 4.4 The Part 1 (**Technical Bid**) will be **opened on 04-08-2017 at 16.00 hrs** at Department of Physics, College of Engineering Pune, in presence of the bidders' representatives who wish to attend. In the event of any change in the date of opening, the same will be intimated to all.
- 4.5 Part 2 (Commercial Bid) will be opened only after the technical evaluation of tenders and only eligible and technically qualified bidders will be invited for commercial bid opening at the same venue in presence of the bidders' representatives who wish to attend. The date of opening of commercial bid will be intimated to only eligible and technically qualified bidders. In the event of any change in the date of opening, the same will be intimated to all.
5. The Institute reserves the right to accept or reject any bids and to annul the bidding process and reject all bids at any time prior to award of contract, without thereby incurring any liability to the affected bidder or bidders or any obligation to inform the affected bidder.
6. Incomplete tenders will be rejected without consideration.
7. Delivery Period for Item: The items mentioned in the tender should be delivered within four weeks from the release of purchase order.
8. Execution Period for Supplied Item: The entire project is to be executed/ commissioned within four weeks from the release of purchase order.
9. Supply and Installation:

Bidder shall be responsible for successful Installation, Commissioning and testing of the Physics Laboratory Equipments at Indian Institute of Information Technology Pune, located at Sadumbre, Talegaon- Chakan Road, Ta. Maval, Dist. Pune. Any defective component/device will be replaced by bidder at his cost.
10. **Service Support:** Onsite comprehensive Support (parts, labor) has to be provided for a minimum period of 2 years by the bidder from the date of installation and commissioning of systems.
11. **Comprehensive Warranty:**

Two years Comprehensive Warranty. The Supplier shall be fully responsible for the Manufacturer's warranty for all equipment, accessories, spare parts etc. against any defects arising from design, material, manufacturing, workmanship, or any act or omission of the manufacturer / Bidder or any defect that may develop under normal use of supplied equipment during the warranty period. In case the Bidder is unable to fulfill his obligations during the warranty period, the warranty obligations will fully and automatically devolve upon the Manufacturer of the goods. The Bidder shall be fully responsible for getting the product replaced from the principal

company or coordinating the same with the principal company during the warranty period.

12. Payment Terms & Conditions: Payment:

100% payment shall be made after successful installation of setups at Physics Laboratory, Indian Institute of Information Technology Pune.

13. The vendors shall have to quote for all the items of the quotations. Part quotations/incomplete Tenders shall be rejected.
14. Offers in bid should be written in English and price should be written in both figures and words in Indian Rupees.
15. The relevant supporting document(s) should be enclosed along with the offer.
16. Quotations received after last date of bid submission will be rejected.
17. No bid will be entertained by E-mail / FAX.
18. The Institute reserves the rights to cancel the tender without any reason thereof and tender fee will not be refunded.
19. The Institute reserves the rights to split the purchase order.
20. The Institute reserves the rights to cancel any of the items of tender without any reason thereof.
21. The Institute reserves the rights to decide the quantity of any of the items of tender for finalizing the purchase order without any reason.
22. The Institute reserves the right to cancel purchase order, before or after the delivery of material, before making payments without giving any reasons thereof.

-sd-

Mentor Director

Indian Institute of Information Technology Pune

**Appendix -A (To be filled up by the bidder)
Following details required for all bidders**

Sr. No.	Name & Full Address of the firm:	Necessary Documents Submitted (Yes/No)
1.	Registered Office with Address (Copy of registration certificate of firm may be enclosed)	
2.	Pan no.	
3.	Previous Purchase order details	
4.	Whether limited company or Pvt. ltd. or Partnership	
5.	Name & Addresses of the person who will represent the firm while dealing with the Institute.	
6.	GST Registration number	
7.	Do you have Technology as your primary business; and are You An Original Equipment Manufacturer Or Authorized System Integrator(s) ?	
8.	Do you have experience for at least 3 years in the relevant field of supply, installation, commissioning and maintenance of similar project? Have you completed at least one similar project during the previous three years?	
9.	Are you authorized by your principal (for all the respective items) to quote the bid?	
10.	Have you duly filed Income Tax Returns, Service Tax and other applicable taxes for the past three years?	
11.	Have you been blacklisted by any government authority in India? If so, then you will not be eligible. Submit Self-Certification stating you are not blacklisted in the past.	

Seal and signature of Manager
/Representative of the firm On behalf of the
firm submitting Tender

Telephone:.....
Mobile:.....
Fax:.....
Mail:.....
Contact Person Name:.....
Contact Person Designation:.....

Part 1: Technical Bid:

Physics Laboratory Equipments at Indian Institute of Information Technology Pune

FORMAT & REQUIREMENTS

1. Tender Ref. No:
2. Name of Tenderer:
3. Complete office address of Tenderer.....
4. Contact details of authorized person of tenderer who have signed the tender.
 - a. Name.....
 - b. Designation.....
 - c. Phone (Office).....
 - d. Phone (Mobile).....
 - e. E mail.....
5. Due date & Time of submission of quotation:
6. Tender fee (if downloaded from website) (DD number & bank details)
7. Submission of technical confirmation to the requirement.

Annexure- I

Format of Quotation for Physics Laboratory Equipments at Indian Institute of Information Technology Pune

Sl. No.	Name of items	Description	Quantity
1.	Newton's ring experimental Set-up (In-built set-up)	Specifications: - <ul style="list-style-type: none">• Sodium Vapor Lamp 35 Watt box tube (In box with 4 multiple slit arrangement) with smps power supply• Compact instrument with full arrangements for conducting Newton's Ring experiment.• A standard microscope unit with 30× magnification and rotatable cross line eye piece.• Focusing of microscope is through Rack and Pinion.• Longitudinal movement of 26 mm is done by rotating the drum provided which reads up to 0.001cm.• Complete with optical glass and	6

		<ul style="list-style-type: none"> convex lens inside a metal case. Packed in a wooden box along with all standard accessories. Spare Glass plate assembly with Convex & plano convex lens Dust Cover 	
2.	Diffraction grating Experimental Set-up	<ul style="list-style-type: none"> Spectrometers Specifications: - <i>Scale:</i> Main Scale, diameter 15cm, is divided 0-360 X $\frac{1}{2}^\circ$, and fixed to a table that also holds the telescope. Two Vernier readings up to 1 minute of arc, located 180° apart at opposite sides of the main scale. <i>Telescope:</i> Mounted on a movable pillar, with a fine adjustment screw, locking screw, axis adjustment. The achromatic objective is of focal length 17.8cm. Ramsden eyepiece 15X with cross line graticule, with rack and pinion focusing for both objective and eyepiece. <i>Collimator:</i> With achromatic objective of focal length 17.8cm. Rack and pinion focusing. Adjustable, 6mm slit is made of stainless steel. Mercury lamp source: 125W in wooden box with 4 multiple slit facility, power supply smps inbuilt. Grating: 20000 lines per inches. Spirit level: For level adjustment. 	6
3.	Four probe set-up for resistivity and band gap measurement of semiconductor	<p>Specifications: -</p> <ul style="list-style-type: none"> Probes Arrangement: It has four individually spring-loaded probes. The probes are collinear and equally spaced. The probes are mounted in a teflon bush, which ensure a good electrical insulation between the probes. A teflon spacer near the tips is also provided to keep the probes at equal distance. The whole – arrangement is mounted on a suitable stand and leads are provided for the voltage measurement. Sample: Germanium crystal in the form of a chip Oven: It is a small oven for the 	6

		<p>variation of temperature of the crystal from the room temperature to about 300°C (max.)</p> <ul style="list-style-type: none"> • Power Supply Unit for sample and oven: <ul style="list-style-type: none"> ➤ Multirange Digital Voltmeter: Specifications Range : X1 (0-200mV) & X10 (0-2V) Resolution 100μV at X1 range Accuracy ±0.1% of reading ±1 digit High accuracy like auto zero to less than 10μV zero drift of less than 1μV/ °C input bias current of 10pA max. ➤ Constant Current Generator: It is an IC regulated current generator, Ripple free DC source Specifications Open Circuit Voltage: 18V Current range : 0-25mA Resolution : 10μA Accuracy: ±0.25% of the reading ±1 digit Load regulation: 0.03% for 0 to full load Line Regulation: 0.05% for 10% changes ➤ Oven: Specification: Power Supply for the oven with a provision for low and high rates of heating. 	
4.	Hall effect in Semiconductor	<p>Specifications:-</p> <ul style="list-style-type: none"> • Hall Probe-1: Silver (InAs) Material: Silver Strip (8 x 6 x 0.05 mm) Contacts: Press type for current Spring Type for Voltage Hall Voltage: ~17 μV/10A/10KG • Hall Probe-2: Tungsten (HP-W) Material: Tungsten Strip (8 x 6 x 0.05 mm) Contacts: Press type for current Spring Type for Voltage Hall Voltage: ~15 μV/10A/10KG • High Current Power Supply Range: 0-20A continuously variable 	6

		<p>Accuracy: $\pm 0.5\%$ Regulation: $\pm 0.5\%$ for $\pm 10\%$ variation of mains Display: $3\frac{1}{2}$ digit, 7 Segment LED</p> <ul style="list-style-type: none"> • Digital Microvoltmeter Range: 1mV, 10mV, 100mV, 1V & 10V with 100% over-ranging. Resolution: 1μV. Accuracy: $\pm 0.2\%$. Stability: Within ± 1 digit. Input Impedance: $>1000M\Omega$ ($10M\Omega$ on 10V range). Display: $3\frac{1}{2}$ digit, 7 segment LED with auto-polarity and decimal indication • Electromagnet Pole Pieces: 75mm tapered to 25mm Mag. Field: 10KG $\pm 5\%$ at 10mm air gap Energizing Coils: Two of approx. 13W each Power: 0-100Vdc, 5A, for coils in series 0-60Vdc, 8A, for coils in parallel • Constant Current Power Supply • Gauss meter with Probe: Ge(Germanium) P Type & N Type 01 Each 	
5.	<p style="text-align: center;">Magnetic Susceptibility set-up by Quinke's Method</p>	<p>Specifications: -</p> <p>The apparatus consists of the following:</p> <ul style="list-style-type: none"> • Quinke's tube with stand • Sample: $MnSO_4 \cdot 2H_2O / FeCl_3$ • Digital Balance 500gms (LC:0.01gm) • RD Bottle • Mixing Bottle • Electromagnet: 10 KGauss • Constant Current Power Supply: (60Volts/6 Amps) • Digital Gauss meter: (20 KGauss) • Travelling Microscope <ul style="list-style-type: none"> ➤ TRAVELLING MICROSCOPE (Horizontal and Vertical with micrometer at both ends) <p>Specifications:</p> <ul style="list-style-type: none"> ❖ True achromatic objective with 7.5 cm focusing distance 	6

		<ul style="list-style-type: none"> ❖ 10X Ramsden eyepiece with fine cross wire scale and Vernier ❖ Horizontal scale: 20cm divided at 0.5mm interval ❖ Vertical scale: 15cm divided at 0.5mm interval ❖ Vernier scales: 50 divisions with a least count of 0.01mm 	
6.	Biot – Saverts Experimental Apparatus	<p>Specifications: -</p> <ul style="list-style-type: none"> • Optical Bench: - Material: - Aluminum alloy Type:- Hexagonal section Scale:- 100 cm Least count: - 1 mm. • Set of coils: with different diameter (5, 10, 20, 30, and 50 mm) • Power Supply: - 0-30V D.C. • Gauss Meter 	7
7.	Dielectric Constant measurement set-up	<p>Specifications: -</p> <ul style="list-style-type: none"> • Main Unit having audio oscillator variable frequency (1 KHz), digital voltmeter (0 – 9.99 V dc), standard capacitance and electronic circuitry. • Dielectric Cells: 75 mm Gold plated brass discs (1 set) and 25 mm Gold plated brass discs (1 set). • Samples: <ul style="list-style-type: none"> ➤ Low Range: Glass, Bakelite ➤ Hi Range: PZT DISC • CRO Dual Trace 30 MHz 	6
8.	Photoelectric Effect experimental set up	<p>Specifications: -</p> <ul style="list-style-type: none"> • Photo sensitive device: Vacuum photodiode • Light source: Halogen tungsten lamp 12V/35W • Color filters: 635nm, 570nm, 540nm, 500nm, 460nm • Operating Voltage:- Regulated voltage power supply +/- 15V, variable. • Current detecting unit:- Digital nanometer Range:- 1000μA, 100μA, 10μA & 1μA Resolution:- 1nA to 1 μA range Display:- 3 1/2 digit seven segment 	7

		<p>LED Accuracy:- +/- 0.2%</p> <ul style="list-style-type: none"> • Optical Bench:- the light source can be moved along it to adjust the distance between light source and photo tube. 	
9.	<p>Franck – Hertz inbuilt set-up</p>	<p>Specifications: -</p> <ul style="list-style-type: none"> • Argon filled tetrode • Filament Power Supply: 2.6-3.4V continuously variable • Grids Power Supplies VG1 K: 1.3-5V continuously variable VG2 A: 1.3 - 12V continuously variable VG2 K: 0 - 95V continuously variable <p>All the power supplies are highly stabilized and output voltages can be read on 3½ digit, 7 segment LED DPM with auto polarity and decimal indication through a selector switch</p> <ul style="list-style-type: none"> • Saw tooth waveform for CRO display Scanning Voltage: 0-80V Scanning Frequency: 115±20Hz • Multi range Digital Ammeter Display: 3½ digit 7 segment LED Range Multiplier: 10-7, 10-8 & 10-9 • DSO: dual trace for above Bandwidth: DC 50 MHz Bandwidth limit: 20 MHz Sample Rate: 250 MSa/Sec Display: 5.7 TFT LCD color Memory: 4K memory length/channel USB port for PC attachment 	6
10.	<p>Hysteresis (B-H Curve) by solenoid method set up.</p>	<p>Specifications:-</p> <p>Power Supply: 2,4,6,8,10,12 V Selectable By using band switch, Control Knob: X Knob, Y Knob Solenoid: Primary 1000 Secondary 280 Size: 11"x9"x3 C.R.O. (30 MHz) for above</p>	6

8. Please specify the make and model. Attach technical brochure.

9. Higher technical specification may be considered subject to competitive price offer.

10. Documents to be enclosed with the Technical bid are as under:

a. Copy of authorization letter from principal.

- b. Duly signed & stamped Tender documents (All pages) as a mark of your acceptance.
- c. Details of latest Three buyers to whom similar supplies (Supplying Physics Laboratory Equipments) were made should be submitted in the following format:-

Sr. No.	Name of Client along with contact details
1.	
2.	
3.	

- d. Supporting information with respect to the technical data, booklets of product. Any product manual brief, test certificates available may be enclosed.
- e. Copies of GST,PAN, VAT/ TIN duly Signed & Stamped.

Signature of the tenderer
with stamp

Part 2: Commercial Bid

Physics Laboratory Equipments at Indian Institute of Information Technology Pune

1) Part 2: Commercial Bid

FORMAT & REQUIREMENTS

Tender Ref. No.:

Name of the Tenderer/Bidder:

The offer with rates for the schedule of requirements of items, as elaborated under, to be submitted. Adhering to the format given below is a pre-requisite for considering your quotations:

However quantity may increase/ decrease

The format of commercial offer is as below:

Item No.	Item Description	Qty in Nos.	Rate per unit in Rs. (inclusive of all taxes)	Total amount in Rs. (inclusive of all taxes)
1.	Newton's ring experimental Set-up (In-built)	06		
2.	Diffraction grating Experimental Set-up	06		
3.	Four probe set-up for resistivity and band gap measurement of semiconductor	06		
4.	Hall effect in Semiconductor	06		
5.	Magnetic Susceptibility set-up by Quinke's Method	06		
6.	Biot-Saverts Experimental Apparatus	06		
7.	Dielectric Constant measurement set-up	06		
8.	Photoelectric Effect experimental set up	06		
9.	Franck – Hertz inbuilt set-up	06		
10.	Hysteresis (B-H Curve) by solenoid method	06		
Total Amount (Inclusive of all Taxes) in Rs.				
Total Amount (Inclusive of all Taxes) in words Rupees				
..... Only.				

The rate quoted shall be in accounting units (A/U) and should be quoted as basic price, all other costs including freight, insurance, packaging and forwarding duties/levies and taxes.

Signature of the tenderer
with stamp

[Covering letter to submitted by the bidder on
letter head]

To,
The Mentor Director,
Indian Institute of Information Technology Pune,
Sudumbare, Talegaon - Chakan Road, Tal.- Maval, Dist.-Pune
Pune -411005,

Sub: Tender for Physics Laboratory Equipments at Indian Institute of Information
Technology Pune.

Sir,

I have carefully gone through the tender document regarding the prequalification of
agencies/ vendors for Physics Laboratory Equipments, at Indian Institute of
Information Pune.

I shall be bidding in this tender as the sole representative of my company. I hereby
declare that

1. All the information related to my company, customer base, projects, financial
details, data sheet of the products offered etc., provided in my offer is true and
without any alteration / modification.
2. All the provisions of this tender document are acceptable to my company. No
violation of the terms and conditions as mentioned in the tender document has been
made.
3. I declare that my company or any member of the company has not been debarred
/ black listed by any Government / Semi -Government organizations in India.
4. I certify that the period of validity of bid is 120 (one hundred and twenty) days
from the last date of submission of proposal I further certify that I am authorized
signatory of my company and I am, therefore competent to make this declaration.

Yours faithfully,

(Signature of the bidder)

Seal and signature of Manager
/ Representative of the company / firm
On behalf of the company / Firm
submitting tender
Telephone:
Mobile:
Fax:
Mail:
Contact Person Name:
Contact Person Designation:

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List of Documents attached by the Bidder