



भारतीय
प्रौद्योगिकी
संस्थान
काशी हिन्दू विश्वविद्यालय



INDIAN
INSTITUTE OF
TECHNOLOGY
BANARAS HINDU UNIVERSITY

Annexure-IA



SCHOOL OF MATERIALS SCIENCE AND TECHNOLOGY

QUOTATION ENQUIRY

Ref: IIT(BHU)/SMST/2018-19/ENQ/107

Date: July 05, 2018

Due Date: 26/07/2018

Dear Sir,

Please submit your lowest quotation for supplying the under mentioned items. The hard copy of the quotation must reach us before the date marked above and should contain the following information:

1. Full specification and make of the item offered and its rate F.O.R. Varanasi/CIF New Delhi.
2. Sales tax at concessional rate as applicable to educational institution.
3. Your sales tax registration number and TAN number.
4. Conditions of supply and terms of payment.
5. **If you are a manufacture of the item or if you have proprietary right over it, please mention it in the quotation and provide a certificate.**
6. Please mention your agency commission in Indian Rs., if applicable (in case of imported items).
7. **Important: Please give an undertaking as per annexure-I-B.**

Quotation must be sent in a **sealed envelope** with word “**QUOTATION**”, our reference number, and due date as given above, clearly marked over it.

Sl. No.	Name of Items	Quantity
1	Contact Angle Meter/ measurement system	1

Description/Technical Specification

Contact Angle Meter/ measurement system with Surface Parameter Measurements, where Contact Angle can be measured & analyzed accurately with precision controlling of desired specifications as given below:

- Contact Angle Measuring Range (preferred): 0°-180°
- Contact Angle Accuracy (approx): $\pm 0.05^\circ$
- Camera Type (preferred): Medium Speed C-Mount CCD
- Camera Speed (approx): 200 fps
- Image Resolution [Maximum]: 1280 x 1024 Pixels
- Image Distortion (approx): $< 0.1\%$
- Magnification [Minimum]: 5X
- Substrate Stage Dimension [L X W (in mm)]: 100 X 100
- Substrate Stage Z-axis Movement: up to 30 mm
- Contact Angle Measurement Method: Sessile Drop
- Measurement & Display: Left, Right & Average Contact Angles
- Baseline Operation: Auto-detection with Fine Adjustment Provision
- Baseline-Liquid Droplet Contact Points :Auto-detection
- Edge Detection: Both Auto & Manual with High Precision
- Experimental Data Export Option: to .txt File & .csv File
- Horizontal Camera Assembly (preferred) with High Performance CCD Monochrome Sensor

- Aberration Corrected High Magnification Lens, Integrated Fine Focus as well as Infra-red Cut Filter preferred
- Contact Angle Analysis Methods: Half-angle Fitting, Circle Fitting, Ellipse Fitting & Tangent Method
- Measuring Surface Type preferred: Flat surface (Even, Uneven, rough, Semi-transparent & reflecting)
- Images saving & loading Option with Image Comparison Feature (preferred)
- Original & Analysed Images Export Option as well as Offline Processing & Analysing Option (preferred)
- PC Software should User-friendly Windows® XP, Windows® 7, Windows® 8, Windows® 8.1 & Windows® 10 compatible with PC Connectivity Type: USB 3.0 & USB 2.0 (preferred)
- LED based Lighting Mechanism or any suitable mechanism
- Hysteresis Free Illumination and Precise Controlling of Light Intensity (preferred)
- Tense+ Add-on for Surface Tension Calculation: Surface Tension of Liquid Calculation by Pendant Drop Method & N-L Method for High Viscous Liquids with a Measurement Range up to 1,000 mN/m
- Surfen+ Add-on for Surface Free Energy Calculation: Surface Free Energy of Solid Substrates Measurement based on the Contact Angle of Multiple Known Liquids, Harmonic Mean Method & Contact Angle Hysteresis Method
- Dyne+ Add-on for Dynamic Contact Angle Analysis: Continuous Capturing & Saving of Images with Video Resolution of 744 x 480 Pixels for the Study of Time-dependent Change and Continuous Measurement Option of Volume, Height & Width of the Droplet having provision of High Quality .avi Video saving & loading.

Terms & Conditions:

Price: FOR IIT(BHU), Varanasi.

Payment: on bill basis.

Supply: 4-6 week after receiving order.

Warranty: 3years.

COORDINATOR
School of Materials Science and Technology
Indian Institute of Technology (BHU) Varanasi
Varanasi – 221005, U.P., INDIA

INDIAN INSTITUTE OF TECHNOLOGY (BHU) VARANASI, INDIA

TO BE RETURNED

Following proforma should be filled in and duly signed by the firm and sent alongwith the quotation. (Please refer to the detailed instructions/notes before filling this proforma).

1. Validity of the offer :
2. Approximate Delivery Period :
3. (a) Whether rates have been quoted F.O.R. site and covers packing forwarding and insurance charges. : YES / NO
- (b) If not, please mention the same :
4. (a) Whether the prices are inclusive of Sales Tax and other taxes. : YES / NO
- (b) If not, kindly specify the amount / rate :
5. If the Sales Tax is charged extra, declaration for charging Sales Tax correctly attached. : YES / NO
6. (a) Whether supply will be made directly or through any Local / Regional / Authorized Dealer / Stockist : Directly/Stockist/Authorized Dealer
- (b) If through a Stockist / Dealer: -
 - (i) Name and full address of the Party :
 - (ii) Whether the order to be placed with the : Principal / Stockist / Dealer
 - (iii) Who will raise the bill : Principal / Stockist / Dealer
 - (iv) Cheques will be drawn in favour of : Principal / Stockist / Dealer
 - (v) Whether any Delivery, Packing and Forwarding : YES / NO

Charges will be payable to local Stockist/Dealer: (Please specify the amount/percentage etc, if any)

7. Our terms of payment (Please indicate your preference by a (✓) mark). Please note that no other payment terms are likely to be accepted. .

(a) For Local Firms or if the bills are raised by the Local Dealers.

- (i) 100% Payment on bill basis :

OR

- (ii) 100% payment against Proforma Invoice after receipt of materials in good condition, installation and satisfactory report.

(Only under exceptional cases)

(b) If the bills are raised by outstation Firms

- (i) 100% Payment on bill basis :

OR

(ii) 100% payment against Proforma Invoice after receipt of materials in good condition, installation and satisfactory report :

OR

(iii) D.G.S. & D. Terms of Payment for D.G.S. & D Rate Contract items :

OR

(iv) 75% against Proforma Invoice (at site) or documents through Bank and 25% after receipt of materials in good condition, installation and satisfactory report. :

OR

(v) 90% payment against Proforma Invoice (at site) or documents through bank and 10% after receipt of materials in good condition, installation and satisfactory report (Only under special Circumstances). :

8. Whether any Excise Duty is payable on the items. : YES / NO
If yes, indicate the amount / percentage. :%

9. Whether any installation charges are payable extra. : YES / NO
If yes, amount to be specified. :

10. Whether any discount for educational institution offered on the printed price list of the manufacturer. : YES / NO
Please mention the amount / percentage. :

11. Whether the product is on DGS &D/D.I. Rate contract. : YES / NO
If yes, please enclose a photocopy of the same. :

12. Whether the product bears I.S.I. Mark. : YES / NO
If yes, please mention the I.S.I. License no. :

13. (a) Whether the firm is Sales Tax payer. : YES / NO
If yes, please mention the Sales Tax Numbers. :

(b) Whether the Local Dealer(s) is / are Sales Tax payer(s) : YES / NO
If yes, please mention the Sales Tax numbers of each :

14. Whether printed / authenticated price list of the Firm's Products and Catalogue etc. enclosed. : YES / NO

UNDERTAKING

WE HEREBY UNDERTAKE THE FOLLOWING:

1. We will not sell the product (s) to other institutions, bodies and also in the market on the rates less than those quoted by us to the Institute.
2. The goods on which Sales Tax has been charged are not exempted for payment of Sales Tax under C.S.T. Act or U.P.S.T. Act or the rules made there under and the amount mentioned on account of Sales Tax on goods is not more than what is payable under the provisions of the relevant Act or Rules made there under.
3. The rate of Excise Duty mentioned in the quotation is in accordance with the provisions of the rules and the same is payable to the Excise Authorities in respect of the stores.
4. The goods / Stores / articles offered shall be of the best quality and workmanship and their supply will be strictly in accordance with the technical specifications and particulars as detailed in the quotation.
5. The information furnished by us in the quotation is true and correct to the best of our knowledge and belief.
6. We have read and understood the rules, regulations, terms and conditions and agree to abide by them.

***Authorised Signatory
(Seal)***

TECHNICAL COMPLIANCE STATEMENT

(To be submitted by bidder duly filled)

S.No.	Technical Specifications/Description	YES/NO
1.	Contact Angle Measuring Range : 0 ⁰ -180 ⁰	
2.	Contact Angle Accuracy : ±0.05 ⁰	
3.	Camera Type (preferred) : Medium Speed C-Mount CCD	
4.	Camera Speed(approx) : 200 fps	
5.	Image Resolution (Maximum):1280x1024 pixels	
6.	Image Distortion (approx) :<0.1%	
7.	Magnification (Minimum) :5X	
8.	Substrate Stage Dimension : 100x100 [LxW (in mm)]	
9.	Substrate Stage Z-axis movement : Up to 30 mm	
10.	Contact Angle Measurement Method : Sessile Drop	
11.	Measurement & Display: Left, Right & Average Contact Angles	
12.	Baseline Operation: Auto-detection with fine adjustment provision	
13.	Baseline-liquid droplet contact points : Auto-detection	
14.	Edge Detection : Both Auto & Manual with High Precision	
15.	Experimental Data Export Option : .txt file & .csv file	
16.	Horizontal Camera Assembly (preferred) with high performance CCD Monochrome sensor	
17.	Aberration Corrected High Magnification lens Integrated Fine Focus as well as Infra-red cut filter preferred	
18.	Contact Angle Analysis Methods : Half-angle fitting, circle fitting, Ellipse Fitting & Tangent Method	
19.	Measuring Surface Type preferred : Flat surface (Even, uneven, rough, semi-transparent & reflecting)	
20.	Images saving & loading Option with Image Comparison Feature (preferred)	
21.	Original & Analysed Images Export Option as well as Offline Processing & Analysing Option (preferred)	
22.	PC Software should User-friendly Windows® XP, Windows® 7, Windows® 8, Windows® 8.1 & Windows® 10 compatible with PC Connectivity Type: USB 3.0 & USB 2.0 (preferred)	
23.	LED based Lighting Mechanism or any suitable mechanism	
24.	Hysteresis Free Illumination and Precise Controlling of Light Intensity (preferred)	
25.	Tense+ Add-on for Surface Tension Calculation: Surface Tension of Liquid Calculation by Pendant Drop Method & N-L Method for High Viscous Liquids with a Measurement Range up to 1,000 mN/m	
26.	Surfen+ Add-on for Surface Free Energy Calculation: Surface Free Energy of Solid Substrates Measurement based on the	

	Contact Angle of Multiple Known Liquids, Harmonic Mean Method & Contact Angle Hysteresis Method	
27.	Dyne+ Add-on for Dynamic Contact Angle Analysis: Continuous Capturing & Saving of Images with Video Resolution of 744 x 480 Pixels for the Study of Time-dependent Change and Continuous Measurement Option of Volume, Height & Width of the Droplet having provision of High Quality .avi Video saving & loading.	
28.	Warranty : 3 years	

Signature of the Authorized Official with Seal