



Institute of Physics
Po-Sainik School, Bhubaneswar-751005

Global Tender

Sealed two part Tenders are invited on behalf of Director Institute of Physics, Bhubaneswar from the manufacturers (Indian or Foreign) and their authorized reseller/Indian agent and stockiest only for supply & installation of the following items.

Tender Notice No.	Name of the Item	Qty.	EMD in Rs.	Due date of submission of Tender (up to 3.00 PM)	Date of Opening of Technical Bid (at 3.30 PM)
NIT/8-1/2016-17	UV-VIS-NIR Spectrophotometer	01	1.30 Lakh	06.09.2016	06.09.2016
NIT/8-2/2016-17	Contact Angle system	01	Rs.28800/-	06.09.2016	06.09.2016

Cost of Tender Paper : Rs.500/- (Nonrefundable) for each item

For further details, please refer to the detailed NIT in IOP's website www.iopb.res.in

NOTE:-

- 1) Parties may quote along with requisite amount of EMD indicated against above equipment. Party registered with SSI/DGS&D/DAE and foreign parties quoting directly are exempted from paying EMD only.
- 2) Bidder who submit the form downloaded from the web site must attach **Demand Draft for Rs.500/- for each item** prepared in favour of "Director, Institute of Physics" with their bid towards the cost of tender documents.

DIRECTOR

INSTITUTE OF PHYSICS

NIT OPEN DOCUMENT (2 PART BID)

Institute of Physics (IoP), Bhubaneswar, India is an Autonomous Institute under Dept of Atomic Energy, Government of India. IOP would like to procure the following equipment. The Technical Specifications, Schedule of Requirements and Allied Technical details are given in Part-1 of tender document.

The Items are:

Tender Notice No.	Name of the Item	Qty.
NIT/8-1/2016-17	UV-VIS-NIR Spectrophotometer	01
NIT/8-2/2016-17	Contact Angle system	01

- **Tender Enquiry No: As mentioned in the NIT**
- **Due Date & Time: As mentioned in the NIT**
- **Opening of Technical Bids: As mentioned in the NIT**

Sealed tenders are invited for supply, installation, testing & commissioning of above items/equipment in the Institute of Physics, Bhubaneswar. The tender document consists of the following two parts.

Part-1 (A) TERMS & CONDITIONS of the tender common to all items

(B TECHNICAL BID of the tender.

Part-2: "COMMERCIAL BID" of the tender.

The sealed envelope containing "Terms & Conditions", "Technical Bid" and "Commercial Bid" on prescribed tender document should reach the Director, Institute of Physics, Bhubaneswar on or before **as mentioned in the NIT** otherwise the tender will not be accepted.

The sealed envelope of the bidders containing Part-1 "Terms & Conditions" and "Technical bid" shall be opened on **as mentioned in the NIT**. One authorized representative of each vendor may participate at the time of opening the bids. The Part -2 "Commercial Bid" of only those parties who qualify in Part -1 will be opened on a later date. The date of opening of Part-2 of the tender will be informed to each qualified party separately.

DIRECTOR

The Institute can provide the following documents.

1. Custom Duty / Excise duty exemption certificate.
2. Road permit for entering in Odisha.

The Institute cannot provide the following documents.

1. Form D for Central Sales tax/IIID for UP Trade Tax.

COST OF TENDER PAPER FOR EACH ITEM IS Rs.500/- (NON REFUNDABLE).

This is payable in cash or Demand Draft of a Scheduled Bank drawn in favour of the Director, Institute of Physics, Bhubaneswar.

PART – 1(A)

TERMS & CONDITIONS

1. Director, Institute of Physics, Bhubaneswar invites sealed tenders for Laboratory equipments from manufacturers and their authorized agent/dealers having following credentials.

A. Should have satisfactorily completed **similar supply** (at least one of them in Central/state Government/Central Autonomous Body/Central PSU)

B. **Similar or Similar Nature of work means** Supply, Installation, testing and commissioning of Laboratory Equipments for any of the following:

a) **Government/Autonomous Institutions**

b) **Government Research Centers**

c) **Universities**

d) **Autonomous/Reputed Private Research Centers**

C. Purchase Orders / Completion certificates, if any, for supporting above requirements.

2. The Bidders are requested to give detailed tender or its own form in **Two Bid** format, i.e.
Part - I Technical Bid
Part - II Commercial Bid.

3. Supply means:

“Supply, Installation, Testing & Commissioning and satisfactory demonstration of the whole equipments”. Extra Charges if any are payable for Installation and Commissioning, the same should be specified in the commercial offer.

4. Submission of Bids:

(a) Place: Office of Director, Institute of Physics, Bhubaneswar

(b) Time and Date of Submission: **As mentioned in the NIT**

(c) Time and Date of opening Technical Bid: **As mentioned in the NIT**

IOP will not be responsible, for submission / delivery of quotation at wrong places other than the Director, Institute of Physics, Bhubaneswar. IOP will also not be responsible for any postal delay.

5. Two Bid System: (For each equipment separately)

The two bid system should be followed for this tender. In this system the bidder must submit his offer in two separate sealed envelopes. Both the technical bid and commercial bid envelopes should be securely sealed and stamped separately and clearly marked as “Envelope No.1 – Technical Bid” and “Envelope No.2 – Commercial Bid” respectively. Both the sealed envelopes should be placed in a third larger envelope. The main envelope which will contain both the bids should be super scribed with our tender enquiry No. **NIT No , name of the item** due on **as mentioned in the NIT** and to be submitted to the address given below so as to reach on or before **As mentioned in the NIT**

Director

Institute of Physics, P.O. Sainik School

Bhubaneswar – 751 005

Odisha

India

The envelopes must be super-scribed with the following information:

- Tender Reference Number
- Name of the Equipment and Item No.
- Due Date
- Name of the Vendor
- **Envelope No. 1:** Shall contain “Acceptance of Terms & Conditions”, “Technical Bid” and Earnest Money Deposit (EMD) and cost of tender paper if any.
The technical offer should not contain any price information..

- **Envelope No.2:** Shall contain “Commercial Bid” only.

The Technical Bid must be submitted in an organized and structured manner. No brochures/leaflets etc. should be submitted in loose form. Please indicate page nos. on your quotation eg. If the quotation is containing 25 Pages, please indicate as 1/25, 2/25, 3/25 ----- 25/25.

Printed conditions of the vendor submitted with the tender will not be binding on Director, Institute of Physics, Bhubaneswar.

Important Instruction

The bidders are requested to make separate bids (technical & financial both) for each quoted equipment along with the requisite amount of EMD.

The Technical Offer should comprise of the following:

- a) Tenders, which are submitted without following the Two-Bid Offer System, will summarily be rejected.
- b) The technical offer should be complete to indicate that all products and services asked for are quoted. Each page of the bid and cutting/corrections shall be duly signed and stamped by the bidder. Unsigned Tenders will also be rejected. Failure to comply with this requirement may result in the bid being rejected.
- c) The purpose of certain specific conditions is to get or procure best product/service etc. for IOP. The opinion of Technical Committee shall be the guiding factor for technical short listing.
- d) The earnest money deposit as indicated against each items should be enclosed along with the terms & conditions & technical bid duly signed and stamped in the form of Account Payee Bank Draft payable on any branch of Nationalized/Schedule Bank at Bhubaneswar in favour of Director, Institute of Physics, Bhubaneswar, in a separate sealed envelope. All tenders submitted without requisite amount of earnest money shall be rejected and their technical and financial bids shall not be opened. No interest is payable on EMD.

The EMD will be returned to the bidders(s)/Agents whose offer is not accepted by IOP within one month from the date of the placing of the final order(s) on the selected bidder(s). In case of the bidder(s) whose offer is accepted the EMD will be returned on submission of Security Deposit (SD). However, if the return of EMD is delayed for any reason, no interest / penalty shall be payable to the bidders.

The EMD shall be forfeited: If the bidder withdraws the bid during the period of bid validity specified in the tender. In case a successful bidder fails to furnish the Security Deposit

- a) Undertaking that the successful bidder agrees to give a performance Bank Guaranty of 10% of the purchase order value in favour of “Director, Institute of Physics, Bhubaneswar” valid till warranty period.

- b) Duly filled in Technical Bid with proper seal and signature of authorized person on each page of the bid should be submitted and the same should accompany with complete specifications and

drawings, Manufacturer's name, address and relevant Technical Literature/Brochures with warranty Terms and EMD if any.

c) If the bid is for branded makes, authorization letter from manufacturer clearly indicating that the vendor is the competent authority to sell and provide services towards the items mentioned in the scope of supply given in this tender document.

d) Copy of LST/CST/WCT No. PAN No. and TIN No. allotted by the concerned authorities. If registered with the National Small Industries Corporation, the registration number, purpose of registration and the validity period of registration and a copy of DGS&D registration wherever it is applicable should also be provided in Technical Bid.

e) List of deliverables / Bill of materials and services.

f) Compliance sheet with any deviation with reference to the terms and specifications.

g) Indicate the names of the Indian reputed Organizations where you have supplied similar/related items/equipments and may attach the satisfactory performance report of the equipments from user Organization.

h) The successful vendor must provide hard copies of all technical documents, including that for OEM products. This should include operation and service manuals, drawings, designs, electrical diagrams, etc. This should be specific to the instrument provided, and not generic. All manuals should be written in English and the manuals including technical drawings should be complete in all respects to operate the system without any problem.

i) Bid documents should be submitted as per the above sequence with Index page and page numbers (including technical literature). Each page of the bid should be signed & stamped in original. Unsigned bids will not be considered for evaluation.

• **Envelope 2: "Commercial Bid" shall contain:**

a) Price schedule complete in all respects with proper seal and signature of authorized person. Tender with any condition including conditional rebate shall be rejected forthwith.

b) Cost of all the items should be mentioned clearly and individually in the Commercial Offer (Part-II) only.

c) **The Bidders are requested to quote for Educational Institutional discounted Price for Machine/ Equipment and, since we are eligible for the same.**

6. Date of opening the Technical Bids.

Technical Bids will be opened on - **As mentioned in the NIT** at office of the Director, Institute of Physics, Bhubaneswar

The Technical bids will be opened in the presence of the bidders on the specified time and date. Bidders/Agents who have responded to the tender only will be allowed to be present.

The technical bids will be evaluated to shortlist the eligible bidders. The bidders should be available for technical presentations, if required, on an earliest possible date (determined by the committee) following the opening of the technical bids. The commercial bids of only the short listed bidders shall be considered for further processing. Bidders whose technical offer is found acceptable and meeting the eligibility requirements as specified in this tender will be informed about the date and time of the opening of the commercial bid.

Note: (1) Please do not insert "Commercial Bid" (prices quoted) in the technical bid envelope. If

- the same is submitted with the technical bid, the tender may be rejected.
- (2) No camera mobiles / mobiles are allowed during tender opening.

7. Opening of Commercial Bids

IOP will open the commercial bids of only the short listed bidders, in the presence of the bidders or their authorized representatives who choose to attend the commercial bid opening. The Date and Time of opening the Commercial Bid will be intimated only to pre-qualified and technically acceptable Bidders for the item at a later date.

The representatives of short listed firms only will be allowed for commercial bid opening.

ONLY TECHNICALLY accepted competitive bids will be considered for placing Purchase Order. The commercial offers of the vendors whose technical offers are found to be technically deficient or do not meet the qualification criteria as specified in this tender will be rejected.

The bid can be submitted in person or through post/courier (IOP will not be responsible for delayed / late quotations submitted / sent by Post / Courier etc. resulting in disqualification/ rejection of any bid) so as to reach IOP on or before the due date and time.

Fax / E-mail / Telegraphic / Telex tenders will not be considered unless it is asked for. The bidders' authorized representative can attend the bid opening.

8. Director, Institute of Physics, Bhubaneswar reserves the right to accept the offer in full or in parts or reject summarily or partly.

9. Delivery Period / Timeliness

The deliveries, installation must be completed as per the purchase order terms and conditions. The time is the essence of the contract. It is mandatory for the bidders who respond to this bid to meet these expectations, as they are tightly linked to IOP's plans of completing the project within the time frame.

10. Locations for the Supply / Services

The Laboratory Equipments covered by this document is required to be supplied and installed at Institute of Physics, Bhubaneswar.

11. Order Placement and Release of Payment

The Purchase Order and payment shall be processed by –
Director

Institute of Physics
Bhubaneswar-751 005
Odisha, India.

Payment for the items to be supplied by the vendor against the purchase order shall be made by Institute of Physics as follows:-

For indigenous supplies, 90% payment will be made after 100% delivery of the material on submission of original invoice and delivery challans duly signed and stamped by the authorized representative of IOP along with 10% Performance Bank Guarantee. Balance 10% payment will be released on submission of installation and warranty certificate duly signed and stamped by the authorized representative of the user department.

In case of imports, 100% payment will be made through Letter of Credit. 90% will be paid after delivery of the materials (equipments) and necessary documents preferably through bank. whereas the balance 10% will be released after satisfactory installation and commissioning along with submission of mandatory Performance Bank Guarantee favouring Director, Institute of Physics, Bhubaneswar valid

till warranty period. Any deviation requested in payment terms needs justification

12. IOP will not provide any transportation for the engineers / representatives for attending installation, commissioning and demonstration work. It is the absolute responsibility of the Principal Supplier/Indian Agent to make their own arrangements.

13. The successful bidder, on award of contract / order, must send the contract / order acceptance in writing, within **two weeks** of award of contract / order failing which the EMD will be forfeited.

14 Period of validity of bids

Bids shall be valid for a period of 90 days from the date of opening the Technical bid.

IOP may ask for the bidders' consent to extend the period of validity. Such request and the response shall be made in writing only. The bidder is free not to accept such request without forfeiting the EMD. A bidder agreeing to the request for extension will not be permitted to modify his bid.

Bid evaluation will be based on the bid prices without taking into consideration the above corrections.

15. Award of Purchase Order

IOP shall award the contract to the eligible bidder whose bid has been determined as the lowest evaluated commercial bid. If more than one bidder happens to quote the same lowest price, IOP reserves the right to award the contract to more than one bidder or any bidder. **Purchaser's Right to vary Quantities at the time of Award:** IOP reserves the right at the time of award of Contract to increase or decrease the quantity of items specified in the Schedule of Requirements without any change in price or other terms and conditions.

16. Corrupt or Fraudulent Practices

IOP requires that the bidders who wish to bid for this project have highest standards of ethics. IOP will reject a bid if it determines that the Bidder recommended for award has engaged in corrupt or fraudulent practices while competing for this contract. IOP may declare a vendor ineligible, either indefinitely or for a stated duration, to be awarded a contract if it at any time determines that the vendor has engaged in corrupt and fraudulent practices during the execution of contract.

17. Interpretation of the clauses in the Tender Document / Contract Document

In case of any ambiguity / dispute in the interpretation of any of the clauses in this Tender Document, Director, IOP's interpretation of the clauses shall be final and binding on all parties.

18. Price

The price quoted shall be considered firm and no price escalation will be permitted at any time. The quotation should be in Indian Rupees or any known foreign currency. Packing, forwarding, freight, insurance, **Agency commission** and commissioning charges, if any, may be quoted separately in the "Commercial Bid".

In case of Foreign Currency bids, price criteria should be Ex-works /FOB/ CIP Kolkata / CIP Bhubaneswar airport with detail break up of Price, FCA cost, **Agency Commission**, Insurance, Freight up to Kolkata / Bhubaneswar Airport is required.

19. Pre-installation

Pre-installation facilities required for installation may please be intimated in the technical bid. Subsequently, before the consignment lands in IOP, Bhubaneswar the bidder shall confirm that the pre-installation requirements are sufficient for installation of the equipments. In other words the bidder should continuously monitor the pre-installation requirements and see that everything is ready before the consignment is taken to the site for installation. The vendor must arrange for at their expense a factory visit after completion of the manufacturing process but before shipment and demonstrate that the benchmarks are met. All utilities must be specified *a priori*, and the vendor must visit the installation site to ensure that the facilities are adequate.

20. Installation

Bidder shall be responsible for installation / demonstration wherever applicable and for after sales service during the warranty and thereafter. The vendor must install and commission the system within one month from delivery. Failure to do so may incur a penalty (unless the delay is requested from IOP, Bhubaneswar).

21. Warranty / Support

The items covered by the schedule of requirement shall carry minimum one year of comprehensive warranty from the date of acceptance of the equipments by IOP. Warranty shall include free maintenance of the whole equipment supplied including free replacement of parts. The defects, if any, shall be attended to on immediate basis. The comprehensive warranty includes onsite warranty with parts. **Three-year comprehensive warranty may please be quoted as an option.**

The defects, if any, during the guarantee/warranty period are to be rectified free of charge by arranging free replacement wherever necessary. This includes cost, insurance, freight, custom duty, octroi, local taxes if any should be borne by the beneficiary or his agent. A clear confirmation should be given for this item.

The bidder shall assure the supply of spare parts after warranty is over for maintenance of the equipment supplied if and when required for a period of 10 years from the date of supply of equipment on payment on approved price list basis.

The vendor will have to arrange for all the testing equipment & tools required for installation, testing & maintenance etc.

22. Indemnity

The vendor shall indemnify, protect and save IOP against all claims, losses, costs, damages, expenses, action suits, and other proceedings resulting from infringement of any law pertaining to patent, trademarks, copyrights etc. or such other statutory infringements with respect to all the equipments supplied by him.

The successful tender should give an undertaking that the staff deployed at the centre in terms of this contract at all time will be employees of the agency exclusively and they shall not be entitled to any claim of employment or permanency of job with IOP.

IOP reserves the right to forfeit whole or part of the security money towards any damage/loss caused due to the negligence on the part of the agency engaged.

23. Insurance

The equipments to be supplied will be insured by the vendor (till IOP will take over the consignment) against all risks of loss or damage from the date of shipment till such time it is delivered at IOP site in case of Rupee/Foreign currency transaction.

24. Penalty for delayed Services / LD

As time is the essence of the contract, Delivery period mentioned in the Purchase Order should be strictly adhered to. Otherwise EMD/SD of the bidder will be forfeited and also LD clause will be applicable /enforced.

If the supplier fails to Supply, Install and Commission the equipment as per specifications mentioned in the order within the due date, the Supplier is liable to pay liquidated damages of 1% of order value per every week of delay subject to a maximum of 10% beyond the due date. Such money will be deducted from any amount due or which may become due to the supplier.

IOP reserves the right to cancel the order in case the delay is more than 60 days Penalties, if any, will be deducted from the Security Deposit.

25. If a dispute arises out of or in connection with the contract, or in respect of any defined legal relationship associated therewith or derived there from, the parties agree to submit that dispute to arbitration under the ICADR Arbitration Rules, 1996. The authority to appoint the arbitrator(S) shall be the International Centre for alternative dispute resolution. The International Centre for Alternative Dispute Resolution will provide administrative services in accordance with the ICADR arbitration Rules, 1996.

26. Clarification or query if any mail to **purchase@iopb.res.in**

27. Jurisdiction

The disputes, legal matters, court matters, if any, shall be subject to Bhubaneswar Jurisdiction only.

Director
Institute of Physics,
Bhubaneswar

DECLARATION BY THE VENDOR

It is hereby declared that I/We the undersigned, have read and examined all the terms and conditions etc. of the tender document for which I/We have signed and submitted the tender under proper lawful Power of Attorney. It is also certified that all the terms and conditions of the tender document are fully acceptable to me/us and I/We will abide by the conditions from serial no. 1 to 26. This is also certified that I/We/our principal manufacturing firm have no objection in signing the purchase contract if the opportunity for the supply of the items against this tender is given to me/us.

Date:

Signature:

Address:

Name:

(Please take the printout on your letter head along with all details)

To,

The Director,
Institute of Physics,
Sachivalaya Marg, Sainik School,
Bhubaneswar-751005

Ref: Tender Ref. No.: _____ dated: _____

Sub: Refund of EMD

Dear Sir,

We have deposited EMD of Rs. _____/- vide D/D No. _____ dated.
_____ of _____ (Name of Bank) against
above mentioned tender. Since our tender has not being qualified, we request to release our EMD.

Yours faithfully,

Signature of the Authorised Signatory

(with Company Seal)

Our Addressed is verified as below:

M/s. _____

Pin Code: _____

Phone No.: _____

GENERAL INFORMATION

1.	Name of the Company	
2.	Full address of company alongwith Telephone no. Fax no. E-mail address :	
3.	Local address of company for communication, if any	
4.	Are you a manufacturer or dealer/reseller	
5.(c)	Trade Tax / Sales Tax Registration no. with Place	
5.(d)	Income Tax Registration no. with place	

PART-1(B)

TECHNICAL SPECIFICATIONS

1) NIT No. NIT/8-1/2016-17

UV-Vis-NIR Spectrophotometer Specification:

Double beam, ratio recording, double out-of-plane Littrow or equivalent monochromators, quartz over coated optical system with all reflective optics. Monochromator focal length 400 mm, dual double sided gratings, 1200 lines/mm or more in UV-Vis and 300 lines/mm or more in NIR, blazed.

Source: Tungsten Halogen visible source with quartz window, Deuterium arc UV source.

Detector: High performance PMT for Uv-Vis region and NIR region detector : electrothermally cooled Lead Sulfide (PbS) photocell with signal optimization on real time basis. Following specifications are required:

- 1) Optical casting should be isolated from external vibrations.
- 2) Removable lamp compartment housing
- 3) Purging of entire optical path, includes monochromator, sample compartment and detector compartment.
- 4) Separate purging line for the sample compartment
- 5) There should be facility to remove sample compartment base for special designed accessories and for very large samples.
- 6) Calibration routines will built-in for periodically re-calibrating detectors response and linearity and wavelength accuracy. It should include Zero %T correction and Linearity correction for both the PMT and PbS or equivalent detectors.
- 7) Accessory controller for control of external or internal accessories or devices
- 8) Wavelength range: 175 – 3300 nm
- 9) Spectral Bandwidth (nm)
UV-Vis: Variable from 0.01 nm to 5.00 nm, 0.01 nm steps
NIR: variable from 0.04 to 20 nm motor driven
- 10) Photometric range: 8 ABS or better
- 11) Resolution: < 0.05 nm in Uv-Vis and <0.2 nm in NIR range
- 12) Wavelength Accuracy: UV-Vis: ± 0.08 nm (190-900 nm)
NIR: ± 0.4 nm (760-3000 nm)
- 13) Computer (PC) based control of operations: data acquisition and data analysis.
- 14) Latest configuration computer with LCD monitor and Laser printer.
- 15) Acquisition and analysis software: Appropriate Windows based software with additional software for color measurements and analysis. It should have following Ordinate Modes: Abs, %T, %R, Absolute %R, Log Abs, 1st-4th Deriv, Absorptivity, and Dual Ordinate mode, Kubelka-Munk functions. It should have Abscissa Modes: Continuous, stepped and multi-point modes: nm, cm^{-1} , \AA , min/sec, mm, angle. It should have Baseline Correction: Unlimited baseline scans can be stored. Modes include: Multicell, Multi-angle, 0% and 100% corrections, Standard reference correction. Data Collection Modes: Continuous scanning, stepped scanning, Signal to noise mode scanning and Independent NIR control scanning.
- 16) System should be supplied with following accessories:
 - a) Pair of liquid and solids sample holder as standard.

b) Diffuse reflectance/Transmittance Accessory: Integrating sphere with 110 mm or more diameter, having built-in PMT/PbS detectors.

- 17) Backup and upgradation of software will be required for 5 years
- 18) Automated accessory (and software controlled) for measurement of Specular, absolute reflection and transmission, at user definable variable angles (0 to 180 degree, step 0.02 deg), for s-polarized and p-polarized light from exactly the same point on the sample without moving or disturbing it using a built-in detector that provides coverage in the UV-Vis and NIR range. Diffuse scattering through independent sample rotation (360 degrees) and detector positioning (10 – 350 degrees) at 0.02 degree intervals. Automated polarizer required. Sample size handling from 5 mm to 200 mm or better.
- 19) Temperature dependent measurement facility for liquid -1 to 100C or better using peltier temperature controlled cell holder
- 20) Temperature dependent measurements facility for powders and thin films -100C to 800C or better. (Size of thin film samples will be 5mm or bigger)
- 21) Should be able to measure and analyze powder samples.

General terms and conditions:

- (1) The technical bid should accompany a compliance chart.
- (2) Enclose a pre-installation guide for the details on power and room plan.
- (3) The quoted equipment should comply with Indian Power supply (220V, 50Hz) condition.
- (4) Vendor should have sold at least 2 equipments in last 5 years in India (Enclose full list of users in India)
- (5) vendor should provide recent (last 6 months) purchase order execution copy of the same equipment in any central govt. (India) organisation.
- (6) 3 years essential spare including all important control electronics should be provided. The detailed list of spares be enclosed
- (7) Warranty for 2 years and AMC for next 3 years
- (8) One set of operating manual and service manual (in English) should be provided with the equipment.
- (9) Routine training on principal's (manufacturing) site for two persons for one weeks as well as training during installation at the site free of cost.
- (10) Instrument should have upgradability features.
- (11) Apart from the specifications given above, all the higher specifications, resolution, and advances in-built technology model will be preferred.

2) NIT No. NIT/8-2/2016-17

CONTACT ANGLE

1. The Instrument should conform specifications as follows :

- i. Stage Size : 100 x 100 mm²
- ii. Contact Angle Range : 0° to 180°
- iii. Accuracy : $\pm 0.1^\circ$
- iv. Surface Tension & Interfacial Tension Range : 1×10^{-2} to 2×10^3 mN/m
- v. Resolution : ± 0.01 mN/m

- vi. Dosing System should be precise and software controlled without any tubing. Dosing System must be movable in both Horizontal and Vertical directions.
- vii. Camera : USB Camera with speed up to 300 fps or better
- viii. Backlighting : LED Lighting with Manual and Software controlled intensity including automatic temperature drift compensation.
- ix. Stage Movement : Manual and precise movable in X, Y and Z Direction
- x. Power Supply : 230VAC, 50 Hz
- xi. Drop Image Feature : Contact Angle Measurement by Sessile Drop Method
 - Advancing & Receding Contact Angle
 - Surface Tension and Interfacial Tension by Pendant Drop Method
 - Captive Bubble Method
 - Liquid Data Base with Standard Literature Data of at least 150 liquids
 - Optical Standard Kit for Calibration check

2. Required Accessories :

- i. Automatic and Software controlled Tilting Unit for inclination of the full instrument including Sample Stage and Camera for measurement of advancing and receding contact angle as well as the roll-off angle of sessile drops. Tilting Range of 0 to 95°, ± 0.1°. Tilting Speed of 1.5°/hr to 28°/sec with resolution of 0.01°/sec. Wider range with better resolutions will be preferred.
- ii. One suitable Computer must be supplied to run the instrument as an essential utility.
- iii. Peltier Temp. Control Chamber with Temp. range from – 30°C to 160°C with Heating / Cooling Rate ± 1°K/sec. One chiller should be supplied for forced cooling of the Peltier Temp. Controlled Chamber.
- iv. Film holder with adjustable guide
- v. Glass Cell for measurement of Interfacial Tension
- vi. Special bend needle for Interfacial Tension
- vii. Gas Tight Precision Glass Syringe of 500 µl – 5 nos.
- viii. Needles for Sessile Drop Method – 5 nos.
- ix. Needles for Pendant Drop Method – 5 nos.
- x. Disposable Syringe – 100 nos.
- xi. Disposable needles for both Sessile & Pendant Drop Method – 50 nos. of each type

3. Optional items :

- i. Electro Wetting Chamber to study surface characterization with respect electrical fields
- ii. High Speed Camera with Speed upto 1000 fps

General terms and conditions:

- (1) The technical bid should accompany a compliance chart.
- (2) Enclose a pre-installation guide for the details on power and room plan.
- (3) The quoted equipment should comply with Indian Power supply (220V, 50Hz) condition.
- (4) Vendor should provide last 2 years purchase order execution copy of the same equipment in any central govt. (India) organisation.
- (5) Please attach Principal Exclusive Authorisation letter Specific for this tender.
- (6) Information on the Service Engineers available with company for servicing should be provided.
- (7) 5 years essential spare including all important control electronics should be provided. The detailed list of spares be enclosed
- (8) Warranty for 2 years and AMC for next 3 years
- (9) One set of operating manual and service manual (in English) should be provided with the equipment.

(10) Routine training (for 2 persons) on principal's site for one weeks as well as training during installation at the site free of cost.

(11) Instrument should have upgradability features.

(12) Apart from the specifications given above, all the higher specifications, resolution, and advances in-built technology model will be preferred.

**PART-2
COMMERCIAL BID**

NIT No.	Systems	Approx. Qty.	Unit Price FOB in Foreign currency	Unit Price including all taxes, freight and Insurance (delivered at IOP, Bhubaneswar service charges, installation)
(1)	(2)	(3)	(4)	(5)
NIT/8-1/2016-17	UV-VIS-NIR SPECTROPHOTOMETER	1 unit		
NIT/8-2/2016-17	Contact Angle	1 unit		
<p style="text-align: center;">Above item should carry thee year onsite comprehensive warranty. In case the tendered provided warranty less than 03 years then he has to give justification for lesser period of warranty. Without justification his tender is liable to be rejected.</p>				
<p>Installation, testing and commissioning should be quoted separately. Income tax will be deducted from the installation, testing and commissioning of the equipment as per the Government rules.</p>				
2.	FCA Charges Included/Excluded in the quoted price	Amount		
3.	CIP Kolkata / CIP Bhubaneswar Charges Included/Excluded in the quoted price	Amount		
4.	Excise Duty Included/Excluded in the quoted price	_____ . _____% of basic price (Excise duty exemption)		
5.	Custom Duty Included/Excluded in quoted price	_____ . _____% of basic price (Custom Duty exemption)		
6.	Clearing Charges from Airport and delivered to IOP Bhubaneswar Included/Excluded in the quoted prices.	Amount		
7.	Any other charges Included/Excluded in the quoted price (i) Trade tax/Sales tax (Institute will not issue any Sales Tax concession form) (ii) Any other levies	_____ . _____% % of (basic price + excise duty)		
8.	AMC charges	_____ . _____%		

Date:

Signature:

Address:

Name:

CHECK LIST

Your bid should accompany with following documents. Please enclose the required document and put (√) Mark in the check list wherever applicable

Sl. No.	Description of the Documents	Enclosure
1.	EMD	YES/NO.
2.	Acceptance of declaration by the Vendor enclosed with terms and conditions.	YES/NO.
3.	Duly filled EMD refundable sheet (if EMD is there)	YES/NO.
4.	At least 03 Purchase order copy for Supply & Installation of above equipment's during the last 01 financial year in State Government or Government of India Department(s) / Reputed Organization s (in Nos. and Value)	YES/NO.
5.	Trade Tax / Sales Tax Registration No with place	YES/NO.
6.	Income Tax Registration No. with Place	YES/NO.
7.	Detailed Technical description of the item	YES/NO.
8.	Detailed filled Financial Bid	YES/NO.
9.	Authorisation letter in letter head duly signed by the authorized signatory for allowing your representative to attend the tender opening meet	YES/NO.

Signature of the Authorised Signatory with Date
With company seal